**National Speech & Debate Association**

*Policy Debate – 2014-2015 – Update – 11/9/14*

Resolved: The United States federal government should substantially increase its non-military exploration and/or development of the Earth’s oceans.

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**\*\*\*ICEBREAKERS NEGATIVE – UPDATES\*\*\***

**1NC – OCS Drilling DA (1/4)**

**US icebreakers used to create US waterways opens the door for OCS development --- the last remaining barrier is legal jurisdiction over the OCS that mapping provides**

**Cohen 11** (Ariel Cohen, Senior Research Fellow for Russian and Eurasian Studies at Heritage, PhD, Tufts University, “Russia in the Arctic: Challenges to U.S. Energy and Geopolitics in the High North,” Russia in the Arctic, Stephen J. Blank, Editor, Strategic Studies Institute, Monograph, July 2011, http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1073.pdf)

Driven by escalating demand, the Mineral Management Service in the U.S. Department of Interior started offering oil and gas lease sales for drilling rights in the OCS in the Chukchi and Beaufort Seas in 2008. The Chukchi Sea lease sale in February 2008 was the first OCS lease sale in 17 years.19 International corporations began flocking to the High North. British Petroleum (BP) is developing a drilling project known as Liberty in the OCS. In February 2008, Royal Dutch Shell paid $2.1 billion for 275 lease blocks in the Chukchi Sea Lease Sale 193. At the February 2008 lease sale, Norway’s StatoilHydro and Italy’s ENI were the high bidders on a number of blocks. In total, seven companies participated in the Chukchi Sea lease sale, which spans an area covering 5,354 blocks.20 In October 2009, the Interior Department gave conditional approval to Royal Dutch Shell for exploration under two leases in the Beaufort Sea in Camden Bay, west of Kaktovik.21 This exploration is opposed by environmental groups. In addition, Ken Salazar, Secretary of the Interior, conditionally approved Royal Dutch Shell's plan to drill three “exploratory,” and “information-gathering” oil wells in the Chukchi Sea during the next open season, which will be from July to October 2010. **This could open the door for offshore oil and gas production in a new region of the Arctic.** In a press release, Salazar stated that “a key component of reducing our country’s dependence on foreign oil is the environmentally-responsible exploration and development of America’s renewable and conventional resources.” He continued, “By approving this Exploration Plan, we are taking a cautious but deliberate step toward developing additional information on the Chukchi Sea.”22 These recent conditional approvals prompted Alaska Senator Lisa Murkowski, the ranking Republican on the Senate Energy and Natural Resources Committee, to say: “This is progress [representing] an encouraging sign that Alaska’s oil and natural gas resources can continue to play a major role in America’s energy security.”23 In the future, these and other projects on the Arctic OCS could deliver gas to the lower 48 states via the Trans-Alaska Pipeline and the Canadian Mackenzie Valley Pipeline. These prospects began to look even brighter after a Canadian joint review panel endorsed the Mackenzie Valley pipeline.24 The review panel is a government-appointed seven-member, independent body. There are still numerous obstacles to its realization, however. For example, the pipeline must receive support from indigenous people and other federal agencies. In addition, the pipeline is estimated to cost $16.2 billion, and with natural gas prices low, the project looks less favorable. U.S. CLAIMS IN THE ARCTIC The United States announced its new Arctic Region Policy on January 9, 2009, the 11th hour of the Bush Administration. The document is meant to serve as a strategic roadmap for more specific action plans. The policy states that the U.S. national and homeland security interests in the Arctic are missile defense and early warning; deployment of the sea and air systems for strategic sealift, strategic deterrence, maritime presence, and maritime security operations; ensuring freedom of navigation and airlift; and preventing terrorist attacks.25The document also delineates the U.S. position on international governance, boundary and transportation, economic issues and environment protection, and scientific cooperation. The policy statement urges the U.S. Senate to approve the U.S. accession to the United Nations Convention on the Law of the Sea Treaty (UNCLOS) promptly. The United States currently is not a party to the UNCLOS and therefore is not bound by any procedures and determinations concluded through UNCLOS instruments. Instead, the United States is pursuing its claims “as an independent, sovereign nation,” relying in part on Harry S. Truman’s Presidential Proclamation No. 2667, which declares that **any hydrocarbon** or other **resources discovered beneath the U.S. continental shelf are the property of the U**nited **S**tates.26 The United States can defend its rights and claims through bilateral negotiations and in multilateral venues such as the Arctic Ocean Conference in May 2008, which met in Ilulissat, Greenland. Despite the new U.S. Arctic strategy, some have argued that the United States will not have leverage or a “seat at the table” to pursue or defend its Arctic claims if the United States is not a party to UNCLOS. However, U.S. attendance at the conference in Ilulissat as well U.S. participation in the Arctic Council27 significantly weakened this argument. Even though the United States is not a party to UNCLOS, other Arctic nations “are unable to assert credible claims on U.S. territory in the Arctic or anywhere else in the world” because President Truman already underlined U.S. rights to Arctic resources with his proclamation.28 Yet to protect its rights, the United States needs to know how far its claims stretch into the Arctic Ocean. The new U.S. strategy urges the United States to take “all the actions necessary to establish the outer limit of the continental shelf appertaining to the United States.” 29 The United States requires a modern flotilla of icebreakers to conduct mapping and to establish U.S. claims. Yet, a prominent Arctic expert argued be- fore the U.S. Congress that the new policy does not outline funding allocations for acquisition of the new icebreakers.30 The U.S. Coast Guard currently has only three icebreakers, of which only the Healy (commissioned in 2000) is relatively new. The other two ice- breakers, while heavier than the Healy and thus capable of breaking through thicker ice, are at the end of their design service life after operating for about 30 years. Yet even if the United States begins allocating funds now, it will be 8 to 10 years before a new icebreaker can enter service. Moreover, no money has been allocated to build a new-

# 1NC – OCS Drilling DA (2/4)

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generation heavy ice- breaker.31 A 2008 mapping expedition undertaken by the ice- breaker Healy in the Chukchi Sea focused on surveying an area 400 to 600 miles north of Alaska cost about $1.2 million—a pittance compared to the billions of dollars of Arctic natural resources at stake. The survey indicated that the foot, or lowest part of the Alaskan continental shelf, stretches more than 100 miles beyond what was previously thought, thus expanding the U.S. claim.32 The United States has been mapping the bottom of the Arctic Ocean and the OCS since 2003.33 **Mapping is essential to determining the extent of the U.S. OCS and discovering whether the U**nited **S**tates **has** any **legitimate claims to territory** beyond its 200-nautical- mile exclusive economic zone. According to the U.S. Department of State, the United States had made five Arctic cruises since 2003, and the Obama administration is continuing the multiyear effort to map the Arc- tic seabed.34 The United States and Canada have joined efforts in mapping missions to determine the boundary of each country’s Arctic continental shelves.35 The activities are part of the multiyear, multiagency effort undertaken by the U.S. Extended Continental Shelf Project, led by the Departmentof State, with vice co-chairs from the Department of the Interior and the National Oceanic Atmospheric Administration (NOAA). The joint 2009 continental Shelf Survey mission, which lasted from August 7 to September 16, 2009, marks the second year of such cooperative endeavors.36 More such activities are planned for 2010.37 Mapping is important for resolving any conflicting claims by other Arctic nations. For example, the United States and Canada have likely claimed some of the same parts of the continental shelf.38 Canada and Russia occupy 75 percent of the Arctic Ocean’s coast- line. **They each claim** that the **channels** between their Arctic islands and coasts are their “internal waters,” and that if a foreign vessel needs to pass, it requires authorization. The position of the United States is that the Northern Sea Route and Northwest Passage are “international straits.”39 Mapping data will help to determine whether Russian claims conflict with U.S. and Canadian claims.

**Interest in oil drilling in the OCS is high now --- companies are willing to forego technical barriers --- this makes Arctic oil spills inevitable**

**Rosen and Fouche 13** (Yereth Rosen, Anchorage, Gwladys Fouche, Oslo, Reuters, “Arctic Draws Oil Money with Stability, Shallow Waters,” February 12, 2013, http://uk.reuters.com/article/2013/02/12/us-arctic-oil-idUKBRE91B0UO20130212)

\*\*\*note --- edited for grammar indicated by brackets

(Reuters) - It may not be this year, but Royal Dutch/Shell and other oil companies will be back to drill in northern Alaska's seas, drawn by political stability and shallow waters. Weary of Middle Eastern turbulence, alarmed by Argentina's nationalization of Spanish group Repsol's assets, and shocked by the Islamist siege of an Algerian gas plant, companies are looking to unexploited parts of the Arctic. Drilling in the cold, remote waters is technologically difficult and expensive but dwindling reserves elsewhere have forced oil firms to look deeper offshore, which is also costly. Alaskan seas so shallow a walrus can hunt on the bottom are now looking competitive and the prize is an estimated 13 percent of the world's undiscovered oil and 30 percent of its gas. "A lot of these (oil) companies want to go somewhere with less political risk," said Emily Stromquist of global political risk research and consulting firm Eurasia Group. Exxon Mobil is at the centre of a dispute in Iraq, oil is regularly stolen from Shell's Nigeria pipelines by armed gangs, and BP and Statoil are reviewing operations in Algeria and Libya after a deadly Sahara gas plant siege. The offshore Arctic has no such risks. Border disputes between the eight politically stable Arctic Council are peaceful. Its very isolation offers a security of sorts. "The Arctic is so inhospitable, you are not going to get maritime threats," added Fraser Bomf8ord, an intelligence analyst at security firm AKE Group. "It is not near land where there are lawless areas, like the Gulf of Guinea or the Gulf of Aden." UNTAPPED Nevertheless, storms and daytime temperatures averaging minus 30 degrees centigrade on the northern coast in January make it a challenging place to operate. Shell has suffered a series of setbacks since it bought the Beaufort and Chukchi Sea leases in 2005. In the latest of these, three out of four engines on a brand new tug failed in near hurricane conditions on New Year's Eve 2012, allowing the Kulluk rig to break free from its towline and run aground. The company has yet to decide whether to drill in 2013, and on Monday sent the Kulluk to Asia for repairs. But Chief Executive Peter Voser was adamant last week that Shell, and others, would be back. The Beaufort and Chukchi Seas alone contain some 23 billion barrels of recoverable oil, according to the U.S. Bureau of Ocean Energy Management (BOEM). Leaving aside associated gas - which may be hard to bring to market given the weak outlook for U.S. gas prices - that's twice the contents of Shell's producing oil and gas wells, which are emptying at a rate of 1.2 billion boe a year. Shell first drilled in the Arctic at 150 feet in 1982 when the offshore industry was still proud of reaching the 400 feet depths of the North Sea. It abandoned the area in the late 1990s as oil prices slumped. The deepest offshore wells now start at over 5,000 feet and are twice as costly as established parts of the North Sea and shallow offshore finds on the scale promised by Shell's Arctic licenses are long gone elsewhere. Some 77 billion boe of oil and gas are set to be developed in deepwater zones between now and 2020 at a cost of $650 billion, according to research by Macquarie Equities Research - an indication of industry confidence in profitability. And at $35-$40, an Arctic barrel's cost can be on a par with those deepwater barrels, according to Lars Lindholt, a researcher at Statistics Norway. International Energy Agency (IEA) figures also show Arctic and deepwater costs overlap. PUSHING THE BOUNDARIES However, the Arctic price tag has yet to be tested where Shell is working, and where it has spent $5 billion since 2005 without a barrel to show for it. While onshore Alaskan development and work in milder Norwegian seas has defied the cold and remoteness for decades, Shell's plans push the boundaries much further. Daytime temperatures are colder than a similar latitude in Norway and storms and currents cause ice surges called "ivus" that push and throw car-sized ice blocks inland. One once crushed a dwelling, killing its inhabitants. A 2012 report by the think tank Chatham House analyzed storm tracks dating back to 1950s that suggest climate change - while opening up the seas - may be worsening the Arctic weather, producing more storms like the "Blizzicane" that struck western Alaska in 2011. Melting permafrost is damaging pipelines and coastal infrastructure ashore, and the retreating ice could result in larger icebergs, more coastal erosion, and bigger waves on a more open sea, the report says. Experts say offloading oil to tankers from the Chukchi and Beaufort Seas looks unfeasible, even during the July-to-October season in which Shell wants to work. Shell says it has completed pipeline projects in Russia, Canada and Norway in "similar" conditions, yet no subsea pipeline of the length required has been attempted in the area it targets despite an established onshore industry close by with some modest offshore development. Then there are the kit requirements. While a North Sea platform will typically operate with just three or four supply and support vessels, most Arctic regulations require a back-up rig and as many as a dozen response vessels. Rigs need expensive hydraulic fluids to cope with the temperatures. They also need to be winterized to protect people and pipes, and supplies have to move huge distances. Rigs of all types are in short supply. Support vessels are also hard to come by. Russia's Yamal liquefied-natural-gas (LNG) project[s] in the Kara Sea alone will need up to 16 ice-capable LNG vessels plus several ice breakers. Nevertheless, Chatham House estimates Arctic investments, mostly in offshore oil and gas extraction, could total $100 billion over the next decade. Statoil on Tuesday said it will develop an Arctic field and onshore

# 1NC – OCS Drilling DA (3/4)

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oil hub in Norway at a cost of up to $16.3 billion and recently approved $10 billion for its Aasta Hansteen project. Italy's Eni is meanwhile spending $6.7 billion on Goliat in the Barents Sea north of Norway, and Novatek and Total may put $20 billion into Yamal LNG. Rosneft and ExxonMobil also plan Kara Sea work, and Norway will sell 72 blocks in the Barents Sea this summer. Elsewhere in the north Alaska offshore, ConocoPhillips, Statoil, Eni, Repsol and Total also have Chukchi and/or Beaufort leases and plans to drill in 2014 and 2015. SPILL FEAR An oil spill is everybody's worst fear. "For the past 20-30 years, drilling technology has improved by leaps and bounds but oil spill response remained at fairly basic levels," said Knut Oerbeck-Nilssen of Det Norske Veritas, a firm that certifies oil and shipping equipment. "You will see lots of shovels on the beaches and oil collection on water." Ports are distant, communication patchy, and workers tire fast in the cold and dark. The environment is fragile. "While particular risk events - such as an oil-spill - are not necessarily more likely in the Arctic than in other extreme environments, the potential environmental consequences, difficulty and cost of clean-up may be significantly greater," the Chatham House report said. Shell says it is taking every precaution. Its 2011 response plan for a spill in the Beaufort shows nine support vessels. Alaska's Governor Sean Parnell has spoken out in support of Shell's plans despite the Kulluk grounding. "Many wells have been safely drilled in the Arctic Outer Continental Shelf (OCS)," he said. "We believe it is strongly in the state's and the nation's interest that we continue to responsibly explore the vast hydrocarbons known to be available in the shallow waters of the Arctic OCS." Some locals are less sure. "It might not be wise to conclude that oil operations can be conducted safely in the offshore Arctic just because we have learned, more or less, how to function on land," said Willie Hensley, an Inupiat Eskimo and longtime Alaska Native leader. "It's a big gamble to try to operate with the wind, water and ice. It's like going to the casino. You think your next doggone spin might do it. And so it is out there."

**Arctic oil spills cause extinction**

**WWF 10** (World Wildlife Fund, “Drilling for Oil in the Arctic: Too Soon, Too Risky,” Nuka Research and Planning Group, LLC, December 1, 2010, http://assets.worldwildlife.org/publications/393/files/original/Drilling\_for\_Oil\_in\_the\_Arctic\_Too\_Soon\_Too\_Risky.pdf?1345753131)

These concerns assume new urgency in view of the growing impact of climate change, which is affecting the Arctic more rapidly and more radically than any other part of the planet. Permafrost is thawing and the polar ice cap is shrinking three times faster than experts were predicting just a few years ago. At this pace, the Arctic Ocean is likely to be ice free in summer within 20 years. What is an unmitigated environmental disaster to conservationists, however, is a potential bonanza to the oil industry: an opportunity to finally tap one of the largest remaining reserves of oil and gas in the world. Alaska’s Arctic is for them the final frontier and they have invested heavily in its development. Shell alone has invested roughly $3 billion to purchase leases and prepare for exploratory drilling in the Beaufort and Chukchi seas next year. 3 This report examines the capacity to respond to a spill in the Alaskan Arctic in light of the oil industry’s ambitions to expand drilling there. The first section considers the growing risk of a major Arctic spill and some of its ecosystem impacts. The next section surveys the main methods available to clean up offshore oil spills and the challenges of applying them in the Arctic. In the next two sections, we define the concept of a “response gap,” discuss its implications for drilling in the Arctic, and take a closer look at the logistical and infrastructural challenges that spill responders would face. Section VI takes a critical look at response capacity and contingency planning for an Arctic spill in light of the response gap. Finally, we offer a set of general recommendations to help narrow that gap through stricter safeguards and improved response capacity. Before we delve into the details, however, there is a simple question that merits posing: Why should we care about the Arctic when most of us don’t live there? Planetary Keystone The Arctic and the subarctic regions surrounding it are important for many reasons. One is their enormous biological diversity: a kaleidoscopic array of land and seascapes supporting millions of migrating birds and charismatic species such as polar bears, walruses, narwhals and sea otters. Economics is another: Alaskan fisheries are among the richest in the world. Their $2.2 billion in annual catch fills the frozen food sections and seafood counters of supermarkets across the nation. However, there is another reason why the Arctic is not just important, but among the most important places on the face of the Earth. A keystone species is generally defined as one whose removal from an ecosystem triggers a cascade of changes affecting other species in that ecosystem. The same can be said of the Arctic in relation to the rest of the world. With feedback mechanisms that affect ocean currents and influence climate patterns, the Arctic functions like a global thermostat. Heat balance, ocean circulation patterns and the carbon cycle are all related to its regulatory and carbon storage functions. **Disrupt these functions and we effect** far-reaching changes in **the conditions under which life has existed** on Earth for thousands of years. In the context of climate change, **the Arctic is a keystone ecosystem for the entire planet.**

# 1NC – OCS Drilling DA (4/4)

**Even without spills, drilling would crush Alaskan fisheries --- those are key to global fish stocks**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

Despite the existence of such mitigation mechanisms, accelerated OCS development programs and proposals have raised serious concerns on the part of potentially affected Alaskan interests, particularly among the commercial fishing industry and among state and local governments. Alaska's coast has been called "the show place of the entire earth," 48 and **Alaska's waters include** some of **the richest marine biological zones in the world.**49 Alaskans seek to protect the beauty of their coastal zone and the profitability of their fishing grounds from unplanned OCS development.

**That independently kills billions**

**Normile 02** (Dennis Normile, “Poor to Feel Pinch of Rising Fish Prices,” Science, Vol. 298, No. 5596, pg. 1154, November 8, 2002, http://www.sciencemag.org/content/298/5596/1154.full)

TOKYO— The first major attempt to project global supply and demand for fish has confirmed what many have long suspected: Rising prices are likely to drive fish out of the reach of growing numbers of poor people who rely on the sea for their protein. But, with several fisheries on the verge of collapse, some analysts believe that the study's dire projections—presented last week at the launching of a global research initiative on fisheries science and policy—might in fact be too rosy. The analysis, by agricultural economists in Penang, Malaysia, and in Washington, D.C., models fish supply and demand to 2020. Under the most likely scenario, it says, prices for salmon and other high-value fish would rise 15%, and prices for low-end fish such as milkfish and carp would increase by 6%. Fish meal prices, it estimates, would jump 18% to satisfy rising demand for feed for cultured, carnivorous high-value fish (below). “The consequences [of current trends] could be dire, depending on whether supply gains are feasible,” says Mahfuzuddin Ahmed, a co-author of the study, which was done by the Penang-based WorldFish Center and the Washington, D.C.-based International Food Policy Research Institute. But a continuation of those gains—which have produced a sixfold rise in total fish catch since the 1950s—is doubtful, says his boss, center director Meryl Williams, because three-quarters of the current catch comes from fish stocks that are already overfished, if not depleted. “Those [who study] the population dynamics of fisheries would probably be pessimistic” about supplies, she says. Fish now account for about 7% of the total food supply, according to the center, and are the primary source of protein for roughly one-sixth of the world's population. Yet fish consumption is generally overlooked in food supply models, which focus primarily on cereals and legumes. Scientists hope to correct that oversight with Fish for All, an initiative to develop science-based policy alternatives for world fisheries. Scientists, environmentalists, and industry representatives from 40 countries gathered in Penang last week for a meeting to launch the effort, led by the WorldFish Center, formerly known as the International Center for Living Aquatic Resources. Both the fish center and the policy institute are part of the World Bank-funded Consultative Group on International Agricultural Research.

# 2NC – Link Wall – AT: Icebreakers Solve Regulation (1/2)

**The link takes out the link turn --- companies will influence the government and the US, interested in energy independence, will water down regulations --- every empirical example proves**

**Icebreakers alone are not sufficient --- laundry list of operational obstacles makes coast guard response impossible and overwhelm their ability to “solve”**

**WWF 10** (World Wildlife Fund, “Drilling for Oil in the Arctic: Too Soon, Too Risky,” Nuka Research and Planning Group, LLC, December 1, 2010, http://assets.worldwildlife.org/publications/393/files/original/Drilling\_for\_Oil\_in\_the\_Arctic\_Too\_Soon\_Too\_Risky.pdf?1345753131)

With only one working ice breaker in its arsenal, the Coast Guard would also face an enormous challenge responding to a spill in the Arctic. All of the Coast Guard’s assets are based well below the Arctic Circle and would have to travel vast distances to get there. Moreover, “its surface and air assets are limited by fuel capacity and the distance to fuel sources,” according to a recently released report by the Government Accounting Office. As a result, **cutters and aircraft are able to operate** in the Arctic **only “for** a few days or **a few hours** on scene before returning for fuel,” the report added.36 Given the lack of appropriate infrastructure to support a sustained spill response, the Coast Guard would require a “minimum of 18-24 hours lead time” to assemble supplies and spare parts before it could begin operations in the Arctic, the GAO said. Even assuming such obstacles could be overcome, the challenge of containing a major spill in the Arctic could very well **overwhelm any conceivable response.** The Arctic response gap has yet to be formally quantified, But Table 2 illustrates one aspect of its enormity through a comparison between the resources brought to bear in the Gulf of Mexico within the first 24 hours of the Deepwater disaster and those that would be available, based on known inventories and response capacities, in the Chukchi Sea during the first 24 hours of a major spill.

**Even if they regulate it and prevent spills, it still triggers the terminal impact --- that means their “link turn” doesn’t solve**

**Scientific American 12** (Scientific American, “Coming Soon: Oil Drilling on the Arctic Ocean's Outer Continental Shelf,” September 7 , 2012, http://www.scientificamerican.com/article.cfm?id=oil-drilling-outer-continental-shelf)

Dear EarthTalk: The oil industry is planning what some call a dangerous strategy of drilling for oil on the outer continental shelf in the Arctic Ocean. What’s going on?—Vera Bailey, New Hope, Pa. In November 2011 the Obama administration began lifting the moratorium on off-shore drilling that had been imposed in the wake of the Deepwater Horizon disaster. Interior Secretary Ken Salazar announced a five year plan including 15 leases for oil development on Alaska’s Outer Continental Shelf and in the Gulf of Mexico. For now the East and West coasts of the continental U.S. have been spared from drilling, but environmentalists are particularly worried about opening up the fragile Alaskan Arctic to off-shore rigs. “This five-year program will make available for development more than three-quarters of undiscovered oil and gas resources estimated on the [Outer Continental Shelf], including frontier areas such as the Arctic, where we must proceed cautiously, safely and based on the best science available,” Salazar told reporters. Republicans were incensed that more acreage was not being made available for off-shore drilling, but environmentalists couldn’t believe what they were hearing for different reasons: In June 2011 the U.S. Geological Survey (USGS) had released a 292-page report commissioned by Interior Secretary Salazar “to identify the gaps in scientific or technical knowledge about how drilling in the Beaufort and Chukchi seas north of Alaska would affect the region,” reports Jerry Bellinson in Popular Mechanics. The report, Bellinson says, “details several areas where those gaps exist, including oil-spill cleanup technologies, basic mapping of currents and the effects of underwater noise on sea mammals.” Despite the USGS’s warnings, the Obama administration decided to proceed anyway. “Drilling infrastructure permanently alters ocean floor habitats,” reports Defenders of Wildlife. “Drill rig footprints, undersea pipelines, dredging ship channels, and dumped drill cuttings—the rock material dug out of the oil or gas well—are often contaminated with drilling fluid used to lubricate and regulate the pressure in drilling operations.” The group adds that contaminated sediments are carried long distances by

# 2NC – Link Wall – AT: Icebreakers Solve Regulation (1/2)

**<<<CONTINUED --- NO TEXT DELETED>>>**

currents and can kill important small bottom-dwelling creatures at the bottom of the marine food chain. Defenders also argues that spills, leaks and occasional BP-like catastrophes are unavoidable with off-shore oil drilling, if history is any guide. “Even with safety protocols in place, leaks and spills are inevitable—each year U.S. drilling operations send an average of 880,000 gallons of oil into the ocean.” As for wildlife, off-shore **drilling can have devastating effects even with no spills** or leaks. “Seismic surveys conducted during oil and gas exploration cause temporary or permanent hearing loss, induce behavioral changes, and even physically injure marine mammals such as whales, seals and dolphins,” reports Defenders. “Construction noise from new facilities and pipelines is also likely to interfere with foraging and communication behaviors of birds and mammals. Because they are at the top of the food chain, many marine mammals will be exposed to the dangers of bioaccumulation of organic pollutants and metals.” And off-shore drilling only adds insult to injury as far as Defenders is concerned: “In the face of the climate crisis, the U.S. needs to look for ways to decrease petroleum consumption, not…increase it.”

# 2NC – Link Wall – AT: Icebreakers Solve Overfishing

**Link outweighs their link turn**

**a) Physically obstructs fishing even if it’s regulated**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

Unalaska will probably be a major support base for petroleum industry operations in the St. George Basin. Its port, Dutch Harbor, has limited waterfront land suitable for development as a service base or as a tanker terminal, and **OCS development would compete significantly with the fishing industry for available facilities.'** 30 Dock space, warehouse and supply yards, living quarters, and other services could become scarce and more expensive. 31 This is significant because Dutch Harbor is consistently among the nation's leading seafood processing ports. In 1979, it received 137 million pounds of fish and shellfish, valued at ninety-three million dollars. 32

**b) Destroys fish spawning and habitats --- prevents new fish and future stocks**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

c. Habitat alteration or destruction. The Alaska OCS is nearly pollution-free and historically has experienced minimal human influence. It supports numerous fishery resources that have evolved under specific environmental conditions. The Alaska marine ecosystem is highly complex; it contains intricate food webs that are dependent on physical and chemical factors such as salinity, oxygen content, and temperature. Many **marine species may be unable to cope with sudden habitat changes caused by OCS** oil and gas **activities.** 135 Energy development may alter or destroy offshore habitats as a result of platform placement, disposal of drilling muds and cuttings, 36 pipeline excavation, and construction of causeways to artificial islands. Onshore habitats may be altered or destroyed as a result of channel and harbor dredging, road construction, gravel mining, gravel island construction, improper waste disposal, and water withdrawal from streams for cooling and processing purposes.137 These activities could render the immediate area incapable of supporting fish and shellfish species. 138 Furthermore, they may cause changes in the marine ecosystem that could affect fish migration and behavior. 139 Potential destruction of wetlands habitat is also a major concern. This potential is illustrated by the effects of OCS development along the coast of Louisiana, where an estimated five hundred square miles of valuable wetlands has been lost.140 Wetlands are the most productive ecosystems of the ocean environment. They support much of the life in surrounding coastal waters through a food web based on vascular plant debris. Wetlands also perform a valuable geologic function by stabilizing shorelines. The water quality on which the breeding and spawning of many commercial species of fish depend may also be adversely affected.' 4 ' **The destruction of spawning grounds as a result of OCS development activity is the major habitat alteration concern** in Alaska.'

# 2NC – Uniqueness – AT: Drilling Now

**Link is still unique --- our argument is that there is no legal jurisdiction for large-scale drilling efforts because of competing territorial claims --- icebreaking presence allows mapping which allows dispute resolution and an “oil rush” in the Arctic --- that’s Cohen**

**No Shell drilling now --- it’s all been postponed**

**USARC 12** (US Arctic Research Commission, US Army Corps of Engineers, Cold Regions Research and Engineering Laboratory, “Oil Spills in Arctic Water,” 2012, http://www.arctic.gov/publications/oil\_spills\_2012.pdf)

The third reason is timeliness. Royal Dutch Shell has demonstrated a long-term interest in the outer continental shelf of Alaska, and had planned, in summer 2012, substantial Arctic exploratory drilling operations on two lease holdings in the Beaufort and Chukchi Seas. Because of several challenges, including damage to a spill containment dome (aka “capping stack”) during a testing accident, Shell decided, on September 17, 2012, to postpone deep (beyond 1400 feet) drilling in the Alaskan Arctic for at least a year.

# 2NC – Uniqueness – AT: Other Countries Drilling

**Other countries are part of the UNCLOS treaty --- that provides an international legal check on over-exploitation and unchecked drilling but the plan allows the US to act as a sovereign independent**

**Cohen 11** (Ariel Cohen, Senior Research Fellow for Russian and Eurasian Studies at Heritage, PhD, Tufts University, “Russia in the Arctic: Challenges to U.S. Energy and Geopolitics in the High North,” Russia in the Arctic, Stephen J. Blank, Editor, Strategic Studies Institute, Monograph, July 2011, http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1073.pdf)

The policy statement urges the U.S. Senate to approve the U.S. accession to the United Nations Convention on the Law of the Sea Treaty (UNCLOS) promptly. The United States currently is not a party to the UNCLOS and therefore is not bound by any procedures and determinations concluded through UNCLOS instruments. Instead, the United States is pursuing its claims “as an independent, sovereign nation,” relying in part on Harry S. Truman’s Presidential Proclamation No. 2667, which declares that **any hydrocarbon** or other **resources discovered beneath the U.S. continental shelf are the property of the U**nited **S**tates.26 The United States can defend its rights and claims through bilateral negotiations and in multilateral venues such as the Arctic Ocean Conference in May 2008, which met in Ilulissat, Greenland.

**That generates a unique link --- other countries will follow regulations of UNCLOS which prevents over-exploitation of the OCS --- the reason is because of legal boundaries which the plan abrogates due to mapping**

**Fowler 12** (Deanna Fowler, candidate for Juris Doctor at Chicago-Kent College of Law, Master of Arts in International Affairs from New School University, Bachelor of Arts in History from Georgetown College, “Offshore Oil: A Frontier for International Lawmaking,” Spring 2012, http://www.kentlaw.edu/jicl/articles/spring2012/Fowler\_Note.pdf)

\*\*\*Note --- Canada became signatory to the UN Convention on the Law of the Sea (UNCLOS) in the Fall of 1993 --- http://www.acls-aatc.ca/en/node/39

Prior to UNCLOS, many states had wanted to extend territorial jurisdiction further than the previously-accepted three-mile limit in order to exploit oil, gas and other resources, regulate pollution, and defend national security.30 Under UNCLOS, states can develop and manage natural resources in their Exclusive Economic Zone (“EEZ”), which extends 200 nautical miles from their shore.31 Once a state claims its EEZ, it can build offshore oil platforms for drilling.32 However, **UNCLOS** does not specifically regulate offshore drilling practices. Rather, it **imposes obligations on states to regulate** offshore platforms construction, **offshore drilling,** and clean-ups of related pollution under general principles. Article 192 obliges states to “protect and preserve the marine environment,” regardless of whether pollution from oil spills reaches the shores of other states.33 Article 208 requires coastal states to “adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from . . . installations and structures under their jurisdiction.” 34 It further requires that “[national] laws, regulations and measures . . . be no less effective than international rules, standards and recommended practices and procedures.”35

# 2NC – Oil Spills – AT: Drilling Safe

**Oil drilling isn’t safe --- Rosen and Fouche evidence makes a comparative claim and says in the Arctic, it’s impossible because of the cold and remote waters**

**Even if drilling technology works, it still causes spills --- storms, ice surges, climate change, and bigger waves will cause tons of issues --- independently, the transfer of oil from rigs to tankers is super risky --- all of these factors make accidents inevitable --- that’s also Rosen and Fouche**

# 2NC – Oil Spills – AT: Shell Proves Safety

**Shell statements should be rejected --- their false claims of safety are mired in criminal inexperience and safety violations**

**Donovan 3/3/13** (John Donovan, Royal Dutch Shell PLC, “Shell CEO Peter Voser Should Resign Over Arctic Debate,” http://royaldutchshellplc.com/2013/03/03/shell-ceo-peter-voser-should-resign-over-arctic-debacle/)

Instead of coming clean about the gross incompetence of senior management, Shell has treated the public and its investors like gullible fools, just as it did with the reserves scandal. This is what Shell said about its Arctic plans in May 2010 when it was intending to drill three exploration wells, plans subsequently scuppered by misjudgement, inexperience and criminal ineptitude: “Curtis Smith, external affairs manager for Shell Alaska, said the company plans “to continue mobilizing in hopes of drilling this summer. We would not do so unless we were absolutely confident in our ability to operate safely and responsibly in the Alaska OCS”—the outer continental shelf — “an area in which we have significant experience and an excellent track record.” (LA Times Article ) That claimed track record has been **demolished by subsequent events,** culminating in the US Coast Guard Authorities calling in the US Justice Department to investigate a catalog of **safety** and **environmental violations**.

# 2NC – Oil Spills – AT: Drilling Solves Oil Independence

**Even if drilling is good, it fails ---**

**a) Climate and weather destroys it --- ice surges and bigger waves prevent effective drilling**

**b) Transfer is impossible --- cold temperature and location makes it impossible for efficient access**

**Status quo solves oil dependence and there’s no impact**

**Forbes 2/19/13** (Forbes Magazine, “Peak Oil Will Be Fully Discredited When Peak Government Is Realized,” http://www.forbes.com/sites/robertbradley/2013/02/19/peak-oil-will-be-fully-discredited-when-peak-government-is-realized/)

From offshore oil to previously inaccessible gas deep in the earth, the federal domain is poised for an energy renaissance. The United States could become the **world’s largest producer of oil by 2017,** surpassing Saudi Arabia and Russia, according to the International Energy Agency (IEA). By 2035, the United States will be nearly energy self-sufficient. The prospect of U.S. self-sufficiency overturns a half-century of conventional wisdom. Oil and gas critics have long warned of “peak” supply – the point at which extraction is at its highest possible rate. At this “peak,” the wells will start running dry for good. But this theory is being revealed as nothing more than a myth—and scare tactic by those favoring politically correct, market incorrect energies such as ethanol, wind, and solar. The idea of peak hydrocarbons seemingly found a scientific basis in the 1950s when M. King Hubbard, associate director of the Exploration and Production Research Division at Shell Oil Company, quantitatively mapped the future of oil production. Hubbard’s predictions gained steam when the nation confronted the energy shortages of the 1970s — exactly the time he had projected that domestic oil and natural gas output would peak. Over the next decades, new voices warning of “peak oil” and “peak gas” emerged. Few thought to reject the Hubbard paradigm, even though it relied heavily on neo-Malthusian notions of a world of static technology and a known, fixed supply. But technological advances in the way we find and tap oil and natural gas have propelled estimates of available reserves far beyond anything Hubbard could have imagined.

# 2NC – Oil Spills – AT: Impact Defense

**Arctic spills are unique --- more persistent and greater damage because of the unique location**

**O’Rourke 12** (Ronal O’Rourke, specialist in naval affairs, June 15th, 2012, “Changes in the Arctic: Background and Issues for Congress” http://www.fas.org/sgp/crs/misc/R41153.pdf)

No oil spill is entirely benign. Even a relatively minor spill, depending on the timing and location, can cause significant harm to individual organisms and entire populations. Regarding aquatic spills, marine mammals, birds, bottom-dwelling and intertidal species, and organisms in early developmental stages—eggs or larvae—are especially vulnerable. However, the effects of oil spills can vary greatly. Oil spills can cause impacts over a range of time scales, from only a few days to several years, or even decades in some cases. Conditions in the Arctic may have implications for toxicological effects that are not yet understood. For example, oil spills on permafrost may persist in an ecosystem for relatively long periods of time, potentially harming plant life through their root systems. Moreover, little is known about the effects of oil spills on species that are unique to the Arctic, particularly, species’ abilities to thrive in a cold environment and the effect temperature has on toxicity.94 **The effects of oil spills in high latitude, cold ocean environments may last longer and cause greater damage than expected.** Some recent studies have found that oil spills in lower latitudes have persisted for longer than initially expected, thus raising the concern that the persistence of oil in the Arctic may be understated. In terms of wildlife, population recovery may take longer in the Arctic because many of the species have longer life spans and reproduce at a slower rate.

# 2NC – Drilling Bad – Fish Conflict/China War Impact (1/2)

**US OCS development causes international conflict over fishing reductions**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

The economic and social impacts of OCS oil and gas development for Alaska's fishermen and coastal communities are potentially severe because Alaska's commercial fishing industry is dependent upon a few high-valued species. For example, salmon and crab accounted for sixty-eight percent of the volume and ninety percent of the value of the 1981 commercial landings.88 Reduction of either of these populations would affect the entire commercial fishing industry in Alaska. Moreover, conflicts between oil development and fishing will not be limited to domestic fisheries. **International conflict may arise if** foreign **fishing is adversely affected.**

**Specifically, forces Chinese aggression and war --- that escalates**

**Kane 01** (Thomas Kane, Ph.D. Security Studies, University of Hull, and Lawrence Serewicz, “China’s Hunger,” Parameters, Autumn 2001, http://carlisle-www.army.mil/usawc/Parameters/01autumn/Kane.htm)

China's food requirements give Beijing yet another reason to be emphatic about asserting its claims to the South China Sea. Although this body of water's value as a source of oil remains in question, there is no doubt about its value as a source of fish. The Chinese people's growing appetite for meat makes seafood doubly valuable. Currently all the countries of the region fish in these waters, but **as stocks diminish,** Beijing may be less willing to share. The idea that **China might go to war over fisheries** would seem less plausible if it were not for the fact that senior Chinese officials occasionally allude to it. Liu Huaqing, China's highest-ranking military officer, writes that "the strategic importance of the oceans has increased day by day," mainly because "exploitation of the ocean has turned into an important condition for coastal countries in developing their economy and overall strength of national power."[38] Moreover, one must remember that in the North Atlantic, British and European fishing fleets engaged in confrontations which, if the context had not been among European allies, might have led to a more serious conflict. In the South China Sea the dispute-resolution systems are not as far advanced as those in the North Atlantic. Writing in 1998, three Chinese naval officers asserted that ocean resources make command of the sea more vital in the 21st century than ever before.[39] In 1994, Lieutenant Colonel Cui Yu Chen of the Chengdu military "research office" published a book called New Scramble for Soft Frontiers, which notes that as China's need for agricultural land and oil increases, China must reclaim "sovereignty and sovereign interest in the oceans."[40] Fish are only one of the resources that these authors hope to exploit. As Cui Yu Chen observed, China needs ocean territory to supplement its agricultural land, indicating that the Chinese are clearly aware of the importance of the fisheries. Whatever agricultural policy China adopts, and whatever measures it takes to secure fish from the South China Sea, it will almost certainly have to increase food imports. Importing food will confront Beijing with many of the same domestic and foreign policy problems as importing oil. The fact that even the poorest nations must treat food as an indispensable commodity raises further international issues. If a country with China's population dramatically increases its reliance on imported food, the price of grain on the world markets is likely to rise.[41] This may have grim consequences for areas that already have difficulty meeting their food requirements, such as sub-Saharan Africa.[42] A second consequence is that China's needs may also trigger outright wars over resources. The disputes over territorial boundaries within the South China Sea reflect not only political issues of sovereignty, but the concern for the natural resources within those boundaries. In this manner, the PRC's search for oil in the South China Sea brings Beijing into conflict with its neighbors. If China attempts to seize these waters by force, it will unsettle world markets yet further. A war in the South China Sea could also compel outside powers to intervene, if only to uphold the principles of international conduct outlined in the United Nations Charter. If, for whatever reason, the intervening powers failed to win a clear-cut victory, both they and their principles would lose a dangerous amount of influence throughout the world.

# 2NC – Drilling Bad – Fish Conflict/China War Impact (2/2)

**Extinction**

**Cheong 2k** – East Asia Correspondent (Ching Cheong, The Straits Times, “No one gains in war over Taiwan,” 6-25-2000, Lexis-Nexis Universe)

THE DOOMSDAY SCENARIO THE high-intensity scenario postulates a cross-strait war escalating into a full-scale war between the US and China. If Washington were to conclude that splitting China would better serve its national interests, then a full-scale war becomes unavoidable. Conflict on such a scale would embroil other countries far and near and -horror of horrors -raise the possibility of a nuclear war. Beijing has already told the US and Japan privately that it considers any country providing bases and logistics support to any US forces attacking China as belligerent parties open to its retaliation. In the region, this means South Korea, Japan, the Philippines and, to a lesser extent, Singapore. If China were to retaliate, east Asia will be set on fire. And the conflagration may not end there as opportunistic powers elsewhere may try to overturn the existing world order. With the US distracted, Russia may seek to redefine Europe's political landscape. The balance of power in the Middle East may be similarly upset by the likes of Iraq. In south Asia, hostilities between India and Pakistan, each armed with its own nuclear arsenal, could enter a new and dangerous phase. Will a full-scale Sino-US war lead to a nuclear war? According to General Matthew Ridgeway, commander of the US Eighth Army which fought against the Chinese in the Korean War, the US had at the time thought of using nuclear weapons against China to save the US from military defeat. In his book The Korean War, a personal account of the military and political aspects of the conflict and its implications on future US foreign policy, Gen Ridgeway said that US was confronted with two choices in Korea -truce or a broadened war, which could have led to the use of nuclear weapons. If the US had to resort to nuclear weaponry to defeat China long before the latter acquired a similar capability, there is little hope of winning a war against China 50 years later, short of using nuclear weapons. The US estimates that China possesses about 20 nuclear warheads that can destroy major American cities. Beijing also seems prepared to go for the nuclear option. A Chinese military officer disclosed recently that Beijing was considering a review of its "non first use" principle regarding nuclear weapons. Major-General Pan Zhangqiang, president of the military-funded Institute for Strategic Studies, told a gathering at the Woodrow Wilson International Centre for Scholars in Washington that although the government still abided by that principle, there were strong pressures from the military to drop it. He said military leaders considered the use of nuclear weapons mandatory if the country risked dismemberment as a result of foreign intervention. Gen Ridgeway said that should that come to pass, **we would see the destruction of civilisation.** There would be no victors in such a war. While the prospect of a nuclear Armaggedon over Taiwan might seem inconceivable, it cannot be ruled out entirely, for China puts sovereignty above everything else.

# 2NC – Drilling Bad – Natives Impact (1/2)

**US OCS development forces construction of new port facilities --- it destroys native Aleutian lifestyle**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

Unalaska will probably be a major support base for petroleum industry operations in the St. George Basin. Its port, Dutch Harbor, has limited waterfront land suitable for development as a service base or as a tanker terminal, and OCS development would compete significantly with the fishing industry for available facilities.' 30 Dock space, warehouse and supply yards, living quarters, and other services could become scarce and more expensive. 31 This is significant because Dutch Harbor is consistently among the nation's leading seafood processing ports. In 1979, it received 137 million pounds of fish and shellfish, valued at ninety-three million dollars. 32 New port facilities will be required to support offshore exploratory operations in the Bering Sea, and in the event of commercial discoveries, to provide crude oil and liquified natural gas plant sites. In many areas of the Bering Sea, however, the expansion of facilities to accommodate ships necessary for OCS oil development is physically impossible. The coastline of Alaska from Norton Sound to Bristol Bay has few ports, and "those can only accommodate fishing boats, shallow draft vessels and barges. For the most part this coastline has severe hydrographic limitations and is impacted by seasonal river ice."' 33 Even Dutch Harbor has serious disadvantages as a support base for Bering Sea petroleum development activities. First, its remoteness from coastal cities as well as projected OCS development fields will make offshore resupply very costly. Second, although it is the only major ice-free deep-draft harbor in western Alaska, it is too shallow to accommodate oil tankers. Where suitable locations may be found, the construction of new port facilities would be disruptive to the villages within the Bering Sea region, particularly those of the Aleutian Islands. The extremely limited infrastructure of western Alaska fishing villages is likely to be substantially affected if commercial quantities of oil are discovered. **The construction of port facilities** in isolated fishing villages **would result in a change in lifestyle opposed by many residents.**

# 2NC – Drilling Bad – Natives Impact (2/2)

**Cultural protection is a fundamental right --- burying the plan’s impact on indigenous peoples in a mass of utilitarian impact calculus makes violence inevitable**

**Zinn 80** (Howard Zinn, American historian and political scientist, Peace Abbey Courage of Conscience Award, “Chapter 1: Columbus, The Indians, and Human Progress,” originally published in 1980, History is a Weapon, http://www.historyisaweapon.com/defcon1/zinncol1.html)

But he does something else-he mentions the truth quickly and goes on to other things more important to him. Outright lying or quiet omission takes the risk of discovery which, when made, might arouse the reader to rebel against the writer. **To state the facts,** however, **and then** to **bury them in a mass of other information is to say** to the reader with a certain infectious calm: **yes, mass murder** took place, but it's not that important-it **should weigh very little** in our final judgments; it should affect very little what we do in the world. It is not that the historian can avoid emphasis of some facts and not of others. This is as natural to him as to the mapmaker, who, in order to produce a usable drawing for practical purposes, must first flatten and distort the shape of the earth, then choose out of the bewildering mass of geographic information those things needed for the purpose of this or that particular map. My argument cannot be against selection, simplification, emphasis, which are inevitable for both cartographers and historians. But the map-maker's distortion is a technical necessity for a common purpose shared by all people who need maps. The historian's distortion is more than technical, it is ideological; it is released into a world of contending interests, where any chosen emphasis supports (whether the historian means to or not) some kind of interest, whether economic or political or racial or national or sexual. Furthermore, this ideological interest is not openly expressed in the way a mapmaker's technical interest is obvious ("This is a Mercator projection for long-range navigation-for short-range, you'd better use a different projection"). No, it is presented as if all readers of history had a common interest which historians serve to the best of their ability. This is not intentional deception; the historian has been trained in a society in which education and knowledge are put forward as technical problems of excellence and not as tools for contending social classes, races, nations. To emphasize the heroism of Columbus and his successors as navigators and discoverers, and to de-emphasize their genocide, is not a technical necessity but an ideological choice. **It serves**- unwittingly-**to justify** what was done. My point is not that we must, in telling history, accuse, judge, condemn Columbus in absentia. It is too late for that; it would be a useless scholarly exercise in morality. But the easy **acceptance of atrocities as a** deplorable but **necessary price** to pay **for progress** (Hiroshima and Vietnam, to save Western civilization; Kronstadt and Hungary, to save socialism; nuclear proliferation, to save us all)-that is still with us. One reason these atrocities are still with us is that we have learned to bury them in a mass of other facts, as radioactive wastes are buried in containers in the earth. We have learned to give them exactly the same proportion of attention that teachers and writers often give them in the most respectable of classrooms and textbooks. This learned sense of moral proportion, coming from the apparent objectivity of the scholar, is accepted more easily than when it comes from politicians at press conferences. It is therefore more deadly. The treatment of heroes (Columbus) and their victims (the Arawaks)-the quiet acceptance of conquest and murder in the name of progress-is only one aspect of a certain approach to history, in which the past is told from the point of view of governments, conquerors, diplomats, leaders. It is as if they, like Columbus, deserve universal acceptance, as if they-the Founding Fathers, Jackson, Lincoln, Wilson, Roosevelt, Kennedy, the leading members of Congress, the famous Justices of the Supreme Court-represent the nation as a whole. The pretense is that there really is such a thing as "the United States," subject to occasional conflicts and quarrels, but fundamentally a community of people with common interests. It is as if there really is a "national interest" represented in the Constitution, in territorial expansion, in the laws passed by Congress, the decisions of the courts, the development of capitalism, the culture of education and the mass media.

# 2NC – Drilling Bad – Wetlands Impact

**Destroys critical species even without spills --- they independently destroy wetlands**

**Jones 84** (G. Kevin Jones, Office of the Solicitor, United States Department of the Interior, B.S., Brigham Young University,, J.D., J. Reuben Clark Law School, Brigham Young University, L.L.M., University of Utah College of Law, “Major Issues in Developing Alaska’s Outer Continental Shelf Oil and Gas Resources,” Alaska Law Review, Vol. 1, No. 209, 1984, http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=1188&context=alr)

c. Habitat alteration or destruction. The Alaska OCS is nearly pollution-free and historically has experienced minimal human influence. It supports numerous fishery resources that have evolved under specific environmental conditions. The Alaska marine ecosystem is highly complex; it contains intricate food webs that are dependent on physical and chemical factors such as salinity, oxygen content, and temperature. Many **marine species may be unable to cope with sudden habitat changes caused by OCS** oil and gas **activities.** 135 Energy development may alter or destroy offshore habitats as a result of platform placement, disposal of drilling muds and cuttings, 36 pipeline excavation, and construction of causeways to artificial islands. Onshore habitats may be altered or destroyed as a result of channel and harbor dredging, road construction, gravel mining, gravel island construction, improper waste disposal, and water withdrawal from streams for cooling and processing purposes.137 These activities could render the immediate area incapable of supporting fish and shellfish species. 138 Furthermore, they may cause changes in the marine ecosystem that could affect fish migration and behavior. 139 Potential **destruction of wetlands** habitat **is also a major concern.** This potential is illustrated by the effects of OCS development along the coast of Louisiana, where an estimated five hundred square miles of valuable wetlands has been lost.140 Wetlands are the most productive ecosystems of the ocean environment. They support much of the life in surrounding coastal waters through a food web based on vascular plant debris. Wetlands also perform a valuable geologic function by stabilizing shorelines.

**Wetland destruction leads to extinction --- each one matters for the overall hydrological cycle**

**RCW 96** (The Ramsar Convention on Wetlands, November 15, 1996, “Wetlands and biological diversity,” online: http://www.ramsar.org/about/about\_biodiversity.htm)

Wetlands - including (inter alia) rivers, lakes, marshes, estuaries, lagoons, mangroves, seagrass beds, and peatlands - are among the most precious natural resources on Earth. These highly varied ecosystems are natural areas where water accumulates for at least part of the year. Driven by the hydrological cycle, water is continuously being recycled through the land, sea and atmosphere in a process which ensures the maintenance of ecological functions. Wetlands support high levels of biological diversity: they are, after tropical rainforests, amongst the richest ecosystems on this planet, providing essential life support for much of humanity, as well as for other species. Coastal wetlands, which may include estuaries, seagrass beds and mangroves, are among the most productive, while coral reefs contain some of the highest known levels of biodiversity (nearly one-third of all known fish species live on coral reefs). Other wetlands also offer sanctuary to a wide variety of plants, invertebrates, fishes, amphibians, reptiles and mammals, as well as to millions of both migratory and sedentary waterbirds. Wetlands are not only sites of exceptional biodiversity, they are also of enormous social and economic value, in both traditional and contemporary societies. Since ancient times, people have lived along water courses, benefiting from the wide range of goods and services available from wetlands. The development of many of the great civilisations was largely based on their access to, and management of, wetland resources. **Wetlands are an integral part of the hydrological cycle, playing a key role in** the provision and maintenance of **water quality and quantity as the basis of all life on earth.** They are often interconnected with other wetlands, and they frequently constitute rich and diverse transition zones between aquatic ecosystems and terrestrial ecosystems such as forests and grasslands.

# 1NC – Canada Sovereignty DA (1/4)

**Investment in US icebreaking capabilities breaks Canada’s claim to the Northwest Passage**

**Cohen 08** (Ariel Cohen, Senior Research Fellow for Russian and Eurasian Studies at Heritage, PhD at Tufts University, “The New Cold War: Reviving the U.S. Presence in the Arctic”, http://s3.amazonaws.com/thf\_media/2008/pdf/bg2202.pdf)

Yet to protect its rights, the U.S. needs to know how far its claims stretch into the Arctic Ocean. The U.S. has been mapping the bottom of the Arctic Ocean and the Outer Continental Shelf since 2003.27 Mapping is essential to determining the extent of the U.S. OCS and determining whether the U.S. has any legitimate claims to territory beyond its 200-nautical-mile exclusive economic zone. Despite ongoing U.S. efforts to chart the bottom of the Arctic Ocean, mapping efforts have been inadequate. According to a National Research Council report in 2007, the U.S. continental shelf and the Northwest Passage have not yet been entirely mapped.28 **Mapping is** also **important for disputing any conflicting claims by other Arctic nations.** For example, the U.S. and Canada have likely claimed some of the same parts of the continental shelf.29 Mapping data will also help to determine whether Russian claims conflict with U.S. and Canadian claims. The expedition undertaken by the icebreaker USCGC Healy in the Chukchi Sea focused on surveying an area 400 to 600 miles north of Alaska and cost about $1.2 million—a pittance compared to the billions of dollars of Arctic natural resources that are at stake. The survey indicated that the foot or lowest part of the Alaskan continental shelf stretches more than 100 miles beyond what was previously thought, thus expanding the U.S. claim.30 **The U.S. requires a modern flotilla of icebreakers to conduct mapping and** to **sustain U.S. claims.** The U.S. currently has only three icebreakers that belong to the Coast Guard, of which only the Healy (commissioned in 2000) is relatively new. The other two icebreakers, while heavier than the Healy and thus capable of breaking through thicker ice, are at the end of their designed service life after operating for about 30 years. Yet even if the U.S. begins now, it will be eight to 10 years before a new icebreaker can enter service, and no money has been allocated to build a new-generation heavy icebreaker.

**US claims to the Passage guarantee a domestic nuclear attack --- Canadian operational ownership and control is key**

**Davis 08** (Jeff Davis, writer and contributor, the Embassy, Canadian foreign policy magazine, “Securing the Northwest Passage,” The Embassy, November 6, 2008, http://www.embassymag.ca/page/view/securing\_northwest\_passage-11-6-2008)

However, some influential Americans see the possibility that America's position on the ownership of the Northwest Passage could change. Among them is former American ambassador to Canada Paul Cellucci, who addressed the issue at the annual conference of the Canadian Defence and Foreign Affairs Institute, held in Ottawa last week. Mr. Cellucci said he thinks the United States should recognize Canada's ownership of arctic waters so Canada can effectively interdict ships in the Northwest Passage, something it could not easily do in an international strait. "I've concluded it's in the security interest of the United States of America to recognize the Canadians' claims to these waters," he said. "If in fact this becomes a major shipping lane, and if in fact some terrorist organizations wants to get a weapon of mass destruction into North America, they could well try to do it by ship. "I personally want the Canadians to be able to stop those ships in Canadian waters to make sure they can protect the security of the people of Canada and the U.S.," Mr. Cellucci continued. This opinion was echoed in the Senate report: **"If the Passage were considered an international strait (as the U**nited **S**tates **claims** it to be)...**the Passage could** potentially **be used for** illegal activities, such as **drug smuggling, illegal immigration, trafficking or even imports of w**eapons of **m**ass **d**estruction. "Put simply, U.S. security interests would be better protected if the United States recognized Canada's sovereignty and control."

# 1NC – Canada Sovereignty DA (2/4)

**Nuclear terrorism is feasible and likely --- domestic strike triggers global nuclear war**

**Speice 06** (Patrick, JD Candidate, 47 Wm and Mary L. Rev. 1427, February, Lexis)

Terrorist groups could acquire a nuclear weapon by a number of methods, including "steal[ing] one intact from the stockpile of a country possessing such weapons, or ... [being] sold or given one by [\*1438] such a country, or [buying or stealing] one from another subnational group that had obtained it in one of these ways." 40 Equally threatening, however, is the risk that terrorists will steal or purchase fissile material and construct a nuclear device on their own. Very little material is necessary to construct a highly destructive nuclear weapon. 41 Although nuclear devices are extraordinarily complex, the technical barriers to constructing a workable weapon are not significant. 42 Moreover, the sheer number of methods that could be used to deliver a nuclear device into the United States makes it incredibly likely that terrorists could successfully employ a nuclear weapon once it was built. 43 Accordingly, supply-side controls that are aimed at preventing terrorists from acquiring nuclear material in the first place are the most effective means of countering the risk of nuclear terrorism. 44 Moreover, the end of the Cold War eliminated the rationale for maintaining a large military-industrial complex in Russia, and the nuclear cities were closed. 45 This resulted in at least 35,000 nuclear scientists becoming unemployed in an economy that was collapsing. 46 Although the economy has stabilized somewhat, there [\*1439] are still at least 20,000 former scientists who are unemployed or underpaid and who are too young to retire, 47 raising the chilling prospect that these scientists will be tempted to sell their nuclear knowledge, or steal nuclear material to sell, to states or terrorist organizations with nuclear ambitions. 48 The potential consequences of the unchecked spread of nuclear knowledge and material to terrorist groups that seek to cause mass destruction in the United States are truly horrifying. A terrorist attack with a nuclear weapon would be devastating in terms of immediate human and economic losses. n49 Moreover, there would be immense political pressure in the United States to discover the perpetrators and retaliate with nuclear weapons, massively increasing the number of casualties and potentially **triggering a full-scale nuclear conflict.** n50 In addition to the threat posed by terrorists, leakage of nuclear knowledge and material from Russia will reduce the barriers that states with nuclear ambitions face and may trigger widespread proliferation of nuclear weapons. n51 This proliferation will increase the risk of nuclear attacks against the United States [\*1440] or its allies by hostile states, n52 as well as increase the likelihood that regional conflicts will draw in the United States and escalate to the use of nuclear weapons.

# 1NC – Canada Sovereignty DA (3/4)

**Externally, the plan’s icebreaking neglect of Canada and intrusion by the US collapses relations --- it uniquely spills over**

**Young No Date** (Oran R. Young, Canada Artic Resources Committee Senior Fellow of the Center for Northern Studies, “Canada and the United States in the Arctic: Testing the ‘Special Relationship,’” Canadian Arctic Resources Committee, http://www.carc.org/pubs/v15no2/2.htm)

The Arctic today is recognized as a strategic arena of vital significance, a fact that poses a mounting challenge to the "special relationship" that has characterized interaction between Canada and the United States during this century. The United States is expanding its military presence throughout the arctic region and exerting growing pressure on Canada to co-operate with its plans for the defence of North America against ballistic missiles fired from submarines sheltered in arctic waters and cruise missiles launched from manned bombers operating in arctic airspace. In contrast, Canada is poised between the superpowers in a region of rising strategic importance to both the Soviet Union and the United States. Canada must also contend with the pervasive, though implicit, threat to its effective occupancy of the Far North arising from the burgeoning U.S. presence in the Arctic. **Confrontations between the two** countries **over arctic issues could** well become severe enough to **cause** a **considerable erosion of the "special relationship"**. In fact, developments along these lines are almost certain to occur **unless the U**nited **S**tates **abandons its** traditional **attitude of benign neglect toward arctic politics and the sensibilities of** its northern allies, and unless **Canada** transcends its propensity to respond in a highly emotional fashion to specific arctic incidents, like the passage of the U.S. ice-breaker Polar Sea through the Northwest Passage in August 1985. At the same time, the emerging arctic agenda also offers significant opportunities for constructive dialogue between Canada and the United States if the leaders of the two countries recognize the importance of arctic issues and move briskly to agree on imaginative procedures to handle their arctic concerns.

**Relations are key to Afghanistan stability**

**Fergusson 12** (Ian F. Fergusson, Specialist in International Trade and Finance, Carl Ek, Specialist in International Relations, “Canada-U.S. Relations,” Congressional Research Service, April 5, 2012, http://www.fas.org/sgp/crs/row/96-397.pdf)

Relations between the United States and Canada, though generally close, have undergone changes in tenor over the past three decades. During the 1980s, the two countries generally enjoyed very good relations. The early 1990s brought new governments to Ottawa and Washington, and although Canada’s Liberal Party emphasized its determination to act independently of the United States when necessary, relations continued to be cordial. In early 2006, a minority Conservative government assumed power in Ottawa. It was regarded as being more philosophically in tune with the George W. Bush Administration than the Liberals had been; some observers believe that this compatibility helped facilitate bilateral cooperation. This cooperation has continued with the election of President Obama in November 2008, despite the differences in the two leaders’ governing philosophies. The two North American countries continue to cooperate widely in international security and political issues, both bilaterally and through numerous international organizations. Canada’s foreign and defense policies are usually in harmony with those of the United States. Areas of contention have been relatively few, but sometimes sharp, as was the case in policy toward Iraq. Since September 11, the United States and Canada have cooperated extensively on efforts to strengthen border security and to combat terrorism, particularly in Afghanistan. Both countries were also active participants in the U.N.-sanctioned NATO mission in Libya.

# 1NC – Canada Sovereignty DA (4/4)

**Nuclear war**

**Morgan 07** — former member of the British Labour Party Executive Committee, political writer including “The Mind of a Terrorist Fundamentalist – the Cult of Al Qaeda” (Stephen J., “Better Another Taliban Afghanistan, than a Taliban NUCLEAR Pakistan”, 3/4/2007, http://ezinearticles.com/?Better-Another-Taliban-Afghanistan,-than-a-Taliban-NUCLEAR-Pakistan?&id=475808)

However events may prove him sorely wrong. Indeed, his policy could completely backfire upon him. As the war intensifies, he has no guarantees that the current autonomy may yet burgeon into a separatist movement. Appetite comes with eating, as they say. Moreover, should the Taliban fail to re-conquer al of Afghanistan, as looks likely, but captures at least half of the country, then a Taliban Pashtun caliphate could be established which would act as a magnet to separatist Pashtuns in Pakistan. Then, the likely break up of Afghanistan along ethnic lines, could, indeed, lead the way to the break up of Pakistan, as well. Strong centrifugal forces have always bedevilled the stability and unity of Pakistan, and, in the context of the new world situation, the country could be faced with civil wars and popular fundamentalist uprisings, probably including a military-fundamentalist coup d’état. Fundamentalism is deeply rooted in Pakistan society. The fact that in the year following 9/11, the most popular name given to male children born that year was “Osama” (not a Pakistani name) is a small indication of the mood. Given the weakening base of the traditional, secular opposition parties, conditions would be ripe for a coup d’état by the fundamentalist wing of the Army and ISI, leaning on the radicalised masses to take power. Some form of radical, military Islamic regime, where legal powers would shift to Islamic courts and forms of shira law would be likely. Although, even then, this might not take place outside of a protracted crisis of upheaval and civil war conditions, mixing fundamentalist movements with nationalist uprisings and sectarian violence between the Sunni and minority Shia populations. The nightmare that is now Iraq would take on gothic proportions across the continent. The prophesy of an arc of civil war over Lebanon, Palestine and Iraq would spread to south Asia, stretching from Pakistan to Palestine, through Afghanistan into Iraq and up to the Mediterranean coast. Undoubtedly, this would also spill over into India both with regards to the Muslim community and Kashmir. Border clashes, terrorist attacks, sectarian pogroms and insurgency would break out. A new war, and possibly nuclear war, between Pakistan and India could not be ruled out. Atomic Al Qaeda Should Pakistan break down completely, a Taliban-style government with strong Al Qaeda influence is a real possibility. Such deep chaos would, of course, open a “Pandora's box” for the region and the world. With the possibility of unstable clerical and military fundamentalist elements being in control of the Pakistan nuclear arsenal, not only their use against India, but Israel becomes a possibility, as well as the acquisition of nuclear and other deadly weapons secrets by Al Qaeda. Invading Pakistan would not be an option for America. Therefore a **nuclear war would** now again **become a** real **strategic possibility**. This would bring a shift in the tectonic plates of global relations. It could usher in a new Cold War with China and Russia pitted against the US.

# 2NC – Link Wall – Territorial Disputes

**US icebreaker fleet will be used for territorial mapping --- this is the key internal link into determining rights to the Northwest Passage and defend against Canadian claims**

**Cohen 08** (Ariel Cohen, Senior Research Fellow for Russian and Eurasian Studies at Heritage, PhD at Tufts University, “The New Cold War: Reviving the U.S. Presence in the Arctic”, http://s3.amazonaws.com/thf\_media/2008/pdf/bg2202.pdf)

Reestablishing the U.S. Arctic Presence. The United States should not rely on the findings of other nations that are mapping the Arctic floor. **Timely mapping results are necessary to defending and asserting U.S. rights in** bilateral and **multilateral fora.** The U.S. needs to increase its efforts to map the floor of the Arctic Ocean to determine the extent of the U.S. Outer Continental Shelf (OCS) and **ascertain** the extent of legitimate **U.S. claims to territory** beyond its 200-nautical-mile exclusive economic zone. **To accomplish this, the U.S. needs to upgrade its icebreaker fleet.** The U.S. should also continue to cooperate and advance its interests with other Arctic nations through venues such as the recent Arctic Ocean Conference in Ilulissat, Greenland. Specifically, the United States should: • Create an interagency task force on the Arctic bringing together the Departments of Defense, State, Interior, and Energy to develop the overall U.S. policy toward the region. The U.S. should use diplomatic, military, and economic means to maintain its sovereignty in the Arctic, including establishing a Joint Task Force–Arctic Region Command, headed by a Coast Guard flag officer. The U.S. should also establish an Arctic Coast Guard Forum modeled after the successful Northern Pacific Coast Guard Forum. • Accelerate the acquisition of icebreakers to support the timely mapping of the Arctic OCS and the Arctic in general to advance U.S. national interests. The U.S. needs to swiftly map U.S. claims on the OCS and areas adjacent to Alaska to preserve its sovereign territorial rights. Timely mapping will be important as the other Arctic nations submit their claims within the 10-year window. The U.S. should not rely on mapping from other countries to advance its claims or to defend against the claims of other countries.

**Disputes coming now --- only the plan resolves it in favor of international access**

**Cohen 08** (Ariel Cohen, Senior Research Fellow for Russian and Eurasian Studies at Heritage, PhD at Tufts University, “The New Cold War: Reviving the U.S. Presence in the Arctic”, http://s3.amazonaws.com/thf\_media/2008/pdf/bg2202.pdf)

Use of the Northwest Passage is a contentious issue between the United States and Canada. The U.S. argues that “it is a strait for international navigation” because it regards the Northwest Passage as international waters. Canada, on the other hand, claims that the straits of the sea route are “inland seas” falling under Canadian sovereignty.57 Resolving this dispute amicably is essential for both countries to benefit from further economic and security cooperation.

# 2NC – Link Wall – US Claims = International Strait

**US claims lead to international strait --- it’s the basis in which we oppose Canada’s claims**

**McEvoy 12** (Joshua McEvoy, contributor, Geopolitical Monitor, “Reluctant Allies: Canada, the US, and the Northwest Passage,” Geopolitical Monitor, September 10, 2012, http://www.geopoliticalmonitor.com/reluctant-allies-canada-the-us-and-the-northwest-passage-4725/)

**US opposition to Canada’s** NWP **claim is predicated on the** US **Navy’s concern regarding the possibility for** analogous **assertions of propriety** on behalf of less friendly states over waterways currently deemed “international straits.” The designation of a waterway as an international strait severely impedes the adjacent country’s right to regulate and/or deny transit to vessels of all flags, including commercial and military. The designation is viewed as a necessity to ensure that no one state has the capacity to severely undermine naval operational capacity or international commerce. But in the case of the NWP the legality of the international strait designation remains ambiguous, and its application does not adequately serve the security interest of Canada or the US.

# 2NC – Link Wall – AT: Plan = Peaceful

**Existing cooperation solves “peaceful” perception --- the plan militarizes the Arctic**

**Hayes 09** (Captain William P. Hayes, “The Arctic: One Region, One Commander,” Naval War College, Department of the Navy, October 23, 2009, http://www.dtic.mil/dtic/tr/fulltext/u2/a513989.pdf)

Consolidating the three GCCs into one GCC does make sense for USAFRICOM and in the Arctic to resolve division of responsibilities and confusion on which GCC is in charge. However, AFRICOM is experiencing difficulties emerging as a new GCC because it has not been able to integrate interagency personnel into its command; outside parties are not clear on its intentions; and DoD has not been able to identify where the command headquarters and forces would be located in Africa. 61 Some have viewed AFRICOM becoming the lead for all US government activities in Africa, “thereby militarizing US foreign policy”. 62 The military plays a vital role in protecting the national interests of the US, but it is just one instrument or element of national power to achieve political ends. The Arctic nations, including the US, are committed to peaceful resolutions of disputes in the Arctic. **A standalone Arctic Command,** with interagency personnel into it, **would possibly militarize US foreign policy and send the wrong signal to the international community.**

# 2NC – Terrorism – Impact Overview

**Terrorism is the biggest impact --- comparative evidence**

**Freilich 10** – a former deputy national security advisor in Israel is a senior fellow at Harvard's Kennedy School and an adjunct professor at NYU. He recently completed a study on the threat of nuclear terrorism to Israel, published by the Begin-Sadat Center. (Chuck, “Armageddon and the Threat of Nuclear Terrorism”, http://www.jewishpolicycenter.org/1745/threat-of-nuclear-terrorism).

President Obama recently convened a global summit on the threat of nuclear terrorism, an issue that he considers to be the greatest danger currently facing the U.S. and the international community. Israeli Defense Minister Ehud Barak similarly believes that the gravest threat is not posed by rogue states, such as Iran, even if it acquires nuclear weapons, but rather "…a nuclear weapon reach[ing] a terrorist group, which will not hesitate to use it immediately. They will send it in a container with a GPS to a leading port in the U.S., Europe, or Israel." Unlike traditional terrorism, nuclear terrorism would pose a potentially catastrophic threat to states across the world. Even a bomb considered to be relatively small would have devastating consequences, with estimates ranging from tens to hundreds of thousands of dead. Although Israel would survive such a strike as a state, the consequences would be devastating – and this scenario is based on the optimistic assumption that terrorists would detonate only one nuclear bomb. Should nuclear terrorists strike the U.S., the consequences while not existential, would nevertheless be extreme. Nuclear terrorism poses a unique threat not only because of the magnitude of the destruction, but because those most likely to perpetrate an attack may be fundamentally nihilistic and therefore undeterrable – prepared to pay any cost in loss of life in pursuit of their objectives. As millennial movements for whom the crippling and even destruction of the U.S. and Israel are sacred missions, a nuclear terrorist attack where even a devastating response is assumed may be a worthy means of ushering in a messianic era.

# 2NC – Terrorism – AT: US Won’t Retaliate

**US will retaliate --- causes rampant nationalism and radicalization**

**Schwartz-Morgan 01** (Nicole Schwartz-Morgan, Assistant Professor of Politics and Economics – Royal Military College of Canada, 10-10, “Wild Globalization and Terrorism,” http://www.wfs.org/mmmorgan.htm)

The terrorist act can reactivate atavistic defense mechanisms which drive us to gather around clan chieftans. **Nationalistic sentiment re-awakens,** setting up an implacable frontier which divides "us" from "them," each group solidifying its cohesion in a rising hate/fear of the other group. (Remember Yugoslavia?) To be sure, the allies are trying for the moment to avoid the language of polarization, insisting that "this is not a war," that it is "not against Islam," "civilians will not be targeted." But the word "war" was pronounced, a word heavy with significance which forces the issue of partisanship. And it must be understood that the sentiment of partisanship, of belonging to the group, is one of the strongest of human emotions. Because the enemy has been named in the media (Islam), the situation has become emotionally volatile. Another spectacular attack, coming on top of an economic recession **could easily radicalize** the latent attitudes of the United States, and also of Europe, where racial prejudices are especially close to the surface and ask no more than a pretext to burst out. This is the Sarajevo syndrome: an isolated act of madness becomes the pretext for a war that is just as mad, made of ancestral rancor, measureless ambitions, and armies in search of a war. We should not be fooled by our expressions of good will and charity toward the innocent victims of this or other distant wars. It is our own comfortable circumstances which permit us these benevolent sentiments. If conditions change so that poverty and famine put the fear of starvation in our guts, the human beast will reappear. And if epidemic becomes a clear and present danger, fear will unleash hatred in the land of the free, flinging missiles indiscriminately toward any supposed havens of the unseen enemy. And on the other side, no matter how profoundly complex and differentiated Islamic nations and tribes may be, they will be forced to behave as one clan by those who see advantage in radicalizing the conflict, whether they be themselves merchants or terrorists.

# 2NC – Terrorism – AT: Mueller Impact Defense (1/2)

**Mueller’s wrong --- every analyst across political lines disagrees --- terrorism is feasible and catastrophic**

**Allison 7** (Graham, Director – Belfer Center for Science and International Affairs, Professor of Government, and Faculty Chair of the Dubai Initiative – Harvard University’s Kennedy School of Government, “Symposium: Apocalypse When?”, The National Interest, November / December, Lexis)

MUELLER IS entitled to his opinion that the threat of nuclear proliferation and nuclear terrorism is "exaggerated" and "overwrought." But analysts of various political persuasions, in and out of government, are **virtually unanimous** in their judgment to the contrary. As the national-security community learned during the Cold War, risk = likelihood x consequences. Thus, even when the likelihood of nuclear Armageddon was small, the consequences were so catastrophic that prudent policymakers felt a categorical imperative to do everything that feasibly could be done to prevent that war. Today, a single nuclear bomb exploding in just one city would change our world. Given such consequences, differences between a 1 percent and a 20 percent likelihood of such an attack are relatively insignificant when considering how we should respond to the threat. Richard Garwin, a designer of the hydrogen bomb who Enrico Fermi once called "the only true genius I had ever met", told Congress in March that he estimated a "20 percent per year probability [of a nuclear explosion-not just a contaminated, dirty bomb-a nuclear explosion] with American cities and European cities included." My Harvard colleague Matthew Bunn has created a model in the Annals of the American Academy of Political and Social Science that estimates the probability of a nuclear terrorist attack over a ten-year period to be 29 percent-identical to the average estimate from a poll of security experts commissioned by Senator Richard Lugar in 2005. My book, Nuclear Terrorism, states my own best judgment that, on the current trend line, the chances of a nuclear terrorist attack in the next decade are greater than 50 percent. Former Secretary of Defense William Perry has expressed his own view that my work may even underestimate the risk. Warren Buffet, the world's most successful investor and legendary odds-maker in pricing insurance policies for unlikely but catastrophic events, concluded that nuclear terrorism is "inevitable." He stated, "I don't see any way that it won't happen." To assess the threat one must answer five core questions: who, what, where, when and how? Who could be planning a nuclear terrorist attack? Al-Qaeda remains the leading candidate. According to the most recent National Intelligence Estimate (NIE), Al-Qaeda has been substantially reconstituted-but with its leadership having moved from a medieval Afghanistan to Pakistan-a nation that actually has nuclear weapons. As former CIA Director George J. Tenet's memoir reports, Al-Qaeda's leadership has remained "singularly focused on acquiring WMDs" and that "the main threat is the nuclear one." Tenet concluded, "I am convinced that this is where [Osama bin Laden] and his operatives want to go." What nuclear weapons could terrorists use? A ready-made weapon from the arsenal of one of the nuclear-weapons states or an elementary nuclear bomb constructed from highly enriched uranium made by a state remain most likely. As John Foster, a leading U.S. bomb-maker and former director of the Lawrence Livermore National Laboratory, wrote a quarter of a century ago, "If the essential nuclear materials are at hand, it is possible to make an atomic bomb using information that is available in the open literature." Where could terrorists acquire a nuclear bomb? If a nuclear attack occurs, Russia will be the most likely source of the weapon or material. A close second, however, is North Korea, which now has ten bombs worth of plutonium, or Pakistan with sixty nuclear bombs. Finally, research reactors in forty developing and transitional countries still hold the essential ingredient for nuclear weapons. When could terrorists launch the first nuclear attack? If terrorists bought or stole a nuclear weapon in good working condition, they could explode it today. If terrorists acquired one hundred pounds of highly enriched uranium, they could make a working elementary nuclear bomb in less than a year. How could terrorists deliver a nuclear weapon to its target? In the same way that illegal items come to our cities every day. As one of my former colleagues has quipped, if you have any doubt about the ability of terrorists to deliver a weapon to an American target, remember: They could hide it in a bale of marijuana.

# 2NC – Terrorism – AT: Mueller Impact Defense (2/2)

**Previous attempts prove terrorists have motive --- Mueller uses many mistaken assumptions**

**Potter 07** (William C., Director – Center for Nonproliferation Studies and Professor of Nonproliferation Studies – Monterey Institute of International Studies, “Symposium: Apocalypse When?”, The National Interest, November / December, Lexis)

Mueller's attempt to dismiss the threat posed by nuclear terrorists as alarmist fantasy also falters due to a number of mistaken assumptions. Unfortunately, contrary to Mueller's assertion, there is substance and not only rumor about terrorist efforts to acquire fissile material and nuclear weapons. Although the number of relevant terrorist groups involved is small, it is neither zero nor one. In addition to a larger body of evidence involving Al-Qaeda that Mueller acknowledges, there is solid documentation about the sustained efforts in the early 1990s by the Japanese religious cult Aum Shinrikyo to obtain nuclear weapons and their components. Among the obstacles that proved most difficult for both Aum and Al-Qaeda to overcome was access to the fissile material needed to build an improvised nuclear device-that is, a crude but real nuclear explosive. The two organizations were also inhibited by their dearth of in-house technical expertise, unfamiliarity with the nuclear black market and lack of access to potential nuclear suppliers. However, what is fantasy is not the difficulty of building such a device but Mueller's confidence that the luck we have enjoyed to date will hold indefinitely.

# 2NC – Terrorism – Asia Economy Impact (1/2)

**Terrorism destroys investment in Asian economies --- collapses regional Asian economy**

**Strait Times 01** (William Choong, “Terrorist attacks could dry up investment in Asia”, lexis)

LARGE-SCALE terrorist attacks on a United States-led anti-terrorist coalition could **dry up foreign direct investment** (FDI) in Asia and drag the world economy into a d**epression**, an editor with the Economist magazine said in Singapore yesterday. Depending on how terrorists react to American retaliatory strikes in Afghanistan, Asia could be affected under three separate scenarios, said Economist deputy editor Clive Crook at a business conference yesterday. In the worst-case scenario -- large-scale strikes against the US and ally Britain -- FDI in Asia would collapse. Under what he termed the "likely" scenario, the slowing American economy could fall into a Japan-style funk where pump-priming and monetary easing do little to revive growth, he said. And as the US-led anti-terrorist coalition crumbled, **the world economy could find itself in a** 1930s **Great Depression** scenario, Mr Crook said. As to the effect on Asia if FDI dries up, he did not give any specific figures, but according to reports, FDI in Asia rose more than 40 per cent to US$143 billion (S$261.5 billion) last year. China has been soaking up nearly four-fifths of all FDI in Asia. The balance goes to other East Asian states and South-east Asia. A related scenario would be where the new terrorist attacks cause the global anti-terrorist coalition to become a tighter alliance, but this would still not bode well for the world economy. Under a third scenario, things are not so gloomy for Asia, which is linked closely to the US through exports. In this best-case "threat-contained" scenario, small-scale attacks solely on the US could lead to a "vigorous recovery" in that economy by the latter half of next year, Mr Crook said. In Asia, export prospects would also be good, with limited negative effects on FDI. FDI in countries considered "safe haven" investment destinations -- including China, Singapore, Hongkong, and Australia -- could rise as flows are diverted from Muslim countries such as Indonesia and Malaysia. However, Mr Crook considered this scenario to be "less likely".

# 2NC – Terrorism – Asia Economy Impact (2/2)

**Exinction**

**Auslin, 9** – resident scholar at AEI (Michael “Averting Disaster”, The Daily Standard, 2/6/2009, http://www.aei.org/article/100044)

As they deal with a collapsing world economy, policymakers in Washington and around the globe must not forget that when a depression strikes, war can follow. Nowhere is this truer than in Asia, the most heavily armed region on earth and riven with ancient hatreds and territorial rivalries. **Collapsing trade flows can lead to** political tension, **nationalist outbursts**, growing distrust, **and** ultimately, **military miscalculation**. The result would be disaster on top of an already dire situation. No one should think that Asia is on the verge of conflict. But it is also important to remember what has helped keep the peace in this region for so long. Phenomenal growth rates in Japan, South Korea, Hong Kong, Singapore, China and elsewhere since the 1960s have naturally turned national attention inward, to development and stability. This has gradually led to increased political confidence, diplomatic initiatives, and in many nations the move toward more democratic systems. America has directly benefited as well, and not merely from years of lower consumer prices, but also from the general conditions of peace in Asia. Yet policymakers need to remember that even during these decades of growth, moments of economic shock, such as the 1973 Oil Crisis, led to instability and bursts of terrorist activity in Japan, while the uneven pace of growth in China has led to tens of thousands of armed clashes in the poor interior of the country. Now imagine such instability multiplied region-wide. The economic collapse Japan is facing, and China's potential slowdown, dwarfs any previous economic troubles, including the 1998 Asian Currency Crisis. Newly urbanized workers rioting for jobs or living wages, conflict over natural resources, further saber-rattling from North Korea, all can take on lives of their own. This is the nightmare of governments in the region, and particularly of democracies from newer ones like Thailand and Mongolia to established states like Japan and South Korea. How will overburdened political leaders react to internal unrest? What happens if Chinese shopkeepers in Indonesia are attacked, or a Japanese naval ship collides with a Korean fishing vessel? Quite simply, Asia's political infrastructure may not be strong enough to resist the slide towards confrontation and conflict. This would be a political and humanitarian disaster turning the clock back decades in Asia. It would almost certainly drag America in at some point, as well. First of all, we have alliance responsibilities to Japan, South Korea, Australia, and the Philippines should any of them come under armed attack. Failure on our part to live up to those responsibilities could mean the end of America's credibility in Asia. Secondly, peace in Asia has been kept in good measure by the continued U.S. military presence since World War II. There have been terrible localized conflicts, of course, but nothing approaching a systemic conflagration like the 1940s. Today, such a conflict would be far more bloody, and it is unclear if the American military, already stretched too thin by wars in Afghanistan and Iraq, could contain the crisis. Nor is it clear that the American people, worn out from war and economic distress, would be willing to shed even more blood and treasure for lands across the ocean. The result could be a historic changing of the geopolitical map in the world's most populous region. Perhaps China would emerge as the undisputed hegemon. Possibly democracies like Japan and South Korea would link up to oppose any aggressor. India might decide it could move into the vacuum. All of this is guess-work, of course, but it has happened repeatedly throughout history. There is no reason to believe we are immune from the same types of miscalculation and greed that have destroyed international systems in the past.

# 2NC – Terrorism – Meltdowns Impact

**Terrorists will target nuclear reactors, causing meltdowns that risk extinction**

**Wasserman** **02** (Harvey Wasserman, Senior Editor – The Free Press, “America’s Self-Imposed Terror Threat”, The Earth Island Journal, Spring, http://www.earthisland.org/eijournal/new\_articles.cfm?articleID=457&journalID=63)

As US bombs and missiles began to rain on Afghanistan, the certainty of terror retaliation inside the US has turned our 103 nuclear powerplants into potential weapons of apocalyptic destruction, just waiting to be used against us. One or both planes that crashed into the World Trade Center on September 11 could have easily obliterated the two atomic reactors now operating at Indian Point, about 40 miles up the Hudson River. Indian Point Unit One was shut long ago by public outcry. But Units 2 and 3 have operated since the 1970s. Reactor containment domes were built to withstand a jetliner crash but today's jumbo jets are far larger than the planes that were flying in the 1970s. Had one of those hijacked jets hit one of the operating reactors at Indian Point, the ensuing cloud of radiation would have dwarfed the ones at Hiroshima and Nagasaki, Three Mile Island and Chernobyl. The intense radioactive heat within today's operating reactors is the hottest anywhere on the planet. Because Indian Point has operated so long, its accumulated radioactive burden far exceeds that of Chernobyl. The safety systems are extremely complex and virtually indefensible. One or more could be wiped out with a small aircraft, ground-based weapons, truck bombs or even chemical/biological assaults aimed at the work force. **A terrorist assault** at Indian Point **could yield** three infernal **fireballs** of molten radioactive lava burning through the earth and into the aquifer and the river. Striking water, they would blast gigantic billows of horribly radioactive steam into the atmosphere. Thousands of square miles would be saturated with the most lethal clouds ever created, depositing relentless genetic poisons that would kill forever. Infants and small children would quickly die en masse. Pregnant women would spontaneously abort or give birth to horribly deformed offspring. Ghastly sores, rashes, ulcerations and burns would afflict the skin of millions. Heart attacks, stroke and multiple organ failure would kill thousands on the spot. Emphysema, hair loss, nausea, inability to eat or drink or swallow, diarrhea and incontinence, sterility and impotence, asthma and blindness would afflict hundreds of thousands, if not millions. Then comes the wave of cancers, leukemias, lymphomas, tumors and hellish diseases for which new names will have to be invented. Evacuation would be impossible, but thousands would die trying. Attempts to quench the fires would be futile. More than 800,000 Soviet draftees forced through Chernobyl's seething remains in a futile attempt to clean it up are still dying from their exposure. At Indian Point, the molten cores would burn uncontrolled for days, weeks and years. Who would volunteer for such an American task force? The immediate damage from an Indian Point attack (or a domestic accident) would render all five boroughs of New York City an apocalyptic wasteland. As at Three Mile Island, where thousands of farm and wild animals died in heaps, natural ecosystems would be permanently and irrevocably destroyed. Spiritually, psychologically, financially and ecologically, our nation would never recover. This is what we missed by a mere 40 miles on September 11. Now that we are at war, this is what could be happening as you read this. There are 103 of these potential Bombs of the Apocalypse operating in the US. They generate a mere 8 percent of our total energy. Since its deregulation crisis, California cut its electric consumption by some 15 percent. Within a year, the US could cheaply replace virtually all the reactors with increased efficiency. Yet, as the terror escalates, Congress is fast-tracking the extension of the Price-Anderson Act, a form of legal immunity that protects reactor operators from liability in case of a meltdown or terrorist attack. Do we take this war seriously? Are we committed to the survival of our nation? If so, the ticking reactor bombs that could obliterate the very core of our life and of all future generations must be shut down.

# 2NC – Terrorism – Proliferation Impact (1/2)

**Terrorism Risks rapid prolif**

**Campbell 03** (Kurt M. Campbell, Senior Vice President & Kissinger Chair in National Security, CSIS, “Nuclear Proliferation Beyond the Rogues,” The Washington Quarterly, Winter 2002-2003, pp. 7-15)

York and Washington. Certainly, there is heightened vigilance regarding new domestic threats inside industrialized democracies and elsewhere. The ways in which an increase in domestic terrorism can lead to larger systemic insecurity, however, have re-ceived less attention. The logical response to greater homeland security challenges is for each country to tighten borders, intensify intelligence and situational awareness, and increase cooperation with the United States and other leading states, not to seek the development of nuclear weapons. Yet, one cannot fully dismiss some potentially illogical or, more precisely, unforeseen responses to wider and more frequent domestic attacks on a global scale. In such an environment, states might reconsider their nuclear position, viewing nuclear capability as a psychological assurance for its citizens as well as a viable deterrent against external threats, particularly In the face of rogue regimes’ support of nonstate actors. The potential interaction between groups such as Al Qaeda and rogue states with nuclear ambitions has not been lost on many U.S. allies and friends, and states could potentially regard a nuclear capability as a deterrent to being targeted by this collusion of terrorists and rogue states. A manifest increase in threats to homeland security alone is probably not enough to trigger nuclear recalculation, although heightened anxiety over domestic vulnerability to external threats, coupled with other troubling domestic or foreign trends, could trigger a country to reassess its nuclear options more broadly.

# 2NC – Terrorism – Proliferation Impact (2/2)

**Global nuclear war**

**Horowitz 09** (Michael Horowitz, Professor of Political Science at University of Pennsylvania, “The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?” Journal of Conflict Resolution, Volume 53 Number 2, April 2009 pg. 234-257)

Learning as states gain experience with nuclear weapons is complicated. While to some extent nuclear acquisition might provide information about resolve or capabilities, it also generates uncertainty about the way an actual conflict would go – given the new risk of nuclear escalation – and uncertainty about relative capabilities. Rapid proliferation may especially heighten uncertainty given the potential for reasonable states to disagree at times about the quality of the capabilities each possesses. 3 What follows is an attempt to describe the implications of inexperience and incomplete information on the behavior of nuclear states and their potential opponents over time. Since it is impossible to detail all possible lines of argumentation and possible responses, the following discussion is necessarily incomplete. This is a first step. The **acquisition of nuclear weapons increases the confidence of adopters** in their ability to impose costs in the case of a conflict and the expectations of likely costs if war occurs by potential opponents. The key questions are whether nuclear states learn over time about how to leverage nuclear weapons and the implications of that learning, along with whether or not actions by nuclear states, over time, convey information that leads to changes in the expectations of their behavior – shifts in uncertainty – on the part of potential adversaries. Learning to Leverage? When a new state acquires nuclear weapons, how does it influence the way the state behaves and how might that change over time? Though nuclear acquisition might be orthogonal to a particular dispute, it might be related to a particular security challenge, might signal revisionist aims with regard to an enduring dispute, or might signal the desire to reinforce the status quo. This section focuses on how acquiring nuclear weapons influences both the new nuclear state and potential adversaries. In theory, system-wide perceptions of nuclear danger could allow new nuclear states to partially skip the early Cold War learning process concerning the risks of nuclear war and enter a proliferated world more cognizant of nuclear brinksmanship and bargaining than their predecessors. However, each new nuclear state has to resolve its own particular civil-military issues surrounding operational control and plan its national strategy in light of its new capabilities. Empirical research by Sagan, Feaver, and Blair suggests that viewing the behavior of other states does not create the necessary tacit knowledge; there is no substitute for experience when it comes to handling a nuclear arsenal, even if experience itself cannot totally prevent accidents (Blair 1993; Feaver 1992; Sagan 1993). Sagan contends that civil-military instability in many likely new proliferators and pressures generated by the requirements to handle the responsibility of dealing with nuclear weapons will **skew decision-making towards more offensive strategies** (Sagan 1995). The questions surrounding Pakistan’s nuclear command and control suggest there is no magic bullet when it comes to new nuclear powers making control and delegation decisions (Bowen and Wolvén 1999). Sagan and others focus on inexperience on the part of new nuclear states as a key behavioral driver. Inexperienced operators, and the bureaucratic desire to “justify” the costs spent developing nuclear weapons, combined with organizational biases that may favor escalation to avoid decapitation, the “use it or lose it” mindset, may cause new nuclear states to adopt riskier launch postures, like launch on warning, or at least be perceived that way by other states (Blair 1993; Feaver 1992; Sagan 1995). 4 Acquiring nuclear weapons could alter state preferences and make them more likely to escalate disputes once they start, given their new capabilities.5 But their general lack of experience at leveraging their nuclear arsenal and effectively communicating nuclear threats could mean new nuclear states will be more likely to select adversaries poorly and find themselves in disputes with resolved adversaries that will reciprocate militarized challenges. The “nuclear experience” logic also suggests that more experienced nuclear states should gain knowledge over time from nuclearized interactions that helps leaders effectively identify the situations in which their nuclear arsenal is likely to make a difference. Experienced nuclear states learn to select into cases where their comparative advantage, nuclear weapons, is more likely to be effective, increasing the probability that an adversary will not reciprocate. Coming from a slightly different perspective, uncertainty about the consequences of proliferation on the balance of power and the behavior of new nuclear states on the part of their potential adversaries could also shape behavior in similar ways (Schelling 1966; Blainey 1988). While a stable and credible nuclear arsenal communicates clear information about the likely costs of conflict, in the short-term nuclear proliferation is likely to increase **uncertainty** about the trajectory of a war, the balance of power, and the preferences of the adopter.

# 2NC – Terrorism – Tech Leadership Impact (1/2)

**Terrorism wrecks US tech leadership and innovation**

**Koh 07** (Winston T.H. Koh, Professor of Economics and Associate Dean – Singapore Management University, “Terrorism and its Impact on Economic Growth and Technological Innovation”, Technological Forecasting and Social Change, 74(2), February, ScienceDirect)

3. Terrorism's impact on R&D and innovation

How will the war against global terrorism affect the trajectory of R&D and the pace of innovation? In the past, wartime tends to stimulate innovation of all kinds. Military conflict engenders innovation, and is changed by it [16]. During World War II, technologies that were developed include the radar, jet engines, radio electronics and nuclear power. As a result, World War II turned out to be a different war compared with World War I; airpower, which played a minor role in World War I, played a decisive role in winning World War II for the Allies. Spurred by the current war on terrorism, innovations in intelligence gathering and decision support, sensors, monitoring are generating greater interest. Since the 9-11 attacks, there is an increase in demand for inspection technologies to screen individuals, packages, vehicles, and containers for weapons, explosives, chemical agents, and nuclear materials. There is also demand for advanced bomb resistant waste receptacles to increase public safety as well as a variety of fully confined containment containers for safely storing, transporting, or detonating detected contraband. 3.1. New technologies in the war on terrorism Clearly, the development of the homeland security industry going forward will be shaped by the changing attitudes and perception of people towards the threat of terrorism. In the United Kingdom, a pilot scheme was announced in 2004 to launch 10,000 identity cards on a volunteer basis, incorporating biometric features. In Singapore, all passports would eventually incorporate biometric features. By scanning personal characteristics such as fingerprints and iris features onto a computer chip that can only be read by a high-tech reader, these biometric passports make it difficult to forge documents to enter a country illegally. Many countries are also spending on technology to link the land, sea and air checkpoints electronically, thereby tightening the first-line defense against the entry of terrorist elements into the their homeland. Looking into the future, new technologies that allow us to generate forward-looking intelligence would be critical in the war against terrorism. The greatest value of intelligence is to anticipate terrorist actions and to translate that information into an effective response. Improvements in technology will provide us with improved computer-based data fusion capabilities, modeling and simulation to better understand possible scenarios and responses. Advanced language translation software will be developed to better track terrorist communication as a source of intelligence. Besides intelligence, detection is another area which would spur innovations in the fight against terrorism. The future of sensors lies in biomimetics—biological and chemical sensors. For instance, technologies that are being developed include those that mimic the sniffing capabilities of a dog or the heat-seeking abilities of a viper to detect concealed bombs or weapons. In addition, technologies that allow for more accurate and timely detection of viral and bacterial pathogens will drive advancements in sensors—with the ultimate goal of combining chemical and biological threat detection into a suite of sensors. Sensors of the future will be deployed by highly mobile, reliable and affordable robotics. 3.2. Competition for R&D talents and resources Between the end of World War II and the current war on terrorism, the principal focus of technological innovation was the commercial markets. For instance, in the late 1960s, computer technology was being applied to offices as well as the manufacturing shopfloor. In the 1970s, the market for handheld calculators, electronic watches and clocks was driving development in the semiconductor technology. By the 1990s, it was the Internet, the cell phone, the DVD player, the PDA, and the personal computer and other commercial and consumer items that governed developments. Besides military usage, global positioning satellite systems were sold to consumers for hunting expeditions or for mapping or keeping track of the fleet of trucks for shipping and courier companies. While the war on terrorism may spur innovation, as was the case during the Second World War, there could be an opposite effect. There are concerns that the war on **terrorism may draw talented engineers and scientists to work on terrorism-related initiatives,** and draw a high proportion of the research talent **away from the industrial sector** to work on what are essentially non-economic projects. It was suggested that the huge scientific effort in the 1960s to put a man on the moon during the Cold War of the 1960s was one of the contributing causes to the decline in US competitiveness in the 1970s and 1980s, relative to Japan and other European countries. Moreover, when the Cold War was in full bloom, advanced fighter planes, better radar systems, smarter tanks and artillery were all in development in addition to the race to space. The United States was beaten in launching first orbiting satellite, but they were not going to lose the race to the moon. Some commentators have argued that the civilian spin offs of the space exploration were in fact quite modest, and in any event vastly less than those that would have been generated if the people involved had been working in private industry. Except for products aimed at the consumer electronics market—principally television—virtually all new products were produced with the military and aerospace industry customer in mind. Moreover, performing standards were set to meet the demanding requirements of these military and aerospace customers. It is feared that the current war on terrorism may result in similar effects on the United States global economy. Even if there is no crowding out effect on private sector R&D, several effects on the rate and scope of technological innovation can be discerned as attention has focused on the fight against terrorism. Firstly, the development of some types of technologies will be stimulated, or greatly speeded up as resources are invested [17]. As we discussed earlier in this section, the obvious examples are those related to surveillance, satellite imaging, security recognition systems, interception of radio and telephone signals, disaster recovery, etc. However, there is some concern although there is some commercialization potential in the technologies that are being developed in the wake of the 9-11 attacks, the spin off effect into the civilian economy may turn out to be not as much. There will be some civilian uses for these technologies (better security systems in large office buildings, and improved satellite imaging for oil exploration, for example) but much of the new technology will be highly specialized, and in any event may be kept secret to avoid tipping off potential adversaries. 3.3. Government funding of venture capital Another interesting effect of the war on terrorism is that governments are working more closely with venture capitalists since the late 1990s. A good example of such collaboration was the establishment by the CIA of In-Q-Tel in 1999 [18]. This small US$30 million fund operates in the Silicon Valley to co-invest with other venture partners in technologies (particularly information technologies) that have potential application to governmental projects, particularly in the area of intelligence. The fund will not be an exclusive founder of a startup but will seek to make the companies in which it is invested aware of markets for their products and technology that are parallel to their commercial applications. In other countries, such as Singapore, government recognizes the need to develop new technologies systems that respond to terrorist threats and is taking the lead to set up venture capital funding for technologies have applications to the war on terrorism. Many countries have set up similar government-funded venture funds that offer early-stage venture capital funding and introductions to capabilities that will serve to address terrorist activities. 4. The future What does the future hold? Attacks on an even broader scale than the 9-11 attacks may occur. For instance, the risk of a nuclear device bearing explosive force of 20 000 tons of TNT denoting over Manhattan is real. Such a device would destroy everything within three square miles (see Stern [19]). The whole Wall Street and financial district would be destroyed and hundreds of thousands of lives would be lost. It would leave most of the metropolitan area uninhabitable for years, and would reduce the country's production potential substantially, with the brunt borne by the financial industry, which represents the bulk of New York City's economy. Wall Street would be closed for a long period of time and the recovery of financial transactions would depend on the availability of back-up facilities and data duplication. There would be severe disruption to the transportation system, including the port and airports. It is not only New York that faces such as threat. Other financial centers such as London, Tokyo, and Singapore are potential targets as well. Another possible scenario is that terrorists could attempt to explode a nuclear device or release contagious viruses in a populous metropolitan area [19]. In fact, within weeks of the 9-11 attacks, lethal anthrax spores were found to have contaminated mail in the United States. There are also concerns that terrorists could use the SARS virus, avian flu virus, and even the eradicated smallpox virus for future biological terrorist acts. In light of these potential future scenarios, technology will play a far greater role in preventing future terrorist acts. On balance, the development of a number of technologies relating to surveillance and related areas will be speeded up. However, as we noted in the paper, there is also the risk that the diversion of resources to develop anti-terror technologies may slow down innovation in society as a whole, by drawing talented people from more economically productive areas, by crowding out investment dollars, and by creating a climate of intolerance that will impede innovation. That, in turn, may well play a role in reducing economic growth in the long term.

# 2NC – Terrorism – Tech Leadership Impact (2/2)

**Tech leadership is key to heg and solves great power war**

**Taylor, 5** (Mark, Professor of Political Science – Massachusetts Institute of Technology, “The Politics of Technological Change: International Relations versus Domestic Institutions”, 4-1, http://www.scribd.com/doc/46554792/Taylor)

I. Introduction Technological innovation is of central importance to the study of international relations (IR), affecting almost every aspect of the sub-field.\* First and foremost, a nation's technological capability has a significant effect on its economic growth, industrial might, and military prowess; therefore relative national technological capabilities necessarily influence the balance of power between states, and hence have a role in calculations of war and alliance formation. Second, technology and innovative capacity also determine a nation's trade profile, affecting which products it will import and export, as well as where multinational corporations will base their production facilities.' Third, insofar as innovation-driven economic growth both attracts investment and produces surplus capital, a nation's technological ability will also affect international financial flows and who has power over them.- Thus, in broad theoretical terms, technological change is important to the study of IR because of its overall implications for both the relative and absolute power of states. And if theory alone does not convince, then history also tells us that nations on the technological ascent generally experience a corresponding and dramatic change in their global stature and influence, such as Britain during the first industrial revolution, the United States and Germany during the second industrial revolution, and Japan during the twentieth century.' Conversely, **great powers which fail to maintain** their place at **the tech**nological **frontier** generally drift and **fade from influence** on international scene.0 This is not to suggest that technological innovation alone determines international politics, but rather that shifts in both relative and absolute technological capability have a major impact on international relations, and therefore need to be better understood by IR scholars. Indeed, the importance of technological innovation to international relations is seldom disputed by IR theorists. Technology is rarely the sole or overriding causal variable in any given IR theory, but a broad overview of the major theoretical debates reveals the ubiquity of technological causality. For example, from Waltz to Posen, almost all Realists have a place for technology in their explanations of international politics.7 At the very least, they describe it as an essential part of the distribution of material capabilities across nations, or an indirect source of military doctrine. And for some, like Gilpin quoted above, technology is the very cornerstone of great power domination, and its transfer the main vehicle by which war and change occur in world politics.' Jervis tells us that the balance of offensive and defensive military technology affects the **incentives for** **war**.9 Walt agrees, arguing that technological change can alter a state's aggregate power, and thereby affect both alliance formation and the international balance of threats.10 Liberals are less directly concerned with technological change, but they must admit that by raising or lowering the costs of using force, technological progress affects the rational **attractiveness of international cooperation** and regimes." Technology also lowers information & transactions costs and thus increases the applicability of international institutions, a cornerstone of Liberal IR theory." And in fostering flows of trade, finance, and information, technological change can lead to Keohane's interdependence\*5 or Thomas Friedman et al's globalization.\*4 Meanwhile, over at the "third debate", Constructivists cover the causal spectrum on the issue, from Katzenstein's "cultural norms" which shape security concerns and thereby affect technological innovation;" toWendt's "stripped down technological determinism" in which technology inevitably drives nations to form a world state.\*4 However most Constructivists seem to favor Wendt, arguing that new technology changes people's identities within society, and sometimes even creates new cross-national constituencies, thereby affecting international politics.17 Of course, Marxists tend to see technology as determining all social relations and the entire course of history, though they describe mankind's major fault lines as running between economic classes rather than nation-states." Finally, Buzan & Little remind us that without advances in the technologies of transportation, communication, production, and war, international systems would not exist in the first place.'9

# 2NC – Terrorism – Trade Impact

**Terrorism shatters global trade**

**Zedillo 06** (Ernesto, Former President of Mexico Director, Yale Center for the Study of Globalization,

Forbes, 1-9, p. 25)

Even if you agree with what's being done in the war on terror, you still could be upset about what's not happening: doing the utmost to prevent a terrorist nuclear attack. We all should have a pretty clear idea of what would follow a nuclear weapon's detonation in any of the world's major cities. Depending on the potency of the device the loss of life could be in the hundreds of thousands (if not millions), the destruction of property in the trillions of dollars, the escalation in conflicts and violence uncontrollable, the erosion of authority and government unstoppable and the **disruption of global trade** and finance unprecedented. In short, we could practically count on the beginning of another dark age.

**Extinction**

**Pazner, 8** (Michael J., Faculty – New York Institute of Finance, Financial Armageddon: Protect Your Future from Economic Collapse, p. 137-138)

The rise in isolationism and **protectionism will bring** about ever more heated arguments and **dangerous confrontations** over shared sources of oil, gas, and other key commodities as well as factors of production that must, out of necessity, be acquired from less-than-friendly nations. Whether involving raw materials used in strategic industries or basic necessities such as food, water, and energy, efforts to secure adequate supplies will take increasing precedence in a world where demand seems constantly out of kilter with supply. Disputes over the misuse, overuse, and pollution of the environment and natural resources will become more commonplace. Around the world, such tensions will give rise to full-scale military encounters, often with minimal provocation. In some instances, economic conditions will serve as a convenient pretext for conflicts that stem from cultural and religious differences. Alternatively, nations may look to divert attention away from domestic problems by channeling frustration and populist sentiment toward other countries and cultures. Enabled by cheap technology and the waning threat of American retribution, terrorist groups will likely boost the frequency and scale of their horrifying attacks, bringing the threat of random violence to a whole new level. Turbulent conditions will encourage aggressive saber rattling and interdictions by rogue nations running amok. Age-old clashes will also take on a new, more heated sense of urgency. China will likely assume an increasingly belligerent posture toward Taiwan, while Iran may embark on overt colonization of its neighbors in the Mideast. Israel, for its part, may look to draw a dwindling list of allies from around the world into a growing number of conflicts. Some observers, like John Mearsheimer, a political scientists at the University of Chicago, have even speculated that an “intense confrontation” between the United States and China is “inevitable” at some point. More than a few disputes will turn out to be almost wholly ideological. Growing cultural and religious differences will be transformed from wars of words to battles soaked in blood. Long-simmering resentments could also degenerate quickly, spurring the basest of human instincts and triggering genocidal acts. Terrorists employing biological or **nuclear weapons will** vie with conventional forces using jets, cruise missiles, and bunker-busting bombs to **cause widespread destruction**. Many will interpret stepped-up conflicts between Muslims and Western societies **as the beginnings of a new world war**.

# 2NC – Terrorism – US/China War (1/2)

**Terrorism leads to US/China nuclear war**

**Ayson 10** — Professor of Strategic Studies and Director of the Centre for Strategic Studies in New Zealand at the Victoria University of Wellington (Robert, “After a Terrorist Nuclear Attack: Envisaging Catalytic Effects”, Studies in Conflict & Terrorism, Volume 33, Issue 7, July 2010, InformaWorld)

A terrorist nuclear attack, and even the use of nuclear weapons in response by the country attacked in the first place, would not necessarily represent the worst of the nuclear worlds imaginable. Indeed, there are reasons to wonder whether nuclear terrorism should ever be regarded as belonging in the category of truly existential threats. A contrast can be drawn here with the global catastrophe that would come from a massive nuclear exchange between two or more of the sovereign states that possess these weapons in significant numbers. Even the worst terrorism that the twenty-first century might bring would fade into insignificance alongside considerations of what a general nuclear war would have wrought in the Cold War period. And it must be admitted that as long as the major nuclear weapons states have hundreds and even thousands of nuclear weapons at their disposal, there is always the possibility of a truly awful nuclear exchange taking place precipitated entirely by state possessors themselves. But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of **terrorist attack,** and especially an act of nuclear terrorism, **could** precipitate a chain of events **lead**ing **to a massive exchange of nuclear weapons** between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response. As part of its initial response to the act of nuclear terrorism (as discussed earlier) Washington might decide to order a significant conventional (or nuclear) retaliatory or disarming attack against the leadership of the terrorist group and/or states seen to support that group. Depending on the identity and especially the location of these targets, Russia and/or China might interpret such action as being far too close for their comfort, and potentially as an infringement on their spheres of

# 2NC – Terrorism – US/China War (2/2)

**<<<CONTINUED --- NO TEXT DELETED>>>**

influence and even on their sovereignty. One far-fetched but perhaps not impossible scenario might stem from a judgment in Washington that some of the main aiders and abetters of the terrorist action resided somewhere such as Chechnya, perhaps in connection with what Allison claims is the “Chechen insurgents’ … long-standing interest in all things nuclear.”42 American pressure on that part of the world would almost certainly raise alarms in Moscow that might require a degree of advanced consultation from Washington that the latter found itself unable or unwilling to provide. There is also the question of how other nuclear-armed states respond to the act of nuclear terrorism on another member of that special club. It could reasonably be expected that following a nuclear terrorist attack on the United States, both Russia and China would extend immediate sympathy and support to Washington and would work alongside the United States in the Security Council. But there is just a chance, albeit a slim one, where the support of Russia and/or China is less automatic in some cases than in others. For example, what would happen if the United States wished to discuss its right to retaliate against groups based in their territory? If, for some reason, Washington found the responses of Russia and China deeply underwhelming, (neither “for us or against us”) might it also suspect that they secretly were in cahoots with the group, increasing (again perhaps ever so slightly) the chances of a major exchange If the terrorist group had some connections to groups in Russia and China, or existed in areas of the world over which Russia and China held sway, and if Washington felt that Moscow or Beijing were placing a curiously modest level of pressure on them, what conclusions might it then draw about their culpability? If Washington decided to use, or decided to threaten the use of, nuclear weapons, the responses of Russia and China would be crucial to the chances of avoiding a more serious nuclear exchange. They might surmise, for example, that while the act of nuclear terrorism was especially heinous and demanded a strong response, the response simply had to remain below the nuclear threshold. It would be one thing for a non-state actor to have broken the nuclear use taboo, but an entirely different thing for a state actor, and indeed the leading state in the international system, to do so. If Russia and China felt sufficiently strongly about that prospect, there is then the question of what options would lie open to them to dissuade the United States from such action: and as has been seen over the last several decades, the central dissuader of the use of nuclear weapons by states has been the threat of nuclear retaliation. If some readers find this simply too fanciful, and perhaps even offensive to contemplate, it may be informative to reverse the tables. Russia, which possesses an arsenal of thousands of nuclear warheads and that has been one of the two most important trustees of the non-use taboo, is subjected to an attack of nuclear terrorism. In response, Moscow places its nuclear forces very visibly on a higher state of alert and declares that it is considering the use of nuclear retaliation against the group and any of its state supporters. How would Washington view such a possibility? Would it really be keen to support Russia’s use of nuclear weapons, including outside Russia’s traditional sphere of influence? And if not, which seems quite plausible, what options would Washington have to communicate that displeasure? If China had been the victim of the nuclear terrorism and seemed likely to retaliate in kind, would the United States and Russia be happy to sit back and let this occur? In the charged atmosphere immediately after a nuclear terrorist attack, how would the attacked country respond to pressure from other major nuclear powers not to respond in kind? The phrase “how dare they tell us what to do” immediately springs to mind. Some might even go so far as to interpret this concern as a tacit form of sympathy or support for the terrorists. This might not help the chances of nuclear restraint.

# 2NC – Canada Sovereignty – Arctic Environment Impact

**Canadian claims to the NWP is critical to Arctic environmental protection**

**McEvoy 12** (Joshua McEvoy, contributor, Geopolitical Monitor, “Reluctant Allies: Canada, the US, and the Northwest Passage,” Geopolitical Monitor, September 10, 2012, http://www.geopoliticalmonitor.com/reluctant-allies-canada-the-us-and-the-northwest-passage-4725/)

Full regulatory control of the NWP would allow Canada to enact safety measures and enforce their compliance to the fullest extent prior to entry of the waterway. **This would serve to protect the environmental integrity of the delicate Arctic environment,** the security of North Americans, the interests of responsible industry, and the livelihood of northern populations. While some may view Canadian regulatory mechanisms as less than ideal, they assuredly would be an improvement upon the current status that allows for near unimpeded access to the treacherous seas of the NWP.

**Extinction**

**WWF 10** (World Wildlife Fund, “Drilling for Oil in the Arctic: Too Soon, Too Risky,” Nuka Research and Planning Group, LLC, December 1, 2010, http://assets.worldwildlife.org/publications/393/files/original/Drilling\_for\_Oil\_in\_the\_Arctic\_Too\_Soon\_Too\_Risky.pdf?1345753131)

Planetary Keystone The Arctic and the subarctic regions surrounding it are important for many reasons. One is their enormous biological diversity: a kaleidoscopic array of land and seascapes supporting millions of migrating birds and charismatic species such as polar bears, walruses, narwhals and sea otters. Economics is another: Alaskan fisheries are among the richest in the world. Their $2.2 billion in annual catch fills the frozen food sections and seafood counters of supermarkets across the nation. However, there is another reason why the Arctic is not just important, but among the most important places on the face of the Earth. A keystone species is generally defined as one whose removal from an ecosystem triggers a cascade of changes affecting other species in that ecosystem. The same can be said of the Arctic in relation to the rest of the world. With feedback mechanisms that affect ocean currents and influence climate patterns, the Arctic functions like a global thermostat. **Heat balance, ocean circulation patterns and the carbon cycle are all related** to its regulatory and carbon storage functions. Disrupt these functions and we effect far-reaching changes in the conditions under which life has existed on Earth for thousands of years. In the context of climate change, the Arctic is a keystone ecosystem for the entire planet.

# 2NC – Canada Sovereignty – Bioterrorism Impact

**Even if it they can’t smuggle in nukes, still leads to chemical and bioterrorism**

**Mychajlyszyn 08** (Natalie, International Affairs, Trade and Finance Division, “The Arctic: Canadian Security and Defence”, 24 October 2008, http://www.parl.gc.ca/Content/LOP/ResearchPublications/prb0813-e.htm#illegalaccess)

Increased illegal access and illegal activities, including terrorism As the Arctic generally becomes more accessible because of the warming climate, some analysts predict the emergence of new security threats.(6) One such risk is that of an increase in illegal migration and trafficking in persons to North America through the Arctic. There are also fears of the North being used as a thoroughfare for drug trafficking as well as a destination for illegal narcotics. In the post-September 11 era, fears have been raised concerning the increased vulnerability of the Arctic as a passage for terrorists, whether for illegal entry into North America or for the transport of illegal weapons, including **biological and chemical devices.** To such a list of activities, generally perpetrated by organized crime groups, can be added the rise of other types of organized crime, such as those involving industries engaged in the extraction of lucrative resources, such as diamonds and copper.

**Extinction**

**Matheny, 7** – former associate at Oxford, MPJ from Hopkins (Jason, published in Risk Analysis 2007; 27(5): 1335-1344, “Reducing the Risk of Human Extinction,” http://jgmatheny.org/matheny\_extinction\_risk.htm)

**Of** current **extinction risks, the most severe may be bioterrorism**. The knowledge needed to engineer a virus is modest compared to that needed to build a nuclear weapon; the necessary equipment and materials are increasingly accessible and because biological agents are self-replicating, a weapon can have an exponential effect on a population (Warrick, 2006; Williams, 2006). 5 Current U.S. biodefense efforts are funded at $5 billion per year to develop and stockpile new drugs and vaccines, monitor biological agents and emerging diseases, and strengthen the capacities of local health systems to respond to pandemics (Lam, Franco, & Shuler, 2006). There is currently no independent body assessing the risks of high-energy physics experiments. Posner (2004) has recommended withdrawing federal support for such experiments because the beneﬁts do not seem to be worth the risks.

# 2NC – Canada Sovereignty – Immigration Impact (1/2)

**Canadian regulation is key to stop further illegal immigration --- that’s Davis --- this leads to massive spikes in drug-resistant TB**

**Walsh 06** (James H. Walsh, “Illegal Aliens' Impact on Public Health and Environment,” Newsmax, May 9, 2006, http://archive.newsmax.com/archives/articles/2006/5/8/230000.shtml)

These include cholera, diphtheria, tuberculosis (TB), plague, leprosy, smallpox, malaria (yellow fever), and viral hemorrhagic fevers. Among these fevers are Lassa, Marburg, Eboli, Crimea-Congo, South American, and others not yet isolated or named. Add to these, SARS (Severe Acute Respiratory Syndrome) and sexually transmitted diseases (STD), among them HIV/AIDS. Vaccine preventable diseases include mumps, measles, rubella, polio, influenza type B, and hepatitis B. All of the listed diseases have been introduced and transmitted into the United States. The numbers of these diseases that have been **carried by** illegal **aliens** cannot be determined, as no accurate records are kept, denoting the citizenship of the infected or the carriers. Because of political correctness or more accurately lack of backbone, U.S. political entities and agencies purposely have failed to determine the citizenship or lack thereof for persons obtaining federal, state, or local services, welfare, and entitlements, such as the following: Medical services from emergency room to long-term children's hospital needs; welfare payments; social security payments; food stamps; Aid to Dependent Children (for anchor babies (children of illegal aliens) or illegal minors; HHS housing benefits; and public education. The lemming response by most state and local government agencies is, "That is the federal government's job!" They thus abdicate their responsibilities to the rule of law in their country. Just as there is no accurate count of illegal aliens in the United States, there is no accurate data of any kind that correctly reflects services to citizens and services to illegal aliens. This is meant to hide the costs to U.S. taxpayers, who are unknowing enablers of illegal aliens. Despite what immigrant special interests say, few illegal aliens pay income taxes. The National Center for Infectious Diseases (NCID) states that infectious diseases are a continuing danger to everyone in the United States. SARS, malaria, TB, and other bacterial pneumonias are now appearing in forms resistant to drug treatment. **TB is a significant problem among foreign-born persons** in the United States, **with foreign-born persons accounting for 53 percent** of the 14,874 U.S. cases in 2005. Of these, 26 percent of the cases were from Mexico.

# 2NC – Canada Sovereignty – Immigration Impact (2/2)

**This goes global and kills billions**

**Unruh, 7** **—** News Editor for Worldnetdaily (Bob, 6/24/2007)

Untreatable TB threat 'apocalyptic scenario': 30,000 infected annually now, but toll could become 8 million 'time bombs', http://www.worldnetdaily.com/news/article.asp?ARTICLE\_ID=56340

The World Health Organization is appealing for billions of dollars in funding to avert the apocalypse en route if a virtually untreatable form of tuberculosis that already infects 30,000 people a year is left unchecked. The TB, called XDR-TB for extensively drug resistant, is virtually immune to currently available antibiotics, turning aside the effects of both front-line and secondary drugs, officials have said. It has been in the news of late because of an American airline passenger, Andrew Speaker, an Atlanta, Ga., lawyer, who was diagnosed, then traveled to Europe for his wedding, and returned, on commercial airliners, potentially exposing hundreds of people to the frequently fatal disease. He now is being treated at a special center in Denver that deals with cases of tuberculosis. "XDR-TB is a threat to the security and stability of global health. This response plan identifies costs, milestones and priorities for health services that will continue to have an impact beyond its two-year time line," said WHO Director-General Dr. Margaret Chan. The organization is appealing for $2.15 billion in funding to develop a battle plan – and tools – to fight the drug-resistant TB. It is expected that it would save 134,000 lives over two years, and many more in the future. The extensively drug resistant TB has been reported in 37 countries in all parts of the world since it first was identified in 2006, the agency said. "There is somewhere between 25,000 and 30,000, we roughly estimate, cases of extensive drug resistant TB each year," Paul Nunn, coordinator of WHO's Stop TB Department, informed a recent meeting. The program, called "Global MDR-TB and XDR-TB Response Plan 2007-2008" sets out measures needed to prevent, treat and control those threats. MDR-TB is multiple-drug resistant, while XDR-TB is extensively drug resistant. WHO officials said the plan also launches "actions" that would reach a 2015 goal of providing access to drugs and diagnostic tests to all MDR-TB and XDR-TB patients, "saving the lives of up to 1.2 million patients," officials said. Included will be investments in programs to treat patients, building capacity in diagnostic laboratories, expanding infection control and surveillance, and funding research into new attacks on the disease. "We have sounded the alarm on the potential for an untreatable XDR-TB epidemic. Today we issue our response on behalf of all patients and communities whose lives are most at risk. It is an ambitious plan that must be fully supported if we are to keep a stranglehold on drug-resistant TB," said Dr. Mario Raviglione, director of the WHO Stop TB Department. It was in March 2006 when researchers reported their encounter with the extensively resistant TB strains. Within a few months, a cluster of "virtually untreatable" XDR-TB cases was reported in South Africa, aggravated by a high prevalence of HIV. "All but one of the 53 patients died in an average of 25 days after samples were taken for drug resistance tests," the agency said. Then Speaker's case, "focused attention on the need to address the TB epidemic as an immediate international priority." "A highly important element of the plan is a steady supply of quality drugs to treat MDR-TB and XDR-TB in underserved countries," said Dr. Marcos Espinale, executive secretary of the Stop TB Partnership. "The Partnership's Global Drug Facility is ensuring supply of these drugs to a growing number of countries, after our Green Light Committee has verified that applicant countries meet its technical standards and will use the drugs correctly." MDR-TB is defined as being resistant to main first-line drugs such as isoniazid and rifampicin. More than 400,000 such cases are reported each year, and it emerges generally when it is spread from one person to another, or the drugs used to battle ordinary TB are mismanaged, allowing a resistance to develop, officials said. The XDR-TB develops when there is resistance to all of the most effective anti-TB drugs, and the fluoroquinolone drugs as well as some of the second-line injectable drugs, amikacin, capromycin and kanamycin. The problem is with the tendency for such infections to grow exponentially, said Raviglione. "That is the big threat here. If you have more and more of these cases, you will automatically magnify the problem by having transmission going on to other individuals ... Once they become infected they are sort of a time bomb," he said. "**If this is kept unchecked** and goes on, then **you may** also **see an apocalyptic scenario where the** present epidemic of TB is replaced by an **epidemic of TB** which **is** now **fully resistant to everything**," he added. In such a situation, the toll could be massive. Currently 8.8 million people each year develop normal TB, a bacterial infection (Mycobacterium tuberculosis) that usually attacks the lungs. It already kills 1.6 million annually, WHO said. "The possibility is that you could replace that epidemic with a drug-resistant epidemic, in other words you could have 8 million cases of drug-resistant TB wandering around. And then you will be back to the pre-antibiotic era," said Nunn. "We really now have to focus on problems of infection control. We can't allow drug-resistant MDR or XDR to get into populations of HIV-infected people," he added. Ordinary TB can be diagnosed with a microscope, but drug-resistant forms require much more sophisticated tests – and labs, which are missing in many poor countries. And ordinary TB usually can be treated over a course of six months or so; the more drug-resistant varieties could take two years. "It's basically a death sentence. If people are failing first- and second-line drugs and we don't have in the pipeline a new drug for immediate use, that's a crisis," said Espinale.

# 2NC – Canada Sovereignty – Russian Aggression Impact

**Lack of Canadian control leads to Russian adventurism and conflict**

Yaffe 09 (Barbara Yaffe, “Settling Arctic Feud” Canada.com, http://www.canada.com/windsorstar/news/editorial/story.html?id=cf3a5b62-8dd7-41b9-bdee-3b2666ca97a8)

Legalities aside, the fact is the U.S. potentially is harming its own interests by asserting the increasingly navigable Northwest Passage should be open to international shipping. As University of Toronto political scientist Franklyn Griffiths noted in a paper on the subject last fall: "The U.S. no longer gains from a position that treats the passage as an international strait and thereby gives ready entry to foreign vessels, which may be carrying terrorists (or) weapons of mass destruction." **It would** also **open the skies above the passage, enabling Russian bombers to traverse North America,** warns Rob Huebert, a political scientist at the University of Calgary and a director for military and strategic studies at the university. All of which explains why the former U.S. ambassador to Canada, Paul Cellucci, reasonably argued in 2006 that it would be in America's national security interest for **Canada to control the Arctic waterway,** regulating and policing movement.

# 2NC – Canada Sovereignty – US/Canada War Impact

**The plan alone leads to accidental escalation and defense miscalc--- they’ll perceive it as encroachment --- this goes nuclear**

**Griffiths 06** (Franklyn Griffiths, Ignatieff Chair Emeritus of Peace and Conflict Studies at the University of Toronto, “Breaking the Ice on Canada-U.S. Arctic Co-operation,” The Globe and Mail, February 22, 2006, http://www.pugwashgroup.ca/events/documents/2006/2006.02.22-Griffiths.article.pdf)

As every schoolchild knows, in treating the varied waterways of the Northwest Passage as an international strait, the United States leads the rest of the world in its opposition to Canada's Arctic sovereignty claim. When our would-be Prime Minister proposed to rely on armed force in defence of Arctic sovereignty, he was actually proposing to deploy and if **necessary** employ **force** against the United States. The speech of December 22 therefore referred to recent "reports" of illicit U.S. nuclear-powered submarine activity in the Canadian Arctic Archipelago. It also saw Mr. Harper say that, "As Prime Minister, I will make it plain to foreign governments – including the United States – that naval vessels travelling in Canadian waters will require the consent of the government of Canada." Elections are one thing. So also are mistakes made in them. But for the Prime Minister to persist in a **mistaken naval defence** of Arctic sovereignty would be worse than counterproductive for Canada-U.S. relations. Consider first what might happen when new naval icebreakers and sensors are in place. A submarine is detected and the acoustic signature tells us whose it is. It's American. What then do we do? Have troops lean over the icebreaker rail and shake their fists at the sub as it passes by under the ice? Launch depth charges from an icebreaker onto a nuclear-powered submarine, thereby going to war with the superpower, **risking nuclear contamination** of the Archipelago, and visiting who knows what upon the people of Nunavut?

# 2NC – Canada Sovereignty – AT: US Control Solves

**Even if the US could interdict, they won’t --- international strait status means the US will be pressured to guarantee unadulterated and unregulated access --- it’s the focal point of their policy --- that’s Davis**

**Regardless, the US can’t --- Canadian interdiction is key**

**McEvoy 12** (Joshua McEvoy, contributor, Geopolitical Monitor, “Reluctant Allies: Canada, the US, and the Northwest Passage,” Geopolitical Monitor, September 10, 2012, http://www.geopoliticalmonitor.com/reluctant-allies-canada-the-us-and-the-northwest-passage-4725/)

National security interests often provide impetus for the abandonment of foreign policy positions, and above other arguments, Canada must give this issue precedence in Arctic negotiations. For instance, a major concern is the possibility that should Canada or any other country not possess the ability to board, detain, or otherwise exercise authority over transiting vessels in the NWP, unwanted persons or illicit material may enter North America. The propensity for such an occurrence is exacerbated by three factors: first, if current US policy prevails and the NWP is respected as an “international strait”, access to the NWP would be akin to a right rather than a privilege, only to be inhibited in extremely limited circumstances; second, there is a **vast discrepancy** between the surveillance and reactionary capacity that Canada and the US possess, and the extraordinary expanse that they are charged with surveying; and finally, there is a significant number of rudimentary airstrips in the Canadian north with limited or no security and immigration personnel which could be utilized to gain access to the North America’s more densely populated areas.

# 2NC – Canada Sovereignty – AT: International Straits Good

**Canada solves their turns --- Canadian legal sovereignty maintains regulation while still maintaining the benefits of an international strait --- it’s the best of both worlds**

**Griffiths 08** (Franklyn Griffiths, professor emeritus of political science and George Ignatieff Chair Emeritus of Peace and Conflict Studies at the University of Toronto, “Canadian Arctic Sovereignty: Time to Take Yes for an Answer on the Northwest Passage,” Institute for Research on Public Policy, 2008, http://www.irpp.org/books/archive/aots4/griffiths.pdf)

To this end, I propose that we consider what might be accomplished if Canada, without prejudice to its right to exclusive jurisdiction over the waters of the Arctic Archipelago, chose to govern the Northwest Passage as though it were an international strait. Since the outlook is good for Canadian control over foreign private vessels, I will for now confine discussion of this “as though” proposition to warships. Under the law of the sea, states bordering an international strait are entitled to channel foreign vessels along designated sea lanes. Ships so proceeding must do so in a continuous and expeditious manner. Refraining from all activity other than that incident to sailing without delay, they must in no way threaten the sovereignty, integrity or political independence of the bordering state, or in any manner violate the principles of international law as embodied in the charter of the United Nations. As well, they are to comply with generally accepted international standards, and corresponding bordering-state regulations, for safety at sea and environmental protection (United Nations 1983, 12-14). If the Northwest Passage were an international strait, Canada would need, under UNCLOS article 41, to refer its sea lane proposals for adoption by the IMO. But **the passage is not an international strait. We are, however, free unilaterally to make use of the elements of a straits regime,** if that’s what best meets our needs in managing the waters of the archipelago and in providing allies with reason to support our actions. Applied without prejudice by Canada, provisions of the law relating to international straits could see us confine all foreign submarine transits of our intern a l waters to a single route through Parry Channel, unless permission were given to proceed otherwise. Warships appearing as ice conditions allowed would be channelled, as required, along alternative routes. There would be no deviation, no dallying, no ASW activity, no reconnaissance for alternative passages, no exercising to find sites for sanctuary in a crisis, no coming ashore — only direct and expeditious transit. Any depart u re from these rules would be met with countervailing Canadian enforcement action backed up by allied support as necessary. Allies would support Canada in pursuit of common security requirements to limit and deny hostile use of the archipelago. They would do so even as they persisted in their denial of Canada’s internal waters claim. Net effect: vastly simplified, less expensive and more effective policing and control over foreign naval activity than could be achieved by a stand-alone Canada bent on denying all unauthorized activity.

# 2NC – Canada Relations – Environment Impact

**Relations are key to environmental protection**

**Fergusson 12** (Ian F. Fergusson, Specialist in International Trade and Finance, Carl Ek, Specialist in International Relations, “Canada-U.S. Relations,” Congressional Research Service, April 5, 2012, http://www.fas.org/sgp/crs/row/96-397.pdf)

Relations between the United States and Canada, though generally close, have undergone changes in tenor over the past three decades. During the 1980s, the two countries generally enjoyed very good relations. The early 1990s brought new governments to Ottawa and Washington, and although Canada’s Liberal Party emphasized its determination to act independently of the United States when necessary, relations continued to be cordial. In early 2006, a minority Conservative government assumed power in Ottawa. It was regarded as being more philosophically in tune with the George W. Bush Administration than the Liberals had been; some observers believe that this compatibility helped facilitate bilateral cooperation. This cooperation has continued with the election of President Obama in November 2008, despite the differences in the two leaders’ governing philosophies. The two North American countries continue to cooperate widely in international security and political issues, both bilaterally and through numerous international organizations. Canada’s foreign and defense policies are usually in harmony with those of the United States. Areas of contention have been relatively few, but sometimes sharp, as was the case in policy toward Iraq. Since September 11, the United States and Canada have cooperated extensively on efforts to strengthen border security and to combat terrorism, particularly in Afghanistan. Both countries were also active participants in the U.N.-sanctioned NATO mission in Libya. The United States and Canada maintain the world’s largest bilateral trading relationship, one that has been strengthened over the past two decades by the approval of two major free trade agreements. Although commercial disputes may not be quite as prominent now as they have been in the past, the two countries in recent years have engaged in difficult negotiations over items in several trade sectors, including natural resources, agricultural commodities, and intellectual property rights. The most recent clash centered around the Buy America provision of the 2009 economic stimulus law. However, these disputes affect but a small percentage of the total goods and services exchanged. In recent years, energy has increasingly emerged as a key component of the trade relationship. In addition, the United States and Canada work together closely on environmental matters, including monitoring air quality and solid waste transfers, and protecting and maintaining the quality of border waterways.

**Extinction**

**Jayawardena, 9** — London South Bank University (Asitha, “We Are a Threat to All Life on Earth”, Indicator, 7/17/2009, http://www.indicator.org.uk/?p=55)

Sloep and Van Dam-Mieras (1995) explain in detail why **the** natural **environment is** so **important for life on Earth.** It is from the environment that the living organisms of all species import the energy and raw material required for growth, development and reproduction. In almost all ecosystems plants, the most important primary producers, carry out photosynethesis, capturing sunlight and storing it as chemical energy. They absorb nutrients from their environment. When herbivores (i.e. plant-eating animals or organisms) eat these plants possessing chemical energy, matter and energy are transferred ‘one-level up.’ The same happens when predators (i.e. animals of a higher level) eat these herbivores or when predators of even higher levels eat these predators. Therefore, in ecosystems, food webs transfer energy and matter and various organisms play different roles in sustaining these transfers. Such transfers are possible due to the remarkable similarity in all organisms’ composition and major metabolic pathways. In fact all organisms except plants can potentially use each other as energy and nutrient sources; plants, however, depend on sunlight for energy. Sloep and Van Dam-Mieras (1995) further reveal two key principles governing the biosphere with respect to the transfer of energy and matter in ecosystems. Firstly, the energy flow in ecosystems from photosynthetic plants (generally speaking, autotrophs) to non-photosynthetic organisms (generally speaking, heterotrophs) is essentially linear. In each step part of energy is lost to the ecosystem as non-usable heat, limiting the number of transformation steps and thereby the number of levels in a food web. Secondly, unlike the energy flow, the matter flow in ecosystems is cyclic. For photosynthesis plants need carbon dioxide as well as minerals and sunlight. For the regeneration of carbon dioxide plants, the primary producers, depend on heterotrophs, who exhale carbon dioxide when breathing. Like carbon, many other elements such as nitrogen and sulphur flow in cyclic manner in ecosystems. However, it is photosynthesis, and in the final analysis, solar energy that powers the mineral cycles. Ecosystems are under threat and so are we Although it seems that a continued energy supply from the sun together with the cyclical flow of matter can maintain the biosphere machinery running forever, we should not take things for granted, warn Sloep and Van Dam-Mieras (1995). And they explain why. Since the beginning of life on Earth some 3.5 billion years ago, organisms have evolved and continue to do so today in response to environmental changes. However, the overall picture of materials (re)cycling and linear energy transfer has always remained unchanged. We could therefore safely assume that this slowly evolving system will continue to exist for aeons to come if large scale infringements are not forced upon it, conclude Sloep and Van Dam-Mieras (1995). However, according to them, the present day infringements are large enough to upset the world’s ecosystems and, worse still, human activity is mainly responsible for these infringements. The rapidity of the human-induced changes is particularly undesirable. For example, the development of modern technology has taken place in a very short period of time when compared with evolutionary time scales – within decades or centuries rather than thousands or millions of years. Their observations and concerns are shared by a number of other scholars. Roling (2009) warns that human activity is capable of making the collapse of web of life on whichboth humans and non-human life formsdepend fortheirexistence. For Laszlo (1989: 34), in Maiteny and Parker (2002), modern human is ‘a serious threat to the future of humankind’. As Raven (2002) observes, many life-support systems are deteriorating rapidly and visibly. Elaborating on human-induced large scale infringements, Sloep and Van Dam-Mieras (1995) warn that they can significantly alter the current patterns of energy transfer and materials recycling, posing grave problems to the entire biosphere. And climate change is just one of them! Turning to a key source of this crisis, Sloep and Van Dam-Mieras (1995: 37) emphasise that, although we humans can mentally afford to step outside the biosphere, we are ‘animals among animals, organisms among organisms.’ Their perception on the place of humans in nature is resonated by several other scholars. For example, Maiteny (1999) stresses that we humans are part and parcel of the ecosphere. Hartmann (2001) observes that the modern stories (myths, beliefs and paradigms) that humans are not an integral part of nature but are separate from it are speeding our own demise. Funtowicz and Ravetz (2002), in Weaver and Jansen (2004: 7), criticise modern science’s model of human-nature relationship based on conquest and control of nature, and highlight a more desirable alternative of ‘respecting ecological limits, …. expecting surprises and adapting to these.’

# 2NC – Canada Relations – Economy Impact (1/2)

**Declining Canadian relations damages the economy**

**Burney and Hampson 12** (Derek H. Burney, Senior Strategic Advisor of Norton Rose, former Chief of Staff in the Office of the Prime Minister, and Canadian Ambassador to the US, Fen Osler Hampson, Chancellor’s Professor & Director of NPSIA, Professor of International Affairs, “How Obama Lost Canada,” Foreign Affairs, June 21, 2012, http://www.foreignaffairs.com/articles/137744/derek-h-burney-and-fen-osler-hampson/how-obama-lost-canada)

Economically, Canada and the United States are joined at the hip. Each country is the other’s number-one trading partner — in 2011, the two-way trade in goods and services totaled $681 billion, more than U.S. trade with Mexico or China — and trade with Canada supports more than eight million U.S. jobs. **Yet** the **Obama** administration **has recently jeopardized this important relationship.** It failed to combat the Buy American provision in Congress’ stimulus bill, which inefficiently excluded Canadian participation in infrastructure spending.

**US economic decline leads to nuclear war**

**O’Hanlon, 12** (Kenneth Lieberthal, Director of the China Center, Senior Fellow at the Brookings Institution, Michael O’Hanlon, Director of Research, Senior Fellow at the Brookings Institution, “The Real National Security Threat: America’s Debt,” Los Angeles Times, July 3, 2012, http://articles.latimes.com/2012/jul/03/opinion/la-oe-ohanlon-fiscal-reform-20120703)

Lastly, American economic weakness undercuts U.S. leadership abroad. Other countries sense our weakness and wonder about our purported decline. If this **perception** becomes more widespread, and the case that we are in decline becomes more persuasive, countries will begin to take actions that reflect their skepticism about America's future. Allies and friends will doubt our commitment and may **pursue nuclear weapons** for their own security, for example; adversaries will sense opportunity and be less restrained in throwing around their weight in their own neighborhoods. The crucial Persian Gulf and Western Pacific regions will likely become less stable. **Major war will become** more **likely.**

# 2NC – Canada Relations – Economy Impact (2/2)

**US economic decline also increases aggression and leads to global conflict --- our impacts have robust methodological support**

**Royal 10** — Director of Cooperative Threat Reduction at the U.S. Department of Defense (Jedediah, “Economic Integration, Economic Signaling and the Problem of Economic Crises?” Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, p. 213-215, 2010)

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

# 2NC – Canada Relations – AT: Resilient

**Resiliency no longer applies --- we’re on the brink now --- the CP’s cooperation is key**

**Burney and Hampson 12** (Derek H. Burney, Senior Strategic Advisor of Norton Rose, former Chief of Staff in the Office of the Prime Minister, and Canadian Ambassador to the US, Fen Osler Hampson, Chancellor’s Professor & Director of NPSIA, Professor of International Affairs, “How Obama Lost Canada,” Foreign Affairs, June 21, 2012, http://www.foreignaffairs.com/articles/137744/derek-h-burney-and-fen-osler-hampson/how-obama-lost-canada)

Of course, the U.S.-Canadian relationship has had its rocky moments before. In the 1970s and 1980s, in response to public concern over the United States’ economic domination of Canada, Ottawa enacted a wide variety of protectionist measures that irritated Washington. Eventually, the two countries recognized their mutual interests and resolved what differences they had, ratifying the Canada–United States Free Trade Agreement in 1987 and its successor, NAFTA, seven years later. Back then, Canada had little choice but to find a way to fix its relationship with the United States, the only game in town. Ottawa is in a different position now. Today, it enjoys a respectable platform of self-confidence, having weathered the financial crisis and ensuing recession far better than the United States. And unlike in the past, Canada can now look beyond its own neighborhood for economic opportunities -- especially to the rising economies of Asia. Indeed, Canada has made a full-court press in the Asia-Pacific region. It is wooing countries such as China, India, Japan, and South Korea, which are eager to invest and trade in Canadian minerals, energy, and agricultural products. Harper has announced Canada’s intention to explore free-trade negotiations with China, and talks with Japan, Thailand, India, and South Korea are under way. As Harper put it during a visit to China in February, “We want to sell our energy to people who want to buy our energy.” To be sure, Canadian companies will never abandon the U.S. market. Nevertheless, the U.S. recession and the rise of Asia have allowed Canada to diversify its economic relations. In 2010, only 68 percent of Canadian exports were destined for the United States, down from 85 percent in 2000. Canadians are accustomed to benign neglect from a neighbor preoccupied with more urgent global flashpoints, but since that neglect has grown so much as to be malign, they have begun to reappraise their relationship with the United States. As Canada develops closer ties with China and finds more receptive outlets for its exports, the United States may find itself with a less obliging partner to the north. The Keystone XL pipeline will probably be approved eventually -- the economic consequences of not building it are simply too great -- but it will take a long time to undo the damage its delay has done to U.S.-Canadian relations. Obama’s mishandling of an ordinarily routine pipeline permit awakened Canadians to the problems with depending exclusively on the United States as an export market. Already, Ottawa has shifted toward alternative options that include exporting oil from the west and east coasts of Canada later this decade. To that end, the Harper government introduced legislation that will speed regulatory approval of such projects. In May 1961, U.S. President John F. Kennedy gave a speech before the Canadian parliament in which he celebrated the deep ties between the United States and Canada. “Geography has made us neighbors, history has made us friends, economics has made us partners, and necessity has made us allies,” he said. What Kennedy stated then is still true today, and the two countries, linked by shared values and a network of individual contacts, will continue to cooperate for their mutual security and prosperity. Yet none of the truths he listed should excuse neglect. **Even relations between close allies require constant care.** And when the world’s most powerful country allows narrow political considerations to trample the high-priority interests of its immediate neighbor, it raises questions not only about its ability to maintain an entrenched alliance but also about its capacity for steady global leadership.

# \*\*\*NEG ECON UPDATES\*\*\*

# 1NC – US Econ High Now

**US econ is high**

**Davidson 10/30** (Paul, expert economics- reporter who covers topics such as jobs, consumer spending and manufacturing, “Economy zooms forward in Q3, passing forecasts”, 10/30/2014, <http://www.usatoday.com/story/money/business/2014/10/30/third-quarter-gdp/18149429/>)

The U.S. economy grew more rapidly than expected in the third quarter, foreshadowing a projected pickup in the recovery next year. Gross domestic product expanded at a seasonally adjusted annual rate of 3.5% in the three months ended Sept. 30, the Commerce Department said Thursday. Economists expected 3% growth, according to the median forecast from Action Economics' survey. Federal government spending, exports and business capital outlays drove growth. The showing marks a slowdown from the second quarter's 4.6% growth pace, but that period was aided by a strong rebound in activity after harsh winter weather caused the economy to shrink 2.1% in the first quarter. Together, the second and third quarters produced the best six-month stretch for the economy since 2013. And growth has now exceeded 3% in four of the past five quarters. But after including the disappointing first quarter, the economy has expanded just 2% so far this year, in line with its performance for most of the 5-year-old recovery. USA TODAY Unemployment claims hold near 14-year lows Business investment increased at a 5.5% rate, though it slowed from the second quarter's 9.7%. Equipment spending increased a solid 7.2%. Federal government outlays surged 10%, including a 16% jump for defense, after falling 0.9% in the second quarter. "After being such a massive drag on the economy in recent years, the public sector is now a big positive," economist Paul Ashworth of Capital Economics wrote in a note to clients. Exports rose 7.8%, compared to 11.1% increase in the second quarter. Falling imports narrowed the U.S. trade deficit, which supports growth. Consumer spending, which accounts for more than two-thirds of the economy, increased 1.8%, slowing from 2.5% in the previous quarter. Many economists expect falling gasoline prices to bolster consumption in the current quarter. Businesses also substantially reined in their stockpiling after rapidly adding to inventories in the previous quarter. Jim O'Sullivan, chief U.S. economist at High Frequency Economics, says economic growth may be catching up to average monthly job gains that have increased to 227,000 so far this year from 194,000 in 2013. Measures of factory output and consumer confidence also have surged recently, though retail sales fell in September. The implications of the GDP report for future growth are generally positive. Economist James Marple of TD Economics and Dean Maki of Barclays Capital note that the healthy third-quarter gains from trade and defense spending are unlikely to continue. The strong dollar is expected to hamper exports and the eurozone's economy is slowing. Still, the solid third-quarter growth came despite modest consumer spending. Ashworth expects employment and wage increases, combined with falling gas prices, to fuel increased consumption. He predicts the economy will expand by 3% in both the current quarter and in 2015.

# 2NC – US Econ High Now

**US econ is high and improving**

**Pisani 10/14** (Bob, Stock reporter/ economist expert, “Bank CEOs see U.S. economy improving”, CNBC, 10/14/2014, http://www.cnbc.com/id/102086232#)

The problem is this has taken everyone's mind off the fundamentals. True, there are many headwinds: greater risk of a slowdown in Europe and China, the end of quantitative easing, and the difficulty of controlling an Ebola epidemic. But there are tailwinds as well: lower oil prices, a better U.S. economy and very high cash levels at U.S. corporations. Given the negative sentiments, it's worthwhile to note that two bank executives highlighted the strengths of the U.S. economy in their earnings report Tuesday morning. Wells Fargo CEO John Stumpf noted, "We continue to see signs of a steadily improving economy." And JPMorgan Chase CEO Jamie Dimon said, "While challenges remain in the global economic recovery, the U.S. economy is an exception, showing signs of steady improvement."

# 1NC – Russian Econ High Now

**Sanctions have set the stage for Russian economic growth, focusing on domestic markets and local consumption—new statistics prove that the market is showing positive economic signs**

**Lossan 9/25**, Writer for Russia Beyond the Headlines, occasional write for the Telegraph(Alexei, “Sanctions can be used in order to speed up Russian economy, says Putin,” Russia Beyond the Headlines, [http://rbth.com/business/2014/09/25/sanctions\_can\_be\_used\_in\_order\_to\_speed\_up\_russian\_economy\_says\_puti\_ 40103.html)](http://rbth.com/business/2014/09/25/sanctions_can_be_used_in_order_to_speed_up_russian_economy_says_puti_%2040103.html))

During a session of the State Council on Sept. 18, Russian President Vladimir Putin suggested that the sanctions could be turned to Russia’s advantage by increasing the competitiveness of the Russian economy, focusing on gross domestic and national product, consumption, savings, and capital formation, or the real sector. "In the next one and a half to two years it is necessary to take a real leap in the improvement of the real sector's competitiveness. Doing something that in the past would have taken years to do," he announced. According to Putin, the efforts of all federal and regional government organs must be oriented towards the development of the real sector. In particular, key instruments must be accessible credits and new competitive conditions for financing business. The principal points In general, the Russian government plans on using the domestic market in order to develop the real sector. "The competitiveness of Russian enterprises will directly depend on whether they will be able to put out a sufficient quantity of production that will not be inferior to foreign production in price and quality," Putin explained. In his words, "we need to use one of the country's most important competitive edges: the capacious domestic market." It needs to be filled with quality goods made by the real sector, while maintaining the economy's stability and equilibrium, according to Putin. Russia to look for new technologies beyond United States and EU Russia to look for new technologies beyond United States and EU Experts reacted to the president's words with caution. "Talk of accessible credit has been around in Russia since the fall of the USSR, but enterprises have still not received it," says Anton Soroko, analyst at the Finam Investment Holding. “Furthermore, the situation in Ukraine has not helped. Therefore, in the near future we must start anew." According to Soroko, the opaqueness of the institutional environment can easily neutralize practically any monetary flows into the country. Chief Economist on Russia and the CIS countries at the Bank of America Merrill Lynch Vladimir Osakovsky is also not counting on the growth of the Russian economy in the near future. "We expect that the macroeconomic situation in Russia will worsen as a result of the accelerating inflation caused by the restrictions on food imports, the fall of consumption and the volume of investment, as well as the reduction of exports," the RBC business daily cites Osakovsky as saying. According to Osakovsky's new forecast, in the second part of 2014 and the first half of 2015 Russia will sink into a recession, which will be followed by a recovery generated, mainly, by the base effect. Alexei Kozlov, chief analyst of UFS IC, has a different opinion. "The proposal to accelerate the development of the Russian economy that we heard during the State Council session is completely realistic," he says. According to him, the objectives have a maximalist character, but without setting such high goals, it is impossible to make a radical change in the way the Russian economy functions. "On the whole, Russia has been voicing its aim to reduce its raw material dependence for a long time," remarks Kozlov. "In light of the recent events, this goal has been expanded and is now attainable." The market's reaction Russian industrial enterprises are continuing to show positive economic signs. According to data collected in September by the Gaidar Institute of Economical Policy (IEP), short-term investment expectations in the industrial sector are still high, on a par with those of 2012. Moreover, the institute's "industrial optimism index" practically reached a three-year maximum in September 2014. The institute believes that it is highly likely that this month a growth in production output will be recorded. Russia needs reforms, not a sanctions war Russia needs reforms, not a sanctions war In the first half of the year the growth of industrial production was 1.5 percent in comparison with the same period in 2013, while GDP grew by almost twice as less: 0.8 percent. According to a study carried out by the Higher School of Economics, the last time this happened was in 2010-2011, during the phase of reserves accumulation. However, in this case growth depends completely on state orders. For the time being, according to experts, only a certain industrial sector is witnessing growth: the production of vessels, aircrafts, spacecraft and other means of transportation. This industrial segment also includes the production of railroad cars, airplanes, helicopters, submarines and so on, that is, a substantial part of transportation bought by the government and by state companies, including military technology. Production in this sector has been growing since the middle of 2013, and in 2014 it drastically increased. While at the end of 2013 this subsector's contribution was only 0.1 percent of the growth of industrial production (out of 0.4 percent of growth), in the period between January and August 2014 it was already 0.7 percent out of 1.3 percent, which is more than half. This means that this year industrial growth was fully conditioned by state demand, according to the Higher School of Economics.

# 2NC – Russian Econ High Now

**China solves for western sanctions – will allow Russia’s economy to once again grow**

**Soldatkin 10/13**, (Vladimir, Staff Writer, “Russia signs deals with China to help weather sanctions”, Reuters, 10/13/2014, http://www.reuters.com/article/2014/10/13/us-russia-china-banks-idUSKCN0I20WG20141013)

(Reuters) - **Russia and China signed energy, trade and finance agreements** on Monday **proclaimed by Moscow as proof that a policy turn to Asia is bearing fruit and will help it to weather Western sanctions over the Ukraine crisis. The 38 deals, signed on a visit to Moscow by Premier Li Keqiang, allow for deeper cooperation on energy and a currency swap** worth 150 billion yuan ($25 billion**) intended partly to reduce the sway of the U.S. dollar. They are among the first clear successes of the eastward shift, ordered by President Vladimir Putin to avoid isolation over the sanctions,** since the vast nations reached a $400 billion, 30-year natural gas supply agreement in May. "I consider it important that, in spite of the difficult situation, **we are opening up new possibilities**," Russian Prime Minister Dmitry Medvedev said after the signing ceremony. In a sign that mistrust has still not been completely buried, Li was less effusive, even when holding out the prospect of a deal in 2015 to build a second pipeline along what is called the Western route to ferry Russian gas to China. "Cooperation over natural gas between Russia and China goes back quite a long way," Li said. **For Russia, the agreements offer** **relief**, **The currency swap strengthens China's plans to promote international usage of the yuan** CNY= **following pledges by Moscow and Beijing to settle more bilateral trade in roubles and yuan**. Spurred by their often fraught relations with the United States, Russia and China have long advocated reducing the role of the dollar in international commerce. China, which has 32 percent of its $4 trillion foreign exchange reserves invested in U.S. government debt, would like to cap its vulnerabilities to any fluctuations in the dollar in the near term. Over the longer term, it wants to increase the yuan's clout and turn it into a global reserve currency. EASTWARD SHIFT IN OIL SUPPLIES **Medvedev said trade turnover between Russia and China had grown by more than 100 percent over the past six years** from $40 billion to $90 billion. Under the new agreements**, cooperation will deepen between state oil producer** Rosneft (ROSN.MM) and China National Petroleum Corporation, including in liquefied natural gas (LNG) projects and possibly LNG supplies to China. Another sign that Russian ties with Beijing are improving was the release of energy ministry data showing crude oil supplies to China rose in January-September by almost 45 percent year-on-year. Shipments from the Baltic Sea port of Primorsk toward Europe fell almost 20 percent. "Much greater changes can be seen in the geographical distribution of these shrinking exports, with flows to the West clearly losing out against prioritized links to the Far East, **a trend that could easily be accelerated further in the current political climate,"** JBC Energy consultancy said in a note. **Beijing has made clear it wants to increase business with Russia and cash in on the crisis in relations between Moscow and the West**, **Beijing is interested in investing in infrastructure, energy and commodities in Russia**, but Moscow long had reservations about allowing Chinese investment in strategic industries.

# 1NC – Chinese Econ High Now

**China econ is high – largest economy in the world**

**Bird 10/8** (Mike, a European markets reporter, “China Just Overtook the US as The World's Largest Economy”, Business Insider, 10/8/2014, <http://www.businessinsider.com/china-overtakes-us-as-worlds-largest-economy-2014-10>)

**Sorry, America. China just overtook the US to become the world's largest economy, according to the** **International Monetary Fund.** **The simple logic is that prices aren't the same in each country:** A shirt will cost you less in Shanghai than in San Francisco, so it's not entirely reasonable to compare countries without taking this into account. Though a typical person in China earns a lot less than the typical person in the US, simply converting a Chinese salary into dollars underestimates how much purchasing power that individual, and therefore that country, might have. The Economist's Big Mac Index is a great example of these disparities. So the IMF measures both GDP in market-exchange terms and in terms of purchasing power. On the purchasing-power basis**, China is overtaking the US right about now and becoming the world's biggest economy.** We've just gone past that crossover on the chart below, according to the IMF. By the end of 2014, **China will make up 16.48%** of the world's purchasing-power adjusted GDP (or $17.632 trillion), **and the** **US will make up just 16.28%** (or $17.416 trillion): Adjusted for purchasing power, **China's economy is now the world's largest.**

# 1NC – US Manufacturing High Now

**Russia econ low – low oil prices and sanctions are making Russia head towards a recession**

**Arutunya 10/22,** (Anna, Russian economics reporter, “Lower oil prices push Russia toward recession”, USA Today, 10/22/2014, http://www.usatoday.com/story/money/business/2014/10/22/russia-oil/17716263/)

MOSCOW **— If sanctions, inflation and political risk weren't enough, falling oil prices are pushing Russia's already beleaguered economy toward recession.** The price of Brent crude **oil**, a global benchmark**, hit a four-year low last week**, **plunging** to below $83 per barrel from $116 in June. While it was just under $85 on Wednesday, t**here is considerable risk it could dip well below** $80, **costing Russia, whose budget gets half its revenue from oil and gas exports,** billions of dollars, analysts said. **Geopolitics and oil prices have already reduced Russia's budget by an amount equal to 4% of its gross domestic product**. **Cheap oil has further devalued Russia's currency,** **with the official exchange rate falling** almost 20% this year to 41.34 to the dollar Wednesday**. Months of economic instability largely due to Western sanctions over Russia's incursion into Ukraine have already taken their toll, with the latest round of sanctions cutting off Russian companies from Western financing.** "**If oil price continues to fall at the same rate, the negative effect for the GDP will increase,**" said Alexander Golovtsov, chief analyst at Moscow's UralSib Asset Management, by telephone. "**If oil falls to $75 per barrel, we could lose up to 3% of economic growth. That would somewhat deepen the recession that's about to get underway."** But while Finance Minister Anton Siluanov has said **Russia can make it through 2015 without tapping into the Reserve Fund, that may be an optimistic forecast. Officials and analysts said that if oil keeps falling, Russia could deplete its reserves in one or two years.** "With an oil price of $75-80 per barrel, Russia's reserves would last about two years," said Golovtsov. "If sanctions continue and the price of oil drops to $60, they could be spent in a year." Crimea's infrastructure and development alone will cost the Russian budget up to $4.5 billion a year, according to the Ministry of Economic Development. The cost of the incursion itself is impossible to estimate, because Russia has consistently denied sending weapons or soldiers to Ukraine, claiming only volunteers were fighting on the side of the rebels. Earlier this month, Siluanov said that **falling oil prices and geopolitics have already cost the Russian** budget 4% of the GDP, according to Itar-Tass. In statements uncharacteristic for officials in Putin's government, Economics Minister Alexei Ulyukayev called an **8% inflation rate coupled with 0.8% economic growth an "explosive situation**," according to Interfax. German Gref, the chief of Russia's largest bank, Sberbank, went further when he pointed to ignorance of the laws of economic development as the cause of the Soviet Union's collapse. He further lashed out at the economy's dependence on oil and the government's repressive measures, saying at the forum, "You cannot motivate people through the Gulag." In spite of additional revenues to the Russian budget due to the ruble's devaluation, mounting economic woes are taking their toll on average citizens and small businesses. Consumer prices have risen by up to 28% for some goods since last year, Golovtsov, of UralSib, says, but salaries and pensions have not kept up. Retail turnover for electronics, cars and other goods has contracted because people have less money to spend due to inflation. Falling consumer demand, in turn, is hurting small businesses. According to recent data from Cushman & Wakefield cited by Russia's RBC agency, at least 18 properties on Moscow's central Tverskaya Street that used to house shops and restaurants now stand empty.

# 1NC – Oil Prices High Now

**The current oil prices are temporary--- increasing consumption and population growth**

**Kerr 10/26/14** [Simon, Financial Times correspondent in Dubai, Fall in oil prices is temporary, says Saudi petrochemicals chief, <http://www.ft.com/intl/cms/s/0/c4c0a1c6-5d29-11e4-9753-00144feabdc0.html#axzz3HP24Z6uR>]

The decline in oil prices may continue for a year or so but will prove temporary as population growth spurs higher consumption and supports prices in the longer term, a leading Saudi petrochemicals executive said on Sunday. The comments by Mohammed al-Mady, chief executive of the state-controlled petrochemicals producer Sabic, reported by Reuters, come as oil-dependent states in the Gulf grapple with demands to curtail public spending and speed up reform programmes. The price of oil has fallen by a quarter since the summer. Brent crude closed at $86.05 on Friday

# 2NC – Oil Prices High Now

**Oil prices will rise soon--- Multiple empirics**

**Seeking Alpha 10/22/14** [Seeking Alpha is a crowd sourced content service for financial markets. Articles and research covers a broad range of stocks, asset classes, ETFs and investment strategies, 8 Major Reasons Why The Current Low Oil Price Is Not Here To Stay, <http://seekingalpha.com/article/2581505-8-major-reasons-why-the-current-low-oil-price-is-not-here-to-stay>]

It has been a very tough market out there over the last weeks. And the energy stocks have been hit the hardest over the last five months, given that most of them have returned back to their H2 2013 levels while many have dropped even lower down to their H1 2013 levels. But one of my favorite quotes is Napoleon's definition of a military genius: "The man who can do the average thing when all those around him are going crazy." To me, you don't have to be a genius to do well in investing. You just have to not go crazy when everyone else is. In my view, this slump of the energy stocks is a deja-vu situation, that reminded me of the natural gas frenzy back in early 2014, when some fellow newsletter editors and opinion makers with appearances on the media (i.e. CNBC, Bloomberg) were calling for $8 and $10 per MMbtu, trapping many investors on the wrong side of the trade. In contrast, I wrote a heavily bearish article on natural gas in February 2014, when it was at $6.2/MMbtu, presenting twelve reasons why that sky high price was a temporary anomaly and would plunge very soon. I also put my money where my mouth was and bought both bearish ETFs (NYSEARCA:DGAZ) and (NYSEARCA:KOLD), as shown in the disclosure of that bearish article. Thanks to these ETFs, my profits from shorting the natural gas were quick and significant. This slump of the energy stocks also reminded me of those analysts and investors who were calling for $120/bbl and $150/bbl in H1 2014. Even T. Boone Pickens, founder of BP Capital Management, told CNBC in June 2014 that if Iraq's oil supply goes offline, crude prices could hit $150-$200 a barrel. But people often go to the extremes because this is the human nature. But shrewd investors must exploit this inherent weakness of human nature to make easy money, because factory work has never been easy.

# \*\*\*AFF ECON UPDATES\*\*\*

# 2AC – US Econ Low Now

**US econ low – a growing trade deficit is bringing down the economy**

**GMA 11/4,** (GMA News Online – “Wider US trade deficit, weak exports point to slower growth”, 11/4/2014, GMA News Online, http://www.gmanetwork.com/news/story/386613/economy/business/wider-us-trade-deficit-weak-exports-point-to-slower-growth)

The U.S. trade deficit unexpectedly widened in September as exports hit a five-month low, suggesting slowing global demand could undercut economic growth in the final three months of the year. The Commerce Department said on Tuesday the trade gap increased 7.6 percent to $43.03 billion. Economists had forecast the shortfall at $40.00 billion in September. "The disappointing performance in export activity suggests that the loss of export competitiveness from the strong dollar and the weak global backdrop are becoming a net drag on U.S. economic activity," said Millan Mulraine, deputy chief economist at TD Securities in New York. The trade deficit was bigger than the $38.1 billion gap that the government had assumed in its advance gross domestic product estimate for the third quarter published last week. The trade report adds to September construction spending data published on Monday that also pointed to a downward revision to the third-quarter growth estimate. U.S. financial markets were little moved by the trade data. Exports in September fell 1.5 percent to $195.59 billion, the lowest since April, a sign that weakening demand in key markets such as China and the euro zone was starting to weigh. Exports are likely to weaken further after a survey of U.S. manufacturers published on Monday showed a decline in a gauge of export order growth.

# 1AR – US Econ Low Now

**A strong US economy won’t last**

**AP 10/15,** (Associated Press, “Why the lower gas prices recently may be really bad news”, Times Free Press, 10/15/2014, http://www.timesfreepress.com/news/2014/oct/15/why-drop-in-oil-prices-has-downside-for-us-economy/)

If you're a driver, a shipper or an airline, low oil prices sure feel nice. But there are downsides to the recent plunge in oil prices -- for the oil industry and for the economy. Low fuel prices can help boost economic growth by reducing fuel bills and leaving consumers and companies with more money to spend on other things. Problem is, two factors behind the oil-price drop -- a weaker global economy and a stronger dollar -- could hurt the U.S. economy by reducing exports, employment and spending. And all that, in turn, outweigh the economic benefit of cheaper fuel. "Initially, (a lower oil price) will provide a boost to an economy that already has some momentum," says Diane Swonk, chief economist at Mesirow Financial. "It's like a tax cut. The problem is that it will come back to haunt us in 2015." A boom in U.S. oil production, which has helped reduce dependence on foreign oil, has been propelled by high prices. Drilling in some areas of North Dakota and Texas, for example, produces only a slight output per day. If prices fell further, drilling would have to slow because it would no longer be profitable. Oil hasn't fallen quite far enough for that to happen, analysts say. Even the more expensive drilling operations are still profitable when oil sells for $85 a barrel, and oil closed just below $86 on Monday . In general, oil companies would have to expect oil prices to stay below $80 a barrel for many months to scale back their drilling plans. Unless supplies drop, perhaps from a cut in production from Saudi Arabia or OPEC, or a sudden turnaround in the global economy that would increase demand, prices could fall further. "It's problematic," says Gary Ross, CEO of PIRA Energy Group. "The wake-up call is on its way." In the meantime, drivers will be enjoying the lowest gas prices in four years. Tom Kloza, chief oil analyst at the Oil Price Information Service and Gasbuddy.com, says the national average could fall under $3 a gallon before year's end for the first time since 2010. Global supplies were unstable, and demand appeared robust. U.S. refiners were churning through more oil than ever and making and exporting records amounts of fuel. The picture soon flipped. The threat to Iraq's exports diminished. Libyan exports returned to the market. And refineries in the U.S. and Asia slowed for seasonal maintenance. At the same time, slower growth in Europe and China led forecasters to reduce expectations for oil demand. The weak global economic forecast, combined with a relatively strong one for the United States, raised the dollar's value to a four-year high against other currencies. Because oil is priced in dollars, a stronger dollar makes oil more expensive and tends to reduce demand. Suddenly there was plenty of supply and not enough demand. By the end of last week, oil had plunged $20 a barrel from its peak. It ended the week below $86 a barrel for the first time in nearly two years. Energy company stocks have fallen 16 percent since late June, compared with a drop of 2 percent in the Standard & Poor's 500 stock index, according to FactSet. But a sharp fall in energy prices often results from weakening economic growth, and the benefit of lower fuel costs isn't enough to offset it. The lower global economic growth that's pulling down oil prices and U.S. stocks will also squeeze U.S. companies. The stronger dollar can hurt the U.S. economy because it makes U.S. goods costlier than foreign goods, so exports fall and imports rise. That can reduce domestic economic activity and job growth.

# 2AC – Russian Econ Low Now

**Russia econ low – low oil prices and sanctions are making Russia head towards a recession**

**Arutunya 10/22,** (Anna, Russian economics reporter, “Lower oil prices push Russia toward recession”, USA Today, 10/22/2014, http://www.usatoday.com/story/money/business/2014/10/22/russia-oil/17716263/)

MOSCOW — If sanctions, inflation and political risk weren't enough, falling oil prices are pushing Russia's already beleaguered economy toward recession. The price of Brent crude oil, a global benchmark, hit a four-year low last week, plunging to below $83 per barrel from $116 in June. While it was just under $85 on Wednesday, there is considerable risk it could dip well below $80, costing Russia, whose budget gets half its revenue from oil and gas exports, billions of dollars, analysts said. Geopolitics and oil prices have already reduced Russia's budget by an amount equal to 4% of its gross domestic product. Cheap oil has further devalued Russia's currency, with the official exchange rate falling almost 20% this year to 41.34 to the dollar Wednesday. Months of economic instability largely due to Western sanctions over Russia's incursion into Ukraine have already taken their toll, with the latest round of sanctions cutting off Russian companies from Western financing. "If oil price continues to fall at the same rate, the negative effect for the GDP will increase," said Alexander Golovtsov, chief analyst at Moscow's UralSib Asset Management, by telephone. "If oil falls to $75 per barrel, we could lose up to 3% of economic growth. That would somewhat deepen the recession that's about to get underway." But while Finance Minister Anton Siluanov has said Russia can make it through 2015 without tapping into the Reserve Fund, that may be an optimistic forecast. Officials and analysts said that if oil keeps falling, Russia could deplete its reserves in one or two years. "With an oil price of $75-80 per barrel, Russia's reserves would last about two years," said Golovtsov. "If sanctions continue and the price of oil drops to $60, they could be spent in a year." Crimea's infrastructure and development alone will cost the Russian budget up to $4.5 billion a year, according to the Ministry of Economic Development. The cost of the incursion itself is impossible to estimate, because Russia has consistently denied sending weapons or soldiers to Ukraine, claiming only volunteers were fighting on the side of the rebels. Earlier this month, Siluanov said that falling oil prices and geopolitics have already cost the Russian budget 4% of the GDP, according to Itar-Tass. In statements uncharacteristic for officials in Putin's government, Economics Minister Alexei Ulyukayev called an 8% inflation rate coupled with 0.8% economic growth an "explosive situation," according to Interfax. German Gref, the chief of Russia's largest bank, Sberbank, went further when he pointed to ignorance of the laws of economic development as the cause of the Soviet Union's collapse. He further lashed out at the economy's dependence on oil and the government's repressive measures, saying at the forum, "You cannot motivate people through the Gulag." In spite of additional revenues to the Russian budget due to the ruble's devaluation, mounting economic woes are taking their toll on average citizens and small businesses. Consumer prices have risen by up to 28% for some goods since last year, Golovtsov, of UralSib, says, but salaries and pensions have not kept up. Retail turnover for electronics, cars and other goods has contracted because people have less money to spend due to inflation. Falling consumer demand, in turn, is hurting small businesses. According to recent data from Cushman & Wakefield cited by Russia's RBC agency, at least 18 properties on Moscow's central Tverskaya Street that used to house shops and restaurants now stand empty.

# 2AC – Chinese Econ Low Now

**Chinese econ low – inflation is coming**

**Magnier and Qi 10/15** (Mark – Chinese economist reporter, Liyan – Chinese financials reporter, “Economists React: Slow Rise in Prices Shows China’s Economy Is Still Struggling”, The Wall Street Journal, 10/15/2014, http://blogs.wsj.com/chinarealtime/2014/10/15/economists-react-rise-in-prices-shows-chinas-economy-is-still-struggling/)

Consumers are generally happy to see prices rising slowly, but when **inflation becomes so weak that an economy faces deflation risks, it may not be good news for decision makers. China’s consumer prices rose at their slowest pace in more than four years** in September, **while, producer prices dropped at the fastest rate** in five months, official data showed Wednesday. **That means real borrowing costs remain high for Chinese manufacturers**, as low factory-gate prices eat into profit margins. Policy makers seem to be aware of the potential risks. On Tuesday**, the central bank moved to cut some short-term borrowing costs for banks, its latest targeted easing measures aimed at reducing lending costs.** As **China’s deflation risk rises, policy makers should take pre-emptive measures to reduce interest rates in the real economy. Deflation** is not happening now, but the **risk is obviously rising**. Policy makers should do more. Earlier in the year, it looked like inflation would edge up in the third quarter, but because the monetary policy has been skewed to the tight side, it didn’t really happen. I’m more concerned about the PPI deflation, as that shows companies are really having a difficult time coping with high interest rates in real terms. **Chinese companies are having a difficult time because, although nominal rates are not high, deepening producer deflation makes the real rates elevated, which squeezes their profit margins**. — Ma Xiaoping, HSBC The **sharp deceleration of CPI inflation** is largely due to surprisingly low food prices during Mid-Autumn Festival and before the National Day holidays. In our view, the antigraft campaign could have significantly eased the upward pressure on prices. We lower our CPI forecast for 2014 to 2.0%, from 2.2%-2.3% previously. China’s soft inflation profile heightens the risk of deflation, thus requiring further monetary policy easing…In our view, the People’s Bank of China could adjust repo rates more frequently in the future and will experiment the transmission from repo rates to deposit and lending rates of commercial banks. The PBOC appears to use some innovative policy instruments to implement monetary policy, indicating that China is pushing towards interest-rate liberalization. –Liu Ligang & Zhou Hao, ANZ **PPI is still very low and weak.** That means that the manufacturing sector continues to struggle with a lack of pricing power, growth and demand. It’s also because the dollar continued to be strong. A strong dollar leads to weaker commodity prices. CPI was quite weak again reflecting very sluggish demand conditions. The market expected too much from monetary stimulus. Either the stimulus is short in substance or it has not created substantial impact. In terms of policy implications, I don’t think this creates a case for rate cuts yet. I don’t think the government will do more at this point. They’re fine with the money outflows because of tapering. — Kevin Lai, Daiwa Although today’s inflation data suggest that broad price pressures remain subdued, we aren’t yet concerned about deflation risks. Rising pork prices mean the fall in food inflation last month is likely to prove short-lived. Meanwhile, lower inflation elsewhere mostly reflects falling global commodity prices rather than weaker demand…Looking ahead, we expect broad price pressures to remain subdued. That said, consumer price inflation remains highly sensitive to pork prices, which look set to rise on the back of the fall in pig stocks since the start of the year. As such, **we still expect inflation to edge up again over the coming quarters, though it is unlikely to pick up enough to become a policy concern.** — Julian Evans-Pritchard, Capital Economics

# 2AC – Oil Prices Low Now

**Oil Prices Low now--- Chinas buying spree proves**

**Yep 10/27/14** [Eric, Wall Street Journal writer, Low Prices Lure China into Oil Market, <http://online.wsj.com/articles/low-prices-lure-china-into-oil-market-1414408120>]

China is on a buying spree in the global oil markets as prices slumber near the lowest in years. The trading unit of state-run China National Petroleum Corp. has bought 36 cargos of crude oil in the open market so far in October, the largest purchase ever in a single month, Singapore traders familiar with the transactions said. The purchases show how China, the world’s second largest consumer of oil after the U.S. , is taking advantage of the energy glut to stock up on oil used for making transportation fuels like gasoline and diesel. It’s also a change from usual buying patterns as Beijing normally secures its oil needs through long-term contracts with fixed prices—and is rarely a big player in the Singapore spot market, Asia’s biggest oil trading hub. The 36 cargoes were bought by China National United Oil Corp., or Chinaoil, and are equal to 18 million barrels of crude, and come from the United Arab Emirates and Oman, according to Singapore-based traders and Platts, which runs the trading system where bids and offers are listed. The oil shipments are scheduled for loading in December and are expected to be delivered at Chinese ports in January. China’s last big purchase in the Singaporean market was 16 cargos in April, with its buying rate averaging just three cargos a month from June to September. A spokesman for PetroChina Co. Ltd., the listed unit of CNPC, didn’t immediately respond to inquires for comment. Traders say China has frequently taken advantage of price drops to buy up cheap oil, though never on this scale, and that the strategy implies China views the current oil price decline as temporary.

# 1AR – Oil Prices Low Now

**Oil Prices low now--- Wall Street and Trade with Asia prove**

**CNBC 10/27/14** [News, Asia equities decline as volatile oil prices and Fed caution weigh, Asia-Pacific Markets, [http://www.cnbc.com/id/102125510#](http://www.cnbc.com/id/102125510).]

Asian equities were mostly lower on Tuesday due to pressure from oil prices, while investors were treading water ahead of a Federal Reserve meeting later in the day. U.S. crude fell back to $80 a barrel in Asian trade after tumbling to a 28-month low in the previous session at $79.44. The lower prices saw Wall Street shares end flat after staging their biggest weekly rally of the year on Friday.

**Oil prices are low now and will continue to be--- top Goldman analysts predict so**

**Smith 10/27/14** [Geoffrey, staff writer for FORTUNE, Oil prices tumble again after Goldman slashes outlook, http://fortune.com/2014/10/27/oil-prices-tumble-again-after-goldman-slashes-outlook/]

Wall Street gurus see crude falling to $75 a barrel next year before returning to $80 in the medium-term. That’s going to be hard on producer countries who have gotten used to a price of $100 in recent years. Oil prices took another tumble Monday, not because of any new problems with the global economy or Saudi Arabia turning up the oil taps, but because the self-styled Smartest Guys In The Room said it should. Analysts at Goldman Sachs slashed their forecasts for the crude price next year to around $5 a barrel below the market’s expectations. That pushed the price of the benchmark futures contract down by over a dollar to $79.53, its lowest level in nearly three years (although it rebounded a little later). Goldman’s team of analysts, led by Damien Courvalin, think it can go as low as $75 by the first quarter of 2015, and after a bounce in the spring, return to that level for the whole of the second half. They then see it averaging around $80/bbl through 2016.

# \*\*\*WARMING ADVANTAGE CP\*\*\*

# 1NC – Cloud CP

**Text: The United States federal government should seed marine stratocumulus clouds with monodisperse sub-micrometre sea water particles.**

**Solves warming**

**Latham et al 12** [John Latham, Emeritus Professor of Physics @ University of Manchester, UK, \*\*Keith Bower, Tom Choularton, Hugh Coe, Paul Connolly, Gary Cooper, Tim Craft, Jack Foster, Alan Gadian, Lee Galbraith, Hector Iacovides, David Johnston, Brian Launder, Brian Leslie, John Meyer, Armand Neukermans, Bob Ormond, Ben Parkes, Phillip Rasch, John Rush, Stephen Salter, Tom Stevenson, Hailong Wang, Qin Wang, and Rob Wood, 8/6, “Marine cloud brightening,” p. 4217-8]//fw

The idea behind the marine cloud-brightening (MCB) geoengineering technique is that seeding marine stratocumulus clouds with copious quantities of roughly monodisperse sub-micrometre sea water particles might significantly enhance the cloud droplet number concentration, and thereby the cloud albedo and possibly longevity. This would produce a cooling, which general circulation model (GCM) computations suggest could—subject to satisfactory resolution of technical and scientific problems identified herein—have the capacity to balance global warming up to the carbon dioxide-doubling point. We describe herein an account of our recent research on a number of critical issues associated with MCB. This involves (i) GCM studies, which are our primary tools for evaluating globally the effectiveness of MCB, and assessing its climate impacts on rainfall amounts and distribution, and also polar sea-ice cover and thickness; (ii) high-resolution modelling of the effects of seeding on marine stratocumulus, which are required to understand the complex array of interacting processes involved in cloud brightening; (iii) microphysical modelling sensitivity studies, examining the influence of seeding amount, seed-particle salt-mass, air-mass characteristics, updraught speed and other parameters on cloud–albedo change; (iv) sea water spray-production techniques; (v) computational fluid dynamics studies of possible large-scale periodicities in Flettner rotors; and (vi) the planning of a three-stage limited-area field research experiment, with the primary objectives of technology testing and determining to what extent, if any, cloud albedo might be enhanced by seeding marine stratocumulus clouds on a spatial scale of around 100×100 km. We stress that there would be no justification for deployment of MCB unless it was clearly established that no significant adverse consequences would result. There would also need to be an international agreement firmly in favour of such action.

# 2NC – Geoengineering Key

**Geoengineering solutions are the only way to solve for warming—only way to make emissions net-zero**

**Wodskou 3/29** [Chris, \*citing David Keith, long-time professor @ University of Calgary, Professor of Public Policy @ Harvard Kennedy School and the Gordon McKay Professor of Engineering and Applied Sciences @ Harvard University, CBC News, “Give geoengineering a chance to fix climate change: David Keith,” http://www.cbc.ca/m/touch/news/story/1.2586882]

There may indeed be broad agreement among scientists that climate change is happening, humans are causing it and urgent action is needed to prevent a global disaster. New reports from the American Association for the Advancement of Science and the United Nations Intergovernmental Panel on Climate Change only add to the weight of science’s verdict on the subject. Just what to do about climate change, however - and how quickly - is still a matter of intense political and policy debate. And if you really want to see the sparks fly, try suggesting geoengineering as a solution to global warming. ​As the term implies, geoengineering is engineering on a planetary scale. Geoengineering is an attempt to arrest the course of climate change through a number of different schemes, such as seeding the atmosphere with reflective particles. Or putting gigantic mirrors in orbit around the Earth to reflect sunlight back to space. Or fertilizing the ocean with iron to stimulate the growth of carbon-absorbing plankton. For a lot of people, it sounds like mad science. And geoengineering has been a magnet for controversy and criticism. Its opponents include some of the world’s most prominent environmentalists, including David Suzuki and Al Gore. Earlier this year, in fact, the former U.S. Vice President said the very idea of geoengineering is “insane, utterly mad and delusional in the extreme.” He added, “the fact that some scientists who should know better are actually engaged in serious discussion of those alternatives is a mark of how desperate some of them are feeling due to the paralysis in the global political system." But Canadian environmental engineer David Keith is taken seriously by policymakers and scientists when he speaks about the possibilities of geoengineering. Keith was a long-time professor at the University of Calgary and is now a Professor of Public Policy at the Harvard Kennedy School and the Gordon McKay Professor of Engineering and Applied Sciences at Harvard University. He’s particularly interested in solar geoengineering, or solar radiation management, which would involve putting tiny sulphur particles into the stratosphere, where they would reflect solar energy back to space. In his new book, A Case for Climate Engineering, Keith says geoengineering is a “brutally ugly technical fix.” He cheerfully admits he has a lot of qualms about it as a technology that could have dangerous and unintended consequences, and that it doesn’t address the root cause of climate change: the buildup of greenhouse gases in the atmosphere. But, as Keith told The Sunday Edition’s Michael Enright in an interview, that doesn’t mean we should ignore the fact that it could rapidly lower the Earth’s temperature and counteract some of the effects of climate change. It’s technically feasible and relatively inexpensive to do, he adds. And given how the global community has dragged its heels on reducing emissions, he argues, a crude, quick fix for climate change may become necessary in the decades ahead. “I think the important point is that it’s not hard to do, that all the hard questions are about whether we should do it, who controls it, how well it works.” Keith also acknowledges the danger that if geoengineering were to become seen as a proven solution to rising global temperatures, there would be a strong temptation to forego costly emissions reductions and simply press ahead with geoengineering to counteract the results of rising levels of greenhouse gases in the atmosphere instead. “You [need to] do geoengineering during the time that you slow down emissions. In the long run, you have to bring emissions to zero," he says. According to Keith, if we want a stable climate, we must eventually stop putting more carbon dioxide in the atmosphere. "Carbon dioxide is like filling a bathtub. The climate risk comes from the historical sum of all emissions. The only way to stop adding to that risk is to stop putting more carbon dioxide in." “But let’s say you’re going to stop carbon dioxide emissions over 100 years. If you do this solar geoengineering, you could spread out the climate change over 200 years, slowing down the amount of climate change, and I would say most climate risks have to do with the rate of change.”

# 2NC – AT: Links to Politics (1/2)

**Oil industry likes geoengineering**

**Thomas 10** [Jim, reporter, 6/28, “The link between BP, geoengineering and GM,” The Ecologist, <http://www.theecologist.org/blogs_and_comments/commentators/other_comments/522729/the_link_between_bp_geoengineering_and_gm.html>]

Just as the oil industry is eager to get on with the exploitation of hard-to-reach sources of black gold, an increasingly vocal and well-organised lobby of geoengineers is anxious to get on with testing a variety of climate intervention schemes. Underlying both is a thinly disguised hubris that the Gulf catastrophe should vividly awake us to. Both oil and geoengineering have strong connections in Washington, sometimes even in the same people. To state the obvious, big oil would certainly benefit if the atmosphere could be engineered to withstand higher concentrations of greenhouse gases.

**The oil lobby controls legislation**

**Froomkin 11** [Dan, contributing editor of Nieman Reports, and the former senior Washington correspondent for the Huffington Post, 4/6, “How The Oil Lobby Greases Washington's Wheels,” Huffington Post, http://www.huffingtonpost.com/2011/04/06/how-the-oil-lobby-greases\_n\_845720.html]

Clout in Washington isn't about winning legislative battles -- it's about making sure that they never happen at all. The oil and gas industry has that kind of clout. Despite astronomical profits during what have been lean years for most everyone else, the oil and gas industry continues to benefit from massive, multi-billion dollar taxpayer subsidies. Opinion polling shows the American public overwhelmingly wants those subsidies eliminated. Meanwhile, both parties are hunting feverishly for ways to reduce the deficit. But when President Obama called on Congress to eliminate about $4 billion a year in tax breaks for Big Oil earlier this year, the response on the Hill was little more than a knowing chuckle. Even Obama's closest congressional allies don't think the president’s proposal has a shot. "I would be surprised if it got a great deal of traction," Senator Jeff Bingaman (D-N.M.), chairman of the Senate energy committee, told reporters at the National Press Club a few days after Obama first announced his plan. Rep. Earl Blumenauer (D-Ore.), co-author of a House bill that closely resembles Obama's proposal, nevertheless acknowledges that it has slim chances of passing. "It will be a challenge to get anything through the House that includes any tax increase for anyone under any circumstance," he told The Huffington Post. The list goes on: "It's not on my radar," said Frank Maisano, a spokesman for Bracewell Giuliani, a lobbying firm with several oil and gas industry clients. "It's old news and it's never going to happen in this Congress. It couldn't even happen in the last Congress." Indeed, the oil and gas industry's stranglehold on Congres is so firm that even when the Democrats controlled both houses, repeal of the subsidies didn't stand a chance. Obama proposed cutting them in his previous two budgets as well, but the Senate -- where Republicans and consistently pro-oil Louisiana Democrat Mary Landrieu had more than enough votes to block any legislation -- never even took a stab at it. Now that the House is controlled by the GOP, Obama's proposal is deader than an oil-soaked pelican. Over the last decade in particular, the Republican Party's anti-tax policies and pro-drilling campaign rhetoric have become nearly indistinguishable from those of Big Oil. "Obama's been proposing to get rid of these subsidies since his first budget in February 2009," said Tyson Slocum, director of the energy program for the consumer watchdog group Public Citizen. "The obstacle has been the petroleum industry. The American Petroleum Institute has dug in their heels and is fighting tooth and nail to retain these subsidies." The American Petroleum Institute (API) is the industry's enormously powerful lobbying and trade association.

# 2NC – AT: Links to Politics (2/2)

**Geoengineering lobby is powerful**

**Vidal 11** [John, environment editor, 10/6, “Big names behind US push for geoengineering,” The Guardian, http://www.theguardian.com/environment/blog/2011/oct/06/us-push-geoengineering]

Over the Atlantic, though, the geoengineers are more gung-ho. Just days after the British got cold feet, the Washington-based thinktank the Bipartisan Policy Center (BPC) published a major report calling for the United States and other likeminded countries to move towards large-scale climate change experimentation. Trying to rebrand geoengineering as "climate remediation", the BPC report is full of precautionary rhetoric, but its bottom line is that there should be presidential leadership for the nascent technologies, a "coalition of willing" countries to experiment together, large-scale testing and big government funding. So what is the BPC and should we take this non-profit group seriously? For a start these guys - and they are indeed mostly men - are not bipartisan in any sense that the British would understand. The operation is part-funded by big oil, pharmaceutical and biotechnology companies, and while it claims to "represent a consensus among what have historically been divergent views," it appears to actually represent the most powerful US academic, military, scientific and corporate interests. It lobbies for free trade, US military supremacy and corporate power and was described recently as a "collection of neo-conservatives, hawks, and neoliberal interventionists who want to make war on Iran". Their specially convened taskforce is, in fact, the cream of the emerging science and military-led geoengineering lobby with a few neutrals chucked in to give it an air of political sobriety. It includes former ambassadors, an assistant secretary of state, academics, and a chief US climate negotiator.

# \*\*\*AFF ANSWERS TO WARMING CP\*\*\*

# 2AC – Solvency Deficit

**Too many problems with MCB**

**Latham et al 12** [John Latham, Emeritus Professor of Physics @ University of Manchester, UK, \*\*Keith Bower, Tom Choularton, Hugh Coe, Paul Connolly, Gary Cooper, Tim Craft, Jack Foster, Alan Gadian, Lee Galbraith, Hector Iacovides, David Johnston, Brian Launder, Brian Leslie, John Meyer, Armand Neukermans, Bob Ormond, Ben Parkes, Phillip Rasch, John Rush, Stephen Salter, Tom Stevenson, Hailong Wang, Qin Wang, and Rob Wood, 8/6, “Marine cloud brightening,” p. 4218-9]

Current major problems regarding MCB, which may or may not be capable of resolution, are

— we do not yet have a spraying system capable of producing sea water particles of the size and in the copious quantities required;

— even if we succeeded in producing such a system, we would still need to ensure that it would function satisfactorily at sea for long periods (we envisage several months) in the face of problems such as bad weather, possible orifice clogging, etc.;

— we need to ascertain whether we could produce sea water cloud-condensation nuclei (CCN) at a sufficient rate, over a wide enough area, for enough of them to enter the marine stratocumulus clouds and be activated to produce cloud droplets, thereby enhancing the CDNC N and the associated cloud albedo A sufficiently to produce the required degree of cooling (the work of Korhonen et al. [9] and Wang et al. [16]—and others—illustrates how the cloud and sub-cloud characteristics are much more complex than assumed in our GCM modelling); and

— if the earlier mentioned problems were satisfactorily resolved, and a limited-area field investigation of MCB demonstrated its quantitative viability, there would be no case for its deployment unless (i) comprehensive examination demonstrated that there would be no unacceptable ramifications and (ii) a not yet established international body, representing all countries, concluded—after major investigation of all evidence available—that deployment was needed and safe.

# 2AC – Links to Politics

**Geoengineering solutions are unpopular—potential consequences and people favor cutting GHG emissions**

**Johnson 13** [Carolyn Y., physics and English major at Amherst College, master’s degree in science writing from MIT, 3/14, “Harvard professor argues geoengineering needs oversight,” Boston Globe, http://www.bostonglobe.com/lifestyle/health-wellness/2013/03/14/geoengineering-solutions-global-warming-need-oversight-harvard-professor-argues/sGtkpnGqOVXdcajdDBl70O/story.html]

Large-scale projects that could temper or reverse the effects of climate change by blocking some incoming sunlight or manipulating the atmosphere have long been unpopular on two opposing fronts. On one side are those worried about the unintended consequences and doomsday scenarios that could be set off by careless experiments. On the other are those who believe such research is important, but to support it now will detract from the urgent need to cut greenhouse gas emissions that are driving global temperature rise.

**No public support**

**Vance 10** [Erik, contributing editor, 2/24, “Geoengineering divides scientists,” EnvironmentalResearchWeb, http://environmentalresearchweb.org/cws/article/news/41830]

In the end, debates about the best form of climate manipulations may be moot because geoengineering remains publicly unpopular. Ortwin Renn, a sustainable technology expert at the University of Stuttgart, Germany, cited recent small-scale studies that suggest the more people learn about geoengineering, the less likely it is that they will endorse it. As if to confirm the public's continued confusion, protesters gathered outside the meeting; several managed to attend and pepper the scientists with questions about secret government climate-manipulation plots.

# \*\*\*PRIZES COUNTERPLAN\*\*\*

# 1NC – Prizes CP (1/2)

**Text:**

**Prizes are an effective tool for saving and exploring the oceans**

**Diamandis 13** Dr. Peter Diamandis attended MIT where he received his degrees in molecular genetics and aerospace engineering, as well as Harvard Medical School where he received his M.D., Executive Chairman of the Singularity University,

A New Age of Ocean Exploration May Just Save Us, <http://oceanhealth.xprize.org/blog/2013/10/24/new-age-ocean-exploration-may-just-save-us-0>

Before humans explored frontiers beyond our atmosphere, they sought out frontiers here on our own planet. And the history of ocean exploration is one that reminds us that we have always longed to explore the unknown, and that innovative and ambitious explorers will push those horizons no matter what. Yet with reduced government spending, especially in comparison to space exploration, and the fact that the ocean is not owned by one specific entity, there is a void. What will catalyze ocean exploration? Who will steward the ocean and dive to its depths to uncover its mysteries?¶ ¶ There was a long-held notion that audacious exploration needed primary support from the government. When we launched the Ansari XPRIZE in 1996, many scoffed at the idea that private citizens, using private financing, could build innovative spacecraft that successfully launch into space. Their response to what we were attempting to achieve often makes me think of a quote, "Some men see things as they are and ask why. Others dream things that never were and ask why not." — George Bernard Shaw. Our proof is the new market that developed with the Ansari XPRIZE; private space transport is now a $1.5 billion industry. It's clear that exploration in the 21st century is not just for government-supported programs anymore.¶ ¶ We must remember that for most of human history, exploration was driven primarily by private industry. It wasn't until the mid-20th century that most research and development was funded directly by large governmental grant programs. Even famous government-sponsored ocean explorations provide a history lesson we can use to ignite this new Age of Exploration. Consider the journeys of Christopher Columbus. Long before state sponsorship from Ferdinand and Isabella of Spain, Columbus secured most of his financial backing from diverse private sources. ¶ Which is why XPRIZE is in a unique position to not only galvanize the community of ocean innovators but also thought leaders, government agencies, industry, philanthropists and advocates in service of a bold vision for the future of the ocean, one that is healthy, valued, and understood. This is really just a return to previous patterns of success rather than a huge shift in how exploration is conducted.¶ ¶ With the challenges we currently face, environmentally and economically, we cannot leave exploration of our blue planet up to governments alone. Instead, quite the opposite: We need to crowdsource innovators from around the globe to take up the charge of discovering the secrets our ocean holds, while working to preserve it.¶ ¶ Consider the challenges facing the ocean: carbon dioxide absorbed from the atmosphere has made the ocean 30% more acidic than it was just 200 years ago, with devastating consequences for corals, mollusks, fish, and entire ecosystems. Pollution from plastics to fertilizers creates massive "dead zones" and swirling gyres of garbage that further sicken the seas upon which the health of the planet depends. Unabated overfishing has shown that 90% of the big fish in the sea are now gone.¶ ¶ How can we turn back this tide of challenges affecting the health of our ocean unless we first value the ocean? And valuing it means not just taking a personal interest, but taking the time to understand the challenges and creating real incentives, particularly financial incentives, behind the sustainable use of our ocean.¶ ¶ By building industries that have a vested interest in the ocean, we stand a much better chance of protecting the health of the planet. This is the model of XPRIZE: to catalyze industries that not only build economies based on new frontiers, but industries that become the leaders in serving humanity's needs now and in the future. ¶ There is a very real opportunity with our ocean to build these industries. Because they remain unexplored, there is tremendous value still ready to be discovered. Indeed, the opportunities for things like pharmaceuticals from deep-sea creatures bring us new biochemical discoveries from nearly every deep-sea mission. And with an estimated 91% of sea life still unknown, this gives us a literal ocean of opportunity to discover more.¶ ¶ By properly measuring and documenting the chemical and physical characteristics of our seas, we can initiate whole new industries in ocean

# 1NC – Prizes CP (2/2)

Continued no text deleted

services - the type of data-driven information and forecasting that can be used by every company dependent on the ocean, from tourism to trade to weather services.¶ ¶ I believe now is the critical time to ignite a new age of ocean exploration. At XPRIZE we recently launched our second ocean prize, the Wendy Schmidt Ocean Health XPRIZE, to spur development of breakthroughs in pH measuring tools that explore the chemistry of our seas. And we are, for the first time, committing to launch three additional ocean prizes by 2020. Because we trust that by harnessing the power of innovation, and the dreams of explorers around the world, valuable new discoveries can help us achieve a healthy ocean.

# 2NC – Generic Solvency (1/5)

**Prizes are effective method to solve ocean impacts**

**Diamandis 14**

Peter H. Diamandis attended MIT where he received his degrees in molecular genetics and aerospace engineering, as well as Harvard Medical School where he received his M.D., Executive Chairman of the Singularity University,¶ No Good Deed Should Go Unrewarded: How Prizes Can Help Save the Ocean ¶ Competitions can help solve some of history’s worst market failures ¶ Jun 6, 2014 |<http://www.scientificamerican.com/article/no-good-deed-should-go-unrewarded-how-prizes-can-help-save-the-ocean/>

In case you have not heard, the ocean is not doing so well. In fact, it is in a state of crisis. It is being assaulted physically, chemically and biologically—making it warmer, more acidic and polluted. It has been overfished to the point that many fisheries are on the brink of collapse. As a result of these changes, weather patterns have changed, coral reefs are dying and species are becoming extinct.¶ ¶ This is a serious problem. Approximately 70 percent of our oxygen comes from marine phytoplankton. Billions of people around the world depend on the ocean as a food source or for their livelihoods. We need our ocean to be healthy, and for this it needs our help.¶ ¶ One of the best ways to improve oceanic health is to use prize competitions to create incentives to solve specific problems. Although often overlooked, prizes have been used for more than 300 years to solve vexing problems. Some of our greatest achievements have been inspired by rewards. For example, in 1927 Charles Lindbergh won the $25,000 Orteig Prize by becoming the first person to fly nonstop between New York City and Paris. His accomplishment revolutionized air travel and spurred the growth of the multibillion-dollar industry.¶ ¶ This is not to say that cash competitions will solve all of our problems. There are challenges that may be best solved via more traditional approaches, like R&D grants or regulations. Yet we know that prizes are particularly effective for stimulating innovation that can generate technological breakthroughs for many reasons: They target and correct market failures as well as define a problem without presupposing a solution, thereby incentivizing ingenuity and risk-taking. Rewards also encourage new thinkers to consider a problem and, as a result, generate novel approaches to solving it. And, unlike traditional research and development grants, cash competitions pay only for success. Furthermore, they mobilize and attract capital, stimulating new markets in ways traditional strategies cannot by providing significant financial leverage, oftentimes garnering a total market investment of five to 10 times the award’s value.¶ ¶ Such competitions also create the opportunity to engage the public around grand challenges—oil spills, ocean acidification, greenhouse gas emissions—inciting discourse and ultimately action. That is what we do at X PRIZE: We identify the world’s grand challenges and create competitions that inspire the brightest minds around the world to create technological breakthroughs.¶ ¶ The ocean’s declining health is the quintessential market failure of our time. We are giving little or no thought to how our collective actions are unsustainable in the long run. We have overfished our ocean, polluted it and damaged the fragile ecosystems potentially beyond repair. Due to these and other market failures, the ocean has suffered in ways that threaten its—and our—long-term health and viability.¶ ¶ We cannot reverse the damage already done, but we can contain it. In the wake of the 2010 Gulf of Mexico oil spill, for example, we responded with the Wendy Schmidt Oil Cleanup X CHALLENGE, a $1.4-million competition to speed the pace of cleaning up seawater surface oil. Fourteen months later, the winner demonstrated technology that accomplished an oil recovery cleanup rate that was almost four times greater than the industry’s previous best recovery rate.¶ ¶ We are not stopping there. Over the next six years X PRIZE will launch three new ocean prizes These competitions will complement the success of the X CHALLENGE as well as build on the $2-million Wendy Schmidt Ocean Health X PRIZE, an active competition to develop accurate and affordable ocean pH sensors that could transform our understanding of ocean acidification. We are confident that these awards will lead to technological advances that not only improve the ocean’s health but our own as well.

# 2NC – Generic Solvency (2/5)

**Prizes can solve ocean impacts (mapping oceans, warming, acidification, dead zones, overfishing, debris etc)**

**Goldenberg 13** Suzanne Goldenberg US environment correspondent

theguardian.com, Tuesday 22 October 2013

XPRIZE dives into Earth's final frontier – our oceans and their future health

<http://www.theguardian.com/environment/2013/oct/22/xprize-science-research-into-ocean-health-global-warming>

¶ The XPRIZE Foundation, once known for competitions for spaceflight innovation, has turned its focus to the seas, launching a series of new prizes for ocean health over the next seven years.¶ The Ocean Initiative represents the biggest XPRIZE commitment to date, reinforcing earlier competitions for devices to monitor ocean acidification and clean up oil spills.¶ "The oceans are in trouble. They have been under attack for the last half century, and we do feel we are at a tipping point right now," said Wendy Schmidt, who is sponsoring the prizes, and is president of the Schmidt Family Foundation and co-founder of the Schmidt Ocean Institute.¶ The prizes mark the first time the XPRIZE has decided to concentrate on a specific research area. "Prizes in the past have been serendipitous – whatever comes along," Schmidt said. "Getting this much focus on the inner space is definitely an important thing, I think, for this generation."¶ Scientists say oceans remain the last great unknown – and research funding is drying up. Outfitting research vessels or embarking on "grand projects", such as mapping the ocean floor, remain prohibitively expensive, out of reach of government scientific agencies or public research institutions.¶ Meanwhile, oceans are under threat from climate change, which is changing the chemistry of sea water, overfishing, and plastic pollution.¶ The competition launched on Tuesday will invite the public to help design the challenges for innovators, with a view to awarding between three and five prizes over the next decade.¶ Potential competitions include prizes for innovations in dealing with dead zones, such as those in the Gulf of Mexico, overfishing, which is threatening global food supply, or the great Pacific garbage patch, a vast swathe of remote ocean strewn with plastic debris.¶ The XPRIZE Foundation took a first dive into ocean health in the wake of the BP oil spill, offering $1.4m prize for the creation of a more efficient oil spill clean-up device.¶ The foundation last month returned with a new $2m prize for devices to monitor ocean acidification.¶ With the latest prize announcement, Schmidt and Peter Diamandis, the chairman of the XPRIZE foundation, said they would appeal to the public, as well as seek expert advice, to identify the most urgent challenges to ocean health. "There is not very much money being spent on ocean research, and the impact on humanity is so large. This might be a great place for crowd sourcing to have an impact," Diamandis said.¶ The prize competition last month announced a $2m competition for devices that can monitor the changing chemistry of the oceans due to climate change.¶ Oceans have absorbed nearly a quarter of the greenhouse gas emissions that are responsible for climate change.¶ With greenhouse gas emissions, oceans are now about 30% more acidic than during the pre-industrial age, a shift that is devastating coral reefs and fisheries, and threatening food supplies.¶ The $2m competition announced last month will be split into two prizes – one aimed at research institutions for a highly accurate deep-water acidity monitor, the other for a more affordable monitor for shallow waters. The prizes will be announced in 2015.

# 2NC – Generic Solvency (3/5)

**BP proves X Prize is most effective way to spur marine technology development-privates created most effective tech in 21 years**

**Lavelle 11** Marianne Lavelle (energy editor for National Geographic Digital Media), “Illinois Team Wins Oil Spill Cleanup X CHALLENGE”, National Geographic, October 11 2011, <http://news.nationalgeographic.com/news/energy/2011/10/111011-x-prize-oil-spill-cleanup-winners/>,

Team Elastec, an Illinois-based veteran company in the oil spill cleanup business, developed giant grooved discs that skimmed oil more than three times better than the industry standard to capture the $1 million top prize in the Wendy Schmidt Oil Cleanup X CHALLENGE, the X PRIZE Foundation announced today.¶ In a competition born out of frustration of oil cleanup technology in last year's BP Gulf oil spill,[Elastec/American Marine](http://www.elastec.com/) company of Carmi, Illinois, and Cocoa, Florida, deployed a system that slurped oil in the test tank at a rate of 4,670 gallons (17,677 liters) per minute, with an efficiency of 89.5 percent. (Only 10.5 percent of the oily mix in the recovery tanks was water.)¶ X PRIZE officials said the recovery rate was three times the industry standard, and in fact conventional systems tested in the facility where the competition took place typically achieve 900 gallons (3,400 liters) per minute. And as for typical efficiency: The U.S. government concluded that [only 3 percent of the 4.9 million barrels](http://www.noaanews.noaa.gov/stories2010/images/oil_chart.jpg) (206 million gallons/780 million liters) spilled in last year's Deepwater Horizon disaster was retrieved by skimmers. It drove home to the world that technology had not advanced since the Exxon Valdez spill in Alaska 21 years earlier, where [only 14 percent of the oil](http://celebrating200years.noaa.gov/events/exxonvaldez/oil_pool.html) was recovered by cleanup crews.¶ The X PRIZE Foundation launched the challenge last summer even before the well was permanently capped, when Wendy Schmidt, president of the energy and natural resources-focused Schmidt Family Foundation and wife of Google chief executive Eric Schmidt, stepped forward to sponsor the competition. It was designed "to challenge the status quo," said Schmidt at the awards ceremony in New York, "and to do so in a matter of months, not years."¶

# 2NC – Generic Solvency (4/5)

**X-Prize incentivizes private companies to explore ocean effectively**

**Diamandis ’13**- 10/24/13 XPrize.org “A NEW AGE OF OCEAN EXPLORATION MAY JUST SAVE US” Dr. Peter H. Diamandis is the Chairman & CEO of XPRIZE, http://oceanhealth.xprize.org/blog/2013/10/24/new-age-ocean-exploration-may-just-save-us-0

A renewed golden age of exploration in the 21st century might just be the key to a healthy and valued planet. Although we've already ignited unprecedented advances into space, there is still so much of our planet left unexplored. For starters, we know remarkably little about the ocean covering the majority of our planet's surface: almost 95% of our ocean remains undiscovered. The time is right to reignite the discovery of new places and new knowledge here on Earth, as individuals are now empowered more than ever to do what was only possible by governments and large corporations. Before humans explored frontiers beyond our atmosphere, they sought out frontiers here on our own planet. And the history of ocean exploration is one that reminds us that we have always longed to explore the unknown, and that innovative and ambitious explorers will push those horizons no matter what. Yet with reduced government spending, especially in comparison to space exploration, and the fact that the ocean is not owned by one specific entity, there is a void. What will catalyze ocean exploration? Who will steward the ocean and dive to its depths to uncover its mysteries? There was a long-held notion that audacious exploration needed primary support from the government. When we launched the Ansari XPRIZE in 1996, many scoffed at the idea that private citizens, using private financing, could build innovative spacecraft that successfully launch into space. Their response to what we were attempting to achieve often makes me think of a quote, "Some men see things as they are and ask why. Others dream things that never were and ask why not." — George Bernard Shaw. Our proof is the new market that developed with the Ansari XPRIZE; private space transport is now a $1.5 billion industry. It's clear that exploration in the 21st century is not just for government-supported programs anymore. We must remember that for most of human history, exploration was driven primarily by private industry. It wasn't until the mid-20th century that most research and development was funded directly by large governmental grant programs. Even famous government-sponsored ocean explorations provide a history lesson we can use to ignite this new Age of Exploration. Consider the journeys of Christopher Columbus. Long before state sponsorship from Ferdinand and Isabella of Spain, Columbus secured most of his financial backing from diverse private sources. Which is why XPRIZE is in a unique position to not only galvanize the community of ocean innovators but also thought leaders, government agencies, industry, philanthropists and advocates in service of a bold vision for the future of the ocean, one that is healthy, valued, and understood. This is really just a return to previous patterns of success rather than a huge shift in how exploration is conducted. With the challenges we currently face, environmentally and economically, we cannot leave exploration of our blue planet up to governments alone. Instead, quite the opposite: We need to crowd source innovators from around the globe to take up the charge of discovering the secrets our ocean holds, while working to preserve it. Consider the challenges facing the ocean: carbon dioxide absorbed from the atmosphere has made the ocean 30% more acidic than it was just 200 years ago, with devastating consequences for corals, mollusks, fish, and entire ecosystems. Pollution from plastics to fertilizers creates massive "dead zones" and swirling gyres of garbage that further sicken the seas upon which the health of the planet depends. Unabated overfishing has shown that 90% of the big fish in the sea are now gone. How can we turn back this tide of challenges affecting the health of our ocean unless we first value the ocean? And valuing it means not just taking a personal interest, but taking the time to understand the challenges and creating real incentives, particularly financial incentives, behind the sustainable use of our ocean. By building industries that have a vested interest in the ocean, we stand a much better chance of protecting the health of the planet. This is the model of XPRIZE: to catalyze industries that not only build economies based on new frontiers, but industries that become the leaders in serving humanity's needs now and in the future.

# 2NC – Generic Solvency (5/5)

**US needs to partner with and incentivize private companies for ocean exploration**

**NOAA 2000-** US Dept of Commerce/ NOAA “Discovering Earth’s Final frontier: A US strategy for ocean exploration” http://oceanexplorer.noaa.gov/about/what-we-do/program-review/presidents-panel-on-ocean-exploration-report.pdf

Exploring the world’s oceans and discovering new resources, both living and non living will lead scientists to further evaluate the potential of these resources to be developed into useful products to benefit mankind. Ensuring the identification and subsequent research and development of these discoveries is a necessary follow-up to exploration. Thus, important components of a U.S. Ocean Exploration Program will be the support of research by: — Enhancing funding initiatives within federal agencies to support early-phase research on discoveries with commercial potential. Identifying the commercial potential of both living and non living resources will require a multidisciplinary, coordinated, and integrated approach to explora- tion. Newly discovered plants, animals, microbes, and minerals must be analyzed using state-of-the- art technology to determine their usefulness as pharmaceuticals, nutritional supplements, and fine chemicals for research and industrial applications. Relevant federal agencies must ensure support for early-phase research by establishing new programs specifically targeted for research on discoveries from the Ocean Exploration Program. In addition to the programs that currently exist to support short-term, high-risk research on the living and non living "products" of exploration, federal agencies need to emphasize, prioritize, and fast-track research initiatives on the "products" of the Ocean Exploration Program. — Providing incentives (such as tax credits, grants, and favorable licensing terms) to private industry to encourage the funding of research and develop- ment of discoveries with commercial potential. Private-sector involvement is critical. Although mechanisms exist to support and encourage partner- ships between industry, academia, and government (e.g., Small Business Innovation Research [SBIR] and Small Technology Transfer Research [STTR] programs), these programs are not oriented to support the early-phase research that is necessary to identify discoveries with commercial potential. Incentives should be provided to industrial sponsors of high-risk, early-phase, research who are willing to support research directly or through ancillary program support. These incentives should include, but not be limited to, tax credits, grants, and favor- able licensing terms. Special attention should be given to incentives for ocean industries to provide platforms for data gathering (e.g., offshore oil/gas platforms, seismic vessels, drill ships) during routine operations and during windows of oppor- tunity for dedicated data gathering during ocean transits (e.g., mobilization and demobilization from remote areas).

# 2NC – Solvency – Algae Biofuel

**Government incentives solve- private companies have created effective algae biotech**

**Energy.gov 14** (<http://energy.gov/eere/articles/making-algal-biofuel-production-more-efficient-less-expensive>, “Making Algal Biofuel Production More Efficient, Less Expensive”)

BETO-supported industrial biotechnology company exceeds algae biofuel production target – Algenol began operating its pilot-scale integrated biorefinery, which demonstrates the commercial viability of its two-step fuel production technology. Algenol has an algae strain that can produce ethanol directly, and the system can then convert remaining biomass into hydrocarbon fuels such as biodiesel, gasoline, and jet fuel. The biorefinery has helped Algenol exceed its milestone of 9,000 gallons of ethanol per acre per year at peak productivity, with an additional 1,100 gallons per acre per year of hydrocarbon fuels. Algenol expects to expand their operations to full commercial scale by the end of this year. Sapphire Energy moves algae oil production closer towards commercial scale – Sapphire Energy, a producer of algae-based “green crude” oil and recent recipient of DOE funding, entered into contract agreements with two major oil and gas companies—Phillips 66 and Tesoro. Phillips 66, an integrated energy manufacturing and logistics company, partnered with Sapphire to test and upgrade Sapphire’s “Green Crude” to on-spec diesel—meaning it could be dropped into any existing diesel fuel tank and delivered using current infrastructure. Tesoro, an independent refiner and marketer of petroleum products, entered into a commercial purchase agreement with Sapphire for its Green Crude oil. Sapphire is expected to produce the nation’s first algae oil on a commercial scale by 2015. Energy Department awards funding for integrated R&D on algal biology and downstream processing – During BETO’s Biomass 2013 conference, Secretary Moniz announced up to $16.5 million in funding for new algae biofuels projects. Hawaii Bioenergy, Sapphire Energy, New Mexico State University, and California Polytechnic State University all received funding to demonstrate algal biofuel intermediate yields of greater than 2,500 gallons per acre by 2018. New Energy Department awards for low-cost algae production – Iowa-based BioProcess Algae LLC recently received $6.4 million from the Energy Department to evaluate an innovative algal growth platform to develop advanced biofuels for U.S. military jets and ships.

# 2NC – Solvency – Aquaculture

**Better efficiency, lower government costs, and empirically proven to work- private companies should take up aquaculture**

**FOA 2k** (“PART II. POLICIES TO PROMOTE SUSTAINABLE COMMERCIAL AQUACULTURE”, http://www.fao.org/docrep/005/x9894e/x9894e05.htm).

Divestiture from Fish Stations One of the characteristics of aquaculture in sub-Saharan Africa is the existence of government -owned fish stations, many of which are derelict. Fish stations serve a number of purposes. In the first place, they produce fingerlings, which may be distributed free or subsidised to farmers. In the second place, they are a source of food fish. A third purpose is to provide a demonstration of aquaculture technology and practices to farmers. This is important in those areas where water management and husbandry practices are recent innovations. Other purposes of the stations are training and research. Built by donors to diffuse knowledge of aquaculture to farmers, the operating costs could not be met by governments when donor funds were exhausted. They were then abandoned. In some cases, lack of money has forced managers to be entrepreneurial selling fish in the market. However, this revenue-generating practice may provoke opposition from senior administrators. Managers have been obliged to remit revenues from fish sales to the department, thereby undermining incentives. Moreover, the practice of selling fish from publicly funded stations does not provide a "level playing field" for commercial farmers who face unfair competition. Because of the precarious condition of some stations, an appropriate strategy is the divestiture of many fish stations to the private sector. In fact, there are recommendations that the number of government stations should be reduced by at least half within five years from 1999 (Moehl et al., 2000). While certain of the roles of these stations discussed above could and should devolve to the private sector, others, such as basic research and training, belong in the public domain. Because of the uncertain outcome of research and the impossibility to internalise all benefits, development research is not attractive to the private sector, at least at the early stages of the industry development. Also, maintaining the quality of broodstock requires government stations if private fingerling production is more interested in productivity than quality (Little, 1998). In Costa Rica, government stations undertook much of the development research on tilapia that the private company Aquacorporacion was able to apply. The experience of Costa Rica suggests that some government stations remain to undertake development research. The advantage of privatising where possible is that privatisation relieves governments of operating costs. Privatisation also tends to boost efficient management. This has been the experience when parastatal operations in agriculture have been privatised (Cleaver, 1993). If there is no interest from investors, management at least could be privatised. With the efficient management, the station could become profitable thereby sparking interest from local investors. There are also disadvantages of privatisation. Privatisation will, at least initially, lead to higher prices of fingerlings. This is almost inevitable in the initial stage. Over time, however, these higher prices should prompt interest from entrepreneurs, increased supply and an easing of prices. This has been the experience in Madagascar where all fingerling production has been privatised. Privatisation is also likely to lead to job losses because the private sector hires only if labour productivity matches wage rates. However, those workers remaining will receive higher wages, which at least partially compensates for the loss of jobs. The procedure for divestiture could follow that of parastatal institutions in agriculture, many of which have been returned to the private sector in restructuring programmes (Cleaver, 1993). The first step is to settle liabilities and also often restructure management. The aim is to eliminate debt and offer the prospect of profitability before sale or lease. If there are to be job losses, workers should be fired by governments before the sale or lease. This removes the stigma from the new private company. As for the actual sale, there are a number of possibilities. One approach is for the government to set a price. If there is to be a price set, transparency is important; private investment bankers are often better equipped than governments to evaluate assets and organise privatisation. Another option is a sale by auction. Both procedures pose risks to small-scale farmers. An alternative is to give first right of refusal to local small-scale farmers and to encourage them to acquire stations through producer co-operatives. This approach was followed in Madagascar. Another alternative is to proceed first with a joint private-public venture with governments selling their shares over time. This requires less initial equity from investors and may be a suitable approach if the intention is to encourage local ownership. It also allows time for management learning and reduces risks. There must however be a commitment for full divestiture eventually. Privatisation of Extension Services and Training Viable commercial aquaculture does not obviate the need for extension services, but may alter the source of funding. Some of the funding could come from the private sector. In Costa Rica, the extension services have undertaken research on sites and species. The resulting know-how was passed to Aquacorporación. Jamaica, the publicly funded extension services were instrumental in establishing the tilapia industry through the provision of services such as site evaluation, advice on harvesting schedules and supply of seed stock (Carberry, 2000). Once the industry was successfully established, the University of the West Indies increasingly provided technical training activities. In addition, the largest commercial farm, Aquaculture Jamaica Ltd, gives small-scale sharecroppers technical advice, and provides private funding complementing publicly funded extension services. In the Philippines and Thailand, feed companies provide technical advice to farmers. In Samut Sakhon,Thailand, a Taiwanese (Province of China) company established a feed plant and then introduced shrimp culture. By providing information on culture techniques and pond management to farmers, the number of shrimp farms sharply increased in the 1980s with concomitant demand for feed (Tokrisna, 1999). An alternative is a "fee-for-service" charge by which farmers pay for extension services according to usage. User-fees have the advantage of rationing scarce personnel and funds. User-pays policy also gives an incentive for up-grading technical advice. In addition, the private sector can assist with extension services, especially by encouraging better training of personnel and farmers. In the Philippines, feed companies train tilapia farmers. Clearly, this is not devoid of self-interest, but it can also serve the public gain. The user-pays method has equity and distributional implications, but it off-loads costs from the public sector, leaving publicly funded extension services able to concentrate on the non-commercial sector. This may be particularly appropriate in sub-Saharan Africa where there is concern that aquaculture technical competence will be diluted as budgetary pressures oblige aquaculture extension services to merge with the more important agricultural sector into a unified service (Entsua et al., 2000).

# 2NC – Solvency – Energy Generic

**Prizes are effective for generating energy break throughs**

**Staufer 13**

Nancy W. Stauffer | MIT Energy Initiative¶ Using prizes to spur innovation¶ MIT Professor Fiona Murray produces concrete guidelines on designing and executing Grand Innovation Prizes.¶ ¶ January 7, 2013¶ <http://newsoffice.mit.edu/2013/innovation-prizes>

¶ The energy focus¶ ¶ One area of national concern where prizes are particularly relevant is energy. “Energy is an area where we’ve got lots of core underlying skills and expertise. But are they being focused on the right kinds of problems and on technology that fulfills the right sorts of technical criteria?” Murray asks. It’s also an area where patents and grants have limited effectiveness. In energy, she says, “it’s especially hard because the kinds of things that you might want — like a super-efficient vehicle — aren’t really valued by customers and because lots of externalities — like carbon dioxide emissions — aren’t really being priced.” With technological advances being under valued, profit-seeking inventors have little interest. In that situation, a prize is a good mechanism to focus attention and elicit new ideas and solutions.

# 2NC – Solvency – Surveillance (1/2)

**Private sector has unique capabilities to pursue ocean surveillance**

**Woll 12**¶ Steve Woll, an active AMS Member, and a meteorologist, is Director of Business Development for WeatherFlow Inc ¶ Oceans, 2012, Issue Date: 14-19 Oct. 2012¶ IEEE Xplore database

Recent years have seen the development of innovative and often lower-cost ocean observing technologies, putting more capability than ever into the hands of private sector companies, in some cases for the first time. At the same time, activity by private sector companies in the coastal oceans has increased in support of oil and gas exploration, offshore wind energy, homeland security, maritime shipping, fisheries, and other drivers. Oceanographic data from private sector sources has the potential to fill in existing data gaps in a cost-effective manner. In order to optimize our ability to make use of such data, a discussion of the policy surrounding the use of private sector data (and of the underlying data infrastructure needed to support it) is needed. This paper discusses some of the background, history, and considerations that have a bearing on the use of such private sector data.

**Private sector can effective develop and deploy surveillance tech**

**Woll 12**¶ Steve Woll, an active AMS Member, and a meteorologist, is Director of Business Development for WeatherFlow Inc ¶ Oceans, 2012, Issue Date: 14-19 Oct. 2012¶ IEEE Xplore database

¶ On the oceanographic side, the National Ocean Service (NOS) operates the Integrated Oceanographic Observing System (IOOS), which has been very successful at coordinating the efforts of federal government agencies, universities, and private sector companies, establishing a robust Data Management and Communications (DMAC) capability and providing funding to performers through a set of Regional Associations (RAs) that coordinate activities within their regions.¶ ¶ On the meteorological side, the National Weather Service (NWS) operates the National Mesonet Program (NMP), which provides limited funding support to non-federal operators of existing mesoscale observing networks (mesonets), including state, university, and private mesonets.¶ ¶ At the same time, the technological boom of the last half century has begun to see the broader deployment of some specific types of oceanographic and marine meteorological sensors by private companies for private purposes (e.g. oil exploration, operation of port facilities, wind energy prospecting, etc.). Because specific companies or customers fund the collection of this data for specific business purposes, the resulting data sets have generally been kept proprietary and not shared with the government or the public.¶ ¶ In those cases where it has been attempted, the incorporation of such private sector data into public-private partnerships has at times proven to be problematic. These efforts have the benefits of reducing overall cost to the enterprise, providing data to fill in known data gaps, and improving the general knowledge of the oceans for all users, including the private sector data owners. Yet many private data owners have been reluctant or unwilling to share their proprietary data, usually motivated by the assumption that such disclosure would act to reduce the company's competitive advantage and thereby threaten its business model.¶ ¶ As a result of this tension, unknown (but presumably large and getting larger) amounts of highly useful private sector data remain untapped, leaving significant gaps in the Oceanography Enterprise's data records.

# 2NC – Solvency – Surveillance (2/2)

**Incentives can produce private observation systems**

**Clark 02**

Andrew M. Clark Maritime Communication Services (MCS) HARRIS Corporation

Industry's Role in the Implementation of an Integrated Ocean Observing System

http://ieeexplore.ieee.org.www2.lib.ku.edu:2048/stamp/stamp.jsp?arnumber=1191886

This paper describes a novel concept of implementing and, funding an Integrated Ocean Observing System (IOOS). Rather than fund research institutions to design and build discrete observatories, only later to be integrated into a national network, instead what is proposed is to competitively award bandwidth to those researchers requiring data from offshore observatories. The network itself would be designed, installed, maintained and operated by industry. Initial development costs will be offset both by utilizing existing commercial networks and also by leveraging some other (funded) pending and emergent government initiatives that present opportunities for synergy. Discussed are opportunities to enhance Homeland Security and the USCG National Distress and Response System. Result: realization of an IOOS in a reduced schedule and at a substantial cost savings. Examples of two existing commercial networks are provided.

**Private observation structures can be developed**

**Clark 02**

Andrew M. Clark Maritime Communication Services (MCS) HARRIS Corporation Industry's Role in the Implementation of an Integrated Ocean Observing System http://ieeexplore.ieee.org.www2.lib.ku.edu:2048/stamp/stamp.jsp?arnumber=1191886

Engaging the appropriate industrial players early on in the development of an Integrated Ocean Observing System will help to assure it's timely and cost effective completion. Consideration should be given to competitively awarding to researchers, subscription for bandwidth on an integrated network, commercially built, maintained and operated by industry.

**Private technology is more effective than gov’t tech**

**Bilimoria ’14**- Jim Bilimoria, May 16. 2014 “Hearing to Focus on New Ocean Technologies”, http://transportation.house.gov/news/documentsingle.aspx?DocumentID=380126

The Subcommittee on Coast Guard and Maritime Transportation, chaired by Rep. Duncan Hunter (R-CA), will hold a hearing next week to examine the proliferation of new ocean technologies, how such technologies could improve government performance, and any impediments that exist in the use of such technologies. The federal government is responsible for recording, understanding, monitoring and protecting the oceans in the Exclusive Economic Zones which surround United States and territories out to 200 miles, and even in areas of the ocean beyond those littoral zones. Understanding and monitoring both the physical characteristics of these areas and how these areas are being used is vital to our national defense, the safety of maritime transportation, and to the protection and use of the natural resources contained in these areas. In order to reduce costs and improve mission effectiveness, the Coast Guard and other federal agencies will need to rely on ocean observation and maritime domain awareness (MDA) technologies to make the most efficient use of valuable vessel, aircraft, and crew time. Private companies and academic institutions are developing better ways to understand and monitor the oceans and human activity on the oceans by inventing new, or making advances in existing, ocean observation and MDA technologies. Next week’s hearing will examine some of these developments, as well as potential impacts of federal regulatory regimes on the use of such technologies. The Subcommittee hearing, entitled, “Using New Ocean Technologies: Promoting Efficient Maritime Transportation and Improving Maritime Domain Awareness and Response Capability,” is scheduled to begin at 9:30 a.m. on Wednesday, May 21, 2014 in 2253 Rayburn House Office Building.

# 2NC – Solvency – Oil Drilling (1/2)

**Government incentives create effective private sector innovation in oil drilling technology; past tech failed because no government incentive**

**Larsen 11** Gaia Larsen (Associate in Sustainable Finance Program at World Resources Institute), “SKEWED INCENTIVES: HOW OFFSHORE DRILLING POLICIES FAIL TO INDUCE INNOVATION TO REDUCE SOCIAL AND ENVIRONMENTAL COSTS”, Stanford Law Journal, 2011, <https://journals.law.stanford.edu/stanford-environmental-law-journal-elj-journal-name/print/volume-22/issue-1-defense-policy/gaia-j-larsen-%E2%80%93-skewed-incentives-how-offshore-drilling>

In light of the inability of market forces to ensure investment in innovation at levels that encourage maximum net social benefits, appropriate governmental policies are needed to shift incentives. Though the shape that technology will take in the future cannot be predicted with certainty, governmental policies can be implemented to influence the speed and direction of its development. The government’s ability to influence technological innovation is particularly important for activities such as the exploitation of offshore oil reserves, where private and public interests do not always converge. Unlike in, for instance, the healthcare industry where there may be significant overlap between the interests of industry in creating new technologies to increase public health and the interest of the government in doing the same, industries like offshore oil drilling entail a central aim of generating profit from an activity brings some economic benefits but also great environmental risk. In such cases, the private sector will be particularly unlikely to develop socially beneficial technology.

**Oil and natural gas companies developing environmentally friendly tech now**

**Downing 14** (“Shell company to join in EDF's methane-detection program”, http://www.ohio.com/blogs/drilling/ohio-utica-shale-1.291290/shell-company-to-join-in-edf-s-methane-detection-program-1.495071).

WASHINGTON, D.C. – June 11, 2014) Environmental Defense Fund welcomes SWEPI LP (Shell) to the list of companies participating in the pioneering “Methane Detectors Challenge” with seven days remaining for technology developers to submit proposals. Announced on April 3, the Challenge is a collaborative project between EDF and five other oil and natural gas companies aimed at identifying and bringing to market new, cutting-edge technologies that could ultimately help reduce methane emissions from oil and natural gas operations. “Shell is pleased to join the ‘Methane Detectors Challenge’, an innovative approach to continuously improve the techniques and tools available to industry to take full advantage of the benefits of natural gas in a responsible and sustainable way,” said Paul Goodfellow, Vice President – U.S. for Shell Upstream Americas’ Unconventionals business. Methane emissions present both an economic and environmental opportunity for the oil and gas industry. There is a market need for cost-effective technologies that provide continuous detection of methane, a powerful greenhouse gas that can escape to the atmosphere during production, transportation and delivery of natural gas. Shell joins Apache Corporation, BG Group, Hess Corporation, Noble Energy and Southwestern Energy as an industry partner in this effort to help catalyze new technologies for enhanced detection of oil and gas emissions. “Shell is one of the largest global energy companies and its participation adds a new level of support and expertise,” said Ben Ratner, EDF natural gas program manager. “EDF initiated this Challenge to jumpstart the market for new solutions that could cut emission detection time from months to minutes. We have already received strong interest from innovators at private companies and universities – and with Shell onboard, we expect that to grow.”

# 2NC – Solvency – Oil Drilling (2/2)

**Private companies have improved oil drilling safety dramatically**

**Milito 4/25/14** (“Offshore Drilling Is Safer”, <http://www.forbes.com/sites/realspin/2014/04/25/offshore-drilling-is-safer/)>

Four years after the Deepwater Horizon oil spill in the Gulf of Mexico, we’re well into a new era of safety for offshore energy exploration. Even before cleanup in the Gulf of Mexico was complete, the oil and natural gas industry started working with federal regulators on a comprehensive review of offshore operations. We in the industry clearly understand that the future of offshore drilling depends on our ability to conduct operations safely. Federal regulators and the public should rest assured. Despite claims to the contrary, the oil and natural gas industry and the federal government have together taken great strides to enhance the safety of offshore operations. Four joint industry task forces have now reexamined every aspect of offshore drilling, from equipment and operating procedures to subsea well control and oil spill response. Working with experienced regulators from the Department of Interior, industry experts developed new recommendations and standards for operations in both deep and shallow water exploration. One of the most urgent needs was clearly to boost the rapid response capability for containment in case of a leak. New collaborative containment companies established after the 2010 spill now stand ready to deploy state-of-the-art containment technology at the first indication of a spill at the wellhead. Our task forces found room for improvement in numerous other areas. The industry is now following newly established or revised standards in areas ranging from well design and cementing to blowout prevention, subsea equipment for capping wells, and protections for workers responding to a spill. The American Petroleum Institute maintains more than 600 industry standards covering all aspects related to production, and more than 100 have been incorporated into federal regulations.

**Oil companies are capable of effective offshore drilling**

**Spakovsky and Loris 12** Hans Spakovsky (Manager of Election Law Reform Initiative) and Nicolas Loris (Herbert and Joyce Morgan Fellow), “Offshore Drilling: Increase Access, Reduce the Risk, and Stop Hurting American Companies”, The Heritage Foundation, August 13 2012, http://www.heritage.org/research/reports/2012/08/offshore-drilling-increase-access-reduce-the-risk-and-stop-hurting-american-companies

Oil companies are not only eager to drill off America’s coasts—they are enthusiastic about creating jobs and bringing more oil to the world (and the American) market, which, in turn, will help lower gas prices.¶ Indeed, for evidence of oil companies’ appetite for economic growth, one need look no further than the Department of the Interior’s recent $1.7 billion lease sale in the central Gulf of Mexico.¶ But while this sale was a positive development for American energy production, the Obama Administration is doing everything in its power to prevent companies that obtain offshore leases from actually drilling and producing oil—a fact evidenced by a new lawsuit recently filed in the U.S. Court of Federal Claims by an independent U.S. oil and gas company.¶ Preparing for Growth¶ By March 2010, ATP Oil & Gas Corporation had obtained oil leases and necessary permits to drill in the Gulf of Mexico. In fact, after installing state-of-the art drilling and processing equipment, ATP was poised to double its oil production.¶ This massive increase in production was made possible, in part, by the ATP Titan—a platform in 4,000 feet of water in the Gulf of Mexico that was designed to allow ATP to safely drill deeper into already-penetrated oil reservoirs. The first, and only, deepwater platform built entirely in America by a U.S. labor force, the Titan was constructed over the course of three years, creating a number of much-needed jobs in the process. And while the Titan’s price tag was steep—ATP secured $1.5 billion in financing from J.P. Morgan—the ability to safely and securely drill into already-penetrated oil reservoirs promised to produce a steady stream of oil and revenue for the company, thereby allowing ATP to pay back this enormous investment.

# 2NC – Solvency – Oil Spills

**Prizes solve oil spills**

**Goel 10** Vijay Goel, MD¶ Evaluating 35,000 oil cleanup ideas — BP’s opportunity to utilize the prize model to allow the best solutions to rise ¶ Created on 07 June 2010

We’re facing an oil spill cleanup an order of magnitude bigger than the Exxon Valdez…yet the industry is preparing to use cleanup technology from 20 years ago. Why is it so hard to get better ideas to work quickly? After all, a nation is watching, BP’s goodwill could clearly use a boost, and thousands of entrepreneurs (at least 35,000) have submitted ideas that could save millions of birds, our Gulf ocean ecosystem, and the Gulf Coastline and wetlands that seem doomed to a deep oil contamination.¶ ¶ Almost all of these ideas will go to waste, due to the heavy-handed, political, top-down approach being utilized to evaluate them. This is the same approach that allows little startups to run circles around big, established companies. The prize model would create a much more effective means of evaluating these ideas and getting our oceans and coasts cleaned up.

**Prizes are effective at generating technological breakthroughs to solve oil spills**

**Smith 14** Lamar Smith (R-Texas)¶ Chair of the Subcommittee on Research and Technology Hearing - Prizes to Spur Innovation and Technology Breakthroughs¶ Subcommittee on Research and Technology | 2318 Rayburn House Office Building Washington, D.C. 20515 | Apr 9, 2014 10:00am http://science.house.gov/hearing/subcommittee-research-and-technology-hearing-prizes-spur-innovation-and-technology

Scientific prizes have long played a role in advancing technology. They encourage creative thinking-spur innovation and expand our economy.¶ The Longitude Prize of 1714, offered by the British government, resulted in the marine chronometer and drastically improved shipping safety. Napoleon Bonaparte's 1800 Food Preservation Prize resulted in the development of canning food as we now know it.¶ A top priority of the Science Committee is to encourage such innovation and technological advancements. To maintain our competitive advantage, we must continue to support fundamental research and development that encourages the creation and design of next generation technologies.¶ But there are many other technological problems that could be solved by taking a different approach with the use of prizes. These include transforming kidney dialysis treatments, developing better surface oil cleanup technologies, and generating a potential cure for Alzheimer's disease. Prizes also engage the brightest minds to solve a problem—scientists, entrepreneurs, inventors and yes, even teenagers.

# 2NC – Solvency – OTEC

**Lockheed Martin proves that private companies can fill in to do OTEC**

**Lockheed Martin 13** “Lockheed Martin and Reignwood Group Sign Contract to Develop Ocean Thermal Energy Conservation Power Plant”, Lockheed Martin, October 30 2013, http://www.lockheedmartin.com/us/news/press-releases/2013/october/131030-mst-otec-lockheed-martin-and-reignwood-group-sign-contract-to-develop-ocean-thermal-energy-conversion-power-plant.html

Lockheed Martin [NYSE: LMT] and Reignwood Group have signed a contract to start design of a 10-megawatt [Ocean Thermal Energy Conversion (OTEC)](http://www.lockheedmartin.com/us/products/otec.html) power plant, which, when complete, will be the largest OTEC project to date.¶ Lockheed Martin is the industry leader in the development of OTEC technology, holding 19 related patents. The Lockheed Martin-Reignwood 10-megawatt plant is considered to be a crucial step in the full commercialization of OTEC.¶ “The ocean holds enormous potential for terrawatts of clean, baseload energy,” said Dan Heller, vice president of new ventures for Lockheed Martin Mission Systems and Training. “Capturing this energy through a system like OTEC means we have the opportunity to produce reliable and sustainable power, supporting global security, a strong economic future and climate protection for future generations.” ¶ Under this initial contract, Lockheed Martin will provide project management, design and systems engineering services.¶ “The signing of this contract reflects both companies’ passion for green energy projects, and our willingness as a team to bring forth an exciting new renewable energy source that directly benefits people of all nations,” said Shaohua Liu, senior vice president for Reignwood Group.

# \*\*\*AFF ANSWERS TO PRIZES CP\*\*\*

# 2AC – Solvency Deficit

**No guarantee of solvency, prizes cannot overcome barriers for resources up front or unclear criteria for winning the prize**

**Adler 11** Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

http://www.law.harvard.edu/students/orgs/elr/vol35\_1/HLE101.pdf

It bears repeating, however, that prizes are not without their drawbacks. Most notably, prize systems require researchers to obtain funding for their research up front. For some types of research, particularly where expensive equipment is required, this can create a significant obstacle. Prizes are also not particularly well-suited to situations in which the funding authority cannot articulate clear criteria upon which the prize would be awarded. For this reason, prizes are not as useful for the funding of basic research. In the climate change context, however, there is a need for practical innovations that are commercially viable. This makes prizes particularly well suited for the climate policy challenge.

# 1AR – Solvency Deficit

**Prizes are difficult to structure and they fail**

**Adler 11** Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

http://www.law.harvard.edu/students/orgs/elr/vol35\_1/HLE101.pdf

Setting the appropriate level for a prize can be difficult as well, particularly if the prize is expected to substitute for patent protection.103 A prize that is too small will fail to stimulate sufficient investment, but a prize that is too high will waste resources.104 Of course, if the prize is set too low, and it is insufficient to spur sufficient levels of research, the prize will not be claimed, so the fiscal cost for a sponsoring government agency is zero. In such an instance, the government may have failed to spur valuable research, but it will not have wasted taxpayer dollars on an unadvised investment. Prizes may also be the subject of controversy, particularly if the criteria for winning a prize are insufficiently clear or fail to account for possible means of satisfying the prize requirements.

**Prizes can’t work because startup costs are prohibitive**

**Adler 11** Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

http://www.law.harvard.edu/students/orgs/elr/vol35\_1/HLE101.pdf

A potentially significant drawback of prizes is that researchers must obtain funding for their research in order to compete. From a fiscal policy standpoint, this is a benefit, as funding prizes does not require the govern¬ment to appropriate money up front.105 Yet in fields in which research may be capital intensive, the lack of upfront funding can be inhibitive.106 A theo¬retical mathematician may not have many fixed costs, but the same may not be true for a scientist researching particle physics or even nuclear power plant design. If research toward a prize requires the construction of expen¬sive equipment, these costs may be a substantial barrier to participation. This concern may justify retaining traditional grant-based funding for basic research and for other particular types of research. It does not, however, undermine the broader case for prizes.

**Prizes trade off with other solutions and can be politicized**

**Vaitheeswaran 12**

Vijay V. Vaitheeswaran China Business Editor of The Economist¶ The Rise of the Prize, <http://freakonomics.com/2012/03/14/the-rise-of-the-prize/>

This all is very exciting, but there are some tradeoffs and limitations. Nobody should care if a plutocrat tries to spend his fortune on fanciful prizes—as one Robert Bigelow, heir to an American budget-hotel fortune, did on an overly ambitious $50 million space prize that failed miserably. But government resources are scarce, and taxpayer money spent on prizes may come at the expense of other policies, such as grants to universities or tax credits for corporate investment in research. What is more, prizes used as public policy can be vulnerable to political manipulation. In one case, an American government prize for environmental performance saw the winning firm suppress its breakthrough when the losers lobbied Congress to relax the relevant regulations in their favor.

# 2AC – Links to the Net Benefit

**Prizes require Congressional action**

**Frangione 14**

Christopher Frangione, Vice President of Prize Development, XPRIZE Subcommittee on Research and Technology Hearing - Prizes to Spur Innovation and Technology Breakthroughs¶ Subcommittee on Research and Technology | 2318 Rayburn House Office Building Washington, D.C. 20515 | Apr 9, 2014 10:00am http://science.house.gov/hearing/subcommittee-research-and-technology-hearing-prizes-spur-innovation-and-technology

Policymakers can continue this great progress in prize-based, public-private partnerships by supporting prize language such as that included the FIRST Act. Congress' passage of a bill the includes prize language would send a signal to agencies, the private sector and the innovation

community that the Federal government views the prize mechanism as in important solutions driver.

# 1AR – Links to the Net Benefit (1/2)

**Prizes only work for applied research not basic research**

**Adler 11**

Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

http://www.law.harvard.edu/students/orgs/elr/vol35\_1/HLE101.pdf

Not all sorts of innovation can be effectively encouraged through prizes, however. In particular, the use of a prize mechanism is dependent upon the initial identification of a particular problem that needs to be solved or goal to be achieved. As a consequence, prizes may be better suited for applied research than for basic scientific research.102 In some areas, it may be difficult to identify prize terms or qualifications. In the case of climate change, however, at least some of what must be discovered and developed to facilitate atmospheric stabilization is relatively clear. While there may yet be climate-friendly innovations that emerge from left field, many character¬istics of potential climate-related technologies can be identified today.

**Congressional action is required for effective prizes**

**Adler 11**

Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

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As the OMB noted in 2010, federal agencies, including the Department of Energy, already have some ability to fund technology inducement prizes out of existing appropriations. However, it would be a mistake to leave prizes to the administrative process. The same political pressures that can distort traditional R&D funding are likely to discourage the diversion of funds from R&D grant programs to prizes. Without a direct statutory man date, agencies are more likely to talk about prize competitions than they are to implement them.301

Congress should mandate that specific agencies develop prizes and specify the minimum degree of funding such prizes should receive out of agency appropriations. Congress should also identify, in broad terms, the purposes for which prizes should be used, as well as to require the appoint¬ment of outside expert panels to assist in the prize development process. Directed statutory authorization of this sort could ensure that agencies pur¬sue the potential of prizes to assist with the climate change challenge. It would also further underscore that climate-friendly technological innovation is a national priority.

**C-plan links to politics—Politicians oppose prizes**

**Adler 11**

Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

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As government became an ever-larger source of science funding, the shift away from prizes continued. Today, most prizes are privately funded, while most government-supported scientific research comes in the form of research grants.145 Reviewing the trends, Hanson suggests that "[grants may have won not, as their advocates claimed, because they were a superior institution, but instead because non-local and non-autocratic governments tended to prefer them."146 According to Hanson, "governments might prefer grant-like funding to prize-like funding because they were susceptible to distributive pressures from leaders of scientific societies, who preferred the 'pork' of increased discretion over the money that passed through their hands."147

# 1AR – Links to the Net Benefit (2/2)

**Politicians oppose prizes and prefer direct funding of projects**

**Adler 11**

Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation, Case Western Reserve University School of Law, EYES ON A CLIMATE PRIZE:REWARDING ENERGY INNOVATION TO ACHIEVE CLIMATE STABILIZATION

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To their detriment, the same characteristics that make innovation prizes so effective discourage their use by politicians. Grant programs empower government officials to dole out funds to favored constituencies and institu¬tional insiders. Even where efforts are made to insulate the decision making process, grant-making officials are influenced by knowledge of who will receive grant support, and the grants go out whether or not a grant recipient delivers or a problem is solved. Prize money, on the other hand, is only paid out if someone fulfills the preset conditions and is available to all comers, irrespective of their political influence or institutional connections. Indeed,

as with the longitude prize, the reward may go to an innovation disfavored by political and scientific elites.