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### 1AC Afghanistan adv

#### Four reasons grid collapse is inevitable

Overload

Weather

Cyber attacks

Supply disruption

DSB Taskforce 2008 (Defense Science Board Task Force, Federal Advisory Committee established to provide independent advice to the Secretary of Defense, Tom Morehouse, editor, February 2008, Office of the Under Secretary of Defense For Acquisition, Technology, and Logistics, http://www.acq.osd.mil/dsb/reports/ADA477619.pdf)

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.

#### Collapses drone operations in Afghanistan

Aimone 2012 (Michael Aimone, Director¶ Business Enterprise Integration¶ Office of the Deputy Under Secretary of Defense, September 12, 2012, Testimony Before the House Committee on Homeland Security¶ Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf)

DoD’s facility energy strategy is also focused heavily on grid security in the name of mission assurance. Although the Department’s fixed installations traditionally served largely as a platform for training and deployment of forces, in recent years they have begun to provide direct support for combat operations, such as unmanned aerial vehicles (UAVs) flown in Afghanistan from fixed installations here in the United States. Our fixed installations also serve as staging platforms for humanitarian and homeland defense missions. These installations are largely dependent on a commercial power grid that is vulnerable to disruption due to aging infrastructure, weather-related events, and potential kinetic, cyber attack. In 2008, the Defense Science Board warned that DoD’s reliance on a fragile power grid to deliver electricity to its bases places critical missions at risk.1

#### Drones key to contain insurgents

Dale 2011 (Catherine Dale, specialist in international security at the Congressional Research Service, March 9, 2011, “War in Afghanistan: Strategy, Operations, and Issues for Congress,” http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA542626)

By 2008, President Bush had reportedly authorized U.S. military cross-border operations into Pakistan, by ground or Predator unmanned aerial vehicles (UAV).210 Neither the Central Intelligence Agency nor the U.S. military officially confirms the use of the drone strikes.¶ To be clear, NATO’s policy for ISAF does not include cross-border strikes. Asked in July 2008 whether the Alliance would go after militants in Pakistan, Secretary-General Jaap de Hoop Scheffer said, “My answer is an unqualified ‘no.’ We have a United Nations mandate for Afghanistan and that’s it. If NATO forces are shot at from the other side of the border, there is¶ always the right to self-defense but you will not see NATO forces crossing into Pakistani territory.”211¶ According to publicly available reporting, based primarily on accounts from people on the ground, a major early focus of the drone strikes was the South Waziristan agency in the FATA, long the home base for the TTP, the Pakistani Taliban umbrella organization; a drone strike killed TTP leader Baitullah Mahsud in August 2009. Subsequently, the focus of the drone strikes shifted to the North Waziristan agency, understood to be the stronghold of the Haqqani network, one of the major insurgencies active in Afghanistan. Observers have suggested that under the Obama Administration, the frequency of the drone attacks has increased markedly.212¶ Senior ISAF officials have noted that cross-border attacks have yielded big operational and tactical benefits for the campaign in Afghanistan—by causing the insurgent networks to feel disconnected, and by prompting local residents in Pakistan to want al Qaeda and other outsiders to leave their communities.213

#### Even after 2014 drones key to contain Taliban and prevent Afghan collapse

Singh 10/3 (Colonel Ajay Singh, October 3, 2012, “Afghanistan 2014 and Beyond,” South Asia Defence and Strategic Review, http://www.defstrat.com/exec/frmArticleDetails.aspx?DID=368)

When President Obama announced the termination of military operations in Afghanistan post 2014, he followed it up by saying, “In the pre-dawn darkness of Afghanistan we can see the light of a new day”. But then, perhaps he was just using his superb powers of oratory and his felicity with the language to justify the termination of US military operations in Afghanistan from December 2014. There is a grey darkness in Afghanistan now a prolonged dark interspersed with flashes of bombings and attacks. Yet, is this period - an uncertain, tentative period before the US completes its withdrawal, the dark of a pre-dawn era or the even more chilling darkness of another long, desolate night.¶ President Obama does seem to put timelines on his operations and so far most of these timelines have been adhered to. In July, at the NATO Chicago conference he announced that the US and NATO will end all combat operations by December 2013 and withdraw all troops less those engaged in essential security and advisory roles by 31 December 2014. This effectively draws the curtain on America's longest and most expensive war, one which has cost over $ 3 Trillion and claimed over 3600 lives. The fatigue of 12 years of inconclusive conflict is telling on the US and its allies. No President, especially in an election year, wants to face a mandate which is deeply against an unpopular war. Perhaps the timing of President Obama's withdrawal announcement has a lot to do with the US elections in November 2014. ¶ Yet it is not a complete withdrawal as such. The US will leave behind an estimated 20,000-30,000 troops in training and advisory duties and still retain some of its major bases to assist the Afghan National Security Force in counter terrorist actions. Bagram and Shamsi Air Fields will also be retained to launch continual drone attacks in Afghanistan and Pakistan. But will it suffice to ensure the stability of the war-torn nation and prevent it from slipping into chaos. Many fear a repeat of the post Soviet withdrawal period a vacuum of power that plunged the nation in to a civil war and brought the Taliban into power. The scenario in Afghanistan, post 2014, may not be so bleak, but the US withdrawal will definitely cause a power shift that will impact the entire region.¶ For one, the US aims in Afghanistan are not really completed. When it rushed into Afghanistan to extract retribution for the 9/11attacks, the immediate aim was the destruction of Al-Qaeda and its Taliban allies. Today it can claim to have virtually removed Al-Qaeda from Afghanistan. Osama Bin Laden has been spectacularly eliminated. Virtually the entire leadership has been wiped out in a series of drone attacks. Only the spiritual head, Al Zawahiri remains. Many of their cadres have shifted base towards Somalia and Yemen. Yet if Al Qaeda has been contained to a great extent, the Taliban is as active if not much more, as ever. The US policy of focusing exclusively on Al-Qaeda let the Taliban regroup after its initial reverses. Today, the major militant presence in Afghanistan is not of Al Qaeda, but the Taliban, which is gearing up for the post US withdrawal scenario. Gradually they have taken over the areas of Helmand, Ghazni and Anbar which have been vacated by NATO troops. As they consolidate, the fear is that, post 2014, they will simply step back into Afghanistan and regain power in the same manner that they did in the wake of the Soviet withdrawal.¶ The signs do seem to indicate that the Taliban are gearing up for a sustained offensive that will set the grounds for them to eventually come into power after the US withdrawal. There has been an intensification of attacks significantly almost all by the Taliban and none by Al Qaeda - in the period following the announcement of the withdrawal. There have been 34 major attacks with the deadliest being on the eve of the Id festival which killed over 50 Shai worshippers in their shrines. This is a grim reminder of the Taliban's propensity to target the minority Shia community, especially the Hazaras. The increase in their attacks also corresponds to the reduction in operations launched by NATO forces. As part of the pre-withdrawal plans, most operations, especially night operations are now conducted by the Afghan National Army and local police, with US forces in a advisory or supporting role. The linchpin of the US policy post 2014 is to develop the Afghan National Security Force to be strong enough to ensure the security of their own country. But at the moment, in spite of the huge investments in training and equipping the Afghan army, it does not seem to be up to the task. It was estimated that an Afghan Security Force of 3,52,000 would be required to ensure continual security. This figure was pruned down to 2,30,000 because of the exorbitant costs of $ 6 billion per year. (With the new figure, the price tag will drop to $ 4 billion per year). This parsimony may be a mistake in the long term. Even with 1,30,000 US troops already in the country, the Afghan Security Forces have been unable to curb the Taliban. After the withdrawal, even with a residual force of 20-30000 US troops, will the ANSF be able to resist a full-fledged Taliban offensive to take over their country.¶ There are other ominous signs. Taliban infiltration in the Security force is fairly rampant. There has been a series of attacks NATO troops from their local allies in the Afghan Security force. These “Green on Blue” attacks have claimed 45 NATO soldiers and wounded 69 others in this calendar year itself. Most of these attacks have been attributed to Taliban infiltration in the security forces. In fact, just last week NATO suspended training of the Afghan Local Police after a series of 12 insider attacks in the month of August alone. All this is not a happy augury for the capabilities of the Afghan Security Force to hold their country together post 2015, though in the long run, Afghanistan's security must be ensured by Afghans themselves. ¶ The US is taking pains to ensure that they still have a continual stake in Afghanistan's security so that it is not simply abandoned post 2014. The US signed a Strategic Partnership Agreement with Kabul that is valid for a decade after 2014 and assures it of continual US support. Afghanistan was also granted Major Non NATO Ally status in July thus giving it entry into a select club that includes Israel, Japan, Pakistan and South Korea. This will provide Afghanistan special privileges such as access to military equipment, training facilities and special grants. Surveillance and fire power capabilities will be provided. Drone and air attacks on militant hide outs on both sides of the Durand Line will continue. But in spite of the supporting role that the US will still play, will Anti-Taliban operations have the same momentum- especially when the operations will now be conducted by the Pushtoon dominated military against their own tribal brethren.

#### Afghanistan failure causes WWIII great power war

Fox 2011 (Robert Fox, international reporter and associate at the Corriere della Sera in Milan, July 12, 2011, “Afghanistan: If we’re not careful, WW3 is imminent,” The Week, http://goo.gl/PlUTV)

There are growing fears that a speedy withdrawal of western troops from Afghanistan, accompanied by a fudged deal to bring the Taliban back into power in some sort of coalition, could trigger another dreadful round of civil war. And, given the meddling already undertaken by neighbours such as Pakistan and Iran, this civil war could quickly become a regional war. This in turn could morph into a contest of global significance between India and China and their proxies and allies. In short, welcome to the Third World War in the 21st century. There is a list of concerns which suggest this might happen. First there is the endemic corruption in Kabul under President Karzai. This is about to be highlighted by the IMF's attempt to sort out the crash of the Kabul Bank, with a loss of some $700 million. The problem is not just the Kabul bank, but banks in general across Afghanistan, which the kleptocrats of Kabul seem to regard as their personal piggy banks. Then there is Karzai himself, who seems to be trying to bend or break the constitution so he can run for a third term in two years' time – banned under the present rules. The armed services and police are also a concern. Though recruiting and training have made huge strides, with more than 250,000 under arms now, there are worries about the continuing imbalance between the different ethnic groups, with the Tajiks and Hazara over-represented, and the recruiting of southern Pashtuns still limping. The danger is that the Afghan army will split on ethnic lines when Afghanistan gains full control of its security in 2015. In a civil war, the southern Pashtuns would turn to the Pakistan army and ISI intelligence service, who are more deeply involved in backing Islamist militants than previously thought, according to some devastating reports for the New York Times by Carlotta Gall.

#### Drones crush terrorists and solve militant takeover in Pakistan

**Nadim 2012** (Hussain Nadim, visiting scholar at the Woodrow Wilson Center, August 8, 2012, "How Drones Changed the Game in Pakistan," National Interest, nationalinterest.org/how-drones-changed-the-game-pakistan-7290)

Regardless of what the news agencies in Pakistan claim about the negative effects of drone strikes, the weapon is proving to be a game changer for the U.S. war on terrorism. And surprisingly, the Pakistani Army quietly admits to this fact. Just the way Stinger missiles shifted the balance of power in favor of the United States in the 1980s, drones are producing the same results.¶ The critics of unmanned strikes, who claim that drones are contributing to growing radicalization in Pakistan, haven’t looked around enough—or they would realize that much of the radicalization already was established by the Taliban in the 1990s. The real tragedy is that it is acceptable for the Taliban to radicalize and kill, but it is considered a breach of sovereignty for the United States, in pursuit of those radicalizing Pakistan’s people, to do the same.¶ There is so much protest over the drones because the media reports about them are biased. Although people on ground in war zones contend that the drone strikes have very few civilian casualties and, with time, have become extremely precise, the media presents quite a different story to boost its ratings.¶ Many in Pakistan, especially in the army, understand the positive impact of this weapon. Drones are coming in handy for two reasons: their precision and psychological effect. Many analysts of this subject have been concerned only with the military aspect, such as whether or not drones are precise enough and the casualties they incur. But part of what works in favor of the United States is the psychological impact—the fear that drones have instilled in the militants. The fact that the United States might strike day or night, inside the militant compound or outside while traveling in the convoys, works to deter militants and restrict their operations. This tilts the balance of power in favor of the United States.¶ Most of the people in the Pakistani Army whom I interviewed on the subject were positive about the drone strikes and their direct correlation with a decrease in terrorist attacks in Pakistan. The majority focused on the psychological impact of the drones and how they have put militants on the run, forcing them to sleep under trees at night, though it must be said that army officials showed some concern about cases in which the same psychological impact is experienced by civilians.¶ Locals I talked to are frustrated over the fear that they might get hit by a drone if the militants are hiding in their neighborhood. But this frustration may have a positive impact as it motivates civilians to flush out and close doors to militants who seek refuge in their areas.¶ Surprisingly, there isn’t as much anti-Americanism as one would suspect in areas where the United States is conducting drone strikes, largely because the locals are fed up with the influx of militants in their areas and have suffered because of terrorism. However, urban centers, which have suffered the least from terrorism, are far more radicalized and anti-American. Hence, we see large anti-drone rallies in the cities of Punjab, where people have little first-hand experience with drones. The anti-American lot in these places will start a rally for any reason at all as long as they get to burn a few American flags.

#### Nothing else stopping Pakistan collapse loose nukes

Thiessen 2012 (Marc A. Thiessen, AEI fellow and member of the White House senior staff under President George W. Bush, March 19, 2012, “Five disasters we’ll face if U.S. retreats from Afghanistan,” Washington Post, http://www.washingtonpost.com/opinions/five-disasters-well-face-if-us-retreats-from-afghanistan/2012/03/19/gIQA04zCNS\_story\_1.html)

1. The drone war against al-Qaeda in Pakistan would likely cease. Eighty-three percent of Americans support targeted drone strikes against al-Qaeda leaders hiding in the tribal regions of Pakistan. Those strikes are dependent on forward bases in Afghanistan near the Pakistani border. The U.S. no longer operates drones from inside Pakistan. We cannot effectively conduct targeted strikes from Navy ships because Pakistan’s tribal regions are more than a thousand of miles from the sea. Bagram airbase near Kabul is also too far away for anything other than dropping bombs from F-15s. spotiSo if we want to continue the drone war against al-Qaeda, we must have a U.S. military presence not just in Afghanistan but in the Pashtun heartland — and we can’t have that presence if the Pashtun heartland is on fire. The Afghan government is not likely to allow us to keep bases in this area if we were doing nothing to stabilize the country. And if the region falls to the Taliban, we will lose access to these areas completely. Loss of these bases would also mean the loss of the intelligence networks on both sides of the border enabled by the U.S. military presence — and thus much of the targeting information we depend on. As a result, direct strikes in Pakistan could effectively cease, the pressure on the terrorists would be lifted, and al-Qaeda would be free to reconstitute.¶ 2. The risk that Pakistan (and its nuclear arsenal) falls to the extremists grows. With the pressure from the United States lifted, al-Qaeda and the Pakistani Taliban would be free to ramp up their efforts to destabilize Pakistan. In a worst-case scenario, they could topple the government and take control of Pakistan’s nuclear arsenal. In a “best-case” scenario, those within the Pakistani government who supported cooperating with the United States will be weakened, while those who have long argued for supporting the Islamists and terrorists against the United States will be strengthened. Either way, Pakistan becomes a facilitator of terror.

#### Pakistani militants cause Indo-Pak war

Vira and Cordesman 2011 (Varun Vira and Anthony H. Cordesman, “Pakistan: Violence vs. Stability,” CSIS, http://goo.gl/ZyS4q)

These conflicts have been augmented by violence and tensions inside the rest of Pakistan. In south Punjab, a historical hotbed of militancy, various groups once firmly tethered to state policy have begun to splinter and migrate to the tribal areas. These groups have considerable experience in combat and knowledge of the weapons and technologies needed for asymmetric warfare. They have joined tribal militant groups, and assisted them in bringing terrorist violence into the previously insulated urban centers of the Punjab and the Sindh. In Karachi, a key economic engine of Pakistan, ethno-sectarian violence has risen to new levels with the real danger of a slide back into the communal violence of the early 1990s. Such a reversal would be catastrophic for stability, exacerbating already chronic economic woes, whilst providing fodder for the sectarian and ethnic drivers of conflict in Pakistan. In Baluchistan, a fifth separatist insurgency has become more active since 2004, and is closely linked and influenced by regional geopolitics. The Baloch insurgency is distinct from other conflicts, primarily in that Sunni-Deobandi philosophies play little role, but it nonetheless benefits from many of the same drivers, including widespread impoverishment, chronic underdevelopment and alienation from mainstream Pakistan. The Challenges of External Relations Pakistan‟s focus on the challenge from India affects virtually every aspect of its external relations. This plays out in Afghanistan in the form of a competition for influence over the Afghan government where Pakistan attempts to use its ties to the Afghan Taliban, Haqqani network, and other movements to ensure its influence over the future of Afghanistan and to limit any threat of Pashtun independence movements. The end result is a fundamentally different perception of Pakistan‟s national interest from the US focus on Afghan security and stability. It is the reality behind the rhetoric of “ally” and “strategic partner” that has led to constant tension with the US. Cross-border violence into Afghanistan is a major irritant, and has resulted in deteriorating US-Pakistani relations. Similarly, the Indo-Pakistani border is one of the most tense on the planet, and secured on both sides by nuclear weapons. Cross-border violence into India can greatly escalate the prospects of large-scale war. Many Kashmiri militant groups have splintered, as in south Punjab, and the growing risk of militant proxies operating autonomously cannot be discounted, particularly to divert Pakistani military attention away from the tribal areas.

#### Guaranteed escalation: Miscalc, flight times, devolved authority, no stable deterrent

Yusuf 2011 (Moeed Yusuf, South Asia adviser at the United States Institute of Peace Center in the Center for Conflict Analysis and Prevention, January 25, 2011, “Stability in the Nuclear Context: Making South Asians Safe,” Jinnah Institute, http://goo.gl/FwYXH)

Crises between Pakistan and India represent a quantum leap in terms of the induction of instability inducing factors relevant to the nuclear calculus. To begin with, every crisis carries with it a realistic possibility of uncontrolled escalation leading to a deliberate or inadvertent nuclear strike. Not to mention, in the South Asian context, escalation represents uncharted territory, a dangerous proposition given that no escalation control mechanisms have been institutionalized. Yet, crises remain highly likely for more than one reason. There are outstanding contentious issues between the two sides which keep forcing them to the verge of a diplomatic breakdown. Moreover, both sides seem to believe that limited aggression under the nuclear umbrella is permissible and will not warrant a nuclear response. India’s limited war doctrine, Cold Start, formalizes this belief while Pakistan’s propensity to employ non-state actors on Indian soil in the past underscores its traditional propensity for similar risk taking. 12 In the absence of clearly defined nuclear red lines, it is very difficult to determine just what constitutes as ‘limited aggression’ for either side. A number of simulations the author has been part of point to wide divergence in how the two sides view the situation. Finally, nonstate actors are no longer playing to the tune of the Pakistani state and can engineer a Pakistan-India crisis on their own, Mumbai being a pertinent example. Most analysts suggest that a repeat of such an episode will see some form of Indian aggression followed by a Pakistani counterresponse; 13 what follows is anybody’s guess but it may well entail further escalation at a swift pace during which either side may cross the other’s nuclear red lines. In an escalated conflict, survivability of Indian and Pakistani nuclear arsenals shall remain intact and pre-emption against the nuclear forces would still be a far cry, even from the stronger party, India. Given Pakistan’s mobile delivery systems and a significant number of warheads, it would be impossible for New Delhi to guarantee that the entire arsenal will be successfully neutralized in a pre-emptive strike. This would hold even if Pakistan deployed its weapon systems during the course of an escalation. That said, there are two potential dangers in crisis situations. First, Pakistan and India use dualpurpose missiles and air craft for delivery. In the absence of advanced early warning capabilities, an incoming aircraft or missile could well be perceived as an attempt at pre-emption. The defender may panic and consider launching its own strike before it is too late. Second, it is worth pointing out the vulnerability of Pakistan’s nuclear decision making chain of command. Pakistan’s entire government and military top brass sit within 50 miles in Islamabad/Rawal Pindi and could potentially be neutralized in a pre-emptive strike that seeks to decapitate the country’s nerve center. For those who see this as rather farfetched – the author included – the concern is not as much that such an Indian strike would materialize but that Pakistani decision makers would have considered this possibility in their own contingency planning and taken precautionary measures. In the absence of a bilateral agreement that outlaws pre-emption of the nuclear chain of command, Pakistan may consider dispersing its leadership geographically or even devolving authority of launch to a lower level ex ante. A dispersed NCA amidst the fog of war would find it very difficult to make an informed decision while devolved authority would add to the risk of a premature or miscalculated launch. The challenge of preventing unauthorized or inadvertent launches increases multifold and crystallizes the kind of dangers India and Pakistan may end up subjecting their populations to in crisis situations. Their command and control structures may be robust enough to hold in peace time but the doctrinal and geographical asymmetries transform the equation under the stress of crises. For one, even in the absence of a sea-based capability which has to be constantly deployed for full effect, both sides would inevitably contemplate mating and subsequently deploying their ground and air based assets as a crisis escalates. This implies transportation, wide dispersal, ground preparations which may be misconstrued as an imminent attack by the adversary, and even predelegation of authority to launch. Pakistan, espousing ‘First Use’ and more vulnerable to total annihilation, will be more susceptible to these pressures. 14 In any case, all this adds significantly to the demands on the command and control structure: it necessitates safe transportation in an accident-prone, hot and dry South Asian climate, robust and authenticated communication systems and fool proof, redundant launch protocols under stressful situations. It remains unclear how much confidence the two sides have in their respective mechanisms but the very fact that they have never been tested in real life conditions make malfunctions quite likely if an escalated conflict is experienced. The possibility of a miscalculation in the South Asian case is also substantial given the geographical contiguity between Pakistan and India. The Cold War rivals had the luxury of sitting thousands of miles away and factoring in a decision time of over half an hour in any eventuality. In South Asia, the flight times for missiles between major urban cities are 5-15 minutes. In essence, there is virtually no time for informed decision making; the possibility of making overly conservative judgments about the other side’s intentions during a crisis, and subsequently of premature decisions, is therefore much greater than during the Cold War. This is especially true given that decision makers on both sides already suffer from acute cognitive dissonance about the other. Interestingly enough, even the usually cited remedy, an advanced early warning capability, may not deliver in South Asia; Pakistan and India are geographically too close for the technology to be able to work meaningfully. 15

#### Independently grid failure destroys reachback support

Robyn 2010 (Dr. Dorothy Robyn, Deputy Under Secretary of Defense for Installations and Environment, January 27, 2010, testimony before the Senate Homeland Security and Governmental Affairs Committee Subcommittee on Federal Financial Management, Government Information, Federal Services and International Security, online)

A final challenge is grid vulnerability. DoD’s reliance on a fragile commercial grid to deliver electricity to its 500-plus installations places the continuity of critical missions at risk. Most installations lack the ability to manage their demand for and supply of electrical power and are thus vulnerable to intermittent and/or prolonged power disruption due to natural disasters, cyberattacks and sheer overload of the grid. Because of U.S. combat forces’ increasing reliance on “reachback” support from installations in the United States, power failures at those installations could adversely affect our power projection and homeland defense mission capability. For example, we operate Predator drones in Afghanistan from a facility in Nevada and analyze battlefield intelligence at data centers here at home. This means that an energy threat to bases at home can be a threat to operations abroad.

#### Reachback key to 4GW and counterinsurgency effectiveness

Radzikowski 2008 (Phillip Radzikowski, Captain in the United States Army currently working at the Pentagon, previously served with the 4th Stryker Brigade Combat Team, 2nd Infantry Division, as the brigade assistant S-3, then as a liaison officer with the COIC for 14 months during the brigade’s deployment to Iraq, 2008, “‘Reach-Back’—A New Approach To Asymmetrical Warfare Intelligence,” Association of the United States Army, http://www.ausa.org/publications/armymagazine/archive/2008/12/Documents/FC\_Radzikowski\_1208.pdf)

Reach-back support is a relatively new concept. It provides operational warfighting units—battalions and brigades—the opportunity to reach outside of their traditional avenues of information flow and use national intelligence community assets to gather information to fill “gaps” in tactical intelligence.¶ Traditionally, company commanders develop the ground situation through patrol reports, atmospherics and general situational awareness. Their reporting tells the true story on the ground. The battalion intelligence officer and his shop process, track and attempt to identify patterns of insurgent networks and groups that will help drive targeting operations. Ultimately, targeting is refined at the brigade and battalion levels and then executed at the company level. The brigade MICO expands upon the battalion S-2’s assessments and evaluations and creates broader network analysis of insurgent group development. The MICO has the added responsibility of incorporating the broader intelligence community’s assets into the fight. Traditionally, this works. The problem is that, traditionally, the U.S. Army has not been fighting an insurgency.¶ During combat with an insurgency, the battlefield transforms at an inconceivable speed. Enemy tactics, techniques and procedures (TTPs) evolve, networks move and key individuals change rapidly. For companies, battalions and brigades to keep up and stay ahead of the insurgent execution curve requires the support of an intelligence network that can gather and leverage national information assets immediately and effectively. Reach-back support is the answer.¶ Reach-back support is the ability for forward-deployed units (battalions and brigades) to refer specific intelligence-oriented questions to continen- tal United States-based agencies for support. The U.S. government’s intelligence community has an enormous amount of collected information, including relevant warfighting information, which is compartmentalized for added security. This means that if an individual performing an intelligence function doesn’t know about the avail- ability of certain information, then he or she cannot use it—that poten- tially valuable information is rendered useless.¶ With reach-back support, when members of a tactical unit identify a gap in their own intelligence, then that gap becomes a question. The unit then poses the question to a reach-back sup- port agency that will have a team of in- telligence analysts address that specific problem and produce a “product” that addresses that specific gap.

#### Key to Afghanistan and all asymmetric conflicts- We control impact uniqueness these are the wars of the future

Barno 2011 (David Barno, Ret. Lt. Gen., senior adviser and senior fellow at the Center for a New American Security, former U.S. commander in Afghanistan, March 22, 2011 “Military Power in a Disorderly World,” World Politics Review, http://www.worldpoliticsreview.com/articles/8259/military-power-in-a-disorderly-world)

The opening acts of the 21st century have fundamentally challenged long-held notions of military power. The past decade has unveiled not only the disruptive power of terrorist groups with global reach, but also the ability of low-budget insurgent groups to directly confront the best military forces of the West -- with surprising success. Moreover, recent revolutionary events across the Arab world have demonstrated the limits of military power when facing mass popular uprisings. Disorder, chaos and violent extremism seem on course to replace state-on-state violence as the most common forms of conflict in the new century. Given this new security environment, the U.S. military must begin to play a larger role in conflict prevention in order to fully realize its value, commensurate with its cost, in this new disorderly world. ¶ The attacks of Sept. 11, 2001 -- launched not with tanks, warplanes or intercontinental missiles, but with commercial airliners -- were the most deadly assaults on U.S. soil since the American Civil War. Unconventional wars in Afghanistan and Iraq have also rattled the conventions of military thought, as insurgents equipped with inexpensive weaponry have inflicted prolonged attrition on U.S. forces. The U.S. military has spent billions of dollars defending against these new, low-cost threats, but the West and its military thinkers are still grappling with the full security implications of these dramatic upheavals in traditional military power balances. The era of asymmetric warfare has arrived with a vengeance. ¶ Recent revolutionary events in the Arab world -- starting in Tunisia and rapidly spreading to Egypt, Libya, Yemen and Bahrain -- have further highlighted today's shifting balance of power. While the outcome of these upheavals is still unclear, they reflect a new sort of asymmetrical power wielded by popular movements and expressed through mass street demonstrations. These spontaneous movements -- organized and enabled by modern technologies such as cellphones, Twitter and Facebook -- have directly challenged the "hard power" of state militaries, albeit with mixed results to date. Yet at the same time, the West's hard-power reponse to the Libyan regime's harsh backlash against its people has further demonstrated that conventional military power remains a powerful tool -- in this case employed to enforce the will of the broader international community as expressed by U.N. resolutions. ¶ Another version of this asymmetric power shift has played out against Western forces in the wars for Afghanistan and Iraq. Despite successful high-tech U.S. military campaigns at the outset of each conflict, the enemy quickly adapted with inexpensive forms of asymmetry, in the shape of attacks by car bombs, suicide vests and IEDs, and with clashes often captured and disseminated via cellphone videos. The cost to the insurgents of these unconventional weapons is minimal, but the U.S. defensive response to protect its army is staggering. The multibillion-dollar fleet of heavily protected MRAP vehicles designed to protect U.S. soldiers against IEDs is just one example. This reflects in part an insurgent strategy of "cost imposition," whereby the enemy attempts to drive the costs of the war in lives and fortune to a point where it no longer makes strategic sense for the U.S. to pursue its aims. ¶ The evolving nature of global threats echoes the tactical asymmetry found on the ground in Afghanistan and Iraq. Where the 19th and 20th centuries were dominated by a Westphalian order of nation-states, nonstate actors have moved to center stage in today's global order. This is a "flat world" of multinational companies, interwoven crime syndicates, global special interest groups, Internet-fueled extremist ideologies and terrorist networks. In many ways, the comfortable order and rule of law represented by the nation-states seated at the U.N. is fading, overtaken by a complex mix of other competitors for power. Of even greater concern, the destructive power accessible to even tiny groups is skyrocketing, rendering both deterrence and containment of fringe actors exceedingly difficult. ¶ The role of U.S. military forces in this new era of global disorder requires a careful assessment. The U.S. Department of Defense has traditionally analyzed foreign military capabilities and assigned priorities based upon their potential threat to U.S. interests. In today's world, a threat-calculus based upon conventional military capabilities makes less sense, as does the impetus to simply build a U.S. military to confront these nation-state threats. In a disorderly world, terrorist groups, transnational criminals or state failure may generate a serious threat to U.S. vital interests as readily as a cross-border invasion. In this environment, a U.S. military too deeply invested in conventional military capabilities may be poorly positioned for other strategic challenges facing the United States. But if it seems obvious that the next U.S. military must be able to more than just fight or deter other armies, navies and air forces, exactly what else it should be doing is less clear.¶ In many ways, the current "supply of security capital" by the United States is woefully out of balance with the "demand signal" driven by threats in this new disorderly world. A U.S. Foreign Service with fewer than 8,000 diplomats to cover the globe contrasts with a U.S. Marine Corps of 200,000 leathernecks. A foreign aid and development budget of less than $60 billion competes with a base defense budget that exceeds $550 billion a year. But the bureaucratic realities of Washington and the U.S. Congress give scant hope that any major realignments between U.S. government departments will occur. This is a fundamental dose of reality: Even in an era of fiscal austerity, Defense will continue to have a disproportionate share of U.S. government discretionary spending. This recognition should drive new thinking on maximizing those assets.¶ One outcome should be clear: The U.S. military must begin to play a larger role in global conflict prevention in this new disorderly world. Military forces based largely in the United States waiting for a war to break out are simply an unaffordable resource drain in a financial environment where the annual interest payments on the nation's debt will exceed its $550 billion defense budget by the end of this decade. The U.S. military is no longer a sound investment if it only defends and deters -- it must now also actively help prevent conflicts and stabilize key regions of the world where instability can threaten vital U.S. interests. All three missions -- defend, deter, prevent -- are important, and the next U.S. military should be organized, trained and equipped to actively engage in each. ¶ Making this change will require a strategic reset in both U.S. military and diplomatic thinking. Fortunately, the nation-building and counterinsurgency experiences of the past 10 years have prepared the military well for this adjustment. Building on this experience makes sense. This new task of "selective stabilization" can better align the military with U.S. diplomatic missions abroad in at-risk areas and leverage a broader array of U.S. power. Yet this logic will be strongly opposed by those worried about a further "militarization of foreign policy" -- while failing to recognize that the diplomat's traditional remit of "represent, report and negotiate" is shrinking in today's disorderly world. Fewer regions will demand these traditional diplomatic talents alone, and many more will require new skills in integrating U.S. hard and soft power in potential conflict zones. ¶ Demographic and natural resource trends signal that violent upheaval and the threat of instability will menace ever greater parts of the world, especially in the Middle East, Africa and Central and South Asia. U.S. vital interests in these regions are less threatened by interstate war than by the risks of internal extremism, instability and terrorism. Stabilizing the most important of these regions is an essential new task, and one that will require the combined talents of State and Defense.

#### Most likely nuclear escalation

Richards 2005 (Dr. Chet Richards, J. Addams & Partners July 12, 2005, “Dear Mr. & Ms. 1RP: Welcome to the 21st Century” http://www.zmetro.com/pdf/2005/07/welcome\_21st\_century\_v4.pdf)

Beginning with Mao Tse-Tung, and continuing to the present day, insurgency and other forms of non-state warfare have become more potent and much more dangerous in at least two ways: Groups other than states – that is, multinational organizations ranging from alQa’ida to the narcotrafficking cartels – are beginning to acquire high levels of sophistication in organization and in the information technologies that allow them to plan and conduct operations while widely dispersed.4 These same groups increasingly have the financial wherewithal to acquire virtually any type of weapon, from small arms to chemical and biological to nuclear, that they need to carry out operations. The only exceptions are conventional weapons such as tanks, combat aircraft, and fighting ships that require large facilities to support them, but are primarily of use only against other military forces armed with the same types of weapons. They are using their new capabilities not only to fight local governments, as was the case with traditional insurgencies, but to attack distant superpowers as well. Because they can’t field sizable amounts of conventional military hardware, fourth generation (4GW) forces will never try to achieve victory by defeating the military forces of a state in stand-up battles. Instead, they will try to convince their state opponent that it is simply not worth it to continue the fight. Successful 4GWcampaigns in modern times would include those against the French in Algeria, the US in Vietnam and the Soviet Union in Afghanistan, where the insurgents never defeated the foreign armies in any major battle, but eventually persuaded the governments back home to withdraw them. In a well run 4GW campaign, everything the 4GW forces do – including fighting and usually losing the occasional major battle – will support this goal. Persuading governments to withdraw forces, rather than defeating them on the battlefield, is an “information age” goal.6 To achieve the necessary level of persuasion, practitioners of 4GWwill use every information tool they can find to spread their messages to the enemy population and decision makers: Our cause is just and no threat to you There’s nothing here worth your effort and sacrifice Your troops are becoming brutal and your tactics ineffective If you keep it up, you’re going to bleed for a very long time So why not just leave now? As we enter the 21st Century, 4GWorganizations are becoming adept at spreading such messages through new channels, such as global news services (CNN, Al Jazeerah) and of course, web sites, blogs, and mass e-mailings. What you may not be aware of is that 4GWorganizations are also using the latest information tools to communicate with each other and to share information, particularly about what is and is not working (what the military calls “lessons learned.”)7Messages may be encrypted, or sent using code phrases, or even hidden in web site images, a practice called steganography. As with so many information age techniques, instructions for encryption and steganography are floating all over the Internet. Information age techniques are ideal for loose networks of highly motivated individuals, which is a typical form of organization for 4GW groups. Modern information warfare places a higher premium on creativity and innovation than it does on things 4GW organizations typically don’t have, like massive forces, volumes of regulations, and expensive hardware.8 By emphasizing speed and innovation, 4GWgroups can often invent new techniques faster than more structured and bureaucratic organizations such as the Pentagon.9 First responder organizations themselves may be targets of information warfare operations. The information systems of 1RP organizations, including operational systems as well as payroll and administrative, might make attractive targets in coordination with a physical attack. This is a real threat: Many members of al-Qa’ida and affiliated groups are from the educated classes in their countries, were technically trained (Osama bin Laden is a civil engineer), studied and lived in the West, and are capable of conceiving and managing such attacks. There are other advantages to the non-state player from operating in a loose social network. Obviously a social network is harder to find than an organization that requires a fixed infrastructure and wears uniforms. But perhaps most significant in wars of the weak against the strong, networks are highly resilient, so killing their leaders and destroying portions of the network can leave the rest to regenerate under new leadership in different locations.1112 So long as enough of the network survives to pass along the ideology and culture, along with lessons learned, the new network will likely be more dangerous and more resilient than its predecessor, much like the more resistant forms of bacteria that can emerge as a result of mis-use of antibiotics. In fact, the European resistance movements during World War II exhibited just this kind of toughness and survivability. In addition to its networked structure, there are other attributes of 4GW that should concern the 1RP (editor’s note: First Responder) community. The first is its transnational nature. An operation can be approved in Afghanistan, planned in Germany, funded in the Middle East, and carried out in the United States, as was the 9/11 attack. There is no one state we can retaliate against, nor one nationality we can profile against. Further, because it is transnational, it can involve networks of networks, such as alQa’ida attempting to cooperate with narco-trafficking organizations in Latin America to trade access to potential base areas and help in infiltrating the US for assistance in distributing narcotics.13 The upshot is that the lack of identifiable 4GW activity may not be an indication that an attack is not in the works, if the su4rveillance is being conducted by someone else. One of the more unpleasant aspects of insurgencies that will likely carry over to 4GWis their use of disguise, camouflage, and the other tools of deception. Because they are militarily weak, 4GW groups survive not by confronting superior firepower but by staying out of its sights. Those that have survived have become masters of concealment and deception, making it even more difficult to pick up early warning signals. This is why simple ethnic or national profiling will not work – 4GWteams will go to great lengths not to be identified as members of the groups in question. Skin color, eye color, and hair color are trivially easy to change, and the criminal infrastructure that already exists in most developed countries makes it simple to get drivers licenses or other means of identification (as any victim of identity theft can attest.) In a pinch, one can always recruit a member of a non-targeted group, such as the “shoe bomber,” Richard Reid, and it would be a mistake to assume the next batch will be as poorly trained. If we’re going to let Icelanders (or grandmothers or parents with toddlers, or whoever) through with less security screening than Saudis or Pakistanis or Jordanians, see if you can guess what the next aircraft hijacker will look like. Another unpleasant fact of 4GW is that like insurgency from whence it sprang, 4GW will be a protracted struggle.14 As Henry Kissinger once noted, if the guerillas don’t lose, they win, so they have all the motivation they need to keep going for as long as they think it will take.15 First responders should not draw comfort from what seems like a pause in attacks – operational cycles can stretch over several years, and a fourth generation war can span decades.16 But the most unpleasant fact of 4GW is that in it, we have finally reached the level of total war.17 In the eyes of the 4GW attacker, there are no civilians and no noncombatants. A concern for public relations offers the only reason for limiting the scope or violence of the attacks. What seems like “terrorism” to us, or senseless, random violence, may appear to the 4GW network as a legitimate way to persuade the foreign state government to withdraw, that is to stop the war. Such a strategy is nothing new. It was what Sherman had in mind during his marches through the South after the fall of Vicksburg (July 1863).18 In its local areas, the 4GW organization will spread the message that the foreign state has killed many civilians, which in a war of an advanced state versus a Third World country will often be true and will always be believed. What this means is that when a 4GW group decides to directly attack the United States or another state involved in “their” struggle, no level of violence, even nuclear, is ruled out. They may calculate that the message they are sending to the state government, to the state’s population, to undecided elements in other parts of the world, and to their own members is worth any backlash from the scenes of horror and brutality that ensue.

#### Only SMRs solve- renewables fail

Barton 2011 Charles Barton, founder of the Nuclear Green Revolution blog, recognized by my peers among nuclear bloggers most of whom have technical training, and my work has been mentioned by the Wall Street Journal, MA in philosophy, April 30, 2011, “Future storm damage to the grid may carry unacceptable costs,” [http://nucleargreen.blogspot.com/2011\_04\_01\_archive.html](http://nucleargreen.blogspot.com/2011_04_01_archive.html%22%20%5Ct%20%22_blank))

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 nuclearpower 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 evenweeks. 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.

### 1AC Russia adv

#### Rapid US SMR commercialization stops Russian market dominance- they’ll sell floating reactors globally

Ferguson 2010 (Dr. Charles D. Ferguson, President of the Federation of American Scientists, Adjunct Professor in the Security Studies Program at Georgetown University and Adjunct Lecturer in the National Security Studies Program at the Johns Hopkins University, May 19, 2010, Statement before the House Committee on Science and Technology for the hearing on Charting the Course for American Nuclear Technology: Evaluating the Department of Energy’s Nuclear Energy Research and Development Roadmap, http://www.fas.org/press/\_docs/05192010\_Testimony\_HouseScienceCommHearing%20.pdf)

The United States and several other countries have considerable experience in building and operating small and medium power reactors. The U.S. Navy, for example, has used small power reactors since the 1950s to provide propulsion and electrical power for submarines, aircraft carriers, and some other surface warships. China, France, Russia, and the United Kingdom have also developed nuclear powered naval vessels that use small reactors. Notably, Russia has deployed its KLT-40S and similarly designed small power reactors on icebreakers and has in recent years proposed building and selling barges that would carry these types of reactors for use in sea-side communities throughout the world. China has already exported small and medium power reactors. In 1991, China began building a reactor in Pakistan and started constructing a second reactor there in 2005. In the wake of the U.S.-India nuclear deal, Beijing has recently reached agreement with Islamabad to build two additional reactors rated at 650 MWe.2¶ One of the unintended consequences of more than 30 years of sanctions on India’s nuclear program is that India had concentrated its domestic nuclear industry on building small and medium power reactors based on Canadian pressurized heavy water technology, or Candu-type reactors. Pressurized heavy water reactors (PHWRs) pose proliferation concerns because they can be readily operated in a mode optimal for producing weapons-grade plutonium and can be refueled during power operations. Online refueling makes it exceedingly difficult to determine when refueling is occurring based solely on outside observations, for example, through satellite monitoring of the plant’s operations. Thus, the chances for potential diversion of fissile material increase. This scenario for misuse underscores the need for more frequent inspections of these facilities. But the limited resources of the International Atomic Energy Agency have resulted in a rate of inspections that are too infrequent to detect a diversion of a weapon’s worth of material.3 The opening of the international nuclear market to India may lead to further spread of PHWR technologies to more states. For example, last year, the Nuclear Power Corporation of India, Ltd. (NPCIL) expressed interest in selling PHWRs to Malaysia.4 NPCIL is the only global manufacturer of 220 MWe PHWRs. New Delhi favors South-to-South cooperation; consequently developing states in Southeast Asia, sub-Saharan Africa, and South America could become recipients of these technologies in the coming years to next few decades. Many of these countries would opt for small and medium power reactors because their electrical grids do not presently have the capacity to support large power reactors and they would likely not have the financial ability to purchase large reactors.¶ What are the implications for the United States of Chinese and Indian efforts to sell small and medium power reactors? Because China and India already have the manufacturing and marketing capability for these reactors, the United States faces an economically competitive disadvantage. Because the United States has yet to license such reactors for domestic use, it has placed itself at an additional market disadvantage. By the time the United States has licensed such reactors, China and India as well as other competitors may have established a strong hold on this emerging market.¶ The U.S. Nuclear Regulatory Commission cautioned on December 15, 2008 that the “licensing of new, small modular reactors is not just around the corner. The NRC’s attention and resources now are focused on the large-scale reactors being proposed to serve millions of Americans, rather than smaller devices with both limited power production and possible industrial process applications.” The NRC’s statement further underscored that “examining proposals for radically different technology will likely require an exhaustive review” ... before “such time as there is a formal proposal, the NRC will, as directed by Congress, continue to devote the majority of its resources to addressing the current technology base.”6 Earlier this year, the NRC devoted consideration to presentations on small modular reactors from the Nuclear Energy Institute, the Department of Energy, and the Rural Electric Cooperative Association among other stakeholders.7 At least seven vendors have proposed that their designs receive attention from the NRC.8¶ Given the differences in design philosophy among these vendors and the fact that none of these designs have penetrated the commercial market, it is too soon to tell which, if any, will emerge as market champions. Nonetheless, because of the early stage in development, the United States has an opportunity to state clearly the criteria for successful use of SMRs. But because of the head start of China and India, the United States should not procrastinate and should take a leadership role in setting the standards for safe, secure, and proliferation-resistant SMRs that can compete in the market. Several years ago, the United States sponsored assessments to determine these criteria.9 While the Platonic ideal for small modular reactors will likely not be realized, it is worth specifying what such an SMR would be. N. W. Brown and J. A. Hasberger of the Lawrence Livermore National Laboratory assessed that reactors in developing countries must:¶ • “achieve reliably safe operation with a minimum of maintenance and supporting infrastructure;¶ • offer economic competitiveness with alternative energy sources available to the candidate sites;¶ • demonstrate significant improvements in proliferation resistance relative to existing reactor systems.”10¶ Pointing to the available technologies at that time from Argentina, China, and Russia, they determined that “these countries tend to focus on the development of the reactor without integrated considerations of the overall fuel cycle, proliferation, or waste issues.” They emphasized that what is required for successful development of an SMR is “a comprehensive systems approach that considers all aspects of manufacturing, transportation, operation, and ultimate disposal.”

#### Al Qaeda will attack floating SMRS- collapses more than half of global trade

Nitkin and Andreyev 2011 (Alexander Nikitin, former Russian submarine officer and nuclear safety inspector, and Leonid Andreyev, Bellona researcher and Doctor of Economics, 2011, “Floating nuclear power plants,” Bellona, http://www.bellona.org/filearchive/fil\_fnpp-en.pdf)

Physical security of nuclear sites plays an important role in advancing the goals of nuclear non- proliferation and in countering the threat of terrorism. This is why physical protection of floating nuclear power plants will be one of the critical issues in ensuring the safety of these facilities in the context of export deliveries. If this Russian technology is exported and put to use on an international scale, it must be guaranteed, first and foremost, that this activity would comply with the Treaty on the Non- Proliferation of Nuclear Weapons (NPT),xxiv as well as be in accordance with two IAEA documents – the Convention on the Physical Protection of Nuclear Material (CPPNM)xxv and Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities.xxvi¶ Several reports have studied the possibilities of using floating nuclear power plants in Asia [16]. These reports point out that Southeast Asia is one of the world’s most troubling hot spots in terms of international terrorism – a given, to a large extent, of the particular geography of the region. This is where strategic international trade routes lie, along which between 200 and 600 commercial vessels pass daily, carrying crude oil and other hydrocarbon fues, as well as chemicals, exported and imported by Japan, China, South Korea, and other Asia-Pacific countries. This is also where important sea and air routes cross toward South Asia and the Middle East. In the UN’s estimates, up to 80 percent of the six billion tonnes of cargoes traded annually in the world is shipped by sea – and of that percentage, almost 75 percent is moved through one of the five shipping “pinch points” – the narrow waterways of the Panama and Suez Canals, the Strait of Gibraltar and the Strait of Hormuz, as well as the Strait of Malacca in Southeast Asia. The news agency World Net Daily has reported that the international militant Islamist network al-Qaeda has already managed to procure two dozen vessels for the group’s terrorist activities. Al-Qaeda, the World Net Daily said, may use its ships to take a cargo of deadly chemicals, or a so-called “dirty bomb” – a radiological weapon capable of dispersing radioactive material across a wide area by means of conventional explosives – or even nuclear weapons to a civilian port in order to carry out a terrorist attack there. These ships are, in essence, the suicide bombers of the terrorist future. Even without taking into account the ever-present piracy risks that the international shipping trade is facing daily, there is the real threat that the most important shipping routes and fairways may prove vulnerable to an attack by al-Qaeda or a like-minded group with close ties with it [12]. Indonesia and Malaysia, as countries that have, among other potential customers, already expressed an interest in Russia’s FNPP project, are of most concern in that regard, since a combination of their geography, the booming shipping trade along their coastlines, and other factors forms just such conditions that create a considerable risk of terrorist attacks at sea. This risk is compounded, furthermore, by the alarming statistics of pirate attacks in the region. For a floating nuclear power plant lying at anchor at its place of operation, the threat of falling prey to a pirate or terrorist attack and its crew being captured for ransom, or to use as hostages in a negotiation, is very real – and so is the risk that the nuclear materials or radioactive waste on board may also be hijacked in the process for use in further criminal activities. Analyses have shown that operating a floating nuclear power plant in the waters off the shores of the island states of Indonesia and Malaysia may not just be unsafe for those countries and their closest neighbours, but may also pose a global risk. Should a terrorist attack scenario be carried out successfully and the nuclear vessel captured, with the nuclear materials and/or radioactive waste on board falling into the wrong hands, these materials may then be used to perpetrate criminal acts elsewhere in the world. Additionally, the reports that examine the prospects of operating floating nuclear power plants in the Asia-Pacific region also mention the dangers and risks that arise in case of an outbreak of armed hostilities on the territory of the customer country.

#### They have the capability

Lawlor 2011 (Major General Bruce Lawlor, served on the White House’s Homeland Security Council and was the first chief of staff for the Department of Homeland Security and currently director with Virginia Tech's Simulation and Decision Informatics Laboratory, December 15, 2011, “The Black Sea: Center of the nuclear black market,” Bulletin of the Atomic Scientists, http://thebulletin.org/web-edition/features/the-black-sea-center-of-the-nuclear-black-market)

Harvard's Project on Managing the Atom has published a comprehensive report on this threat, combining several well-known facts to create an unsettling picture. First, several terrorist groups, particularly Al Qaeda, have been trying to get their hands on a nuclear weapon for years. Osama bin Laden referred to it as a "religious duty" and embraced the idea of an American Hiroshima. Al Qaeda operatives have consulted with nuclear experts, tested conventional explosives for use in nuclear bombs, and attempted to purchase working nuclear devices. There is nothing to suggest that bin Laden's death has ended this quest. Second, the Harvard study notes that if a sophisticated terrorist group acquired sufficient weapon-grade material, it would be able to build at least a crude, gun-type atomic bomb (WMD Commission, 2005). A nuclear device of this type wouldn't be transported to the target by a sophisticated delivery system; its more likely delivery mode would be a rental truck. Third, although terrorist groups may not be able to manufacture the plutonium or weapon-grade uranium to make a crude bomb, it is not beyond their ability to buy or steal it. And fourth, nuclear smuggling is very difficult to combat. Globalization, huge profit margins, and organized crime have created a multibillion-dollar illicit-trafficking market that is producing ever more sophisticated methods of keeping contraband from being discovered. Nuclear contraband has become a part of that illicit market.

#### Every plant is ten nuclear weapons

Grossman 2010 (Karl Grossman, full professor of journalism at the State University of New York College, July 28, 2010, “Floating Chernobyls,” Counterpunch, http://nuclearfreeplanet.org/blogs/counterpunch--karl-grossman-floating-chernobyls.html)

In a chapter on the floating plants as “an attractive object of nuclear terrorism,” the book cites an impossibility of providing “protection from torpedo attack or from underwater saboteurs, and on the surface from a rocket-bombing strike.” Further, the “spreading” of the floating plants “all over the world will allow” this to be done “much easier and with more efficiency.” Moreover, each floating nuclear plant will contain “the ready material for ten nuclear bombs in the way of enriched uranium of weapon quality.”

#### Causes sustained shut-down of trade, spurs protectionism and collapses the global economy

Richardson 2004 (Michael Richardson, former Asia Editor of the International Herald Tribune and a Visiting Senior Research Fellow at the Institute of Southeast Asian Studies, 2004, “A Time Bomb for Global Trade,” google books)

A nuclear 9/11 would make the World Trade Center attacks look like a warning shot. It would be impossible to calculate the economic costs, because there is no way to calculate how long it would take for citizens to recover the confidence they need to spend and invest. The public would assume that if the terrorists had one nuclear weapon, they could get another. If they would use it in one city, they would use it in another. If even one goes off, it’s hard to see how we would recover. We have to prevent it from happening- ever. Former US Senator and arms control expert, Sam Nunn, who co-chairs the Nuclear Threat Initiatve. The use of either a nuclear or powerful radiological bomb in a major port-city would cut the arteries of maritime commerce if it was believed to have come by sea. It would halt many of the world’s trade and severely damage the global economy, as governments scrambled to put in place extra security measures to proect their people, cities and economies. Such measures would be drastic and include: lengthy cargo inspections in the ports of the affected country, as well as in ports of nations that did extensive sea trade with it, or even the complete closure of ports for an indefinite period, while extra checks and safeguards were put in place to allay public anxiety.

#### Protectionism lowers the threshold for all conflict – makes escalation more likely – causes a laundry list of impacts

Patrick 2009 (Stewart Patrick, senior fellow and director of the Program on International Institutions and Global Governance at the Council on Foreign Relations, March 2009 “Protecting Free Trade” The National Interest http://nationalinterest.org/article/protecting-free-trade-3060)

President Obama and his foreign counterparts should reflect on the lessons of the 1930s-and the insights of Cordell Hull. The longest-serving secretary of state in American history (1933-1944), Hull helped guide the United States through the Depression and World War II. He also understood a fundamental truth: "When goods move, soldiers don't." In the 1930s, global recession had catastrophic political consequences-in part because policymakers took exactly the wrong approach. Starting with America's own Smoot Hawley Tariff of 1930, the world's major trading nations tried to insulate themselves by adopting inward looking protectionist and discriminatory policies. The result was a vicious, self-defeating cycle of tit-for-tat retaliation. As states took refuge in prohibitive tariffs, import quotas, export subsidies and competitive devaluations, international commerce devolved into a desperate competition for dwindling markets. Between 1929 and 1933, the value of world trade plummeted from $50 billion to $15 billion. Global economic activity went into a death spiral, exacerbating the depth and length of the Great Depression. The economic consequences of protectionism were bad enough. The political consequences were worse. As Hull recognized, global economic fragmentation lowered standards of living, drove unemployment higher and increased poverty-accentuating social upheaval and leaving destitute populations "easy prey to dictators and desperadoes." The rise of Nazism in Germany, fascism in Italy and militarism in Japan is impossible to divorce from the economic turmoil, which allowed demagogic leaders to mobilize support among alienated masses nursing nationalist grievances. Open economic warfare poisoned the diplomatic climate and exacerbated great power rivalries, raising, in Hull's view, "constant temptation to use force, or threat of force, to obtain what could have been got through normal processes of trade." Assistant Secretary William Clayton agreed: "Nations which act as enemies in the marketplace cannot long be friends at the council table." This is what makes growing protectionism and discrimination among the world's major trading powers today so alarming. In 2008 world trade declined for the first time since 1982. And despite their pledges, seventeen G-20 members have adopted significant trade restrictions. "Buy American" provisions in the U.S. stimulus package have been matched by similar measures elsewhere, with the EU ambassador to Washington declaring that "Nobody will take this lying down." Brussels has resumed export subsidies to EU dairy farmers and restricted imports from the United States and China. Meanwhile, India is threatening new tariffs on steel imports and cars; Russia has enacted some thirty new tariffs and export subsidies. In a sign of the global mood, WTO antidumping cases are up 40 percent since last year. Even less blatant forms of economic nationalism, such as banks restricting lending to "safer" domestic companies, risk shutting down global capital flows and exacerbating the current crisis. If unchecked, such economic nationalism could raise diplomatic tensions among the world's major powers. At particular risk are U.S. relations with China, Washington's most important bilateral interlocutor in the twenty-first century. China has called the "Buy American" provisions "poison"-not exactly how the Obama administration wants to start off the relationship. U.S. Treasury Secretary Timothy Geithner's ill-timed comments about China's currency "manipulation" and his promise of an "aggressive" U.S. response were not especially helpful either, nor is Congress' preoccupation with "unfair" Chinese trade and currency practices. For its part, Beijing has responded to the global slump by rolling back some of the liberalizing reforms introduced over the past thirty years. Such practices, including state subsidies, collide with the spirit and sometimes the law of open trade. The Obama administration must find common ground with Beijing on a coordinated response, or risk retaliatory protectionism that could severely damage both economies and escalate into political confrontation. A trade war is the last thing the United States needs, given that China holds $1 trillion of our debt and will be critical to solving flashpoints ranging from Iran to North Korea. In the 1930s, authoritarian great-power governments responded to the global downturn by adopting more nationalistic and aggressive policies. Today, the economic crisis may well fuel rising nationalism and regional assertiveness in emerging countries. Russia is a case in point. Although some predict that the economic crisis will temper Moscow's international ambitions, evidence for such geopolitical modesty is slim to date. Neither the collapse of its stock market nor the decline in oil prices has kept Russia from flexing its muscles from Ukraine to Kyrgyzstan. While some expect the economic crisis to challenge Putin's grip on power, there is no guarantee that Washington will find any successor regime less nationalistic and aggressive. Beyond generating great power antagonism, misguided protectionism could also exacerbate political upheaval in the developing world. As Director of National Intelligence Dennis Blair recently testified, the downturn has already aggravated political instability in a quarter of the world's nations. In many emerging countries, including important players like South Africa, Ukraine and Mexico, political stability rests on a precarious balance. Protectionist policies could well push developing economies and emerging market exporters over the edge. In Pakistan, a protracted economic crisis could precipitate the collapse of the regime and fragmentation of the state. No surprise, then, that President Obama is the first U.S. president to receive a daily economic intelligence briefing, distilling the security implications of the global crisis.

#### Russia will use SMR exports to undermine US influence in Latin America

Dobransky 2011 (Steve Dobransky. Adjunct Professor at Cleveland State University in IR, March 2011, “The Nuclear Penetration of the Monroe Doctrine,” paper presented at the annual meeting of the International Studies Association Annual Conference "Global Governance: Political Authority in Transition,” http://www.airpower.au.af.mil/apjinternational/apj-s/2011/2011-1/2011\_1\_02\_dobransky\_eng\_s.pdf)

Russia has shown in recent experience that one nuclear power plant constructed is usually not enough. Led by Rosatom and Atomstroyexport, Russia’s state-controlled civilian nuclear power corporations, billions of dollars in potential nuclear power plant opportunities await throughout Latin America.2 Once the deal enters the construction phase, there may be no stopping the Russians in using it as the model to build many more nuclear power plants in Venezuela and the rest of Latin America. With more nuclear deals will likely come an increasing dependence on Russia for future-enriched uranium, expertise, and maintenance, which are all usually incorporated into a nuclear energy contract. This may seriously challenge and undermine America’s power and influence in the region. Furthermore, as shown in the last several years between Russia and Venezuela, with a nuclear energy deal often comes many more economic and military agreements worth billions of dollars between the partners. Thus, a nuclear energy agreement can go well beyond the contract itself or, at the very least, significantly improve a nuclear supplying country’s chances of winning other valuable agreements with the customer in competitive economic situations. This also could weaken the U.S. and its control over the region.3 In the end, once the Russo-Venezuelan precedent is set, the U.S. and others will have to accept is as a legitimate framework for other extra-hemispheric powers to work within. This may lead to a flood of nuclear reactor deals between Russia and the rest of Latin America. It may lead other countries, especially China, into the fray as well. Considering the vast opportunities for nuclear power plant development and the finite amount of uranium, it is well understood that nuclear energy will become more of a zero-sum game in the coming decades, especially in terms of new plant development. And, this will make it an extremely valuable endeavor in the future. Overall, the U.S. must do a much better job in defining and modernizing the Monroe Doctrine for the 21st century. Then, the U.S. must compete more aggressively and effectively with other countries seeking to penetrate the region through nuclear energy deals and other major agreements. The Russo-Venezuelan nuclear energy deal is likely just the first of many more challenges to come to the U.S.’s dominance and leadership in the region.

#### Time is running out- Russian foothold massive accelerates development

Dobransky 2011 (Steve Dobransky. Adjunct Professor at Cleveland State University in IR, March 2011, “The Nuclear Penetration of the Monroe Doctrine,” paper presented at the annual meeting of the International Studies Association Annual Conference "Global Governance: Political Authority in Transition,” http://www.airpower.au.af.mil/apjinternational/apj-s/2011/2011-1/2011\_1\_02\_dobransky\_eng\_s.pdf)

Russia is implementing a strategy of moving full speed ahead with exporting nuclear reactors to the entire world. These efforts can greatly increase its capabilities and personnel and, thereafter, be directed vigorously at Latin America. Russia, at first, focused on regional deals with Eastern Europe, China, India, Iran, and other close-by neighbors, and now it is focusing on worldwide contracts. Not concerned with other countries’ domestic politics or regional issues, Russia is intent on making billions of dollars with whoever is willing to sign a nuclear deal with it. So far, Iran has been in the front of the line, with the recent completion of the Bushehr nuclear power plant. More Russian reactors are expected to be built in Iran. Russia also has signed a deal recently with India to build at least six nuclear reactors. Many more there and elsewhere are likely to follow. The only thing holding back the Russians from running the nuclear power plant table is the Russians themselves and their still-growing export capacity. More deals, however, mean more experience, customers, and reduced costs/increased profits overall.9 They also tend to lead to many more trade agreements in other areas, both military and non- military items, as Russia’s recent multi-million dollar tank deal with Venezuela demonstrates.10 Russia will soon become (if it has not already) the go-to place for affordable nuclear power plants for developing countries, with no political strings attached. And, it will reap the benefits in that area and, likely, many more areas.

#### US leadership prevents Latin America collapse- Russian dominance ensures instability and gives them unstoppable global leverage

Dobransky 2011 (Steve Dobransky. Adjunct Professor at Cleveland State University in IR, March 2011, “The Nuclear Penetration of the Monroe Doctrine,” paper presented at the annual meeting of the International Studies Association Annual Conference "Global Governance: Political Authority in Transition,” http://www.airpower.au.af.mil/apjinternational/apj-s/2011/2011-1/2011\_1\_02\_dobransky\_eng\_s.pdf)

Finally, the U.S. can just go all-out and compete with the Russians and others in the nuclear energy field throughout Latin America and the rest of the world. The U.S. can use all of its powers, influences, and position to run the nuclear energy gauntlet in Latin America. If this option is pursued, the U.S. could make billions of dollars. And, it may transform the Latin American countries into much more compliant and friendly states, by engendering a tremendous amount of influence and goodwill throughout the region; though, on the other hand, it may make them a lot more independent of the U.S. and outside energy sources and supply lines. In the long term, it may even help prevent a major economic collapse of Latin American countries due to future major shortages and extreme costs of energy resources, primarily oil. This could save the U.S. much money, influence, and hardship by not having the negative impact of collapsing and unstable Latin American countries, as well as allowing the U.S. to avoid the pressures to intervene to protect American interests and citizens.¶ In the end, if the U.S. does not fundamentally reassess its current nuclear energy policies particularly towards Latin America, then Russia may very well supplant the U.S. as the most influential power in Latin America and throughout the world. The Monroe Doctrine, subsequently, will go from penetrated to destroyed. Energy security will be the supreme power and goal in the world in the coming decades. The Russians are going full speed ahead in promoting energy as a foreign policy instrument that has the potential to reap billions of dollars and tremendous diplomatic influence. Will the U.S. alter course and react accordingly, especially in its own “backyard”? The U.S. needs to fully consider all the consequences of maintaining the status quo. Nuclear exports hold the promise of greater political, economic, and security influence. On the other hand, lost nuclear energy opportunities will mean significant reductions in power, money, and position. It is ultimately up to the U.S. to determine whether to meet the Russian challenge in the nuclear energy arena or to throw up the flag and go out with a whimper. The U.S. can compete full-scale with the Russians and others in the nuclear energy field, stand by on the sidelines and try to minimize the nuclear expansion in Latin America, or go all-out to quarantine the region in some form or another. The U.S. must soon determine its policy stance and clearly define and update the Monroe Doctrine. But, if complete inaction is the final choice, then there is no need to worry. The Russians will be sure to turn off the lights when the U.S. is¶ gone—and, turn on its nuclear energy plants in Latin America. Thus will go the nuclear chess board and Russia’s ascendance. And, thus, will go the Monroe Doctrine.

#### Russian expansion causes nuclear war

Blank 2009 (Stephen Blank, Research Professor of National Security Affairs at the Strategic Studies Institute of the U.S. Army War College, March 2009, “Russia And Arms Control: Are There Opportunities For The Obama Administration?,” online)

Proliferators or nuclear states like China and Russia can then deter regional or intercontinental attacks either by denial or by threat of retaliation. 168 Given a multipolar world structure with little ideological rivalry among major powers, it is unlikely that they will go to war with each other. Rather, like Russia, they will strive for exclusive hegemony in their own “sphere of influence” and use nuclear instruments towards that end. However, wars may well break out between major powers and weaker “peripheral” states or between peripheral and semiperipheral states given their lack of domestic legitimacy, the absence of the means of crisis prevention, the visible absence of crisis management mechanisms, and their strategic calculation that asymmetric wars might give them the victory or respite they need. 169 Simultaneously, The states of periphery and semiperiphery have far more opportunities for political maneuvering. Since war remains a political option, these states may find it convenient to exercise their military power as a means for achieving political objectives. Thus international crises may increase in number. This has two important implications for the use of WMD. First, they may be used deliberately to offer a decisive victory (or in Russia’s case, to achieve “intra-war escalation control”—author 170 ) to the striker, or for defensive purposes when imbalances 7 in military capabilities are significant; and second, crises increase the possibilities of inadvertent or accidental wars involving WMD. 171 Obviously nuclear proliferators or states that are expanding their nuclear arsenals like Russia can exercise a great influence upon world politics if they chose to defy the prevailing consensus and use their weapons not as defensive weapons, as has been commonly thought, but as offensive weapons to threaten other states and deter nuclear powers. Their decision to go either for cooperative security and strengthened international military-political norms of action, or for individual national “egotism” will critically affect world politics. For, as Roberts observes, But if they drift away from those efforts [to bring about more cooperative security], the consequences could be profound. At the very least, the effective functioning of inherited mechanisms of world order, such as the special responsibility of the “great powers” in the management of the interstate system, especially problems of armed aggression, under the aegis of collective security, could be significantly impaired. Armed with the ability to defeat an intervention, or impose substantial costs in blood or money on an intervening force or the populaces of the nations marshaling that force, the newly empowered tier could bring an end to collective security operations, undermine the credibility of alliance commitments by the great powers, [undermine guarantees of extended deterrence by them to threatened nations and states] extend alliances of their own, and perhaps make wars of aggression on their neighbors or their own people.

#### Latin American instability escalates draws in great powers

Rochlin 1994 (James Francis Rochlin, Professor of Political Science at Okanagan University, 1994, “Discovering the Americas: The Evolution of Canadian Foreign Policy Towards Latin America,” pages 130-131)

While there were economic motivations for Canadian policy in Central America, security considerations were perhaps more important. Canada possessed an interest in promoting stability in the face of a potential decline of U.S. hegemony in the Americas. Perceptions of declining U.S. influence in the region – which had some credibility in 1979-1984 due to the wildly inequitable divisions of wealth in some U.S. client states in Latin America, in addition to political repression, under-development, mounting external debt, anti-American sentiment produced by decades of subjugation to U.S. strategic and economic interests, and so on – were linked to the prospect of explosive events occurring in the hemisphere. Hence, the Central American imbroglio was viewed as a fuse which could ignite a cataclysmic process throughout the region. Analysts at the time worried that in a worst-case scenario, instability created by a regional war, beginning in Central America and spreading elsewhere in Latin America, might preoccupy Washington to the extent that the United States would be unable to perform adequately its important hegemonic role in the international arena – a concern expressed by the director of research for Canada’s Standing Committee Report on Central America. It was feared that such a predicament could generate increased global instability and perhaps even a hegemonic war. This is one of the motivations which led Canada to become involved in efforts at regional conflict resolution, such as Contadora, as will be discussed in the next chapter.

### 1AC Plan

#### Plan: The United States Federal Government should offer substantial competitive power purchase agreements for electricity from small modular nuclear reactors for military installations in the United States.

### 1AC Solvency

#### No disads- Obama’s already pushing SMRs- DOE incentives now- other nuclear fights inevitable too

Ervin 12/28 (Dan Ervin, professor of finance at Salisbury University, “Dan Ervin: Modular reactors are the future of nuclear energy,” delmarvaNow, http://www.delmarvanow.com/article/20121230/OPINION03/312300005)

The Obama administration’s decision to kick-start commercial use of small modular reactors has made one thing clear: The notion that nuclear power is slipping away is wrong. Although nuclear power faces difficult challenges, industry and government are working together to forge a new path.¶ The Department of Energy has earmarked funds for a new public-private partnership to help develop innovative small reactors that are about one-third the size of those in large conventional nuclear plants. These small reactors are modular, meaning they will be built in factories before they are shipped and installed at nuclear sites. This production method has the potential to reduce the cost of nuclear power significantly.¶ Southern Co. has begun building two new nuclear plants in Georgia using new construction techniques that could convince other companies nuclear plants are easier to build than otherwise thought.¶ Congress is planning to take up comprehensive legislation on nuclear waste next year using a “consent-based approach” to finding a site for a deep-geologic repository or an interim storage facility. Both would hold high-level waste and used fuel. Such an approach was recommended earlier in the year by a high-level blue-ribbon commission.

**But the DOD’s key- Only way to solve barriers and achieve commercialization**

Andres and Breetz 2011 (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, and Hanna L. Breetz, doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, February 2011, “Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications,” National Defense University Strategic Forum, http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf)

The preceding analysis suggests that DOD should seriously consider taking a leadership role on small reactors. This new technology has the potential to solve two of the most serious energy-related problems faced by the department today. Small reactors could island domestic military bases and nearby communities, thereby protect- ing them from grid outages. They could also drastically reduce the need for the highly vulnerable fuel convoys used to supply forward operating bases abroad.¶ The technology being proposed for small reactors (much of which was originally developed in U.S. Gov- ernment labs) is promising. A number of the planned designs are self-contained and highly mobile, and could meet the needs of either domestic or forward bases. Some promise to be virtually impervious to accidents, with design characteristics that might allow them to beused even in active operational environments. These re- actors are potentially safer than conventional light wa- ter reactors. The argument that this technology could be useful at domestic bases is virtually unassailable. The argument for using this technology in operational units abroad is less conclusive; however, because of its poten- tial to save lives, it warrants serious investigation.¶ Unfortunately, the technology for these reactors is, for the most part, caught between the drawing board and production. Claims regarding the field utility and safety of various reactors are plausible, but authoritative evalu- ation will require substantial investment and technology demonstration. In the U.S. market, DOD could play an important role in this area. In the event that the U.S. small reactor industry succeeds without DOD support, the types of designs that emerge might not be useful for the department since some of the larger, more efficient designs that have greater appeal to private industry would not fit the department’s needs. Thus, there is significant incentive for DOD to intervene to provide a market, both to help the industry survive and to shape its direction.¶ Since the 1970s, in the **U**nited **S**tates, **only the military** has overcome the considerable barriers to building nuclear reactors. This will probably be the case with small reactors as well. If DOD leads as a first mover in this market—initially by providing analysis of costs, staffing, reactor lines, and security, and, when possible, by moving forward with a pilot installation—the new technology will likely survive and be applicable to DOD needs. If DOD does not, it is possible the tech- nology will be unavailable in the future for either U.S. military or commercial use.

#### PPAs key- Incentivizes production- R&D projects don’t commercialize

Madia 2012 (William Madia, Chairman of the Board of Overseers and Vice President for the SLAC National Accelerator Laboratory at Stanford University, previously the Laboratory Director at the Oak Ridge National Laboratory, Spring 2012, “SMALL MODULAR REACTORS: A POTENTIAL GAME-CHANGING TECHNOLOGY,” Stanford Energy Club, http://energyclub.stanford.edu/index.php/Journal/Small\_Modular\_Reactors\_by\_William\_Madia)

Throughout the history of NPP development, plants grew in size based on classic “economies of scale” considerations. Bigger was cheaper when viewed on a cost per installed kilowatt basis. The drivers that caused the industry to build bigger and bigger NPPs are being offset today by various considerations that make this new breed of SMRs viable. ¶ ¶ Factory manufacturing is one of these considerations. Most SMRs are small enough to allow them to be factory built and shipped by rail or barge to the power plant sites. Numerous industry “rules of thumb” for factory manufacturing show dramatic savings as compared to “on-site” outdoor building methods. Significant schedule advantages are also available because weather delay considerations are reduced. Of course, from a total cost perspective, some of these savings will be offset by the capital costs associated with building multiple modules to get the same total power output. Based on analyses I have seen, overnight costs in the range of $5000 to $8000 per installed kilowatt are achievable. If these analyses are correct, it means that the economies of scale arguments that drove current designs to GW scales could be countered by the simplicity and factory-build possibilities of SMRs.¶ ¶ No one has yet obtained a design certification from the Nuclear Regulatory Commission (NRC) for an SMR, so we must consider licensing to be one of the largest unknowns facing these new designs. Nevertheless, since the most developed of the SMRs are mostly based on proven and licensed components and are configured at power levels that are passively safe, we should not expect many new significant licensing issues to be raised for this class of reactor. Still, the NRC will need to address issues uniquely associated with SMRs, such as the number of reactor modules any one reactor operator can safely operate and the size of the emergency planning zone for SMRs.¶ ¶ To determine if SMRs hold the potential for changing the game in carbon-free power generation, it is imperative that we test the design, engineering, licensing, and economic assumptions with some sort of public-private development and demonstration program. Instead of having government simply invest in research and development to “buy down” the risks associated with SMRs, I propose a more novel approach. Since the federal government is a major power consumer, it should commit to being the “first mover” of SMRs. This means purchasing the first few hundred MWs of SMR generation capacity and dedicating it to federal use. The advantages of this approach are straightforward. The government would both reduce licensing and economic risks to the point where utilities might invest in subsequent units, thus jumpstarting the SMR industry. It would then also be the recipient of additional carbon-free energy generation capacity. This seems like a very sensible role for government to play without getting into the heavy politics of nuclear waste, corporate welfare, or carbon taxes.

#### No commercialization without the DOD

**Cohen 2012** (Armond Cohen, Executive Director of the 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. · Relatively stable, multi-year funding allows the Pentagon to pursue “long cycle” innovation that is necessary for large, capital- intensive technologies and supports a highly capable contractor base that can respond to changing national security demands. · The Pentagon’s scope and budget has allowed it to **experiment** with new and **creative innovation tools** such as the well-known Defense Advanced Projects Research Agency, which has produced extraordinary technological breakthroughs; and the Environmental Security Technology Certification Program, which develops and demonstrates cost-effective improvements in environmental and energy technologies for military installations and equipment. · Because of DoD’s size and demands for performance and reliability, it is unique among government and private sector organizations as a **demonstration test-bed**. Smart-grid technologies and advanced energy management systems for buildings are already poised to benefit from this aspect of the Pentagon’s innovation system. · DoD has collaborated effectively with other federal agencies, including the Department of Energy and its predecessors (for example, to advance nuclear energy technologies). Continuing competition and cooperation between DoD and DOE will spur energy innovation. DoD’s innovation capabilities can enhance U.S. national security, improve U.S. international competitiveness, and spur global energy restructuring and greenhouse gas emissions reductions. At the same time, while providing enormous opportunities to develop and test energy efficiency technologies and small scale distributed energy appropriate to forward bases, the Pentagon is unlikely to become an all-purpose hub for advancing all categories of clean-energy technologies, because its energy innovation activities will be sustainable only where they can support the nation’s defense capabilities. Therefore, many other large-scale technologies that are of great importance to improving the environment, such as carbon-free central station generation or zero carbon transportation, may not as easily fit with DoD’s mission. Possible exceptions might include small modular nuclear reactors that can be used for producing independent, non-grid power at military bases, or, conceivably, zero-carbon liquid fuels other than anything resembling current generation biofuels. In any case, the challenge for military-led energy innovation is to further define and delineate avenues for improved clean-energy performance that are linked to the national strategic mission. History shows that when such linkages are strong, DoD’s innovation capabilities are **second to none**. 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.

**SMRs are cost-effective, safe and can be commercialized fast**

**Szondy 2012** (David, freelance writer based in Monroe, Washington. An award-winning playwright, he has contributed to Charged and iQ magazine and is the author of the website Tales of Future Past, February 16, "Feature: Small modular nuclear reactors - the future of energy?", www.gizmag.com/small-modular-nuclear-reactors/20860/)

Small Modular Reactors¶ One way of getting around many of these problems is through the development of small modular reactors (SMR). These are reactors capable of generating about 300 megawatts of power or less, which is enough to run 45,000 US homes. Though small, SMRs are proper reactors. They are quite different from the radio-thermal generators (RTG) used in spacecraft and remote lighthouses in Siberia. Nuclear reactors such as SMRs use controlled nuclear fission to generate power while RTGs use natural radioactive decay to power a relatively simple thermoelectric generator that can only produce, at most, about two kilowatts.¶ In terms of power, RTGs are the equivalent of batteries while small nuclear reactors are only "small" when compared to conventional reactors. They are hardly the sort that you would keep in the garage. In reality, SMR power plants would cover the area of a small shopping mall. Still, such an installation is not very large as power plants go and a reactor that only produces 300 megawatts may not seem worth the investment, but the US Department of Energy is offering US$452 million in matching grants to develop SMRs and private investors like the Bill Gates Foundation and the company of Babcock and Wilcox are putting up money for their own modular reactor projects.¶ The 60-year old breakthrough¶ One reason for government and private industry to take an interest in SMRs is that they've been successfully employed for much longer than most people realize. In fact, hundreds have been steaming around the world inside the hulls of nuclear submarines and other warships for sixty years. They've also been used in merchant ships, icebreakers and as research and medical isotope reactors at universities. There was even one installed in the Antarctic at McMurdo Station from 1962 to 1972. Now they're being considered for domestic use.¶ The case for SMRs¶ **SMRs have a number of advantages over conventional reactors**. For one thing, **SMRs are cheaper** to construct and run. This makes them very attractive to poorer, energy-starved countries; small, growing communities that don't require a full-scale plant; and remote locations such as mines or desalination plants. Part of the reason for this is simply that the reactors are smaller. Another is that, not needing to be custom designed in each case, the reactors can be standardized and some types built in factories that are able to employ economies of scale. The factory-built aspect is also important because a factory is more efficient than on-site construction by as much as **eight to one in terms of building time**. Factory construction also allows SMRs to be built, delivered to the site, and then returned to the factory for dismantling at the end of their service lives - eliminating a major problem with old conventional reactors, i.e. how to dispose of them.¶ SMRs also enjoy a good deal of design flexibility. Conventional reactors are usually cooled by water - a great deal of water - which means that the reactors need to be situated near rivers or coastlines**. SMRs, on the other hand, can be cooled by air, gas, low-melting point metals or salt**. This means that SMRs can be placed in remote, inland areas where it isn't possible to site conventional reactors.¶ Safety¶ This cooling system is often passive. In other words, it relies more on the natural circulation of the cooling medium within the reactor's containment flask than on pumps**. This passive cooling is one of the ways that SMRs can improve safety**. Because modular reactors are smaller than conventional ones, they contain less fuel. This means that there's less of a mass to be affected if an accident occurs. If one does happen, there's less radioactive material that can be released into the environment and makes it easier to design emergency systems. Since they are smaller and use less fuel, they are easier to cool effectively, which greatly reduces the likelihood of a catastrophic accident or meltdown in the first place.¶ This also means that accidents proceed much slower in modular reactors than in conventional ones. Where the latter need accident responses in a matter of hours or minutes, SMRs can be responded to in hours or days, **which reduces the chances of an accident resulting in major damage** to the reactor elements.¶ The SMR designs that reject water cooling in favor of gas, metal or salt have their own safety advantages. Unlike water-cooled reactors, these media operate at a lower pressure. One of the hazards of water cooling is that a cracked pipe or a damaged seal can blow radioactive gases out like anti-freeze out of an overheated car radiator. With low-pressure media, there's less force to push gases out and there's less stress placed on the containment vessel. It also eliminates one of the frightening episodes of the Fukushima accident where the water in the vessel broke down into hydrogen and oxygen and then exploded.¶ Another advantage of modular design is that some SMRs are small enough to be installed below ground. That is cheaper, faster to construct and less invasive than building a reinforced concrete containment dome. There is also the point that putting a reactor in the ground makes it **less vulnerable to earthquakes**. Underground installations make modular reactors easier to secure and install in a much smaller footprint. This makes **SMRs particularly attractive to military customers who need to build power plants for bases quickly**. Underground installation also enhances security with fewer sophisticated systems needed, which also helps bring down costs.¶ **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.¶ But there's still the sticking point that modular reactors are, by definition, small. That may be fine for a submarine or the South Pole, but what about places that need more? Is the alternative conventional nuclear plants? It turns out that the answer is no. Modular reactors don't need to be used singly. They can be set up in batteries of five or six or even more, providing as much power as an area needs. And if one unit needs to be taken off line for repairs or even replacement, it needn't interfere with the operation of the others.

## \*\*\*2AC\*\*\*

### 2AC DOD T – FI

**Financial incentives use public funds to motivate production**

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

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 effectswhich 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, the definition 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.

#### Precision- DOE definition

Waxman 1998 (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.

### 2AC Resil

#### Grid not resilient

DSB Taskforce 2008 (Defense Science Board Task Force, Federal Advisory Committee established to provide independent advice to the Secretary of Defense, Tom Morehouse, editor, February 2008, Office of the Under Secretary of Defense For Acquisition, Technology, and Logistics, http://www.acq.osd.mil/dsb/reports/ADA477619.pdf)

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.

### 2AC Turn

**Lock out- If DOD isn’t the first mover SMRs won’t be suitable for DOD use**

**Andres and Breetz 2011** (Richard B. Andres, Professor of National Security Strategy at the National War College and a Senior fellow in energy and environmental Security and Policy Chair in the Center for Strategic research, institute for national Strategic Studies, at the national Defense University, and Hanna L. Breetz, doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, February 2011, “Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications,” National Defense University Strategic Forum, http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf)

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.**

#### No overstretch

NEI 2011 (Nuclear Energy Institute, last date cited is June 7, 2011, “Myths and Facts about Small Modular Reactors (SMRs),” pdf online)

UCS statement: “The distributed deployment of small reactors would put great strains on licensing and inspection resources. Nuclear reactors are qualitatively different from other types of generating facilities, not least because they require a much more intensive safety and security inspection regime.”¶ The Facts: This is speculation that is not supported by any measure of NRC’s past and present resources. NRC has consistently been appropriated sufficient resources, and licensees then reimburse the agency for all licensing and inspection costs, so there is no factual evidence that deployment of SMRs would place any strain on NRC resources.

### 2AC HTGR CP

#### Not commercially viable

Steve Thomas May 2011 The Pebble Bed Modular Reactor: An obituary Original Research Article Energy Policy, Volume 39, Issue 5, , Pages 2431-2440

Thomas suggested that the track record of HTGR development¶ was poor.As shown above,all the major countries with nuclear¶ power design capability had tried to develop a commercial HTGR¶ design, but none had been successful.He identified in particular¶ the failure of the PBMR’s apparent predecessor in Germany, the¶ THTR300 and also the risk of using a helium-driven gas turbine, a¶ technology that was unproven,as issues of particular concern.24¶ It is difficult to know what technical issues have actually been¶ encountered as PBMRLtd. Has released no information about the¶ factors causing delay. One possible explanation for these delays is¶ that PBMRLtd. Experienced significant problems in producing a¶ design that would be economic, reliable and would satisfy the¶ safety regulator.¶ The failure of the THTR300 was dismissed as irrelevant by¶ PBMR Ltd.who claimed that its predecessor, theAVR, was the real¶ reference design for the PBMR. TheAVR, it was claimed, had been¶ highly successful. A German nuclear scientist, Peter Pohl,told the¶ South African Carte Blanche television programme: ‘what was¶ achieved is unique,in temperature,in burn up,in reliability–it’s¶ just fantastic.’25 As argued later, the claim that the AVR was a¶ success is now hard to justify.

#### Everyone already tried and failed

Greenpeace, The True Cost of Nuclear Power in South Africa 6/2011 http://www.greenpeace.org/africa/Global/africa/publications/The%20true%20cost%20of%20Nuclear%20Power%20in%20SA-Screen.pdf

The PBMR is a variant of the class of reactors known as ¶ High-Temperature Gas-cooled Reactors (HTGRs) which ¶ use helium gas as coolant and graphite as moderator¶ [3]¶ . ¶ Unlike other nuclear designs where the fuel is in the form ¶ of rods, in the PBMR, the fuel is in the form of ‘pebbles’ the ¶ size of a billiard ball. ¶ The PBMR design was portrayed as an ‘unpolished ¶ diamond’, markedly superior to existing reactor designs. Its ¶ German developers were said to have only abandoned the ¶ design because of the strong public reaction against nuclear ¶ power. In fact, the German THTR-300 design suffered from ¶ difficulties with the fuel circulation system, damage in the ¶ gas ducts, and a number of other technical problems, ¶ some of which were specific to the pebble bed design ¶ (for example 18,000 damaged fuel pebbles, graphite dust ¶ formation, and thermal insulation failure in the core bottom ¶ by overheating).¶ 34¶ But problems with earlier prototype and ¶ demonstration plants were dismissed as not relevant to the ¶ South African programme.¶ 35¶ The fact that the major nuclear ¶ design nations had tried and failed to produce a commercial ¶ HTGR design from the prototypes built was also ignored.

#### Accidents

Dylan Ryan, 2011, Masters in Mechanical Engineering, specialization in technical aided engineering & materials, and a PhD in engineering energy systems from Stanford University, 15 years’ experience in natural convection and heat transfer, daryanenergyblog , “High Temperature Gas cooled Reactors,” <http://daryanenergyblog.wordpress.com/ca/part-8-msr-lftr/>

Indeed it is fire that is very much my concern as regards these reactors. That big graphite core is a serious worry, it is listed as one of the concerns here regarding PBMR’s. As one nuclear physics quipped “graphite is basically just high grade coal”. Obviously enough, building a nuclear reactor core out of coal doesn’t sound like a sensible idea! It’s worth remembering that part of what made Chernobyl the disaster that it was, and why Fukushima is likely to have a much smaller level of fallout (despite 4 reactors involved, one fuelled with MOX against a single reactor fuelled with only lightly enriched uranium) is because the graphite moderated core at Chernobyl caught fire. It was this fire and the smoke it generated that allowed the radioactive material from the core to spread over such a large area. There is some dispute within nuclear energy circles as to how significant the risk of fire is to graphite cored reactors. The evidence from Chernobyl suggests that it did, as the NEA official accident report (10 years on) discusses. Analysis of the fission products from the Chernobyl reactor (and the Windscale) accident suggests some combustion of graphite occurred in both cases. Dr Moormann suggests that such concerns should be applied to a HTGR too, especially if the core is breached in some way by a large impact (Earthquake or a suicide attack with a jet airliner). This impact issue was recently a cause for concern regarding assessments of the safety of the UK’s AGR reactors. Dr Moormann also brings up the risk of water ingress (mentioned earlier) which could cause a temporary flip in the reactors void co-efficient from negative to positive. Moir and Teller (2004, yes that Teller) also bring up the matter of fire risk (briefly!) and it is mentioned back in a 1982 ed of the New Scientist.

#### Prolif

ATS, 5-22-2012, “What Is The Ideal Nuclear Reactor?,” <http://www.abovetopsecret.com/forum/thread843192/pg1>

The Pebble Bed Reactor: with either uranium, or with plutonium added too, this reactor is so called because unlike all the above reactors it doesn’t have Fuel Rods (i.e. pipes containing metal fuel pellets, which contain the fuel). Rather it has spherical balls (that look rather like pebbles) made from a specially designed mixture of fuel and graphite. These balls are simply placed on top of each other, in a metal container that looks like a dustbin without a proper bottom. Simply placing (enough) of these pebbles in close proximity to one another is enough to start the nuclear reaction. No control rods are needed because the reaction controls itself (whenever the pebbles get very hot, the frequency at which neutron radiation leaves their fuel atoms, changes enough, to make it less likely to split another fuel atom).This means you can take an axe to its cooling system, or even put monkeys in its control room for 10,000 years, and never get meltdown! This is called Passive Safety (i.e. a reactor whose safety components don’t need humans or moving parts –both of which could obviously fail).It is cooled with helium gas, which has two advantages: The first is that Helium loses half its radioactivity every 0.8 seconds (at most). The second is that if it leaks it only heads in one direction (which is ultimately about 80 miles above our heads). Only hydrogen would be more economical, but nobody has been stupid enough to use that yet, as obviously (hot) hydrogen explodes whenever in contact with oxygen. The main disadvantage: Is that it creates stacks (as in literally heaps) of nuclear waste, and for that reason is not my favorite reactor. That said the type of nuclear waste created can be at least 97% be recycled into new nuclear fuel, using something called Nuclear Reprocessing. Here’s a British 1997 TV advert for it: uk.adforum.com...This massive waste production is caused by something called Nuclear Transmutation which is when elements (which weren’t in the reactor originally –like plutonium) are created by the neutron radiation adding or taking away neutrons from literally anything inside the reactor. Transmutation causes the creation of at least some of every element in the Periodic Table. This isn’t a safety issue; as the high temperature of any reactor causes them to react (and therefore chemically stabilize themselves) near instantly. But they do absorb neutron radiation, and this can slow –or even stop, the carefully arranged nuclear activity in any core. But all the other reactors (so far mentioned) are largely immune to it. This is because every time Transmutation creates more rubbish, a few more control rods are removed (and therefore the reaction can continue for 5 years, until the 3% of waste that’s built up in the rods finally has to be removed). But the pebble bed reactor doesn’t have this option, so it’s fuel needs to be replaced almost constantly.

#### Licensing certification ensures safety

Campagna and Sawruk 2010 (Mark Campagna, Lead Writer for the American Nuclear Society, and Walter Sawruk, Assistant Writer for the American Nuclear Society, July 2010, “Physical Security for Small Modular Reactors,” American Nuclear Society, online)

With large (mostly light water) 1000-MW(electric)+ reactors limited to the two to three dozen heavily industrialized countries, it is evident that distributed power using small modular reactors could be a very feasible solution to addressing the energy needs of the remainder of the world's nations in both the short and long terms provided issues such as physical security can be successfully addressed.¶ Furthermore, to emphasize the importance of maintaining high U.S.-based standards, any Small and Medium Sized Reactor (SMR) Nuclear Power Plant (NPP) manufactured by licensee [e.g., via a U.S. Nuclear Regulatory Commission (NRC)–issued Manufacturing License (ML)] may not be exported unless the ultimate customer meets all U.S. legal and regulatory export requirements, including 10 CFR 110 (Ref. 1) and 10 CFR 810 (Ref. 2). An export license should be complementary to the ML in an integrated fashion and should address all Federal export control requirements, not only those of the NRC but also those of the U.S. Department of Energy (DOE), U.S. Department of Commerce, and U.S. Department of State. [NOTE: The ML topic is the subject of another paper for the American Nuclear Society (ANS) President’s Special Committee on SMR Generic Licensing Issues (SMR Special Committee): “Utilization of NRC Manufacturing License for Small Modular Reactors”]. 3.0 PROBLEM/ISSUE STATEMENT¶ The extent and relevance of this issue is considerable for SMR-NPPs; this since the worldwide deployment of peaceful nuclear technology is predicated on conformance with the NPT. We must consider various U.N. Resolutions (e.g., 1540) and the impact of other international agreements (e.g., Bilateral 123 Nuclear Technology Agreements between the United States and other countries). "123" refers to Section 123 of the U.S. Atomic Energy Act of 1954, which provides the legal framework for peaceful nuclear energy commerce. The United States has more than 30 such agreements in place with key partner nations. It therefore becomes imperative that the issues of nuclear proliferation resistance and physical protection of SMRs be addressed prior to addressing other key concerns such as fuel, waste, and economic/legal/political-stakeholder issues.¶ Since SMRs are generally in the early stages of development, a significant opportunity exists to affect designs in a way that (1) minimizes the future need for either substantial security forces, excess engineered devices, and/or complex procedural methodologies and (2) allows for the design optimization needed for more effective deployment of new applications. Early-stage design input can compensate in part for later possible design vulnerabilities against intentional acts of sabotage or theft. Therefore, IAEA safeguards and physical security of the SMR must be included in the early design phase in order for the SMR to be an economically feasible solution when built. It is imperative that any SMR design demonstrate proof of requisite high levels of safe survivability from all credible threats, including malevolent terrorism, theft, or aircraft impact. An approach such as the proliferation resistance and physical protection evaluation methodology developed for Generation IV (GEN-IV) nuclear energy systems (Ref. 3) offers an attractive framework for application to SMRs. Stakeholders must understand the risks (i.e., financial and functional); the actual level of threat and required protection must be carefully assessed and understood by the appropriate qualified engineers/designers during very early stages of design/engineering.

### 2AC K- 1

#### Human life is inherently valuable

Penner 2005 Melinda Penner (Director of Operations – STR, Stand To Reason) 2005 “End of Life Ethics: A Primer”, Stand to Reason, http://www.str.org/site/News2?page=NewsArticle&id=5223

Intrinsic value is very different. Things with intrinsic value are valued for their own sake. They don’t have to achieve any other goal to be valuable. They are goods in themselves. Beauty, pleasure, and virtue are likely examples. Family and friendship are examples. Something that’s intrinsically valuable might also be instrumentally valuable, but even if it loses its instrumental value, its intrinsic value remains. Intrinsic value is what people mean when they use the phrase "the sanctity of life." Now when someone argues that someone doesn’t have "quality of life" they are arguing that life is only valuable as long as it obtains something else with quality, and when it can’t accomplish this, it’s not worth anything anymore. It's only instrumentally valuable. The problem with this view is that it is entirely subjective and changeable with regards to what might give value to life. Value becomes a completely personal matter, and, as we all know, our personal interests change over time. There is no grounding for objective human value and human rights if it’s not intrinsic value. Our legal system is built on the notion that humans have intrinsic value. The Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that each person is endowed by his Creator with certain unalienable rights...." If human beings only have instrumental value, then slavery can be justified because there is nothing objectively valuable that requires our respect. There is nothing other than intrinsic value that can ground the unalienable equal rights we recognize because there is nothing about all human beings that is universal and equal. Intrinsic human value is what binds our social contract of rights. So if human life is intrinsically valuable, then it remains valuable even when our capacities are limited. Human life is valuable even with tremendous limitations. Human life remains valuable because its value is not derived from being able to talk, or walk, or feed yourself, or even reason at a certain level. Human beings don’t have value only in virtue of states of being (e.g., happiness) they can experience. The "quality of life" view is a poison pill because once we swallow it, we’re led down a logical slippery slope. The exact same principle can be used to take the life of human beings in all kinds of limited conditions because I wouldn't want to live that way. Would you want to live the life of a baby with Down’s Syndrome? No? Then kill her. Would you want to live the life of an infant with cerebral palsy? No? Then kill him. Would you want to live the life of a baby born with a cleft lip? No? Then kill her. (In fact, they did.) Once we accept this principle, it justifies killing every infant born with a condition that we deem a life we don’t want to live. There’s no reason not to kill every handicapped person who can’t speak for himself — because I wouldn’t want to live that way. This, in fact, is what has happened in Holland with the Groningen Protocol. Dutch doctors euthanize severely ill newborns and their society has accepted it.

#### Calculation is good and doesn’t devalue life

Revesz 2008 Richard L. Revesz (Dean and Lawrence King Professor of Law at New York University School of Law, JD Yale Law School) and Michael A Livermore. (JD NYU School of Law, Executive Director of the Institute for Policy Integrity, and Managing director of the NYU Law Review). Retaking Rationality How Cots-Benefit Analysis Can Better protect the Environment and Our Health. 2008. P. 1-4.

Governmental decisions are also fundamentally different from personal decisions in that they often affect people in the aggregate. In our individual lives, we come into contact with at least some of the consequences of our decisions. If we fail to consult a map, we pay the price: losing valuable time driving around in circles and listening to the complaints of our passengers. We are constantly confronted with the consequences of the choices that we have made. Not so for governments, however, which exercise authority by making decisions at a distance. Perhaps one of the most challenging aspects of governmental decisions is that they require a special kind of compassion—one that can seem, at first glance, cold and calculating, the antithesis of empathy. The aggregate and complex nature of governmental decisions does not address people as human beings, with concerns and interests, families and emotional relationships, secrets and sorrows. Rather, people are numbers stacked in a column or points on a graph, described not through their individual stories of triumph and despair, but by equations, functions, and dose-response curves. The language of governmental decisionmaking can seem to—and to a certain extent does—ignore what makes individuals unique and morally important. But, although the language of bureaucratic decisionmaking can be dehumanizing, it is also a prerequisite for the kind of compassion that is needed in contemporary society. Elaine Scarry has developed a comparison between individual compassion and statistical compassion.' Individual compassion is familiar—when we see a person suffering, or hear the story of some terrible tragedy, we are moved to take action. Statistical compassion seems foreign—we hear only a string of numbers but must comprehend "the concrete realities embedded there."' Individual compassion derives from our social nature, and may be hardwired directly into the human brain.' Statistical compassion calls on us to use our higher reasoning power to extend our natural compassion to the task of solving more abstract—but no less real—problems. Because compassion is not just about making us feel better—which we could do as easily by forgetting about a problem as by addressing it—we have a responsibility to make the best decisions that we can. This book argues that cost-benefit analysis, properly conducted, can improve environmental and public health policy. Cost-benefit analysis—the translation of human lives and acres of forest into the language of dollars and cents—can seem harsh and impersonal. But such an approach is also necessary to improve the quality of decisions that regulators make. Saving the most lives, and best protecting the quality of our environment and our health—in short, exercising our compassion most effectively—requires us to step back and use our best analytic tools. Sometimes, in order to save a life, we need to treat a person like a number. This is the challenge of statistical compassion. This book is about making good decisions. It focuses on the area of environmental, health and safety regulation. These regulations have been the source of numerous and hard-fought controversies over the past several decades, particularly at the federal level. Reaching the right decisions in the areas of environmental protection, increasing safety, and improving public health is clearly of high importance. Although it is admirable (and fashionable) for people to buy green or avoid products made in sweatshops, efforts taken at the individual level are not enough to address the pressing problems we face—there is a vital role for government in tackling these issues, and sound collective decisions concerning regulation are needed. There is a temptation to rely on gut-level decisionmaking in order to avoid economic analysis, which, to many, is a foreign language on top of seeming cold and unsympathetic. For government to make good decisions, however, it cannot abandon reasoned analysis. Because of the complex nature of governmental decisions, we have no choice but to deploy complex analytic tools in order to make the best choices possible. Failing to use these tools, which amounts to abandoning our duties to one another, is not a legitimate response. Rather, we must exercise statistical compassion by recognizing what numbers of lives saved represent: living and breathing human beings, unique, with rich inner lives and an interlocking web of emotional relationships. The acres of a forest can be tallied up in a chart, but that should not blind us to the beauty of a single stand of trees. We need to use complex tools to make good decisions while simultaneously remembering that we are not engaging in abstract exercises, but that we are having real effects on people and the environment. In our personal lives, it would be unwise not to shop around for the best price when making a major purchase, or to fail to think through our options when making a major life decision. It is equally foolish for government to fail to fully examine alternative policies when making regulatory decisions with life-or-death consequences. This reality has been recognized by four successive presidential administrations. Since 1981, the cost-benefit analysis of major regulations has been required by presidential order. Over the past twenty-five years, however, environmental and other progressive groups have declined to participate in the key governmental proceedings concerning the cost-benefit analysis of federal regulations, instead preferring to criticize the technique from the outside. The resulting asymmetry in political participation has had profound negative consequences, both for the state of federal regulation and for the technique of cost-benefit analysis itself. Ironically, this state of affairs has left progressives open to the charge of rejecting reason, when in fact strong environmental and public health pro-grams are often justified by cost-benefit analysis. It is time for progressive groups, as well as ordinary citizens, to retake the high ground by embracing and reforming cost-benefit analysis. The difference between being unthinking—failing to use the best tools to analyze policy—and unfeeling—making decisions without compassion—is unimportant: Both lead to bad policy. Calamities can result from the failure to use either emotion or reason. Our emotions provide us with the grounding for our principles, our innate interconnectedness, and our sense of obligation to others. We use our powers of reason to build on that emotional foundation, and act effectively to bring about a better world.

#### Alternative fails – anthropocentrism is inevitable

Eugene Hargrove 2003 “Weak Antrhopecentric Intrinsic Value” Blackwell Synergy

I have used the term weak anthropocentrism, rather than simply anthropocentrism, in the title of this paper to help call attention to the fact that not all anthropocentric valuing is instrumental. Wihtout the addition of the word weak, no doubt many nonanthropocentrists would probably conclude that the title contained a typographical error or was a contradiction in terms: “instrumentali intrinsic value.” While I do no think that labels are important, it is useful to call the view I represent weak anthropocentrism at least until it becomes generally recognized that anthropocentrism does no imply instrumentalism. I do not think that it is possible for humans to avoid being anthropocentric given that whatever we humans value will always be form a human (or anthropocentric) point of view, even when we try to imagine what is might be like to have the point of view of (or be) a bat, a tree, or a mountain, in my view, we are still looking at the world anthropocentrically – the way a human imagines that a nonhuman might look at the world.

#### No prior questions our scholarship is valid

Owen 2002 (David Owen, reader of political theory at the University of Southampton, Millennium, Volume 31, Number 3, pg. 655-657)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation of ontology and epistemology promotes theory-construction from philosophical first principles, it cultivates a theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general explanations for classes of phenomena is a question for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

### 2AC K- 2

#### Predictions necessary good enough

Garrett 2012 (Banning Garrett, director of the Atlantic Council’s Strategic Foresight Initiative, consultant for 22 years to the Department of Defense and other U.S. Government agencies carrying on a strategic dialogue with China, senior associate at CSIS and a founding board member of the U.S. Committee for Security Cooperation in the Asia Pacific and an Adjunct Professor of Political Science at George Washington University, January 23, 2012, “In Search of Sand Piles and Butterflies,” Atlantic Council, http://www.acus.org/disruptive\_change/search-sand-piles-and-butterflies)

“Disruptive change” that produces “strategic shocks” has become an increasing concern for policymakers, shaken by momentous events of the last couple of decades that were not on their radar screens – from the fall of the Berlin Wall and the 9/11 terrorist attacks to the 2008 financial crisis and the “Arab Spring.” These were all shocks to the international system, predictable perhaps in retrospect but predicted by very few experts or officials on the eve of their occurrence.¶ This “failure” to predict specific strategic shocks does not mean we should abandon efforts to foresee disruptive change or look at all possible shocks as equally plausible. Most strategic shocks do not “come out of the blue.” We can understand and project long-term global trends and foresee at least some of their potential effects, including potential shocks and disruptive change. We can construct alternative futures scenarios to envision potential change, including strategic shocks. Based on trends and scenarios, we can take actions to avert possible undesirable outcomes or limit the damage should they occur. We can also identify potential opportunities or at least more desirable futures that we seek to seize through policy course corrections.¶ We should distinguish “strategic shocks” that are developments that could happen at any time and yet may never occur. This would include such plausible possibilities as use of a nuclear device by terrorists or the emergence of an airborne human-to-human virus that could kill millions. Such possible but not inevitable developments would not necessarily be the result of worsening long-term trends. Like possible terrorist attacks, governments need to try to prepare for such possible catastrophes though they may never happen.¶ But there are other potential disruptive changes, including those that create strategic shocks to the international system, that can result from identifiable trends that make them more likely in the future—for example, growing demand for food, water, energy and other resources with supplies failing to keep pace. We need to look for the “sand piles” that the trends are building and are subject to collapse at some point with an additional but indeterminable additional “grain of sand” and identify the potential for the sudden appearance of “butterflies” that might flap their wings and set off hurricanes. Mohamed Bouazizi, who immolated himself December 17, 2010 in Sidi Bouzid, Tunisia, was the butterfly who flapped his wings and (with the “force multiplier” of social media) set off a hurricane that is still blowing throughout the Middle East. Perhaps the metaphors are mixed, but the butterfly’s delicate flapping destabilized the sand piles (of rising food prices, unemployed students, corrupt government, etc.) that had been building in Tunisia, Egypt, and much of the region. The result was a sudden collapse and disruptive change that has created a strategic shock that is still producing tremors throughout the region. But the collapse was due to cumulative effects of identifiable and converging trends. When and what form change will take may be difficult if not impossible to foresee, but the likelihood of a tipping point being reached—that linear continuation of the present into the future is increasingly unlikely—can be foreseen.¶ Foreseeing the direction of change and the likelihood of discontinuities, both sudden and protracted, is thus not beyond our capabilities. While efforts to understand and project long-term global trends cannot provide accurate predictions, for example, of the GDPs of China, India, and the United States in 2030, looking at economic and GDP growth trends, can provide insights into a wide range of possible outcomes. For example, it is a useful to assess the implications if the GDPs of these three countries each grew at currently projected average rates – even if one understands that there are many factors that can and likely will alter their trajectories. The projected growth trends of the three countries suggest that at some point in the next few decades, perhaps between 2015 and 2030, China’s GDP will surpass that of the United States. And by adding consideration of the economic impact of demographic trends (China’s aging and India’s youth bulge), there is a possibility that India will surpass both China and the US, perhaps by 2040 or 2050, to become the world’s largest economy. These potential shifts of economic power from the United States to China then to India would likely prove strategically disruptive on a global scale. Although slowly developing, such disruptive change would likely have an even greater strategic impact than the Arab Spring. The “rise” of China has already proved strategically disruptive, creating a potential China-United States regional rivalry in Asia two decades after Americans fretted about an emerging US conflict with a then-rising Japan challenging American economic supremacy.¶ Despite uncertainty surrounding projections, foreseeing the possibility (some would say high likelihood) that China and then India will replace the United States as the largest global economy has near-term policy implications for the US and Europe. The potential long-term shift in economic clout and concomitant shift in political power and strategic position away from the US and the West and toward the East has implications for near-term policy choices. Policymakers could conclude, for example, that the West should make greater efforts to bring the emerging (or re-emerging) great powers into close consultation on the “rules of the game” and global governance as the West’s influence in shaping institutions and behavior is likely to significantly diminish over the next few decades. The alternative to finding such a near-term accommodation could be increasing mutual suspicions and hostility rather than trust and growing cooperation between rising and established powers—especially between China and the United States—leading to a fragmented, zero-sum world in which major global challenges like climate change and resource scarcities are not addressed and conflict over dwindling resources and markets intensifies and even bleeds into the military realm among the major actors.¶ Neither of these scenarios may play out, of course. Other global trends suggest that sometime in the next several decades, the world could encounter a “hard ceiling” on resources availability and that climate change could throw the global economy into a tailspin, harming China and India even more than the United States. In this case, perhaps India and China would falter economically leading to internal instability and crises of governance, significantly reducing their rates of economic growth and their ability to project power and play a significant international role than might otherwise have been expected. But this scenario has other implications for policymakers, including dangers posed to Western interests from “failure” of China and/or India, which could produce huge strategic shocks to the global system, including a prolonged economic downturn in the West as well as the East.¶ Thus, looking at relatively slowly developing trends can provide foresight for necessary course corrections now to avert catastrophic disruptive change or prepare to be more resilient if foreseeable but unavoidable shocks occur.¶ Policymakers and the public will press for predictions and criticize government officials and intelligence agencies when momentous events “catch us by surprise.” But unfortunately, as both Yogi Berra and Neils Bohr are credited with saying, “prediction is very hard, especially about the future.” One can predict with great accuracy many natural events such as sunrise and the boiling point of water at sea level. We can rely on the infallible predictability of the laws of physics to build airplanes and automobiles and iPhones. And we can calculate with great precision the destruction footprint of a given nuclear weapon. Yet even physical systems like the weather as they become more complex, become increasingly difficult and even inherently impossible to predict with precision.¶ With human behavior, specific predictions are not just hard, but impossible as uncertainty is inherent in the human universe. As futurist Paul Saffo wrote in the Harvard Business Review in 2007, “prediction is possible only in a world in which events are preordained and no amount of actions in the present can influence the future outcome.” One cannot know for certain what actions he or she will take in the future much less the actions of another person, a group of people or a nation state. This obvious point is made to dismiss any idea of trying to “predict” what will occur in the future with accuracy, especially the outcomes of the interplay of many complex factors, including the interaction of human and natural systems. More broadly, the human future is not predetermined but rather depends on human choices at every turning point, cumulatively leading to different alternative outcomes. This uncertainty about the future also means the future is amenable to human choice and leadership. Trends analyses—including foreseeing trends leading to disruptive change—are thus essential to provide individuals, organizations and political leaders with the strategic foresight to take steps mitigate the dangers ahead and seize the opportunities for shaping the human destiny.¶ Peter Schwartz nearly a decade ago characterized the convergence of trends and disruptive change as “inevitable surprises.” He wrote in Inevitable Surprises that “in the coming decades we face many more inevitable surprises: major discontinuities in the economic, political and social spheres of our world, each one changing the ‘rules of the game’ as its played today. If anything, there will be more, no fewer, surprises in the future, and they will all be interconnected. Together, they will lead us into a world, ten to fifteen years hence, that is fundamentally different from the one we know today. Understanding these inevitable surprises in our future is critical for the decisions we have to make today …. We may not be able to prevent catastrophe (although sometimes we can), but we can certainly increase our ability to respond, and our ability to see opportunities that we would otherwise miss.”

#### Reps reflect material reality

Mearsheimer 1995 John Mearsheimer (International Relations professor at the University of Chicago) 1995 The False Promise of International Institutions in International Security Vol 19 Number 3 Winter, pp 43-44.

The main goal of critical theorists is to change state behavior in fundamental ways, to move beyond a world of security competition and war and establish a pluralistic security community. However, their explanation of how change occurs is at best incomplete, and at worst, internally contradictory.155 Critical theory maintains that state behavior changes when discourse changes. But that argument leaves open the obvious and crucially important question: what determines why some discourses become dominant and others lose out in the marketplace of ideas? What is the mechanism that governs the rise and fall of discourses? This general question, in turn, leads to three more specific questions: 1) Why has realism been the hegemonic discourse in world politics for so long? 2) Why is the time ripe for its unseating? 3) Why is realism likely to be replaced by a more peaceful communitarian discourse? Critical theory provides few insights on why discourses rise and fall. Thomas Risse- Kappen writes, "Research on. . . 'epistemic communities' of knowledge-based transna- tional networks has failed so far to specify the conditions under which specific ideas are selfected and influence policies while others fall by the wayside." 156 Not surprisingly, critical theorists say little about why realism has been the dominant discourse, and why its foundations are now so shaky. They certainly do not offer a well-defined argument that deals with this important issue. Therefore, it is difficult to judge the fate of realism through the lens of critical theory. Nevertheless, critical theorists occasionally point to particular factors that might lead to changes in international relations discourse. In such cases, however, they usually end up arguing that changes in the material world drive changes in discourse. For example, when Ashley makes surmises about the future of realism, he claims that "a crucial issue is whether or not changing historical conditions have disabled longstanding realist rituals of power." Specifically, he asks whether "developments in late capitalist society;" like the "fiscal crisis of the state," and the "internationalization of capital," coupled with "the presence of vastly destructive and highly automated nuclear arsenals [has] de- prived statesmen of the latitude for competent performance of realist rituals of power?" 157 Similarly, Cox argues that fundamental change occurs when there is a "disjuncture" between "the stock of ideas people have about the nature of the world and the practical problems that challenge them." He then writes, "Some of us think the erstwhile dominant mental construct of neorealism is inadequate to confront the chal- lenges of global politics today."158 It would be understandable if realists made such arguments, since they believe there is an objective reality that largely determines which discourse will be dominant. Critical theorists, however, emphasize that the world is socially constructed, and not shaped in fundamental ways by objective factors. Anarchy, after all, is what we make of it. Yet when critical theorists attempt to explain why realism may be losing its hegemonic position, they too point to objective factors as the ultimate cause of change. Discourse, so it appears, turns out not to be determinative, but mainly a reflection of developments in the objective world. In short, it seems that when critical theorists who study inter- national politics offer glimpses of their thinking about the causes of change in the real world, they make arguments that directly contradict their own theory, but which appear to be compatible with the theory they are challenging.159 There is another problem with the application of critical theory to international relations. Although critical theorists hope to replace realism with a discourse that emphasizes harmony and peace, critical theory per se emphasizes that it is impossible to know the future. Critical theory, according to its own logic, can be used to undermine realism and produce change, but it cannot serve as the basis for predicting which discourse will replace realism, because the theory says little about the direction change takes. In fact, Cox argues that although "utopian expectations may be an element in stimulating people to act ... such expectations are almost never realized in practice."

#### Overemphasis on method destroys their scholarship

Wendt 2002 Wendt, Handbook of IR, 2002 p. 68

It should be stressed that in advocating a pragmatic view we are not endorsing method-driven social science. Too much research in international relations chooses problems or things to be explained with a view to whether the analysis will provide support for one or another methodological ‘ism’. But the point of IR scholarship should be to answer questions about international politics that are of great normative concern, not to validate methods. Methods are means, not ends in themselves. As a matter of personal scholarly choice it may be reasonable to stick with one method and see how far it takes us. But since we do not know how far that is, if the goal of the discipline is insight into world politics then it makes little sense to rule out one or the other approach on a priori grounds. In that case a method indeed becomes a tacit ontology, which may lead to neglect of whatever problems it is poorly suited to address. Being conscious about these choices is why it is important to distinguish between the ontological, empirical and pragmatic levels of the rationalist-constructivist debate. We favor the pragmatic approach on heuristic grounds, but we certainly believe a conversation should continue on all three levels.

#### Even if objective truth is impossible we can recognize contingent utility of risk assessment.

Terje Aven, 2003, University of Stavanger, Foundations of Risk Analysis A Knowledge and Decision-Oriented Perspective, <http://training.nigc.ir/files/files/ben%20saeed%20book%20hse/safety%20books/s10.pdf>

Many social scientists have criticized traditional engineering risk assessments. We mention Beck (1992), Douglas and Wildavsky (1982), Perrow (1984) and Shrader-Frechette (1991). The critical point seems to be that the idea of an objective risk cannot be justiﬁed. According to Slovic (1998), risk does not exist out there, independent of our minds and cultures. We must take the ‘naive positivist’ view, to use the terminology of Shrader-Frechette (1991), that risk exists objectively and can be measured, and replace it by a more balanced view. The answer is not the other extreme – the relativist view saying that A’s risk description is as good as B’s, regardless their bases – but a middle position, expressing that formal risk assessments provide useful information to support decision-making, by combining facts and judgements using scientiﬁc principles and methods. Most people, we think, are in favour of such a middle position, see (Shrader-Frechette 1991), but the challenge is to establish a proper platform for it. The aim of this book is partly to provide one.

#### Risks must be evaluated – risk analysis has always existed and should not be confined to modern society.

Scott Campbell & Greg Currie, June 2006, University of Nottingham, “Against Beck: In Defence of Risk Analysis,” Philosophy of the Social Science

Since the early 1990s, the German sociologist Ulrich Beck has dominated discussion of risk issues in the social sciences. His work, which first came to attention in his 1992 book Risk Society, and then later in such books as Ecological Politics in an Age of Risk, The Reinvention of Politics, and most recently World Risk Society, makes a number of claims about risk and its place in contemporary society. It is particularly notable for its novel approach to the concept of risk, and for its attack on the concepts and prac- tices of risk analysis. It is these aspects of his work we focus on here. We argue that Beck’s work exhibits serious confusion about the concept of risk and that his criticisms of risk analysis are groundless. Beck holds that we live in a “risk society,” where we face new risks of unprecedented magnitude, especially from nuclear power and toxic chemi- cals. As a result, security from risks is replacing scarcity as the most important issue of our times. Risk analysis, Beck thinks, is of no help; in fact, it can be considered to be a major cause of the problems. In this paper we will say little about Beck’s wider views, as these are hard to discern and will most likely distract attention from the points we want to make. We will concentrate on some specific points that Beck makes about risk analysis. We focus on those points that have been expressed with sufficient clarity to merit analysis; those that are particularly strong; those that Beck has expressed in numerous places; and those that have not been challenged before in any rigorous, analytic manner. We begin with a brief statement of what risk is. Consider an event X which hasn’t happened, but might, and which if it did would be (in some way) bad, either in itself or in its consequences. The badness of such an event is called, variously, a loss, harm, or disutility. If you act in a way, A, that makes X possible, you risk X in doing A. The degree of risk from X is a function of two things: its probability and its harm, that is, the degree of badness. Risk analysts typically calculate the degree of risk by multiplying the harm of the bad event with its probability (which is expressed either as a percentage or, more typically, as a decimal fraction, i.e., a number between 0 and 1). Thus two equiprobable outcomes have different risks if the occurrence of the one would be more unpleasant than the occurrence of the other, and two equally unpleasant outcomes constitute different levels of risk if one is more probable than the other. Beck’s own understanding of risk is, it turns out, quite different from this. Early on in Risk Society, he defines risk thus: “Risk may be defined as a systematic way of dealing with hazards and insecurities introduced by modernization itself” (1992, 21). It is hard to think of a less adequate defi- nition: risk is not a way of dealing with things. First of all, risk has to be thought of as something that we deal with, or attempt to deal with; we cannot say that risk itself is a way of dealing with something. Beck’s defi- nition would make it impossible to ask, “How are we responding to this risk?” since the response and the risk would be the same thing. Secondly, risk should not be so defined that it applies only to risks associated with ‘modernization,’ for there were of course risks before industrial society. Notably, Beck is not consistent in adopting this approach to the concept of risk. Immediately after giving the definition just cited, he says, “Risks, as opposed to older dangers, are consequences which relate to the threatening force of modernization and to its globalization of doubt” (1992, 21). Here risk is understood to be the harmful event itself, and not any way of responding to it. Note also that Beck here contrasts risks with ‘older dangers.’But, as indicated above, ‘older dangers’ were risks too—it makes perfect sense to say, for example, that one’s risk of dying from toxins is greater now than it was 300 years ago.

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### CP

**NRC will not license the CP**

**Lovering 2012** (Jessica Lovering, September 7, 2012, “Out of the Nuclear Closet,” Foreign Policy, http://www.foreignpolicy.com/articles/2012/09/07/out\_of\_the\_nuclear\_closet)

Nuclear has enjoyed bipartisan support in Congress for more than 60 years, but the enthusiasm is running out. The Obama administration deserves credit for authorizing funding for two small modular reactors, which will be built at the Savannah River site in South Carolina. But a much more sweeping reform of U.S. nuclear energy policy is required. At present, the **N**uclear **R**egulatory **C**ommission has little institutional knowledge of anything other than light-water reactors and virtually **no capability** to review or regulate alternative designs. This affects nuclear innovation in other countries as well, since the NRC remains, despite its many critics, the global gold standard for thorough regulation of nuclear energy. Most other countries follow the NRC's lead when it comes to establishing new technical and operational standards for the design, construction, and operation of nuclear plants.

#### Light-water SMRs are fastest/best

McMahon 2012 (Jeff McMahon, Contributor, “Small Modular Nuclear Reactors By 2022 -- But No Market For Them,” Forbes, http://www.forbes.com/sites/jeffmcmahon/2012/05/23/small-modular-reactors-by-2022-but-no-market-for-them/)

The SMRs most likely to succeed are designs that use the same fuels and water cooling systems as the large reactors in operation in the U.S. today, according to Gail Marcus, an independent consultant in nuclear technology and policy and a former deputy director of the Department of Energy Office of Nuclear Energy, simply because the NRC is accustomed to regulating those reactors.¶ “Those SMR designs that use light water cooling have a major advantage in licensing and development [and] those new designs based on existing larger reactor designs, like Westinghouse’s scaled‐down 200 MW version of the AP‐1000 reactor, would have particular advantage.”

#### LW SMRs solve/are safe

Fecht 2012 (Sarah Fecht, January 28, 2012, “Next Up in Nuclear: Small Modular Reactors,” Popular Mechanics, http://www.popularmechanics.com/science/energy/nuclear/next-up-in-nuclear-small-modular-reactors)

These are basically a scaled-down version of the light-water reactors already working in the United States. Inside a light-water reactor, heat from the uranium core turns water into steam, which spins turbines that generate electricity. The same thing happens in a light-water SMR, with a few modifications. ¶ Unlike traditional reactors, which position the generators outside the reactor, some SMRs, such as the Babcock & Wilcox 125Mw "mPower" reactor, locate the generators inside the reactor. John Kelly, the energy department’s deputy assistant secretary for nuclear reactor technologies, says this makes manufacturing easier and eliminates the piping between reactors and generator, which is a safety liability. (If a pipe breaks, it becomes difficult to deliver coolant back to the hot core.) ¶ Some light-water SMRs also incorporate what engineers call passive safety features—in an emergency, they could cool a reactor core even if the power goes out. At Fukushima Daiichi in Japan, the site of last year’s post-tsunami nuclear disaster, the plant relied on electrically driven pumps to deliver water to the hot core and cool it down. When the power went out and diesel backups failed, operators had to resort to desperate measures to prevent total catastrophe. ¶ By contrast, small reactors such as the Westinghouse SMR would rely on gravity and thermodynamics to circulate coolants. As the radioactive core heats the water surrounding it, that hot water becomes less dense and flows upward toward the heat exchangers that turn the heat into electricity. As the water loses heat to the exchangers, it cools, becomes more dense, and falls back toward the core—no electricity required. ¶ "The new plans are elegant in their simplicity," Genoa says. "Passive features allow reactors to go without operator interaction, and without pumps to move water around." To further improve on safety, several SMRs are meant to be installed and operated underground. ¶ The light-water SMRs in development have been slightly less efficient than normal reactors, meaning less of the uranium’s potential energy is turned into electricity. But small light-water reactors may eventually deliver electricity that is less expensive than what larger reactors can produce simply because construction and installation costs would be lower. The Nuclear Regulatory Commission expects to approve the first light-water SMR power plants in the early 2020s.

### K

#### Calls to address specific security threats are key to solve those problems without succumbing to the pratfalls of the Bush Doctrine

Nicholson and Schaffer 2011 Kailyn Nicholson and Anna Schaffer - Henry M. Jackson School of International Studies - 3/10/2011, The Future of U.S. Democracy Promotion: Strategies for a Sustainable Fourth Wave of Democratization, https://digital.lib.washington.edu/dspace/bitstream/handle/1773/16487/Task%20Force%20C%202011%20Web.pdf?sequence=1

Democracy Promotion in Rhetoric The current administration has attempted to steer clear of unrealistic rhetoric in favor of a more pragmatic doctrine. This resolution appears to reflect the Obama administration‘s efforts to disassociate from the Bush-era rhetoric that provoked such global criticism. Post 9/11, the Bush administration was seen to sway between a preemptive realism that sought to unilaterally maintain America‘s position of power in the world and a lofty Wilsonian rhetoric that espoused spreading democratic ideals to all corners of the globe. Especially under Bush‘s Freedom Agenda, supporting democracy and the promotion of freedom was embraced as a foreign policy goal. The Freedom Agenda incorporated or helped to justify the global war on terror and Iraqi invasion. Increasingly weak evidence to support initial justifications for intervention eventually gave way to the language of democracy promotion as a more appealing rhetoric. And, Iraq became the centerpiece of this agenda executed in the name of promoting democratic values and supporting human rights. In his second inaugural address in 2005, former President Bush stated, So it is the policy of the U.S. to seek and support the growth of democratic movements and institutions in every nation and culture, with the ultimate goal of ending tyranny in our world…We will encourage reform in other governments by making clear that success in our relations will require decent treatment of their own people. America‘s belief in human dignity will guide our principles (Bush 2005) In claiming that the long-term goal of the U.S. was to end ‗tyranny in our world,‘ Bush set unrealistic and idealized expectations for the results of democracy promotion. Much of the justifications by the Bush administration for democracy promotion asserted the moral grounds for democracy. In a speech at the 2008 World Economic Forum in Sharm el-Sheikh Egypt, former President Bush pronounced: Some say any state that holds an election is a democracy. But true democracy requires vigorous political parties allowed to engage in free and lively debate. True democracy requires the establishment of civic institutions that ensure an election‘s legitimacy and hold leaders accountable. And true democracy requires competitive elections in which opposition candidates are allowed to campaign without fear or intimidation. Too often in the Middle East, politics has consisted of one leader and the opposition in jail. America is deeply concerned about the plight of political prisoners in this region, as well as democratic activists who are intimidated or repressed, newspapers and civil society organizations that are shut down, and dissidents whose voices are stifled. The time has come for nations across the Middle East to abandon these practices, and treat their people with dignity and the respect they deserve (Bush 2008) Here, former President Bush professed to stand behind democratic forces in all states. The fact that this speech took place three years after the 2005 Egyptian presidential election, where one candidate, Ayman Nour, was imprisoned, highlights a thread of hypocrisy in Bush‘s lofty rhetoric. Alternatively, the Obama administration adopted a more realistic rhetoric that gave recognition to other national interests, including security interests

 and threats to U.S. security. In response to the discourse and policies of the previous administration President Obama stated: Indeed, one of the lessons of our effort in Iraq is that American influence around the world is not a function of military force alone. We must use all elements of our power -- including our diplomacy, our economic strength, and the power of America's example -- to secure our interests and stand by our allies. And we must project a vision of the future that's based not just on our fears, but also on our hopes -- a vision that recognizes the real dangers that exist around the world (Obama 2010) Indeed, Obama‘s rhetoric implies a much more pragmatic approach than that of the previous administration. Here, Obama stated the need for balancing various U.S. interests and real-world threats, while also acknowledging tensions. One critique of Obama states, ―If there is an Obama doctrine emerging, it is one much more realpolitik than his predecessor‘s, focused on relations with traditional great powers and relegating issues like human rights and democracy to second-tier concerns‖ (Baker 2010). However, it should be noted and taken into consideration that pragmatic responses advocated by the Obama administration may have been influenced by the legacy issues left from the previous administration. It is possible the Obama administration has taken a realistic and pragmatic approach because it is an alternative to the last administration. Therefore, it is important to consider how foreign policy is influenced by legacy and also how it may be constrained by reality. In any case, within any administration, Wilsonian ideals and moral values are never to be ignored. In his most recent State of the Union address Obama gave support to human rights and noted: Recent events have shown us that what sets us apart must not just be our power – it must also be the purpose behind it. In south Sudan – with our assistance – the people were finally able to vote for independence after years of war….And we saw that same desire to be free in Tunisia, where the will of the people proved more powerful than the writ of a dictator. And tonight, let us be clear: The U.S. of America stands with the people of Tunisia, and supports the democratic aspirations of all people (Obama 2011) While Obama does still express support for human rights and democratic values he does so with an air of caution. Unlike the previous administration, this administration refrains from soaring unrealistic rhetoric in favor of a more pragmatic and realistic rhetoric regarding foreign policy and democracy promotion. In doing so, this current administration is seen to be noticeably less hypocritical and inconsistent than the previous. C. Implementation: Rhetoric in Action? In reality U.S. democracy promotion efforts have not reflected the rhetoric surrounding it. Democracy promotion is inconsistent country to country and policy to policy. Actions do not reflect the language expressed by policy makers to support democracy. After the Bush administration it has become increasingly entangled with military interests resulting in the association of democracy promotion with regime change and forceful coercion. Under the façade of democracy promotion, policies may implement a top-down effort supporting supposed democratic leaders rather than fostering democratic values from the bottom-up through civil society. Its exclusiveness and selectiveness is seen when we support democracy in one state and ignore human rights in another. Within the Bush administration a large gap existed between talk and action whether it was the continued cozy relations with the Saudi government, the U.S. embrace of Pakistan‘s former military dictator Pervez Musharraf, or the largely uncritical line toward China‘s continued authoritarianism (Carothers 2007). In the Middle East, the Bush administration later came to characterize its interventionin Iraq as a democratizing mission, when clearly other interests, particularly security interests were involved from the start. Other U.S. autocratic allies in the region felt almost no pressure at all, despite the Bush team‘s grand pronouncements about its commitment to a politically transformed region (Carothers 2007). Instead, the Bush administration worked to tighten relations with allies in the region in an effort to create a friendly coalition of states that would serve as useful partners in the War on Terror and would help to maintain the balance of power as it was in the Middle East. Thus, the statement of principles made by President Bush at the World Economic Forum in Egypt in 2008 rarely applies to Egypt or other U.S. allies in the Middle East. Yemen, Saudi Arabia, Jordan, Egypt, Pakistan, Ethiopia have all escaped the rhetoric of supporting human rights and democratic values by the Bush administration(Carothers 2007). Indeed, inconsistency between rhetoric and action is widespread; however, inconsistency in rhetoric between private and public audiences also exists. This is a different situation where the U.S. presents public rhetoric of support, for example, in the case of Egypt -prior to the year 2011- but expresses disapproval and criticisms in private. The recent release of WikiLeaks documents has revealed how American diplomats have repeatedly raised concerns with Egyptian officials about jailed dissidents and bloggers. A 2009 cable from U.S. ambassador to Egypt, Margaret Scobey, highlighted the difficulty of promoting democracy in a state that is both a strategic ally, but also a partial democracy ruled by an oppressive president: We continue to promote democratic reform in Egypt, including the expansion of political freedom and pluralism, and respect for human rights. Egyptian democracy and human rights efforts, however, are being stymied, and the GoE [Government of Egypt] remains skeptical of our role in democracy promotion, complaining that any efforts to open up will result in empowering the Muslim Brotherhood, which currently holds 86 seats in Egypt's 454-seat parliament (Embassy Cairo. 2009) However, the documents also show that relations between Mubarak and Obama warmed up as a result of Obama playing down what was the so-called ‗name and shame‘ approach of the Bush Administration (Landler and Lehren 2011). The nature of the WikiLeaks documents concerning Egypt draw attention to a balancing of private pressure with strong public support for Mubarak under the current administration-underscoring yet another sign of inconsistency. II. How False U.S. Rhetoric Has Hurt U.S. Reputation and Image While the U.S. has unparalleled economic and military assets, American influence and standing in the world are significantly low. Frequent gaps between rhetoric and behavior, policy changes or even reversals have harmed the U.S. image as an international power and moral figure. This negative image is partially a consequence of false rhetoric. A recent committee on human rights in Washington acknowledged, ―The world is not blind to this double standard. When they see the U.S. promoting human rights, not as a matter of principle but as a matter of convenience, it saps these principles of much of their force, and it makes the U.S. a much less powerful moral force on behalf of the values that this Nation stands for‖ (U.S. 2008). Even among other Western nations, the U.S. is seen to have a weak stance concerning human rights. In 1998, The United States Information Agency (USIA) found that 59 percent of the British and 61 percent of Germans said the U.S. was doing a good job promoting human rights. Today, 56 percent of the British and 78 percent of Germans say the US is doing a bad job (Kull 2007). Clearly, opinions of the U.S. on human rights issues have degraded significantly. An American rhetoric supporting human rights and democratic ideals worldwide while, simultaneously, failing to be consistent in implementing this rhetoric evidently will influence this degradation. The U.S. is viewed as hypocritical in its rhetoric about human rights and democracy because it is seen to be selective in its actual application. American leaders pursue more confrontational strategies for supporting democratic change against those countries with strained relations with the U.S. and adopt policies of engagement to induce or, at times, overlook democratic change with allies and friends. ―Close American relationships with authoritarian regimes in Saudi Arabia, Egypt, Jordan, and cordial relationships with autocratic rulers in Kazakhstan, Azerbaijan, and Equatorial Guinea, undermine U.S. credibility when criticizing similar types of autocratic regimes with less friendly ties to Washington‖ (McFaul 2010,163). Rhetoric about liberty has been juxtaposed with the instability in Iraq and democracy promotion has become associated with regime change. In the past decade, ―the rhetorical conflation by the Bush Administration and its allies of the war in Iraq and democracy promotion has muddied the meaning of the democracy project, diminishing support for it at home and abroad‖ (Melia 2007, 12). Public opinion polls from a 2005 survey by the Pew Research Center found the U.S. to be broadly disliked in most countries surveyed. Furthermore, a degrading trend in U.S. image can be seen as a repercussion of the inconsistency in rhetoric and policy of the past. A poll, conducted for BBC World Service in 18 countries, tracked this issue from 2005-2007. ―On average, positive views of the U.S. have slipped from 40 percent in 2005 to 36 percent in 2006 to 29 percent in 2007. Negative views have risen from 46 percent in 2005 to 52 percent in 2007‖ (Kull 2007). What‘s more, Gallup Polls in 143 countries reveal the image of the leadership of the U.S. is generally poor worldwide, but that the Obama administration will have the most repair work to do on its image in the predominantly Muslim Middle East and North Africa, where regional median approval is just 15 percent (Ray 2009). One year into his term, global opinion polls taken by Gallup reflect a positive view of Obama‘s leadership and foreign policy, yet, still present mixed reviews towards his handlings of trouble spots in the Middle East (English 2010). Such negative views of the U.S. erode U.S. power and undermine U.S. influence abroad. III. Democracy Promotion as a Façade for Promoting Other U.S. Interests The point where democracy promotion rhetoric does not properly align with implementation of supporting democracy, in any given state, is a sign of inconsistency and the use of democracy promotion as a façade for promoting other U.S. interests. Inconsistency between rhetoric and action in democracy promotion highlights the varying and diverse interests of the U.S. where democracy promotion, at times, wrongly serves the purpose of justifying other non-related and sometimes contrary U.S. interests. While the U.S. does wish to support and uphold human rights and the universal concept of economic, social and political freedoms, these interests somehow fall behind other US interests. This raises the questions of: whether U.S. interests are presented as prioritized? And how does one account for the supremacy of security interests over values of supporting human rights and democracy in general? This section will first examine U.S. interests from a Wilsonian, idealist view and next, from a realist view. These two schools of thought concerning foreign policy and inevitably, democracy promotion are today seen to be in opposition with each other. This can be accounted for by the short-term mindset of foreign policy in any given administration. Foreign policy is bound to vary with each new administration, within the same administration or due to a change in the global landscape. A forward-looking foreign policy strategy encourages a balance between interests of supporting human rights and moral values (so called idealist interests), and realist tendencies to focus solely on security and strategic interests. The current strategy, however, juxtaposes these two interest views and prompts a choice between the two. Thus, while it is in U.S. interests in the long-term to promote democracy as an end in itself, U.S. actions concerning democracy promotion currently seem to be motivated and driven by short-term interests. This section will analyze where focus on short-term realist interests has prompted a lack of clarity and consistency in policies. In this manner, democracy promotion is used as a tool, rather than an end, to maintain or secure other strategic interests. What‘s more, efforts to advance democracy and human rights only occur when they are in agreement with other interests. Shortterm realist interests also reveal, in certain cases, that democracy promotion does not even exist at all; the U.S. does not intervene or interfere in certain states where other U.S. interests have a higher priority than supporting democracy. China, Ethiopia, Kazakhstan, Nigeria, Pakistan, and Russia, are sites where security and economic interests override the interest of supporting a democracy (Carothers 2007). Furthermore, lack of clarity and consistency in policies has wrongly entangled democracy promotion with military and security interests. Security, for any state, including the U.S. is critical to a state‘s survival. Indeed, first and foremost, security is America‘s primary interest. Michael McFaul notes that the ―central purpose of American power is not to make the world a better place, but first to ensure security, prosperity of American people‖ and the ―paramount objective of American foreign policy must always be to defend the security of the American people‖ (McFaul 2010, 10, 68). Deterring military foes, forging alliances, creating alliances, ensuring stable access to natural resources, creating and maintaining U.S. military bases, expanding trade and investment opportunities abroad all represent strategies to ensure American security and, therefore, generally precede other policies (United States 2010). However, security is not, nor should not, be the sole interest of U.S foreign policy. Foreign policy, must take other interests into account; clearly, ―Not all interests need to be vital to be worthy of American protection‖ (Haass 1995, 48). A. The Case for Wilsonianism A Wilsonian view of foreign policy and also democracy promotion states a U.S. interest in upholding moral values. The U.S. has a moral obligation to human rights, and here democracy promotion is not simply a tool for national interest. Democracy promotion is seen as an end in itself that promotes human rights values, quality of life, economic, political and social liberties. In rhetoric, America‘s stated interests for promoting democracy are normally Wilsonian ideals associated with supporting human empowerment and self-determination and the wish that democratic values are shared globally. Critics have deemed this view to be limited in the scope with which it can substantiate a policy action to promote democracy. Richard Haassargues, ―The principal problem with this thinking is that the active promotion of democracy is a luxury policymakers cannot always afford‖ (Haass 1995, 46). Further critiques note that there may still be instances where national security or economic interests override supporting democratic values. When it comes to human rights, nowhere have the conflicts and contradictions been greater than in Washington‘s dealings with superpowers. Haass continues, ―When it comes to relations with Russia or China, Saudi Arabia or Egypt, other national security interests must normally take precedence over (or at least coexist with) concerns about how they choose to govern themselves. During the early Bush administration certain neo-conservatives appropriated ―the fact that promoting democracy can be difficult and expensive also reduces its attraction as a foreign policy compass‖ as another means to highlight the apparent conflicting interests associated with democracy promotion (Haass 2005). B. The Case for Realism Realists emphasize the balance of U.S. power amongst other global actors through the maintenance of security. ―This theory prescribes that the U.S. has a security interest in increasing its military and economic power and fostering and maintaining alliances with powerful states to check the influence of other great or rising powers‖(McFaul 2010, 76). Above all else, maintaining a balance of power is ideal. U.S. needs access to oil, minerals, basing rights and trade from all countries willing to cooperate, irrespective of whether they are autocratic or democratic. Realists argue that democracy promotion can undermine allies, empower anti-American forces and generate both domestic and international instability. In the case of Egypt, for instance, supporters of Mubarak and Mubarak himself, argued that democratization could give way to the empowerment of non-western friendly actors, such as the Muslim Brotherhood and ultimately destabilize the Middle East region (Embassy Cairo 2010).Haass acknowledges ―The strength of the realist approach is that it does not overlook existing and potential threats to U.S. interests, threats that if they were to materialize could overwhelm policy concerns‖ (Haass 1995, 48). C. Democracy Promotion as a Tool, Rather Than an End Here is where focus on short-term realist interests prompts a lack of clarity and consistency in policies. Under a realist school of thought, democracy promotion is seen as a tool rather than an end. It can be emphasized as a strategy to ideally secure other interests. Consequently, democracy promotion, when it exists, can become entangled with military and security interests; or, democracy promotion may not exist at all where other strategic interests are already present. Still, there are cases where democracy promotion doesn‘t even exist at all; the U.S. does not intervene or interfere in certain states where other U.S. interests have a higher priority than supporting a democracy. U.S. military presence in the Middle East prompts the need for allies in the region. Pakistan represents one instance; Pervez Musharraf maintained control of Pakistan with his power as a military dictator up until the 2008 elections. Security interests as well as economic interests play a significant role in undermining democracy promotion in the Middle East. U.S. oil interests invoke a more hardheaded foreign policy that disregards human rights and quality of life standards in states such as Algeria and Saudi Arabia. Accordingly, Michael McFaul notes, ―Without the illiberal kingdom of Saudi Arabia as a trade partner today, the U.S. would not have enough affordable energy to support our current way of life‖ (McFaul 2010, 79). On the same note, other countries with limited trade and aid relations to the U.S., such as Syria, will not experience the same policy with the U.S. as does Saudi Arabia, for instance. Economic and strategic interests have, in the past, prevented the U.S. from taking a firm stance against China‘s human rights violations. China, on the contrary, maintains a favored nation status. For the U.S., ―promoting human rights was jettisoned in May 1994 when the need to export to China and engage in a host of strategic efforts proved too significant to set aside‖ (Haass 1995, 53). Indeed U.S. leverage against China‘s human rights violations is supposedly limited due to economic interests that are present. Furthermore, when powers face a challenger to their hegemony, they are more likely to tolerate autocracies that can present themselves as buffer against their rivals (Levitsky and Steven and Way, 2002). The U.S. has been cited for supporting the ‗democrat‘ rather than the democracy where support for autocratic allies is emphasized over support for actual democratic institutions. This policy was seen in Egypt, prior to January 25, 2011, where the U.S. has provided billions of dollars in aid over the past several decades to prop up the Egyptian dictatorship. Supporters of this policy acknowledge the false assumption that elected parties will be in agreement with the U.S. and its foreign policy. They acknowledge that democratic elections could promote the rise of a fascist leader (Kopstein 2006, 89). Mubarak, has been cited frequently for human rights violations; detention, torture, refusal to register opposition political parties were all used by Mubarak as a means to constrain the scope of democracy and prevent a threat to his persistent rule (Untied States 2008). In Egypt, Mubarak profited from this Western concern that Islamists will win a fair election in the country. ―As evidence Mubarak can point to the parliamentary elections of 2005, when candidates backed by the Muslim Brotherhood captured a majority of the seats they contested‖ (United States 2008). Although the U.S. rarely placed pressure on Mubarak publicly, documents from WikiLeaks reveal U.S. pressure on Mubarak to democratize and to improve human rights. Nevertheless, ―U.S. pressure for democratization largely ended with the strong Muslim Brotherhood showing of 2005‖(United States 2008). Instances of supporting autocratic allies have happened frequently in U.S. foreign policy, and present a challenge to the consistency in rhetoric of foreign policy and democracy promotion in the future. D. Entanglement of Democracy Promotion with Military or Security Interests Inconsistency between rhetoric and action can also manifest itself when other U.S. interests, specifically military and security interests, become entangled with the act of promoting democracy. In the past decade, entanglement represents one of the greatest faults to American foreign policy and its association with democracy promotion consequently. Entanglement presented itself most distinctly within Bush‘s Freedom Agenda where military force became an instrument for democracy promotion and democracy promotion became associated with regime change. Here, McFaul comments that “During the Bush administration, the American armed forces assumed a leading role in fostering democratic change (McFaul 2010, 155). At times, the purpose for a military intervention can be disguised under the veil of democracy promotion. Or, similarly, democracy promotion becomes a façade to fulfill other interests, as was seen in Iraq. “The increasingly threadbare nature of initial US justifications for the invasion, (weapons of mass destruction, the Iraq-Al-Qaeda ‘link‘), rendered the language of democracy promotion an attractive fall-back for the administration" (Durac and Cavatorta 2009, 9). A close association between military intervention and democracy promotion overshadows the more traditional and legitimate means for supporting democratic development in other countries. In Iraq, policy makers fell back on democracy when all other legitimate reasons to invade couldn‘t be summoned. In cases like this, the act of using democracy promotion as a façade renders U.S. democracy promotion misleading and unfounded. IV. Undermining U.S. Credibility and Image A. Accusations of Hypocrisy The determinedness with which the Bush administration tied democracy promotion rhetoric to aggressive War on Terror military actions had the opposite of its desired effect. The U.S. had hoped that its preemption policy might be more palatable if couched in values that are almost universally agreed upon, like freedom and democracy. President Bush‘s statement ―For the sake of our long-term security, all free nations must stand with the forces of democracy and justice that have begun to transform the Middle East‖ implies that the U.S.‘s involvement in the Middle East is consistently aimed at supporting democratic movements. However, the fact that security is a much more immediate concern in military conflicts meant that, in practice, democracy was not the primary consideration when it came to which governments to support and which to challenge. Egypt, for example, is a close U.S. ally and enjoyed generous military support throughout the freedom agenda years despite being decisively authoritarian. On the other hand, the U.S. refused to support Hamas although it was democratically elected by the Palestinian people. While both of these decisions make sense from a geopolitical/security perspective, they do not fit the democracy promotion agenda. When President Bush made universal statements about democracy promotion while at the same time supporting non-democracies and failing to support all functioning democracies for security reasons, the international community recognized the hypocrisy. B. Accusations of Hubris Another way in which U.S. democracy promotion rhetoric helped undermine our credibility and image abroad has been by declaring success, or at least marked progress, in places where democracy, if it exists at all, is not functioning enough to improve the quality of life of citizens. By calling these examples successful, the U.S. either looks disturbingly out of touch or too haughty to admit the shortcomings of its democracy promotion efforts. Iraq is an excellent example of this, as Frank Rich of the New York Times points out: ―Iraq‘s ‗example of freedom,‘‖ as President Bush referred to his project in nation building and democracy promotion, did not inspire other states in the Middle East to emulate it. If Iraq is an example of success, who indeed would volunteer to be the next patient of U.S. democracy promotion? There are many other examples stretching back before the Bush era of similarly willfully inaccurate statements. Thomas Carothers points to the Congo, Cambodia, and Soviet-free Afghanistan as cases where the U.S. stubbornly congratulated themselves on progress that, to the rest of the world, looked like tragedy. Setting unrealistic expectations for the results of democracy promotion, such as President Bush‘s ―long-term goal of ending tyranny in our world, ―are another form of this hubris (Bush 2005). These two types of misleading rhetoric create a very stark image of U.S. democracy promotion in the eyes of the rest of the world. The U.S. claims to stand behind democratic forces in all states, but does not follow through when more immediate strategic concerns are present. Actions claimed to be democracy promotion are implemented with military coercion and claimed as successes even if they fail to provide security or stability for the country‘s citizens, and, in the case of Iraq, actively destabilize a region. As a result, ―the credibility of the US as an agent of democracy promotion in the Middle East is called into question, both within the region and without‖ (Bali and Rana, 2010). V. Implications for Diplomatic Effectiveness: Realism The preceding mistakes have resulted in ―Obama and his foreign-policy team edge[ing] away from the language of democracy promotion, which they fear that the Freedom Agenda has rendered toxic. (Taub 2009)‖ The new administration may feel the need to avoid Bush-era rhetoric that engendered so much criticism, but the associations of U.S. democracy promotion with aggressive militarism, hypocrisy, and arrogance will not disappear overnight. They must be replaced by a strong, realistic redefinition of what democracy promotion means to the U.S., when and how it will be practiced, and when it must take a backseat to other more immediate concerns. Once the U.S. rhetorically embraces realistic standards, it will be possible for policy and rhetoric to be consistent. This will present a reasonable face for U.S. democracy promotion, encouraging cooperation and discussion rather than avoidance or presumptive opposition. This is something U.S. policymakers should be concerned with for more substantive reasons than international popularity. Being seen as hypocritical and arrogant strengthens the case of foreign leaders seeking to oppose U.S. policy, both in international forums and bilateral relations. The U.S.‘s ability to achieve foreign policy objectives- be they economic, military, or geopolitical- is materially harmed by the perception that we have qualities undesirable in a working relationship. Unrealistic assessment of outcomes, inconsistency, unwillingness to recognize areas of weakness, and arrogance are all characteristics that do not invite support and cooperation. Indeed, McFaul asserts the Bush administration‘s rhetoric and policy in the Middle East were damaging to the U.S.‘s ability to realize foreign policy goals to the extent that they formed ―a serious impasse between the White House and all other international organizations, which subsequently tried to steer clear of associating with Bush policies, including his freedom agenda‖ (McFaul 2010, 218). It clearly follows that all U.S foreign policy goals are served by a positive and respected image abroad, because other states and international organizations are more willing to cooperate with policies when they have a positive image of U.S. goals and methods for achieving them. Certain aspects of democracy promotion have been identified as contributing to a negative image abroad:  Aggression/militarism  Unwarranted declarations of success/denial of mistakes  Inconsistency o Between rhetoric and action Between standards for various states Accordingly, attempts to foster a more positive, cooperative image should involve amending democracy promotion policy to be more:  Peaceful and non-coercive  Realistic o In assessments of progress and willingness to discuss/learn from mistakes o Rhetoric able to be achieved with action o Policies capable of being applied consistently across cases (flexible, humble) Incorporating these guidelines into a new coherent democracy promotion strategy will help the Obama administration avoid the backlash against Bush era mistakes. As previously mentioned Obama is already bringing his democracy promotion rhetoric down to a more realistic level, but he has not fully embraced all the changes necessary for a new effective era of democracy promotion. His administration‘s handling of the recent Egyptian protests is an indication of the need for clear, consistent rhetoric that can be employed in situations where democracy promotion and other interests conflict. This is already acknowledged in private. A cable sent from the U.S. Embassy in Egypt in 2008 admits that ―An ongoing challenge remains balancing our security interests with our democracy promotion efforts.‖ Yet instead of openly addressing this conflict in statements on Egypt‘s unfolding revolution, President Obama delivered ―ambiguous messages about an orderly transition‖ (Embassy Cairo 2008). More than two weeks into the protests, he issued a statement saying ―the future of Egypt will be determined by the Egyptian people‖ (Obama 2011). While this is certainly an improvement on former president Bush‘s coercive and idealistic rhetoric, it does not provide a clear policy on democracy promotion and its limitations. Inherent in the statement is a message of non-coercion, acknowledgement of the unpredictability of democratization efforts, and an unwillingness to burn bridges with current government authorities. All of these considerations should be stated publicly and result from a clearly defined U.S. policy on democracy promotion that commits to realistic goals and recognizes that other interests like regional security must play a role in immediate decisions without endangering the long-term process of democratization. A. Non-coercion: Separating Immediate Security Concerns from Democracy Promotion Efforts As later sections of this paper will discuss, successful democratization is a long-term process requiring diverse economic and civil society development. While it is possible to destabilize a dictatorial regime through military or economic coercion, removing one undemocratic government does not automatically- or even usually- usher a functioning democracy into power. Therefore coercion is rarely a useful tool in democracy promotion efforts. More frequently, as described earlier in the chapter, democracy promotion ends up being used as a justification for otherwise unpopular coercive actions. Iraq is the most recent and most blatant example of military coercion justified by democracy promotion rhetoric, but understood by most politicians to be a strategic attempt to gain influence in the oil-rich Middle East. Cuba provides an excellent example of economic coercion in the name of democracy. If the sanctions imposed by the U.S. really were an attempt to force a democratic transition, the decades of unperturbed socialism since their implementation would have proven this method a failure. The fact that the embargo remains intact proves other strategic interests are at stake. If the U.S. can refrain from using democracy promotion rhetoric to justify coercive policies, foreign governments and citizens will be less likely to balk at the idea of allowing the U.S. influence in their country. Later sections of this paper will elaborate on strategies for peaceful and non-coercive democracy promotion. This should be a policy that the U.S. is firmly committed to. Not only does it adhere to a basic moral commitment to human rights, peace, and stability, as outlined previously, by showing respect for state sovereignty and international cooperation it will also increase the ability of the U.S. to achieve foreign policy goals through diplomatic channels. Matthew Longo agrees that ―Without question, military power is important, but it is not the only road forward. Nor is it always the best agent for change. The message of democracy-promotion abroad is not well-delivered from the opposite end of a gun‖ (Longo 2010). This is not a call for the U.S. to withdraw its foreign military presence or adopt a pacifist attitude; far from it. It simply urges that democracy promotion rhetoric not be used as a decoration to make military action more palatable. Security rhetoric can be militant, but for the sake of effectiveness in the international arena, democracy promotion rhetoric should be non-coercive. B. Achievable Rhetoric The second point, realistic assessment of progress in democracy promotion efforts, is crucial in order to achieve consistency between rhetoric and action. If the government makes grandiose statements about democracy promotion, as were common under Bush‘s Freedom Agenda, it will be hard pressed to live up to them. Eliminating tyranny entirely is a noble goal, as is supporting all democratic movements worldwide, but the truth is that the U.S. government is in no position to actually do either of those things. It cannot achieve consistency between rhetoric and action if rhetoric is unrealistic. This is not to say that there is no place for lofty or inspiring language. On the contrary, it often plays an important role in motivating populations to organize for democratic change. What is essential is that lofty rhetoric not be confused with actual commitments to act or expected outcomes of an action. For example, instead of claiming a completely free and democratic Middle East to be the goal of a policy like the Freedom Agenda, U.S. politicians could state that all citizens of Middle Eastern states deserve to have their basic rights and freedoms protected by accountable, responsive governments. It is entirely possible to reinforce a commitment to human rights and quality of life for all people without making specific claims about the U.S.‘s own power to reshape the world as it sees fit. C. Realism Allows for Consistency In addition to rhetoric about goals and actions being realistic in scope, it must also be as consistent as possible with actual U.S. interests, policies, and actions. Clearly this is not possible in all areas of foreign policy, particularly security and intelligence, but for democracy promotion it is largely possible and in fact helpful in many ways. Cavatorta and Durac point out that often, ―rather than being interested in democratic reform for its own sake, the US propounds democracy in the hope and expectation that it will deliver outcomes which the US desires.‖ It is important not to confuse democracy promotion for its own sake with democracy promotion used as part of a strategy to make a state less hostile to U.S. interests, be they economic, military, or political. This distinction is important because, as previously stated, democracy promotion is a long-term and contextually sensitive project and is unlikely to succeed as part of a short-term effort to affect specific strategic variables. Thus, if democracy promotion is tied to such projects rhetorically, it will seem to have a low success rate and diminish our credibility. If, however, it is made clear that the U.S. is seeking a strategic outcome, for instance permission to build a military base in a foreign state, and democracy promotion is one of many tools being employed to towards this end, no unrealistic expectations are raised. In this case, the U.S. appears pragmatic rather than blindly optimistic. Being clear and realistic rhetorically about the desired short-term and long-term outcomes of policies will improve the image of the U.S. as an international actor and restore credibility to its democracy promotion efforts. When democracy promotion is indeed the priority of a given project, it will be more successful and contribute to a more admirable and diplomatically effective U.S. when mistakes are recognized, discussed in a cooperative forum, and amended for future projects. Democracy promotion, like any process, will stagnate if unsuccessful models are ignored and allowed to proliferate because of a desire to save face. It is time to stop ―using transitional language to characterize countries that in no way conform to any democratization paradigm‖ and earn back the respect of the democracy promotion community (Carothers 2007, 4). D. Realism Encourages Multilateral Cooperation A further benefit to realistic assessments of progress beyond image repair is the possibility for greater international cooperation on democracy promotion projects. Discussions among democracy promoters about the successes and challenges of particular cases will not only foster a sense of shared goals, but also allow for faster and more effective revisions of unsuccessful tactics. Multilateralism has many benefits that will be more thoroughly discussed later in the paper, but most simply it will make us less vulnerable to accusations of arrogance. Exemplifying the willingness to cooperate and take criticism that we would like to see in other states will only bolster our credibility and effectiveness in the diplomatic arena. VI. Conclusion Improving the image of the U.S. abroad will increase its effectiveness in all aspects of foreign policy. Creating a clear, consistent democracy promotion policy that recognizes the need to compromise between immediate strategic interests and long-term democratization efforts is necessary to eliminate accusations of hubris and hypocrisy so common since the Bush Administration‘s Freedom Agenda. President Obama has made steps in the right direction, but has yet to present a cohesive, transparent democracy promotion policy to the public.