### Plan

#### The United States Federal Government should reduce restrictions on marine offshore conventional energy production of natural gas.

### Solvency

#### No disads- The administration expanded offshore drilling earlier this month but it’s not enough

Handley 2/8 (Meg Handley, February 8, 2013, “New Offshore Leases in U.S. Could Yield 1B Barrels of Oil,” US News, http://www.usnews.com/news/articles/2013/02/08/new-offshore-leases-in-us-could-yield-1b-barrels-of-oil)

Who says the Obama Administration isn't a friend to fossil fuels? This week the Department of the Interior inked plans to auction off more than 38 million acres of federally owned waters in the central Gulf of Mexico to oil and gas drilling companies, reopening opportunities for energy firms to expand their offshore drilling operations.¶ According to government estimates, the area up for auction—scheduled to take place at the Mercedes-Benz Superdome in New Orleans in late March—could produce nearly 1 billion barrels of oil and 4 trillion cubic feet of natural gas.¶ "The Obama Administration is fully committed to developing our domestic energy resources to create jobs, foster economic opportunities, and reduce America's dependence on foreign oil," DOI Secretary Ken Salazar said in a statement. "Exploration and development of the Gulf of Mexico's vital energy resources will continue to help power our nation and drive our economy."¶ The sale is the second under the Obama administration's Outer Continental Shelf Oil and Gas Leasing program for 2012-2017, and the first of five lease sales in the central Gulf. The November lease sale of more than 20 million acres in the western Gulf of Mexico generated nearly $134 million in bids, according to the Associated Press while another sale in the central Gulf held last June yielded $1.7 billion.¶ The central Gulf of Mexico was the site of the Deepwater Horizon disaster in 2010 when a well operated by BP blew out, spilling millions of barrels of crude oil into the Gulf and causing serious environmental damage. Since then, drilling activity has ramped up as companies are more optimistic about hitting deposits in deepwater regions.¶ But while the plan is an encouraging step toward opening up more federal lands for oil and gas developers and easing supply pressures, some critics say the administration isn't going far enough.¶ "The Department of Interior's five-year leasing plan remains a disappointment because it fails to unlock resources off the Atlantic and Pacific coasts, as well in the Eastern Gulf of Mexico and off parts of Alaska's coast," says Nick Loris, an energy policy analyst at the conservative Heritage Foundation think tank. "Doing so would generate hundreds of thousands of jobs, generate hundreds of billions of dollars for our cash-strapped government and lower prices at the pump."

#### OCS natural gas is abundant- removing restrictions key to development and expectations of future supply

Medlock 2008 (Kenneth B. Medlock, fellow in Energy Studies at Rice University's James A Baker III Institute for Public Policy and an adjunct assistant professor in the Economics Department at Rice, July 13, 2008, “Open outer continental shelf,” http://www.chron.com/opinion/outlook/article/Open-outer-continental-shelf-1597898.php]

Of course, opening the OCS will not bring immediate supplies because it would take time to organize the lease sales and then develop the supply delivery infrastructure. However, as development progressed, the expected growth in supply would have an effect on market sentiment and eventually prices. Thus, opening the OCS should be viewed as a relevant part of a larger strategy to help ease prices over time because an increase in activity in the OCS would generally improve expectations about future oil supplies.¶ Lifting the current moratorium in the OCS would also provide almost 80 trillion cubic feet of technically recoverable natural gas that is currently off-limits. A recent study by the Baker Institute indicates that removing current restrictions on resource development in the OCS would reduce future liquefied natural gas import dependence of the United States and lessen the influence of any future gas producers' cartel.¶ There is currently drilling in certain areas of the OCS, in particular the western and central Gulf of Mexico where the MMS reports more than 4,000 active platforms. This activity accounts for about one-third of our nation's oil supply and one quarter of our natural gas.¶ Oil companies currently hold undeveloped leases. It has been argued, therefore, that it is not worth offering new areas for exploration. This is not a well-reasoned thesis. Commercial quantities of oil do not exist everywhere a well is drilled. If a company's assessment of the acreage under lease indicates it will not bear commercial quantities of oil and gas, then it will not be developed. Moreover, some leases are under study but drilling, which may happen eventually, has not yet begun. Oil companies with leases cannot simply hoard acreage without ramifications. In fact, they would be penalized by investors and shareholders with lower company share values for doing so.¶ The most vehement objection to opening the areas currently off limits in the outer continental shelf is made on environmental grounds. But, according to the MMS, the offshore drilling industry is one of the safest in the United States.

#### OCS solves

Green 2/23 (Mark Green, joined API after 16 years as national editorial writer in the Washington bureau of The Oklahoman newspaper, “Unlock US Energy Potential: Offshore Oil and Gas,” The Energy Collective, http://theenergycollective.com/mark-green/188896/unlock-offshore-energy-potential)

The map below makes clear that while there’s talk in Washington of an all-of-the-above approach to energy, there’s much to be done in applying that concept to our outer continental shelf (OCS) oil and natural gas reserves. Other claims notwithstanding, the number to focus on is 87 – as in the 87 percent of federal offshore acreage that’s off limits to oil and natural gas development, indicated in red. Areas open to development are colored blue.¶ ¶ America’s vast OCS energy potential remains largely just that, potential. Also on hold are jobs and economic growth associated with increased energy development. Key points:¶ ¶ 88.6 billion barrels of oil and 398.4 trillion cubic feet of natural gas are believed to be held in the OCS, according to the Bureau of Ocean Exploration and Management – though those estimates are 30 years old. There could be an even greater abundance, which state-of-the-art seismic surveying technology could determine, if Congress will allow it.¶ Nearly 465,000 new jobs could be created by developing oil and natural gas offshore, according to a 2011 study by Wood Mackenzie.¶ More than $312 billion in new revenue could be generated for government from OCS production by 2030 (Wood Mackenzie).¶ That’s a lot of potential being left on the shelf because of our own policy choices. Also on hold is the boost to America’s energy security that could result from developing more of our own reserves.¶ ¶ All of these points no doubt were on the minds of the governors of Virginia, North Carolina and South Carolina, who wrote last week to Sally Jewell, the president’s choice to be the next Interior secretary, encouraging Jewell to support expanded OCS leasing.¶ ¶ As the map shows, while oil and natural gas development off the coasts of those states is off limits through at least 2017, the administration has authorized a federal review to decide whether energy companies may conduct seismic tests to see how much oil and natural gas is on the OCS there. The governors backed a new energy plan offered by Sen. Lisa Murkowski of Alaska that would increase OCS leasing in the Eastern Gulf of Mexico and parts of the Atlantic OCS:¶ ¶ We applaud this proposal and sincerely hope that the Administration under your guidance can work with us and our Congressional colleagues to enact these commonsense measures. … It’s estimated that energy production from the Atlantic OCS could create more than 140,000 new jobs within the next 20 years, and we hope you will ensure that the Administration is a partner with the states on this issue.¶ ¶ API President and CEO Jack Gerard:¶ ¶ “Unlocking the resources off the Atlantic Coast could create 140,000 jobs, generate much-needed revenue for the government, and fuel major investments in state and local economies. We have an opportunity to lead the world on energy, and through safe and responsible development of our own oil and natural gas resources we can continue our path as a global energy superpower.”¶ ¶ In the OCS we have significant supplies of oil and natural gas – which could prove to be even larger with modern, up-to-date analysis. Unfortunately, 87 percent of the OCS is unavailable for oil and natural gas development that could help create jobs, stimulate the economy and add to domestic energy production.

#### Certainty is key- only the plan solves

Loris 2012 (Nicolas Loris, Fellow in the Roe Institute for Economic Policy Studies at the Heritage Foundation, August 6, 2012, “Senate Energy Bill: Good Start, Room for Improvement,” Heritage Foundation, http://www.heritage.org/research/reports/2012/08/domestic-energy-and-jobs-act-good-start-room-for-improvement)

Senator John Hoeven (R–ND) recently introduced the Domestic Energy and Jobs Act (DEJA), which would greatly expand access to energy and simplify burdensome regulations that prevent projects from coming online in a timely manner. While the legislation could be improved by further increasing access and removing the top-down energy planning, DEJA would still spur economic growth and drive energy production. Increasing Access to Energy DEJA would accept the State Department’s environmental review of the Keystone XL pipeline as sufficient and allow the state of Nebraska to reroute the pipeline to meet the state’s environmental concerns. The State Department studied and addressed risks to soil, wetlands, water resources, vegetation, fish, wildlife, and endangered species and concluded that construction of the pipeline would pose minimal environmental risk.[1] The construction of Keystone XL would allow up to 830,000 barrels of oil per day to come from Canada to the Gulf Coast and create thousands of jobs. DEJA also directs the Department of the Interior (DOI) to conduct a lease sale off the coast of Virginia. The 2.9 million acres 50 miles off the coast has an estimated 130 million barrels of oil and 1.14 trillion cubic feet of natural gas. Opening access off Virginia’s coast is long overdue, and the legislation only opens up a small portion of America’s territorial waters that are off limits. The Offshore Petroleum Expansion Now (OPEN) Act of 2012, also co-sponsored by Senator Hoeven, would replace President Obama’s 2012–2017 Outer Continental Shelf Oil and Gas Leasing Program with a much more robust plan that opens areas in the Atlantic and Pacific Oceans, in the Gulf of Mexico, and off Alaska.[2] Both DEJA and OPEN increase the royalties that states would receive from energy production, but both could go further to increase state involvement in offshore drilling decisions. Since onshore states already receive 50 percent of the royalties, Congress should also implement a 50/50 royalty-sharing program between federal and state governments involved in offshore drilling. Efficient Permitting and Leasing for All Energy Projects Another important component of DEJA is that it streamlines the permitting of all energy projects. Receiving a permit for any energy project, not just fossil fuels, takes entirely too long. Duplicative and unnecessary regulations slow the process and drive up costs. Furthermore, environmental activists delay new energy projects by filing endless administrative appeals and lawsuits. DEJA would create a manageable time frame for permitting for all energy sources to increase supply at lower costs and stimulate economic activity. DEJA also calls for an end to the lengthy permit process in the Natural Petroleum Reserve area of Alaska. It would require the DOI to approve drilling permits within 60 days and infrastructure permits within six months. Lease certainty is another critical issue. The act states that the DOI cannot cancel or withdraw a lease sale after the winning company pays for the lease. Ensuring that the federal government does not pull the rug out from under a company that wins the lease sale would provide the certainty necessary to pursue energy projects. Freeze and Study Environmental Regulations DEJA would also create transparency and accountability for Environmental Protection Agency (EPA) regulations by establishing an interagency committee that would report on the full economic impact of the rules implemented by the EPA that affect fuel prices. This includes any part of the production process that would be affected by greenhouse gas regulations. DEJA delays the implementation of Tier 3 fuel standards (designed to replace the Tier 2 regulations issued in 2000) that would lower the amount of sulfur in gasoline but could add 6–9 cents per gallon to the cost of manufacturing gasoline. The EPA has declared no measurable air quality benefits from these standards. DEJA delays the New Source Performance Standards for refineries, which would drive up the cost of gasoline for no measurable change in the earth’s temperature.[3] It would also delay new national ambient air quality standards for ozone, which are unnecessary because the ozone standard set by the EPA is already more than stringent enough to protect human health. Though the delays contained in DEJA underscore the problems with these regulations, the preferred approach would be to prohibit the implementation of these three standards altogether. DEJA would also prevent the DOI from issuing any rule under the Surface Mining Control and Reclamation Act of 1977 before 2014 that would adversely affect coal employment, reduce revenue from coal production, reduce coal for domestic consumption or export, designate areas as unsuitable for surface mining and reclamation, or expose the U.S. to liability by taking privately owned coal through regulation. While this temporary fix recognizes the federal overreach in coal production, a better approach would be to create a framework that restricts overregulation, empowers the states, balances economic growth and environmental well-being, and creates a timely permitting process for all aspects of coal production.[4] Energy Central Planning Unneeded DEJA would require the federal government to create production objectives for fossil fuels and renewable energy and allow the relevant agencies to make additional lands available to meet those objectives. The bill would also require the U.S. Geological Survey to establish a critical minerals list and create comprehensive policies to increase critical mineral production. A much simpler and effective solution would be to open all federal lands for energy production of all sources and allow the private sector to determine what sources of energy and what technologies meet America’s electricity and transportation fuel demand. Too often the use of critical minerals has been used as cover for subsidies and extensive government intervention in a major industry. If there are clear military needs for certain critical materials, these should be met by government action. Absent that, streamlining the bureaucracy that has expanded around mining and opening access is the only necessary federal action surrounding critical minerals.

### Adv 1

#### Shale production has peaked and is now crashing- supply crunch imminent

Nelder 2012 (Chris Nelder, Energy Analyst, Consultant and Investor, February 8, 2012, “Everything you know about shale gas is wrong,” Smart Planet, http://www.smartplanet.com/blog/energy-futurist/everything-you-know-about-shale-gas-is-wrong/341)

But now there’s even more bad news: U.S. gas production appears to have hit a production ceiling, and is actually declining in major areas. The startling revelation comes from a new paper published today by Houston-based petroleum geologist and energy sector consultant Arthur Berman. Berman reached this conclusion by compiling his own production history of U.S. shale gas from a massive data set licensed from data provider HPDI. His well-by-well analysis found that total U.S. gas production has been on an “undulating plateau” since the beginning of 2009, and showed declines in some areas in 2011. This stands in stark contrast to recent data provided by the EIA, which shows shale gas production rising steadily for the past two years, and well into the future. The EIA’s forecast is bullish because it’s mainly a view of demand, without great regard for supply limits. But their historical supply data differs for a reason that will be no surprise to experienced observers: the data is bad. The EIA gets its data on shale gas production by sampling the reports of major operators, then applying a formula to estimate how much gas is actually being produced, according to Berman. This may explain why they only have official monthly historical production data for the two years (unofficially, three) of 2008 and 2009, and only annual data for 2010 and 2011. This has been a big red flag to me in my recent work on shale gas, accustomed as I am to EIA’s far more detailed and up-to-date monthly and weekly data on oil, and has made it nearly impossible to verify the claim that we’ve had “booming” gas production over the past two years. Data is also available directly from the states, but some states have flawed reporting processes, the granularity and reporting frequency varies (as low as every six months, in the case of Pennsylvania), and ultimately the data isn’t available in a usable format. It’s also inaccurate and incomplete, as one Pittsburgh newspaper recently found out. Berman reached the same conclusion, noting in his paper that “the data that EIA makes available does not have sufficient resolution to evaluate individual plays or states.” So he had to build his own database. An unprofitable treadmill One reason for the recent slowdown in production growth is that “unconventional” shale gas wells have to make up for the decline of conventional gas wells, which has accelerated from 23 percent per year in 2001 to 32 percent per year today. The U.S. now needs to replace 22 billion cubic feet per day (Bcf/d) of production each year just to maintain flat supply. Currently, all shale gas plays together produce around 19 Bcf/d. The shift to unconventional gas has put us on a production treadmill: We have to keep drilling like mad to maintain output because unconventional wells are far less productive and shorter-lived than conventional gas wells. Berman observes that an average gas well in Texas in 2010 produces one-fifth as much gas as an average conventional gas well did in 1972. In 1972, 23,000 gas wells produced 7.5 trillion cubic feet in Texas; in 2010, it took 102,000 wells to produce 6.4 trillion cubic feet. Another reason was that the spurt of production created a gas glut and drove prices far below the level of profitability. Data from a January, 2012 presentation by the CEO of gas operator Range Resources showed that gas needs to sell for at least $4 per million BTU in order for operators to turn a profit. Source: Jonathan Callahan, The Oil Drum. Data from Range Resources. Berman is certain that the $4 threshold applies to new drilling on existing plays only; after accounting for land leasing, overhead and debt service, the threshold would be much higher. In any case, we can see that production flattened out when prices fell below $4 at the beginning of 2009. Source: Arthur Berman. Data from Natural Gas Intelligence. A gas price below $3 spells real trouble for operators, and flagging production is but the first effect. The next is debt: According to analysis by ARC Financial Research, the 34 top U.S. publicly traded shale gas producers are currently carrying a combined $10 billion quarterly cash flow deficit. And finally, there will the destruction of forward supply, as new development grinds down. Financing further development with debt in this environment will be extremely difficult, and eventually even the joint-venture sugar daddies that have sustained operators over the past few months will get cold feet. Without a reversal in price, gas production is guaranteed to decline. The gas gold rush is over Indeed, Berman concludes that “the gold rush is over at least for now with the less commercial shale plays.” Within the major producing areas of the U.S., which account for 75 percent of production, all except Louisiana have been either flat or declining in recent years. Overall, he sees evidence that 80 percent of existing U.S. shale gas plays are already approaching peak production. Rig counts have been falling, and major operators such as Chesapeake Energy and ConocoPhilips have announced slowdowns in drilling in the last month. The two major plays that do not show evidence of peaking yet are the newer ones: the Marcellus Shale in Pennsylvania and the Haynesville Shale in Louisiana. To see the influence of these two plays on overall production, compare the first chart below, which shows production from all shale plays, to the second, which removes production from those two plays: Source: Arthur Berman Source: Chart by Chris Nelder, from Arthur Berman’s worksheets The Haynesville surpassed the Barnett Shale in Texas last year as the top-producing shale play in the U.S., but it may be reaching a production plateau now. Worse, Berman’s analysis finds that despite its impressive production, the Haynesville is among the least economic of the shale plays, requiring gas prices above $7.00 per thousand cubic feet to sustain new drilling profitably, and nearly $9.00 per thousand cubic feet after accounting for leasing and other costs. (One thousand cubic feet is roughly equivalent to one million BTU.) A word of caution is in order here: A one-year decline in production in an unprofitable environment is not proof that shale gas has “peaked.” It’s certainly possible that renewed drilling could bring higher production when gas prices rise again. The operative question in that case is when. If gas prices recover within the next year or two, it will be relatively easy to bring new wells online rapidly. But if gas prices languish for longer than that, the most productive “core” areas of the plays could become exhausted because the wells deplete so quickly. Without sustained new drilling to replace their production, by the time producers begin drilling again in the remaining, less productive prospects, an air pocket could form in the supply line. Disinformation and diffusion theory Berman admits that it’s strange for his bottom-up analysis to produce results that are so wildly divergent from the claims of the operators and the data offered by the EIA. “I ask myself: Where could we be wrong?” he explained. “We’ve looked at the individual wells and it looks like they’ll produce less gas than the operators say, so where could we be wrong? Likewise on cost: There are no retained earnings, so how could they be saying they’re profitable?” Having scrutinized the financial reports of operators, Berman concludes that operators are being honest with the SEC, because if they aren’t, somebody will go to jail. But then they’re telling a very different story to the public, and to investors, particularly regarding their costs. This isn’t necessarily nefarious; it’s really just a way of working around the natural risks associated with new resource development. They’re playing for the future, not for immediate profitability. Early wildcatters gambled on debt-fueled drilling with the hope that they’d be able to hold the leases long enough to see prices rise again and put them nicely in the black, or flip them at a profit to someone who could. And the profit picture is substantial: according to the Range Resources presentation, when gas is $6, they’ll be realizing a 135 percent internal rate of return. “I think these companies realize—clearly—that the U.S. is moving toward a gas economy,” Berman observes. “The natural gas industry has been very successful at screwing up the coal industry. . . a huge part of the demand is from the power generation business. The President now thinks, incorrectly, that we’ve got 100 years of natural gas. [Operators think] ‘If we can just get all this land held, drilled, etc., then in a couple of years when the price recovers we’re going to make a fortune’. . . and they’re right!” I am inclined to agree. My own analysis suggests that [gas is trouncing coal](http://www.smartplanet.com/blog/energy-futurist/regulation-and-the-decline-of-coal-power/275) in the power generation sector. I am also strongly against exporting LNG, because it will increase domestic costs across the board, another point on which Berman and I agree. “If they go through with the permits to export LNG, then that’s gonna seal it,” he remarked. “All you have to do is commit to 20-year contracts to ship a few bcf per day. . . I fear what’s really going to happen is that we’re going to have to start importing LNG.” Ultimately, we have to ask why there seems to be such an enormous disconnect between the reality of the production and reserve data, and the wild-eyed claims of operators and politicians. Berman’s answer is blunt: “We’re in a weird place where it’s not in anybody’s vested interest to say that things aren’t wonderful,” he said, and went on to relate a few stories of his encounters with politicians. They admitted to him, straight-up, that they can’t tell the public the truth about energy issues like gas reserves and peak oil because nobody wants to hear it, and they’ll just wind up getting voted out of office. “This gets back to basic diffusion theory,” Berman muses, “where only 5 percent of people base their decisions on information, while the other 95 percent make decisions on what everybody else thinks.” That sounds right to me. It benefits everyone involved to tell happy lies, and benefits no one to own up to the current reality. That is true for everyone from the operators right on up to the President. Perhaps in the end—like government—we’ll simply get the energy policy we deserve.

#### Shale gas is unsustainable- their data is bad- can’t sustain exports- ONLY conventional production solves

Nikiforuk 2013 (Andrew Nikiforuk, energy writer citing…

David Hughes: geoscientist who has studied the energy resources of Canada for nearly four decades, including 32 years with the Geological Survey of Canada as a scientist and research manager. He developed the National Coal Inventory to determine the availability and environmental constraints associated with Canada’s coal resources. As Team Leader for Unconventional Gas on the Canadian Gas Potential Committee, he coordinated the recent publication of a comprehensive assessment of Canada’s unconventional natural gas potential. Over the past decade, he has researched, published and lectured widely on global energy and sustainability issues in North America and internationally. He is a board member of the Association for the Study of Peak Oil and Gas – Canada and is a Fellow of the Post Carbon Institute. He recently contributed to Carbon Shift, an anthology edited by Thomas Homer-Dixon on the twin issues of peak energy and climate change, and his work has been featured in Canadian Business, Walrus and other magazines, as well as through the popular press, radio, television and the internet. He is currently president of a consultancy dedicated to research on energy and sustainability issues.

February 25, 2013, “Fracking Bubble? Report Warns Shale Gas And Oil Won’t Solve Energy Crunch,” Climate Progress, http://thinkprogress.org/climate/2013/02/25/1636311/fracking-bubble-report-warns-shale-gas-and-oil-wont-solve-energy-crunch/?mobile=nc)

Governments and financial analysts who think unconventional fossil fuels such as bitumen, shale gas and shale oil can usher in an era of prosperity and energy plenty are dangerously deluded, concludes a groundbreaking report by one of Canada's top energy analysts.¶ In a meticulous 181 page study for the Post Carbon Institute, geologist David Hughes concludes that the U.S. "is highly unlikely to achieve energy independence unless energy consumption declines substantially."¶ Exuberant projections by the media and energy pundits that claim that hydraulic fracturing and horizontal drilling "can provide endless growth heralding a new era of 'energy independence,' in which the U.S. will become a substantial net exporter of energy, are entirely unwarranted based on the fundamentals," adds Hughes in a companion article for the science journal Nature.¶ ¶ Moreover it is unlikely that difficult and challenging hydrocarbons such as shale oil can even replace the rate of depletion for conventional light oil and natural gas.¶ ¶ Since 1990, says Hughes, the number of operating wells in the U.S. has increased by 90 per cent while the average productivity of those wells has declined by 38 per cent.¶ ¶ The latest panaceas championed by industry and media talking heads are too expensive and will deplete too rapidly to provide either energy security or independence for the United States, concludes the 62-year-old geologist who worked for Natural Resources Canada for 32 years as a coal and gas specialist.¶ ¶ To Hughes shale gas and shale oil represent a temporary bubble in production that will soon burst due to rapid depletion rates that have only recently been tallied.¶ ¶ Taken together shale gas and shale oil wells "will require about 8,600 wells per year at a cost of over $48 billion to offset declines."¶ ¶ "The idea that the United States might be exporting 12 per cent of its natural gas from shale is just a pipe dream," Hughes, a resident of Cortes Island in British Columbia, told The Tyee.¶ ¶ 'Tough' energy's tough downsides¶ Unconventional fossil fuels all share a host of cruel and limiting traits says Hughes. They offer dramatically fewer energy returns; they consume extreme and endless flows of capital; they provide difficult or volatile rates of supply overtime and have "large environmental impacts in their extraction."¶ ¶ Most important, bitumen, shale oil and shale gas, by definition, are much lower quality hydrocarbons and therefore can't fund business as usual. They simply do not provide the same energy returns or the same amount of work as conventional hydrocarbons due to the energy needed to extract or upgrade them, says Hughes.¶ ¶ At the turn of the century it took just one barrel of oil to find and produce 100 more. Now the returns are down to 20. The mining portion of the tar sands offers returns of five to one while the steam plant operations barely manage returns of three to one, says Hughes. "And that's an extremely conservative estimate."¶ ¶ "Moving to progressively lower quality energy resources diverts more and more resources to the act of acquisition as opposed to doing useful work."¶ A society that progressively spends more and more capital on acquiring energy that does less and less work will either exhaust the global economy or cannibalize national ones as consumers redirect larger portions of their household budgets to energy costs, says Hughes.¶ ¶ "To view them (unconventional hydrocarbons) as 'game changers' capable of indefinitely increasing supply of low cost energy which has underpinned the economic growth of the past century is a mistake."¶ ¶ The exploitation of shale oil and gas (and Hughes reviewed the data for 60,000 wells for the report) may have temporarily reversed declines in conventional resources but they show dramatic limitations often excluded from the mainstream press.¶ ¶ Drilling into a mirage¶ For starters shale gas and oil don't resemble a manufacturing process.¶ ¶ Companies such as Encana claimed in 2006 that they had turned natural gas drilling into a bountiful factory process with so-called "resource plays."¶ After drilling a landscape and pulverizing deep formations with high volume hydraulic fracturing the company claimed it could produce predictable and reliable volumes of hydrocarbons across the landscape.¶ ¶ "But geology matters," says Hughes. In every shale play there are sweet spots and unproductive areas and marginal ones. In fact 88 per cent of all shale gas production flows from six of 20 active plays in the United States while 81 per cent of shale oil comes from two of 21 plays.¶ ¶ Moreover shale gas and oil fields deplete so quickly that they resemble financial treadmills. In order to maintain constant flows from a play industry must replace 30 to 50 per cent of declining production with more wells.¶ ¶ Recovery rates from shale fields are also dismal. Conventional drilling, which uses less energy, often captured up to 70 per cent of the gas in the ground. But shale gas barely averages 10 per cent despite deploying more horsepower and water over greater landscapes.¶ ¶ Nor is shale gas long-lasting. Industry promised that shale gas plays would produce for up to 40 years but the Haynesville, a top U.S. producer, reached maturity in five years and is already in a state of decline, reports Hughes. "Nobody had heard about Haynesville until 2009."¶ ¶ "That's the Achilles heel of shale gas. You need a lot of wells and environmental collateral damage and infrastructure to grow supply."

#### Independently, supply uncertainty derails export approval- plan solves

Ebinger 2012 (Charles Ebinger, Senior Fellow and Director of the Energy Security Initiative – Brookings, Kevin Massy, Assistant Director of the Energy Security Initiative at Brookings, and Govinda Avasarala, Senior Research Assistant in the Energy Security Initiative at Brookings, December 1, 2012, “Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas,” Brookings Institution, Policy Brief, http://www.brookings.edu/~/media/research/files/reports/2012/5/02%20lng%20exports%20ebinger/0502\_lng\_exports\_ebinger.pdf)

For an increase in U.S. exports of LNG to be considered feasible, there has to be an adequate and sustainable domestic resource base to support it. Natural gas currently accounts for approximately 25 percent of the U.S. primary energy mix.3 While it currently provides only a minority of U.S. gas supply, shale gas production is increasing at a rapid rate: from 2000 to 2006, shale gas production increased by an average annual rate of 17 percent; from 2006 to 2010, production increased by an annual average rate of 48 percent (see Figure 2).4 According to the Energy Information Adminis- tration (EIA), shale gas production in the United States reached 4.87 trillion cubic feet (tcf) in 2010, or 23 percent of U.S. dry gas production. By 2035, it is estimated that shale gas production will account for 46 percent of total domestic natural gas production. Given the centrality of shale gas to the future of the U.S. gas sector, much of the discussion over potential exports hinges on the prospectsfor its sustained availability and development. For exports to be feasible, gas from shale and other unconventional sources needs to both offset declines in conventional production and compete with new and incumbent domestic end uses. There have been a number of reports and studies that attempt to identify the total amount of technically recoverable shale gas resources—the volumes of gas retrievable using current technology irrespective of cost—available in the United States. These estimates vary from just under 700 trillion cubic feet (tcf) of shale gas to over 1,800 tcf (see table 1). To put these numbers in context, the United States consumed just over 24 tcf of gas in 2010, suggesting that the estimates for the shale gas resource alone would be enough to satisfy between 25 and 80 years of U.S. domestic demand. The estimates for recoverable shale gas resources also compare with an estimate for total U.S. gas resources (onshore and offshore, including Alaska) of 2,543 tcf. Based on the range of estimates below, shale gas could therefore account for between 29 percent and 52 percent of the total technically recoverable natural gas resource in the United States. In addition to the size of the economically recoverable resources, two other major factors will have an impact on the sustainability of shale gas production: the productivity of shale gas wells; and the demand for the equipment used for shale gas production. The productivity of shale gas wells has been a subject of much recent debate, with some industry observers suggesting that undeveloped wells may prove to be less productive than those developed to date. However, a prominent view among independent experts is that sustainability of shale gas production is not a cause for serious concern, owing to the continued rapid improvement in technologies and production processes.

#### Japan will be a major customer of US LNG

Cunningham 2013 (Nick Cunningham, policy analyst focusing on climate change and next generation energy issues, March 2013, “The Geopolitical Implications of U.S. Natural Gas Exports,” http://americansecurityproject.org/ASP%20Reports/Ref%200116%20-%20The%20Geopolitical%20Implications%20of%20U.S.%20Natural%20Gas%20Exports.pdf)

Japan lacks substantial indigenous energy resources and is thus highly dependent on maritime imports for energy. It is the world’s third largest importer of crude oil, second largest importer of coal, and the top importer of LNG.28 To generate electricity, Japan relies heavily on these imported sources of energy.¶ The shuttering of nearly all of its nuclear power plants created a surge in energy imports to replace the lost capacity. This included a steep rise in LNG demand, pushing up prices. The high costs of LNG are sapping the Japanese economy, putting pressure on the government to return to nuclear power. Russia has already made preliminary moves to capitalize on Japan’s energy problems – it is considering building LNG export terminals in the Far East to service Japan.29¶ Japan is in desperate need of energy and is actively lobbying the U.S. government to permit new LNG exports.30¶ South Korea is in a similar situation as Japan. With few energy resources to speak of, and a dysfunctional neighbor to its north, South Korea relies upon maritime imports to meet its energy needs. This dependence makes South Korea the second largest importer of LNG.31¶ The U.S. has a free-trade agreement with South Korea, meaning permits for LNG exports to South Korea will likely not receive heavy scrutiny during the permitting process.¶ However, allowing U.S. LNG exports to reach Japan would benefit South Korea just the same. This would create a more liquid Asian market for LNG, and U.S. LNG would relieve the supply crunch in Asia. More LNG would allow Japan and South Korea to find alternative sources of energy at lower prices.¶ If the U.S. exports LNG to its Asian allies, it can help them improve their energy security and their economies in a time of stress.

#### Expands Japanese burden sharing and strengthens overall alliance

Itoh 2013 (Shoichi Itoh, Senior Analyst, Strategy Research Unit, The Institute of Energy Economics, March 2013, “Energy Security in Northeast Asia: A Pivotal Moment for the U.S.-Japan Alliance,” Brookings, http://www.brookings.edu/research/opinions/2013/03/12-energy-security-itoh)

Increases of LNG exports from the United States to Japan will become a new way to strengthen the alliance, and the impacts extend beyond energy. Undoubtedly, Japan would benefit from prospective participation in the TPP, and co-designing the future framework of economic rules in the Asia-Pacific region would also reinforce the bilateral alliance. TPP membership for Japan would remove a potential obstacle to increase LNG exports from the lower 48 states. According to the U.S. Natural Gas Law, LNG exports to non-FTA trade partners must be authorized by the Department of Energy on a case-by-case basis (Japan has imported LNG from Alaska since 1969.) However, the meaning of increasing LNG supplies to Japan should be emphasized in a wider context, entailing geostrategic importance besides the economic benefits of improving the U.S. international balance of payments. LNG imports from the United States will beef up Japan’s economic muscle, better allowing it to play the role of the main “bridgehead” of the U.S. strategy toward the Asia-Pacific region. With sound economic growth, Japan can be expected to contribute more to burden-sharing as it will be able to increase its budgets for defense, economic aid to developing countries, and many other issues that benefit the U.S.-Japan alliance.¶ Even if Tokyo decides in principle to restart nuclear reactors, both the political and technical processes will take some time. Public support will have to be nurtured in a step-by-step manner. This means that increased access to economically competitive LNG supplies remains urgent. As late as February 2013, Japan paid approximately five times more than the U.S. Henry Hub price per million Btu (British thermal unit), on average, for LNG purchases. Although of the price of future imports of LNG from North America remains uncertain, it is generally estimated that the final cost of LNG from the lower 48 states―including liquefaction costs, transportation fees, and other costs―are still lower than the average price of Japan’s current LNG imports.¶ Aside from the price issue, securing new LNG supply routes from North America is also important to ensure the safety of Japan’s seaborne hydrocarbon transportation. Currently, approximately 80 percent of crude oil and 30 percent of LNG destined for Japan cut across the East China Sea, where Sino-Japanese tension is simmering.

#### Increased burden sharing key to solve China-Japan conflict

Cronin 2012 (Patrick Cronin, senior advisor and senior director of the Asia-Pacific Security Program at the center for a New American Security; Paul Giarra, President of Global Strategies and Transformation; Zachary Hosford, Research Associate; Daniel Katz, Researcher; April 2012, “The China Challenge: Military, Economic and Energy Choices Facing the US-Japan Alliance,” CNAS, http://www.cnas.org/files/documents/publications/CNAS\_TheChinaChallenge\_Cronin\_0.pdf)

The U.S.-Japan security alliance includes both hard and soft power dimensions. It is rarely tested but militarily potent. The allies’ combined military power continues to deter regional threats and maintain stability. Moreover, the allies’ well-organized ¶ and appropriately equipped military forces are useful in humanitarian-assistance, disaster-relief and ¶ peacekeeping missions, activities that can showcase ¶ goodwill and build trust between nations.¶ An enduring and clear division of labor has been ¶ an explicit feature of the security treaty, with the ¶ United States conducting offensive missions and ¶ operations for regional security and Japan concentrating on the defense of its territory. However, ¶ these have become exclusive roles over time, making the alliance less than the sum of its parts. The ¶ allies could better preserve their influence in the ¶ future by focusing less on a division of labor and ¶ more on combined capabilities and integration. Plans to cut the U.S. defense budget by about $50 ¶ billion a year over the next decade (the equivalent of eliminating Japan’s total current annual ¶ defense budget) are creating anxieties within Japan ¶ and elsewhere in the Asia-Pacific region. If the ¶ Congressionally mandated budget process known ¶ as sequestration comes to pass, the cuts will be ¶ even deeper and could call into question America’s ¶ ability to uphold its commitment to the security ¶ of allies in Asia.4¶ At the same time, it is not obvious that Japan will play a larger security role in ¶ the future, nor is such a large role unequivocally ¶ desirable.5¶ Japan has a history of conflict with ¶ many of its neighbors, including China, who may ¶ react negatively to enhanced military capabilities ¶ in Japan. The United States may have put history ¶ behind it, but others have not yet done so – including many people in Japan who, as a result of Japan’s ¶ prewar experience, remain uncomfortable with ¶ military force.¶ Those concerns accentuate lost opportunities to ¶ strengthen the alliance, including its military ¶ ends, ways and means. The ends have become ¶ more complex since the end of the Cold War; ¶ looking ahead, the alliance must stand together or fall apart over how to deal with China. The ways of the military alliance center on bases and on whether the two allies can continue to ¶ share burdens in an equitable manner. That issue is further complicated by changes in warfare and military technologies that separate, rather than unify, the two nations’ militaries. Tokyo’s ¶ longstanding refusal to accept opportunities for ¶ integration means that the alliance is not as capable as it might be. One example of this concerns ¶ the modern air combat environment. For any air ¶ campaign operating beyond visual range, U.S. ¶ aircraft are linked by intelligence and technical ¶ networks to enhance battlespace awareness, and ¶ command and control integration. The Japan Air ¶ Self-Defense Forces are not capable of using this ¶ technology (and the doctrine that reinforces it) to ¶ link platforms and operational networks. Indeed, ¶ at least in the past, they have not even aspired ¶ to do so. Finally, in the face of severe financial ¶ constraints, it remains an open question whether ¶ the allies, separately and in combination, can ¶ muster the means to continue to support sufficient defenses. ¶ American and Japanese strategists express concern about the growing capability of Chinese military power (the People’s Liberation Army, Navy and Air ¶ Force) but remain confident that the allies will hold the advantage if they cooperate. However, a failure to integrate U.S. and Japanese military and defense forces may weaken deterrence, encourage political coercion against the alliance and others (backed ¶ by the use of military force short of aggression), ¶ reduce the credibility of U.S. security assurances, make Japan and others less able or willing to resist Chinese influence, provoke allies and friends to engage in a destabilizing arms race with China which could include weapons of mass destruction) and further undermine U.S. alliances in Asia.

#### Miscalculation leads to escalation

Wittmeyer 3/19 (Alicia P.Q. Wittmeyer, writer for Foreign Policy, March 19, 2013, “Why Japan and China could accidentally end up at war,” Foreign Policy, http://blog.foreignpolicy.com/posts/2013/03/19/china\_japan\_accidental\_war\_islands)

Great. At a time when Chinese authorities seem to be making efforts to dial down tensions with Japan over disputed islands, could a war between East Asian superpowers be sparked by accident -- by some frigate commander gone rogue?¶ That nuclear war could come about in just such a scenario was, of course, a major concern during the Cold War. But decades of tension, as well as apocalyptic visions of global annihilation as a result of the U.S. and U.S.S.R. locking horns, produced carefully designed systems to minimize the damage any one rogue actor could inflict (only the president can access the nuclear codes), and to minimize misunderstandings from more minor incidents (the Kremlin-White House hotline).¶ But East Asia -- relatively free of military buildup until recently -- doesn't have these same systems in place. A soon-to-be-released report from the International Institute for Strategic Studies highlights the danger that emerges when a region's military systems develop faster than its communication mechanisms, and finds that accidental war in East Asia is a real possibility:¶ Across East Asia, advanced military systems such as anti-ship missiles, new submarines, advanced combat aircraft are proliferating in a region lacking security mechanisms that could defuse crises. Bilateral military-to-military ties are often only embryonic. There is a tangible risk of accidental conflict and escalation, particularly in the absence of a strong tradition of military confidence-building measures."¶ The Senkaku-Diaoyu Islands dispute has been marked by an increasing number of deliberate provocations on both sides: surveillance vessels entering nearby waters, patrol planes making passes by the islands, scrambled fighter jets. These are planned actions, designed to incrementally heighten tensions. But the more fighter jets that get scrambled without good communications systems in place, the higher the chances that these deliberate moves escalate beyond what either Japan or China is anticipating.

#### Global nuclear war

Landay 2000 (Jonathan S. Landay, staff writer for Washington Bureau, March 10, 2000, “Top administration officials warn stakes for U.S. are high in Asian conflicts,” Knight Ridder Washington Bureau, lexis)

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

#### Reinvigorated US-Japan alliance solves North Korea escalation

Metzl 2013 (Jamie Metzl, member of former U.S. President Bill Clinton’s National Security Council, senior fellow of the Asia Society, February 27, 2013, “Boosting the Japan-U.S. alliance,” Japan Times, http://www.japantimes.co.jp/opinion/2013/02/27/commentary/boosting-the-japan-u-s-alliance/#.UUoZzVsjpUs)

NEW YORK – Japanese Prime Minister Shinzo Abe’s visit to the United States this past week provided an ideal opportunity to reinvigorate the long-standing U.S.-Japan bilateral alliance in the face of an increasingly aggressive China and persistent tensions on the Korean Peninsula.¶ For a half-century, the U.S.-Japan alliance has been a cornerstone of Asian and global peace, security, and stability — and Japan has been an outstanding global citizen. Japan developed the economic-growth model that other Asian countries later emulated so successfully; actively contributed to global economic development; participated in the United Nations and other multilateral institutions (including paying a disproportionately high percentage of U.N. costs); and has helped to set a global standard for environmental protection and sustainable development.¶ Japan and the U.S. are both facing significant internal and external challenges, including rising tensions in Asia.¶ In recent months, Chinese aircraft have repeatedly violated Japanese airspace over the East China Sea, and a Chinese naval vessel locked its weapons-targeting radar on a Japanese destroyer and helicopter.¶ Likewise, a Chinese military intelligence unit based in Shanghai has reportedly hacked — and stolen from — a multitude of U.S. businesses. And North Korea conducted its third nuclear test earlier this month, sending shock waves through the region.¶ Tackling these challenges will require strong U.S.-Japanese cooperation. But, to enhance the alliance’s impact, both countries must first focus on reinvigorating their own societies and economies. For the U.S., that requires overcoming a political culture characterized by polarization and crisis in order to develop effective policies aimed at boosting economic competitiveness.¶ In some ways, Japan’s domestic challenges are even more daunting, given that its political system has produced six prime ministers in as many years, none of whom managed to address effectively Japan’s stagnant economy, decade-long deflation, and shrinking workforce.¶ Japan should move to join the Trans-Pacific Partnership negotiations — aimed at creating a free-trade zone in the Asia-Pacific region — which could help to open up Japan’s overprotected and under-competitive economy, just as accession to the World Trade Organization did for China.¶ To stem the contraction of its workforce, Japan should launch a major initiative to enhance female employment — and women’s role at all levels of the economy and society.¶ By implementing measures to improve citizens’ proficiency in English and promoting study abroad, Japan’s leaders can tackle the rising insularity, cultural isolation, and inadequate foreign-language skills that are stifling its social and economic development.¶ Beyond strengthening the economy and bolstering its partnership with the U.S., Japan must address the enduring suspicions of countries that were brutalized by Japan’s occupation before and during World War II. Although previous Japanese governments have issued apologies for the country’s past behavior, Japan, unlike Germany, has not fully faced its history.¶ During his election campaign, Abe, a self-declared nationalist, expressed a desire to revise Japan’s 1995 apology for its occupation and war record. But he did so while visiting — and voicing his wish to return to — Tokyo’s Yasukuni Shrine, a nationalist pilgrimage site that commemorates, among others, 14 Class A and more than 1,000 Class B and C war criminals. With Japan’s security in jeopardy, its leaders can no longer afford to be vague about the country’s past. Rather, Abe should reaffirm the country’s 1995 statement; apologize again, even more firmly; and revise or close the Yushukan military and war museum at Yasukuni, which glorifies Japan’s militarist past while ignoring its concomitant atrocities.¶ Japan should also reach out to South Korea, America’s other ally in the region, and demonstrate greater flexibility in an effort to resolve the two countries’ long-standing maritime border dispute.¶ The U.S. and Japan must make clear that China’s provocative behavior in the East China Sea over the last six months is unacceptable, while highlighting China’s obligation to help to rein in North Korea’s nuclear program.¶ If this demonstration of shared values and resolve does not alter China’s behavior, a wider conversation would inevitably begin in Japan about the potential revision of Article 9 of the 1947 Constitution, which essentially denies Japan the ability to maintain armed forces like most other “normal” countries.¶ U.S. President Barack Obama and Abe should reinvigorate the bilateral alliance, reaffirming the principles on which it is based and committing to ever-closer military and strategic collaboration. If the two countries work to tackle problems in their own societies, and to strengthen the alliance that binds them, the partnership could be as significant in the future as it has ever been in the past.

#### LNG exports key

Yomiuri Shimbun 2013 (Yomiuri Shimbun, Japanese publication, February 25, 2013, “Strengthen Japan-U.S. alliance to boost Asia stability,” http://www.yomiuri.co.jp/dy/editorial/T130224004013.htm)

Asia has many destabilizing factors, such as China and North Korea. To maintain peace and prosperity in this part of the world, Japan and the United States must properly play their respective roles based on the robust, stable bilateral alliance that is "public property" of the region.¶ Japan-U.S. ties became disoriented while Democratic Party of Japan-led administrations held power for more than three years. Seemingly going hand-in-hand with this, Japan's relations with China and South Korea also deteriorated.¶ The Obama administration apparently believes that restoring U.S. relations with Japan under the Abe administration would bring greater stability to the entire Asian region and benefit its own strategy that gives greater priority to Asia.¶ The two leaders issued a joint statement on Japan's possible participation in Trans-Pacific Partnership free trade agreement negotiations. Abe and Obama confirmed "it is not required to make a prior commitment to unilaterally eliminate all tariffs upon joining the TPP negotiations," though they maintained the basic principle that all goods would be subject to the negotiations.¶ Before his visit to the United States, Abe reiterated he would uphold his Liberal Democratic Party's election pledge that the party opposes joining the TPP talks as long as it mandates all tariffs must be eliminated without exception.¶ The latest Japan-U.S. agreement, which allows Abe to maintain his pledge and join the TPP talks, carries great significance.¶ TPP participation, which will enable Japan to harness the vitality of emerging Asian economies, is expected to become a major pillar for the growth strategy of the Abe administration's "Abenomics" economic policy and help the recovery of the nation's economy.¶ However, some LDP members and agricultural organizations remain strongly opposed to the TPP. Abe must exercise leadership and carefully explain the aims of the trade pact to calibrate opinions within the country as soon as possible to make Japan's participation in the agreement a reality.¶ The participation of Japan, the world's third-largest economy, in the TPP will have advantages for the United States, too. Formation of a free trade area featuring the Japan-U.S. partnership will have the effect of putting pressure on emerging China.¶ During their meeting, Abe asked Obama to promptly approve U.S. exports of shale gas to Japan. The president replied that his government always takes the importance of Japan as its ally into consideration.¶ Some observers said restrictions on shale gas exports could be lifted as early as March, opening a way for Japan to procure cheap natural gas.¶ Abe also stressed that he would review the policy set under the DPJ-led government to shut down all of Japan's nuclear reactors by the end of the 2030s.¶ It is important that Japan and the United States cooperate extensively on economic issues, including energy and nuclear policies.

#### Unchecked, North Korean provocations escalate

Keseberg 3/13 (Gabriela Keseberg, Senior Communications Officer for ICG, MA in Political Sciences, American History and Culture and New German Literature from the Ludwig-Maximilians-Universität in Munich-Germany, March 13, 2013, “The Korean Peninsula: Flirting with Conflict,” International Crisis Group, http://www.crisisgroup.org/en/publication-type/alerts/2013/north-korea-the-korean-peninsula-flirting-with-conflict.aspx)

North Korea has taken a number of recent steps that raise the risks of miscalculation, inadvertent escalation and deadly conflict on the Korean peninsula. On 12 December, it launched a small satellite into orbit in defiance of UN Security Council Resolutions 1695, 1718 and 1874. The Council condemned this in Resolution 2087 (22 January). Three weeks later, Pyongyang conducted its third underground nuclear explosion. In response, the Council unanimously adopted Resolution 2094 (7 March) condemning the test and expanding economic sanctions. This was preceded by multiple vitriolic threats from the North. While none of this is unprecedented, the danger of unintended consequences has increased considerably. All sides need to issue more reassuring statements, exercise caution during planned military exercises and, especially, the North must avoid further blatant disregard of its international obligations.¶ The North's threats had slight nuances and different audiences. The military's main target was the U.S-South Korea alliance and the UN Command (UNC) as they begin large combined exercises in the South. It declared the Security Council actions hostile and the annual U.S.-South Korean combined military exercises “the most dangerous nuclear war manoeuvres targeted against the [North]". The North's army said it would take practical (but undefined) counter-actions, no longer recognise the 1953 Korean War Armistice as of 11 March, shut down operations at the Joint Security Area in Panmunjŏm and cut off the telephone line to the UNC. The televised statement also declared that all armed forces, including reserves and the Strategic Rocket Forces, were prepared to act according to an “operational plan signed by Kim Jŏng-ŭn” and that the army was ready to counter even a nuclear attack with a “diversified precision nuclear strike of Korean style”.

#### Extinction

Hayes 2010 (Peter and Michael Hayes Executive Director of the Nautilus Institute and Green, Victoria University, “The Path Not Taken, the Way Still Open: Denuclearizing the Korean Peninsula and Northeast Asia” google)

The consequences of failing to address the proliferation threat posed by the North Korea developments, and related political and economic issues, are serious, not only for the Northeast Asian region but for the whole international community. At worst, there is the possibility of nuclear attack1, whether by intention, miscalculation, or merely accident, leading to the resumption of Korean War hostilities. On the Korean Peninsula itself, key population centres are well within short or medium range missiles. The whole of Japan is likely to come within North Korean missile range. Pyongyang has a population of over 2 million, Seoul (close to the North Korean border) 11 million, and Tokyo over 20 million. Even a limited nuclear exchange would result in a holocaust of unprecedented proportions. But the catastrophe within the region would not be the only outcome. New research indicates that even a limited nuclear war in the region would rearrange our global climate far more quickly than global warming. Westberg draws attention to new studies modelling the effects of even a limited nuclear exchange involving approximately 100 Hiroshima-sized 15 kt bombs2 (by comparison it should be noted that the United States currently deploys warheads in the range 100 to 477 kt, that is, individual warheads equivalent in yield to a range of 6 to 32 Hiroshimas).The studies indicate that the soot from the fires produced would lead to a decrease in global temperature by 1.25 degrees Celsius for a period of 6-8 years.3 In Westberg’s view: That is not global winter, but the nuclear darkness will cause a deeper drop in temperature than at any time during the last 1000 years. The temperature over the continents would decrease substantially more than the global average. A decrease in rainfall over the continents would also follow...The period of nuclear darkness will cause much greater decrease in grain production than 5% and it will continue for many years...hundreds of millions of people will die from hunger...To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth’s protective ozone.4 These, of course, are not the only consequences. Reactors might also be targeted, causing further mayhem and downwind radiation effects, superimposed on a smoking, radiating ruin left by nuclear next-use. Millions of refugees would flee the affected regions. The direct impacts, and the follow-on impacts on the global economy via ecological and food insecurity, could make the present global financial crisis pale by comparison. How the great powers, especially the nuclear weapons states respond to such a crisis, and in particular, whether nuclear weapons are used in response to nuclear first-use, could make or break the global non proliferation and disarmament regimes. There could be many unanticipated impacts on regional and global security relationships5, with subsequent nuclear breakout and geopolitical turbulence, including possible loss-of-control over fissile material or warheads in the chaos of nuclear war, and aftermath chain-reaction affects involving other potential proliferant states. The Korean nuclear proliferation issue is not just a regional threat but a global one that warrants priority consideration from the international community.

### Adv 2

#### US shipbuilding industry is atrophying- threatens vital Coast Guard modernization

Keeter 2011 (Hunter C. Keeter, longtime writer and researcher about Naval procurement and fleet maintenance, date last modified: January 27, 2011, no original posting date provided, “Government, Industry Communication Key to Strengthening Shipbuilding Programs,” USCG Acquisition Directorate, http://www.uscg.mil/acquisition/newsroom/feature/shipbuilding.asp)

The government and the private sector must work together to overcome the challenges and opportunities facing the United States’ shipbuilding industry, including managing costs and increasing productivity. Senior leadership in the U.S. Coast Guard and the U.S. Navy have underscored the importance of strengthening communication between government and industry as a significant factor in overcoming these challenges.¶ The Coast Guard and the Navy both have been under pressure to better manage shipbuilding costs and performance, while at the same time Congress and other stakeholders have warned of declining capacity and productivity in the U.S. shipbuilding industrial base. Such was the context for a frank discussion about the challenges of achieving the right balance between government and industry partnership and leadership.¶ “There have been some difficult decisions for the Coast Guard and for the nation to consider,” Blore on April 4 told an audience at the Navy League of the U.S. Sea, Air, Space Expo 2007 in Washington. “For example, the requirements generation, planning and cost estimation for the Deepwater program [including its major platforms, such as the National Security Cutter (NSC)] were accomplished prior to 9/11. When the Coast Guard came to award the contract in 2002, the service faced a decision: to go forward and make changes later, or to wait for a new set of requirements?”¶ Since awarding the contract, the Coast Guard and its industry partner, Integrated Coast Guard Systems –a joint venture of Lockheed Martin and Northrop Grumman– have made 11 major design changes to the NSC. Blore cited requirements and design changes as the top cost drivers in the post-9/11 Integrated Deepwater System (IDS) program.¶ While of a different order of magnitude than those of the Navy’s shipbuilding program, the costs of Deepwater cutters also have been the source of some concern for Congress and for the Coast Guard. According to Blore, the IDS program’s total shipbuilding investment may be divided into four broad categories, including $3.5 billion for eight National Security Cutters (NSCs); $7.5 billion for 25 Offshore Patrol Cutters (OPCs); $4 billion for 46 Fast Response Cutters (FRCs); and approximately $1 billion for miscellaneous shipboard systems and capabilities, including Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR).¶ Allison F. Stiller, Deputy Assistant Secretary of the Navy for Ships, told the Expo audience, “In order to control costs, we [the government] have to be able to manage the configuration of ship designs and shipboard equipment. [Additionally,] we have to leverage ‘Lean’ [a commercial process improvement methodology focused on speed and efficiency] and other process improvements, as well as bolstering our quality acceptance procedures.”¶ Northrop Grumman Ship Systems President, Philip A. Teel, added that flexible, customizable production process improvements were important to managing costs. However, complexity and variation –including variances between classes and numbers of ships produced at the same yard– along with relatively small production runs, work against the broader application of commercial process improvements (such as ‘Lean’) to naval shipbuilding.¶ According to Teel, another factor limiting the applicability of commercial process improvements in naval shipbuilding is that approximately 55 percent of the cost of a ship is resident in the development and integration of its combat systems, which often are provided to the shipbuilder as government furnished equipment, and therefore are affected by management efficiencies introduced at the shipyard.¶ Nevertheless, the importance of implementing some methodologies for controlling cost and improving productivity in U.S. shipbuilding is underscored by a brief look at the statistical picture of the industry.¶ In May 2005, the Defense Department completed a shipbuilding industrial base study, finding that “large technology gaps exist in some U.S. shipyards [compared with global competition], and shipbuilding designs need to be optimized for state-of-the-art military vessels.”¶ The DoD study cited causes for a perceived decline in capability and productivity in the U.S. shipbuilding industrial base, including lack of competition –owing to the consolidation of ownership over the nation’s six large, private shipyards– a dearth of skilled labor, and rising costs. Today, the U.S. shipbuilding industry employs approximately 350,000 people at six major shipyards, owned by Northrop Grumman and General Dynamics. The six major shipyards are Ingalls, Avondale, Newport News, Electric Boat and the National Steel and Shipbuilding Company.¶ According to the American Shipbuilding Association, since 1991 the six major shipyards have cut their engineering and production work force by 24,000 jobs, and another 120,000 jobs have been lost in the supplier base. The ASA has estimated that the major shipyards will further reduce their workforces by a total of 13,000 jobs through 2009.¶ According to the Maritime Administration, the total number of building and repair positions at U.S. shipyards declined from 210 positions in 1976, to 126 positions in 2004. Deliveries from U.S. shipyards also have declined, from delivery of 25 merchant ships and 12 naval ships in 1977, to just two merchant ships and seven naval ships in 2004.¶ The rising cost of production –including both labor and materials– is an important factor in the three-decade-long contraction of the nation’s shipbuilding industry. However, Blore noted that perhaps more emphasis should be placed on cost certainty. He argued that the most severe criticism the Coast Guard has faced has been over change in its program costs.¶ “Cost control is an important issue, but I would argue that cost certainty is as important,” Blore said. “I can manage a program that projects a predictable rate of cost growth over time. Unpredictability is much tougher to work with. It is much more difficult to manage the program when the government and industry agree that a product will cost a certain amount, and in the next budget cycle it turns out to cost much more.”¶ Communication may be one key to ensuring some degree of cost certainty. According to Teel, there should be developed a more mature process for sharing cost expectations and forecasting between government and industry.¶ “We have had a fairly immature process [of communication]; we need to be able to have a realistic dialogue –early on, between the government and those who will build the ships– about what the costs will be,” Teel said.

#### Plan revitalizes shipbuilding

Mason 2011 (Joseph Mason, Senior Fellow, The Wharton School, Louisiana State University Endowed Chair of Banking and nationally-renowned economist, April 6, 2011, House Natural Resources Subcommittee on Energy and Mineral Resources Hearing; Fisheries, Wildlife, Oceans and Insular Affairs Legislative Hearing on H.R. 306, H.R. 588, S. 266 and H.R. 285, Lexis)

Apart from national energy concerns, however, economic considerations also favor increased development of OCS energy resources. Specifically, the boost provided to local onshore economies by offshore production would be particularly welcome in the present economic climate. Similar to fiscal alternatives presently under consideration, OCS development would provide a long-run economic stimulus to the U.S. economy because the incremental output, employment, and wages provided by OCS development would be spread over many years. Unlike those policies, however, this stimulus would not require government expenditures to support that long-term growth. A. The Present State of Offshore U.S. Oil and Gas Production Despite its importance, U.S. oil and natural gas production in offshore areas is currently limited to only a few regions. At the present time, oil and gas is only actively produced off the coast of six U.S. states: Alabama, Louisiana, Mississippi, Texas, California, and Alaska. The Energy Information Administration (EIA) reports that Alabama, Louisiana, Mississippi, and Texas are the only coastal states that provide access to all or almost all of their offshore energy resources. Only two additional states--Alaska and California--are producing any offshore energy supplies. All California OCS Planning Areas and most Alaska OCS Planning Areas, however, were not open to any new facilities until the recent end of the Congressional and Presidential moratoria. The remaining 16 coastal states are not open to new production and are not presently extracting any offshore energy resources. Even without those remaining sixteen states, plus California and Alaska, the OCS is already the most important source of U.S. energy supplies. According to the MMS, "the Federal OCS is a major supplier of oil and natural gas for the domestic market, contributing more energy (oil and natural gas) for U.S. consumption than any single U.S. state or country in the world." That is, OCS production presently meets more U.S. energy demand than any other single source, including Saudi Arabia. B. Offshore Oil Production Stimulates Onshore Economies Offshore oil and gas production has a significant effect on local onshore economies as well as the national economy. There are broadly three "phases" of development that contribute to state economic growth: (1) the initial exploration and development of offshore facilities; (2) the extraction of oil and gas reserves; and (3) refining crude oil into finished petroleum products. Industries supporting those phases are most evident in the sections of the Gulf of Mexico that are currently open to offshore drilling. For example, the U.S. shipbuilding industry - based largely in the Gulf region - benefits significantly from initial offshore oil exploration efforts. Exploration and development also requires specialized exploration and drilling vessels, floating drilling rigs, and miles and miles of steel pipe, as well as highly educated and specialized labor to staff the efforts. The onshore support does not end with production. A recent report prepared for the U.S. Department of Energy indicates that the Louisiana economy is "highly dependent on a wide variety of industries that depend on offshore oil and gas production" and that offshore production supports onshore production in the chemicals, platform fabrication, drilling services, transportation, and gas processing. Fleets of helicopters and U.S.-built vessels also supply offshore facilities with a wide range of industrial and consumer goods, from industrial spare parts to groceries. As explained in Section IV.G, however, the distance between offshore facilities and onshore communities can affect the relative intensity of the local economic effects. The economic effects in the refining phase are even more diffuse than the effects for the two preceding phases. Although significant capacity is located in California, Illinois, New Jersey, Louisiana, Pennsylvania, Texas, and Washington, additional U.S. refining capacity is spread widely around the country. As a result, refinery jobs, wages, and tax revenues are even more likely to "spill over" into other areas of the country, including non-coastal states like Illinois, as those are home to many refining and chemical industries that ride the economic coattails of oil exploration and extraction. II. OFFSHORE OIL AND GAS RESERVE ESTIMATES AND THE SOURCES OF THEIR ECONOMIC BENEFITS As described in my 2009 white paper, "The Economic Contribution of Increased Offshore Oil Exploration and Production to Regional and National Economies," available at www.americanenergyalliance.org/images/aea\_offshore\_updated\_final.pdf, significant oil and gas reserves lie under the U.S. Outer Continental Shelf (OCS). According to the Energy Information Administration (EIA), the OCS (including Alaskan OCS Planning Areas) contains approximately 86 billion barrels of recoverable oil and approximately 420 trillion cubic feet of recoverable natural gas. As noted by the White House, however, the OCS estimates are conservative. Of the total OCS reserves, a significant portion was unavailable to exploration until recently. Specifically, Presidential and Congressional mandates banned production from OCS Planning Areas covering approximately 18 billion barrels of recoverable oil and 77.61 trillion cubic feet of recoverable natural gas. These bans covered approximately 31 percent of the total recoverable OCS oil reserves and 25 percent of the total recoverable OCS natural gas reserves. Economic benefits of utilizing OCS reserves accrue from three primary sources: (1) exploration/platform investments; (2) production; and (3) refining. Sources (1) and (3) produce initial effects--that is, new industry expenditures--today; in contrast, source (2) produce economic effects only once production begins. The analysis therefore considers "initial" economic effects as those that flow from exploration or investments in new refining capacity and long-term economic effects as those that flow from production and ongoing refining. A. Exploration and Offshore Facility Development In contrast to other industries, the high fixed investment costs associated with offshore oil and gas production produce large initial investments that reverberate throughout the economy. Once oil or gas reserves are located, billions of additional dollars must be spent before the well produces even $1 of revenue. For example, oil exploration costs can amount to between $200,000 and $759,000 per day per site. Additional production in the U.S. will also require a costly expansion refining capacity as well. Taken together, the fixed expenditures that precede actual offshore oil and gas production can amount to billions of dollars. For example, Chevron's "Tahiti" project in the Gulf of Mexico is representative of the large investments that firms must make before production is achieved. In 2002, Chevron explored the Tahiti lease--which lies 100 miles off the U.S. coast at a depth of 4,000 feet--and found "an estimated 400 million to 500 million barrels of recoverable resources." Chevron estimates that it will take seven years to build the necessary infrastructure required to begin production at Tahiti. The firm estimates that its total development costs will amount to "$4.7 billion--before realizing $1 of return on our investment." As a typical U.S. offshore project, the Tahiti project provides a wealth of information regarding the up-front investment costs, length of investment, and lifespan of future OCS fields. As noted above, the Tahiti field is estimated to hold between 400 million and 500 million barrels of oil and oil equivalents (primarily natural gas) and is expected to require an initial fixed investment of $4.7 billion. Using the mid-point reserve estimate of 450 million barrels of oil equivalent, up-front development costs amount to approximately $10.44 per barrel of oil reserves or $1.86 per 1,000 cubic feet of natural gas reserves. These costs will be spread over 7 years, resulting in average up-front development expenditures equal to $1.49 per barrel of oil and $0.27 per 1,000 cubic feet of natural gas. Chevron also estimates that the Tahiti project will produce for "up to 30 years". Although investment and production times vary widely, the analysis that follows uses the Tahiti project numbers - an average initial investment period of seven years followed by an average production period of 30 years - as indicative of the "typical" offshore project. I will thus assume an average initial investment period of seven years followed by an average production period of 30 years. The speed of OCS development also factors into the analysis. Because most areas of the U.S. OCS have been closed to new exploration and production for almost forty years, it is unclear how quickly firms would move to develop new offshore fields. Given its large potential reserves, however, the OCS is sure to attract significant investment. Without the benefit of government data, a rough estimate suggests that annual total investment in OCS fields would be $9.09 billion per year. Those annual expenditures are expected to last, on average, the full seven years of the development phase. Additional investment in states that already support significant production - Alabama, Louisiana, Mississippi, and Texas - are limited. Some of the greatest benefits accrue to areas that are home to enormous - but unavailable - total reserves: California and Florida. B. Production The likely value of state recoverable oil and gas reserves are estimated using the likely lifetime revenue that could be generated by the project. In that case, average wholesale energy prices provide the information necessary to translate reserves into revenues. Taking the simple average of the EIA's latest inflation-adjusted energy price forecasts through 2030 as provided by its Annual Energy Outlook 2009, the average inflation-adjusted price of oil will be $110.64 per barrel and the average inflation-adjusted price of natural gas will be $6.83 per thousand cubic feet. At these prices, the estimated OCS reserves are worth about $13 trillion. The value of each state's available reserves are calculated as the sum of (1) its share of available OCS Planning Area oil reserves times $110.64 per barrel and (2) its share of available OCS Planning Area natural gas reserves times $6.83 per thousand cubic feet. The same method applies to the valuation of total state OCS reserves. By those estimation methods, states such as California, facing a budget crisis in the current recession, have an estimated $1.65 trillion in resources available in nearby OCS planning areas. Florida, while not facing as dire a fiscal crisis, has about $0.55 trillion in resources available in nearby OCS planning areas. Hence, a permanent relaxation of all federal OCS production moratoria would unlock more than $3.4 trillion in new production among all the coastal states. C. Investments in Incremental Refining Capacity Since U.S. refineries are presently operating near maximum capacity increased offshore oil and gas production would also spur investment in new refineries. The U.S. refining industry is presently operating at 97.9 percent of capacity and can no longer depend on excess foreign refining to meet production shortfalls arising from seasonality or repairs. In response, many large refiners are already considering refinery expansions: ConocoPhillips announced that it planned to spend $6.5 billion to $7 billion on capacity expansion at its U.S. facilities; Chevron has also considered a major refinery expansion; and while Shell is completing a $7 billion expansion and its Port Arthur, Texas refinery they are considering further expansion elsewhere. Additional refinery investments are likely to occur in the few U.S. states that already host significant U.S. refineries. This result is largely due to environmental restrictions that severely limit the placement of new refining capacity. Current capacity is primarily concentrated in California, Louisiana, and Texas. The U.S. presently has an operating refining capacity of approximately 6.287 billion barrels of crude oil per year. Conservative estimates of OCS production would add approximately 3.773 billion barrels per year, or about sixty percent of current U.S. operating refinery capacity. Because some OCS refining production would most likely substitute for foreign production, however, the analysis conservatively assumes that only one-quarter of this new OCS production necessitates additional U.S. refinery capacity. That is, I estimate that U.S. refinery demand would increase by 943.25 million barrels per year, or 15 percent of current installed capacity. Even this modest capacity increase would require substantial new investments. In response to existing capacity constraints, Shell is already increasing the capacity of its Port Arthur, Texas refinery. This expansion will take approximately two and one-half years to complete and cost $7 billion. The facility will add 325,000 barrels per day (or 118.6 million barrels per year) in new capacity, at a cost of approximately $59.02 per barrel of new annual capacity. As noted above, since tough environmental regulations effectively limit new refinery capacity to a few states, refinery investments are likely to be limited to only a few states with large existing capacity. These states can be reasonably assumed to be the same states the already have large installed refinery capacity. Hence, incremental refinery capacity will be added predominantly in states already home to large refining capacity--those with a present capacity of more than 200 million barrels per year. There are seven such states: California, Illinois, Louisiana, New Jersey, Pennsylvania, Texas, and Washington. Expected increases in offshore oil production will induce approximately $22 billion in refining capacity investments each year for two and one half years. California, Texas, and Louisiana will receive the bulk of this investment, but investments of more than $1 billion annually can be expected in Illinois, New Jersey, Pennsylvania, and Washington. III. INCREASED INVESTMENTS IN OFFSHORE OIL AND GAS PRODUCTION WILL CAUSE SUBSTANTIAL INCREASES IN WAGES, EMPLOYMENT, AND TAXES, AND PROFOUND EFFECTS ON COMMUNITIES THROUGHOUT THE NATION Onshore state and local economies benefit from the development of OCS reserves by providing goods and services to offshore oil and gas extraction sites. Onshore communities provide all manner of goods and services required by offshore oil and gas extraction. A variety of industries are involved in this effort: shipbuilders provide exploration vessels, permanent and movable platforms, and resupply vessels; steelworkers fashion the drilling machinery and specialized pipes required for offshore resource extraction; accountants and bankers provide financial services; and other onshore employees provide groceries, transportation, refining, and other duties. These onshore jobs, in turn, support other jobs and other industries (such as retail and hospitality establishments). The statistical approach known as an "input-output" analysis measures the economic effects associated with a particular project or economic development plan. This approach, which was pioneered by Nobel Prize winner Wassily Leontif, has been refined by the U.S. Department of Commerce. The most recent version of the Commerce Department's analysis is known as the Regional Input-Output Modelling System, or "RIMS II." The RIMS II model provides a variety of multipliers that measure how an economic development project--such as offshore drilling--would "trickle down" through the economy providing new jobs, wages, and government revenues. This analysis can be broken down into two parts: (1) a "direct" analysis measuring the benefits that arise from industries that directly supply offshore oil and gas exploration and (2) the "final" analysis that measures the direct and indirect benefits associated with offshore exploration. The RIMS II model is the standard method governmental authorities use to evaluate the benefits associated with an economic development project. According to the Commerce Department, the RIMS II model has been used to evaluate the economic effects of many projects, including: opening or closing military bases, tourist expenditures, new energy facilities, opening or closing manufacturing plants, shopping malls, sports stadiums, and new airport or port facilities. A. Opening OCS Planning Areas would Unleash More than $11 trillion in Economic Activity The broadest measure of the incremental effect of increased OCS oil and natural gas extraction is the effect on total economic output. Until OCS production begins, onshore communities will realize only the benefits associated with offshore investment. These benefits take two forms: (1) the development of the offshore facilities themselves and (2) the expansion of onshore refining capacity. These two effects, taken together, provide a rough approximation of the additional output that would be created by allowing greater access to offshore reserves. Of course, the investment expenditures and resulting output estimated above is only made to facilitate oil and gas extraction. Once extraction begins, additional economic activity continues for the lifetime of the oil and natural gas reserves. Using the total U.S. multipliers (2.2860 for refining and 2.3938 for extraction), the total increase in U.S. output from initial investment is estimated to be a total of about $0.5 trillion, or approximately $73 billion per year for the first seven years the OCS is open. For comparative purposes, a $73 billion stimulus amounts to approximately 0.5 percent of total U.S. output (GDP) per year. Increased OCS oil and gas extraction would yield approximately $5.75 trillion in new coastal state output over the lifetime of the fields. Approximating the total increase in output associated with increasing offshore resource production throughout the U.S. (including states in the interior), yields approximately $2.45 trillion in additional output. The total increase in output in the United States is estimated to total approximately $8.2 trillion or about $273 billion per year, which amounts to just over two percent of GDP. Because the OCS areas are currently unavailable, the entire amount--$8.2 trillion--is completely new output created by a simple change in policy allowing resource extraction in additional OCS Planning Areas. B. Opening OCS Planning Areas could Create Millions of New Jobs An economic expansion tied to increased OCS resource production would also create millions of new jobs both in the extraction industry and in other sectors that serve as suppliers or their employees. The annual increase in coastal state employment from initial investments in previously unavailable OCS planning areas and additional refining capacity is estimated to be 185,320 full-time jobs per year. Again, this number does not consider the spill-over effects of investment in productive capacity and refining to other U.S. states. The total increase in U.S. employment from the investment phase is approximately 271,570 full-time jobs per year. Applying the BEA multipliers to the estimated production value results in approximately 870,000 coastal state jobs in addition to the jobs created during the initial investment phase. Again, the total increase in U.S. employment in all states (including those in the interior) resulting from increased OCS production is 340,000 greater, for a total of approximately 1,190,000 jobs be sustained for the entire OCS production period. Increased investment and production in previously unavailable OCS oil and gas extraction and the ancillary industries that support the offshore industry would produce thousands of new jobs in stable and valuable industries. Among the 271,572 jobs created in the investment phase and sustained during the first seven years of the investment cycle. The majority of new positions (162,541 jobs, or 60 percent) would be created in high-skills fields, such as health care, real estate, professional services, manufacturing, administration, finance, education, the arts, information, and management. Although the largest total increase in employment in the production phase would occur (quite naturally) in the mining industry, significant numbers of jobs would be created in other industries. Again, many of these new jobs would be created in high-skills fields, representing approximately 49 percent of all new jobs and approximately 61 percent of all new non-mining jobs. C. Opening OCS Planning Areas can Release Trillions of Dollars of Wages to Workers Hit by Recession Those jobs pay wages. OCS development is estimated to yield approximately $10.7 billion in new wages in coastal states each year. OCS production would yield approximately $1.406 trillion in additional wage income to workers in coastal states over the lifetime of the fields (or $46 billion per year over 30 years). Across the U.S., the investment phase would generate approximately $15.7 billion in additional annual wages per year for the first seven years and $70 billion per year for the next thirty years, or approximately $2.1 trillion in additional wage income. BLS data suggest that all four broad industry classifications related to oil and gas extraction pay higher wages and similar jobs in other industries. Jobs in: (1) Oil and Gas Extraction, (2) Pipeline Transportation of Crude Oil, (3) Petroleum and Coal Products Manufacturing, and (4) Support Activities for Mining, typically pay higher wages than the average American job. Taking this broader measure, the average job created by increased offshore oil and gas production pays approximately 28 percent more than the average U.S. job. D. Opening OCS Planning Areas can Contribute Trillions of Dollars in Taxes and other Public Revenues to Local, State, and Federal Governments Greater output, more jobs, and higher wages translate into higher tax collections and increases in other sources of public revenues. The MMS Report to Congress suggests that public revenues derived from OCS extraction are significant--the U.S. federal government has collected more than $156 billion in lease and levy payments for OCS oil and natural gas production. Note that this amount counts only lease and royalty payments and thus does not include any sales and income taxes paid by firms or workers supported by OCS production. Conservative estimates suggest that seven years of initial annual exploration and refining investments would produce approximately $4.8 billion annually in coastal state and local tax revenue and $11.1 billion in U.S. federal tax income. Over thirty years of production, I estimate that the extraction phase of OCS development would yield approximately $561 billion ($18.7 billion per year) in coastal state and local tax revenue and approximately $1.64 trillion ($54.7 billion per year) in new U.S. federal tax income.

#### Increasing demand reverses negative feedbacks- solves alt causes

Cropsey 2012 (Dr. Seth Cropsey, senior fellow at the Hudson Institute, April 18, 2012, “The U.S. Navy Shipbuilding Plan: Assumptions and Associated Risks to National Security,” Statement before the Committee on Armed Services¶ Subcommittee on Oversight & Investigations¶ U.S. House of Representatives, http://www.hudson.org/files/publications/SethCropsey--USNavyShipbuildingPlan--Testimony041812.pdf)

Knowledge of shipbuilding remains part of American manufacturing. But accelerating cost, an ageing workforce, reduced orders for warships, and an uncertain future risk the nation’s ability to turn out sufficient numbers of vessels at affordable prices and profitably enough to keep¶ shipbuilding companies alive. The destabilization of the American shipbuilding industrial base is one reason that the cost of warships is outpacing the rate of inflation. The Navy’s reduced procurement of ships over the past twenty years has caused the industry to contract, lay off workers, and in general to become less reliable. This has driven up the cost of labor and the cost of construction materials. The fewer ships the Navy buys, the less lucrative the industry is for skilled workers. As the cost of labor rises shipbuilders are increasingly pressed to attract and train qualified personnel.

#### Key to the Coast Guard

Stackey 2012 (Sean J. Stackey, Assistant Secretary of the Navy Research, Development and Acquisition, and Rear Admiral Thomas J. Eccles, USN, Chief Engineer and Deputy Commander, Naval Systems Engineering Naval Sea Systems Command, September 12, 2012, “NAVY SHIPBUILDING AND IMPACTS ON THE DEFENSE INDUSTRIAL BASE IN A TIME OF FISCAL UNCERTAINTY,” UNITED STATES HOUSE OF REPRESENTATIVES, COMMITTEE ON ARMED SERVICES, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS, online)

Chairman Wittman, Ranking Member Cooper, and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address Department of the Navy (DoN) shipbuilding and its impact on the defense industrial base in a time of fiscal uncertainty. The US defense industrial base is a strategic national asset, providing our Navy, Coast Guard, and other federal agencies the highly capable seagoing platforms required to meet the Nation's Maritime Strategy. It is essential that the industrial base be sized and shaped to meet current and known future requirements, with a measure of surge capacity should times of conflict or other urgent needs demand it. Further, it is essential that industry invest the capital, train and retain the skilled work force, and maintain the competitive posture required to build and maintain our Navy's complex warships in the most cost effective manner possible.¶ The US Navy places great weight on the health of the industrial base as a factor in the development of shipbuilding procurement plans, always balanced carefully against operational requirements and cost effective acquisition.

#### Strong Coast Guard prevents and de-escalates maritime disputes in the Arctic

Holmes 3/15 (James Holmes, professor of strategy at the Naval War College, March 15, 2013, “America Needs a Coast Guard That Can Fight,” Foreign Policy, http://www.foreignpolicy.com/articles/2013/03/15/america\_needs\_a\_coast\_guard\_that\_can\_fight)

Forget for a moment about the U.S. Navy and its "pivot to Asia." Over the next few decades, the woefully underfunded and thoroughly unsexy U.S. Coast Guard will likely hover near the center of the action.¶ The reason, in three short words: the Arctic Ocean.¶ If and when that icy expanse opens regularly to shipping, the Arctic will need policing, just like any other marine thoroughfare. It might even become a theater for geopolitical competition, although the short time it will be ice-free each year, the uneven advance and retreat of the icecap, and the unpredictable location of the sea lanes will limit its potential for conflict relative to, say, the Western Pacific or the Persian Gulf. But the potential is there, and up north, the Coast Guard's aging fleet of cutters and small craft will be critical to upholding maritime security and hedging against maritime conflict.¶ Placing a law-enforcement and disaster-response agency in charge will give operations in northern reaches a complexion unlike those in more hospitable climes -- where the U.S. Navy and Marine Corps, services built to break things and kill people, are the chief bearers of American interests and aspirations. How can the Coast Guard prepare itself for this new era?¶ Founded in 1790, the Coast Guard takes pride in being the United States' oldest continuously functioning sea service. Composed of nearly 44,000 active-duty officers and enlisted sailors, who operate some 160 coastal and patrol combatants, 92 logistics and support craft, and 211 aircraft of various types, the service shoulders an imposing variety of missions: from safeguarding U.S. ports and harbors to rendering assistance following natural disasters. ¶ So why would Washington assign the U.S. Coast Guard the lead for Arctic operations? It has experience, for one thing. It operates the United States' modest flotilla of two icebreakers while performing the same police functions off North America's northern shorelines that it executes in warmer zones. Navy submarines prowled the Arctic depths during the Cold War. They will return if the polar region heats up, both figuratively and literally: U.S. Navy oceanographers estimate the ocean may be ice-free for a month each year by 2035. But Navy surface and air forces seldom venture north of the Arctic Circle and thus are less accustomed to the frigid surroundings.

#### De-escalation key to keep a lid on disputes- alternative is nuclear war

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

The fact is, the Arctic is becoming a zone of increased military competition. Russian President Medvedev has announced the creation of a special military force to defend Arctic claims. Last year Russian General Vladimir Shamanov declared that Russian troops would step up training for Arctic combat, and that Russia’s submarine fleet would increase its “operational radius.” 55 Recently, two Russian attack submarines were spotted off the U.S. east coast for the first time in 15 years. 56 In January 2009, on the eve of Obama’s inauguration, President Bush issued a National Security Presidential Directive on Arctic Regional Policy. It affirmed as a priority the preservation of U.S. military vessel and aircraft mobility and transit throughout the Arctic, including the Northwest Passage, and foresaw greater capabilities to protect U.S. borders in the Arctic. 57 The Bush administration’s disastrous eight years in office, particularly its decision to withdraw from the ABM treaty and deploy missile defence interceptors and a radar station in Eastern Europe, have greatly contributed to the instability we are seeing today, even though the Obama administration has scaled back the planned deployments. The Arctic has figured in this renewed interest in Cold War weapons systems, particularly the upgrading of the Thule Ballistic Missile Early Warning System radar in Northern Greenland for ballistic missile defence. The Canadian government, as well, has put forward new military capabilities to protect Canadian sovereignty claims in the Arctic, including proposed ice-capable ships, a northern military training base and a deep-water port. Earlier this year Denmark released an all-party defence position paper that suggests the country should create a dedicated Arctic military contingent that draws on army, navy and air force assets with shipbased helicopters able to drop troops anywhere. 58 Danish fighter planes would be tasked to patrol Greenlandic airspace. Last year Norway chose to buy 48 Lockheed Martin F-35 fighter jets, partly because of their suitability for Arctic patrols. In March, that country held a major Arctic military practice involving 7,000 soldiers from 13 countries in which a fictional country called Northland seized offshore oil rigs. 59 The manoeuvres prompted a protest from Russia – which objected again in June after Sweden held its largest northern military exercise since the end of the Second World War. About 12,000 troops, 50 aircraft and several warships were involved. 609 Ridding the Arctic of Nuclear Weapons: A Task Long Overdue Jayantha Dhanapala, President of Pugwash and former UN under-secretary for disarmament affairs, summarized the situation bluntly: “From those in the international peace and security sector, deep concerns are being expressed over the fact that two nuclear weapon states – the United States and the Russian Federation, which together own 95 per cent of the nuclear weapons in the world – converge on the Arctic and have competing claims. These claims, together with those of other allied NATO countries – Canada, Denmark, Iceland, and Norway – could, if unresolved, lead to conflict escalating into the threat or use of nuclear weapons.” 61 Many will no doubt argue that this is excessively alarmist, but no circumstance in which nuclear powers find themselves in military confrontation can be taken lightly. The current geo-political threat level is nebulous and low – for now, according to Rob Huebert of the University of Calgary, “[the] issue is the uncertainty as Arctic states and non-Arctic states begin to recognize the geo-political/economic significance of the Arctic because of climate change.” 62

#### Extinction

Corcoran 2009 (Ed Corcoran, PhD, Senior Fellow at Global Security, Former Strategic Analyst at the US Army War College, April 21, 2009, http://sitrep.globalsecurity.org/articles/090421301-strategic-nuclear-targets.htm)

 That brings us to Russia, our former main adversary, now a competitive partner and still a potential future adversary, particularly as relations have gradually soured in recent years. Russia is the only other nation with a formidable arsenal of some three thousand strategic weapons. Our opposing arsenals were built up in the period when Mutually Assured Destruction (MAD) was the underlying strategic concept -- each side deterred from striking the other by the prospect of assured retaliatory destruction. The situation became even madder as both sides worked to develop a capability to destroy the other's strike force with a crippling first strike. This resulted in further large increases in the sizes of the arsenals, as well as early warning systems and hair-trigger launch-on-warning alert procedures. The final result was an overall system in which each side could destroy the other in a matter of minutes. And it also raised another chilling specter, Nuclear Winter, in which the atmospheric dust raised from a major nuclear exchange would block sunlight for an extended period and essentially destroy human civilization globally. The collapse of the Soviet Union collapsed this threat, but did not eliminate it. US and Russian nuclear forces remained frozen in adversarial positions. The May 2002 Moscow Treaty began to address this legacy and is leading to a reduction in strategic nuclear forces down to levels of about two thousand on each side by 2012. These levels are still sufficient to destroy not only both nations but also human civilization. It is hard to even construct scenarios where the use of even a few strategic nuclear weapons does not risk a total escalation. Strikes on Russian warning facilities or strike forces would almost certainly bring a wave of retaliatory strikes. Strikes on hardened command centers would be of questionable effectiveness and also risk total escalation. In addition, successful elimination of Russian leaders could greatly complicate any efforts to stop escalation short of a total nuclear exchange.

#### Cooperation doesn’t solve- best IR theory proves

Murray 2012 (Robert W. Murray, PhD, Adjunct Professor, Department of Political Science, University of Alberta, “Arctic politics in the emerging multipolar system: challenges and consequences,” The Polar Journal, Volume 2, Issue 1, online)

It is no overstatement to say that the end of the Cold War was one of the most important events in recent world history. Scholars from many areas of study have used the fall of the Soviet Union as a starting point to explain shifts in security, globalization, humanitarianism and institutional integration, all of which played important roles in world affairs in the immediate post-Cold War era. Since 1991, explanatory models for international and global politics have broadened their scope to include variables such as individual preferences, capitalist oppression, ideational construction, environmentalism, gender and sexual politics, and discursive power to levels previously unforeseen throughout the Cold War years. As such, we now see the world as a far more complex and nefarious arena in which power and dominance are exercised each day. At the systemic level, the fall of the Soviet Union equated to nothing short of a monumental shift in the way states would make foreign and defence strategy. For 50 years, the bipolar system was dominated by two superpowers constantly competing and building arms in an effort to balance one another. The end of the Cold War signalled a major shift in systemic arrangement, as the system went from being bipolar to the world entering what was often referred to as the “unipolar moment.”1 The era of unipolarity and American hegemony in the international system has been marked by stability in an interstate sense, and the realignment of various spheres of influence in the wake of the Soviet Union’s demise. Far from being just a theoretical notion, the unipolar moment has also provided states with an environment in which to pursue their national self-interest where the likelihood of conflict is decreased and great power security competition has been minimized.2 As such, new areas of foreign affairs and defence strategy have become far more important than they could have been throughout the bipolar constrained Cold War years. One of the most notable examples in this regard has been the increased desire for territorial protection and extension in the Arctic region. In an era of state preoccupation with humanitarianism, terrorism and economic recession, it is being suggested by some observers that the Arctic has become the primary stage through which states, both great and minor in power, can pursue their self-interest in a way that combines soft power cooperation through bodies of governance with hard power and military build-up. As things presently stand, there are a variety of nations and institutions all seeking to claim governing authority over different parts of the circumpolar region. Nations making claims to parts of the Arctic Ocean or other northern waters include Canada, Russia, the United States, Norway, Iceland and Denmark/Greenland. On the institutional side, Arctic governance has been debated and defined by bodies such as the United Nations, the European Union, the United Nations Convention on the Law of the Sea (UNCLOS) and the Arctic Council.3 To date, no clear resolution to competing claims is in sight, and in some cases the situation is on the verge of becoming far more competitive as nations such as Russia have resorted to asserting possible military solutions to contested Arctic issues to bolster their declarations. It is important to note the increased levels of interest over Arctic relations between states, but, on this point, little attention has been given to the influence of the international system over this situation. If the unipolar moment has been defined as an era of relative stability and diplomatic coexistence, and tensions in the Arctic are already on the rise, what is to happen when the multipolar system finally emerges in the near future? Since 2005, the status of the United States as systemic hegemon has been in decline due to economic, military and political strains placed on American power capabilities throughout the Bush era and beyond. This decrease in relative power preponderance has been even further exacerbated by the economic recession starting in 2008 and the nation’s inability to stabilize its markets. As such, the predictions of those like Christopher Layne and John Mearsheimer are on the verge of coming to fruition, in that the unipolar moment is about to end.4 New great powers are rising, the United States is no longer able to prevent these nations from balancing their power, and the once obvious prevalence of American power is far murkier than it was a decade ago. As the multipolar era becomes increasingly likely, one must ponder the effects this shift might have on state foreign and defence strategy- making, especially towards the Arctic region. To date, though its relative power position has declined significantly in recent years, the United States remains the hegemon of the international system, but it is contended here that such status is soon to evaporate. In this context, this article argues that the emergence of a multipolar systemic arrangement is very likely to increase security competition in the system as a whole, and the Arctic will be at the epicentre of such conflict. To lend support to this hypothesis, an examination of the impending shift from unipolarity to multipolarity will be made, as will an account of current security dynamics in the circumpolar region. The article concludes with a stark warning that without some kind of real action towards settling competing Arctic claims, it will be left to states to secure their own territorial assertions through hard power and forceful means. The system is unipolar ... for now In order to evaluate the polarity of the international system in a given historical period, one must identify the hierarchy of power in terms of the number of super or great powers dominating international outcomes. Counting great or super powers can be somewhat difficult in contemporary international relations, as scholars have begun to expand the notions of power and capabilities, but the clearest guideline for being able to identify great powers is through determining capabilities. The reason it is essential to understand the great powers in international relations is that they, above all other states, institutions, non-state actors and ideational forces, are responsible for the daily conduct of behaviour in the international system, and they have been historically accountable for substantial alterations to power distribution since the 1648 Peace of Westphalia. Measuring capabilities allows observers to explain which states are most likely to affect the behaviour of other states, to use force or violence; also, the number of great powers in a given era determines how stable or unstable the international system will be. Identifying great powers is literally done by evaluating each state’s capabilities in essential areas of political life that can maximize security or extend one’s power. When discussing the distribution of power across states, there is a clear hierarchy of capabilities among states that leads observers to classify these utility maximizing, rational actors as super, great, major, middle or minor powers in the international system. In terms of actual measurement, Kenneth Waltz argues: “Their rank depends on how they score on all of the following items: size of population and territory, resource endowment, economic capability, military strength, political stability and competence.”5 Once these various factors are taken into account, one can clearly determine the given polarity of the system at a given moment in history. Why is polarity important? According to structural realist theory, the number of great powers in the system determines how conflictual, violent or stable international politics will be. While the overall structure of the system remains anarchic, meaning a clear absence of a governing authority above states that can control their actions, there can be consequential variations within the anarchic structure that can impact how states will evaluate their foreign and defence policy strategies and affect their overall behaviour. Waltz claims that “ ‘consequential’ variations in number are changes of number that lead to different expectations about the effect of structure on units.”6 There are three types of structure within the system that have been determined throughout the history of the modern state system – unipolarity, bipolarity and multipolarity. The consequential variations described by Waltz take place when great powers either rise or fall, and induce shifts from one type of polarity to another. The rise and fall of great powers is perhaps the most important explanatory aspect of international politics because it is these states that “inherently possess some offensive military capability, which gives them the wherewithal to hurt and possibly destroy each other.”7 Though the primary motivation for all states is security maximization, great powers become the most important actors because while they are capable of defending themselves, they also have the ability to extend their sphere of influence in offensive posturing. It is in this context that the polarity of the system becomes even more vital, in that the more great powers there are, the greater likelihood of violence and conflict there is. In each systemic arrangement, the abilities of great powers to pursue their ultimate goal, which is hegemony, dictates whether foreign and defence policy strategies will be overtly defensive or potentially offensive. All states are like-units, in that they all strive for survival by making rational calculations about how to best pursue their interests in an anarchic system. Of course, strategies of states will differ greatly based on the distribution of power, meaning that great powers are able to pursue their goals more freely than minor powers because they can operate without allies or institutions in achieving their goals. Lesser powers, however, typically try to increase their power position in world affairs through various alliance blocs and institutional binding. In doing so, it is hoped that middle and minor powers are able to guarantee their survival by aligning themselves with powers larger than themselves. Given the arrangement of the system, the number of alliances or blocs of power will differ, which also contributes to just how stable or violent the system will be. Conflict, or the possibility of it, is a constant problem in international relations due to the anarchic structure of the international system. Anarchy, by its definition, denotes a lack of overarching authority and thus states, especially the most powerful states, are able to behave as they would like, without any external body capable of controlling their actions. Robert Art and Robert Jervis aptly define anarchy by arguing: “States can make commitments and treaties, but no sovereign power ensures compliance and punished deviation. This – the absence of a supreme power – is what is meant by the anarchic environment of international politics.”8 In anarchy, just as in the state of nature or war prior to the establishment of civilized human society, there is no harmony and actors are left to their own inclinations to pursue their self-interest. The key elements of anarchy that precipitate conflict are the constant distrust of others’ motives, the assumption that other actors may not be as rational as oneself, and, as Waltz notes, “a state will use force to attain its goals if, after assessing the prospects for success, it values those goals more than it values the pleasures of peace.”9 The constant tensions between states, and the ability of great powers to more freely pursue their national interests, contributes to a system where security and survival are at a premium, and the polarity of the system matters to all states. By definition, bipolar systems are the most stable. According to Mearsheimer, this assumption is made based on three criteria: First, the number of conflict dyads is fewer, leaving fewer possibilities for war. Second, deterrence is easier, because imbalances of power are fewer and more easily averted. Third, the prospects for deterrence are greater because miscalculations of relative power and opponents’ resolve are fewer and less likely.10 By contrast, multipolar systems have a far greater probability of conflict, tension and distrust among states. War is far more likely in multipolar systems because major power dyads are more numerous, each posing the potential for conflict. Conflict could also erupt across dyads involving major and minor powers. Dyads between minor powers could also lead to war [...]. Wars in a multipolar world involving just minor powers or only one major power are not likely to be as devastating as a conflict between two major powers. However, local wars tend to widen and escalate. Hence there is always a chance that a small war will trigger a general conflict.11 While bipolarity is considered to be the most stable arrangement, and multipolarity the least stable, there is also the rare time when the system is unipolar in character. Put simply, unipolarity occurs when there is such a preponderance of power by one state that others are incapable of balancing against it. According to William Wohlforth, unipolarity is also a stable and peaceful arrangement: unipolarity favors the absence of war among the great powers and comparatively low levels of competition for prestige or security for two reasons: the leading state’s power advantage removes the problem of hegemonic rivalry from world politics, and it reduces the salience and stakes of balance-of-power politics among the major states.12 The status of the hegemonic power in a unipolar system allows for the expansion of its normative agenda, but also allows it to pacify international affairs because it lacks both a hegemonic rival and the effects of balance of power politics.13 As such, unipolar systems can be stable, depending on whom the hegemon is and what its vision for dominance might be. Since the end of World War II, only two types of polarity have been seen. Between 1945 and 1991, the system was bipolar, in that there were only two super- powers dominating the affairs of international politics. This bipolar arrangement was surprisingly stable and though smaller proxy wars erupted throughout the years of the Cold War, the relations between the two dominant powers, namely the United States and the Soviet Union, never came to a head. There are various explanations for why this was the case, but John Mearsheimer provides perhaps the most concise and accurate explanations as he contends that the absence of war in Europe and beyond throughout the Cold War can be attributed to three specific factors: the bipolar distribution of military power on the [European] Continent; the rough military equality between the two states comprising the two poles in Europe, the United States and the Soviet Union; and the fact that each superpower was armed with a large nuclear arsenal.14 At the conclusion of the Cold War, there was a clear and major shift in the distribution of power in the system, which translated into the unipolar moment. With the fall of the Soviet Union, the United States retained its superpower status and held a preponderance of power in virtually all areas of capabilities measurement. Christopher Layne contends that American hegemony is contingent upon two factors: First, the United States enjoys a commanding preeminence in both military and economic power. Second, since the Soviet Union’s disappearance, no other great power has emerged to challenge US preponderance. In this sense, US hegemony is the result of objective material conditions.15 Throughout the Clinton and early years of the Bush administrations, the role of the United States as systemic hegemon was virtually unquestioned, and it seemed as if American hegemony could last for a very long time. It was not until the latter years of the Bush administration that the waning of American hegemony began to become apparent. One of the key reasons the system remains unipolar is that there has yet to be a state that can balance against US power in either the hard or soft power senses. That said, the main reason for the decline in American hegemony has been a costly set of irrational and ill-advised foreign policy decisions, combined with years of economic overvaluation that eroded the hegemonic position of the world’s lone superpower.16 Both the intervention into Iraq, starting in 2003, and the fallout of the 2008 recession have served to substantially weaken the United States in both the hard and soft power contexts, and thus it is clear that a multipolar system is on the horizon. As Layne notes, “although a new geopolitical balance has yet to emerge, there is considerable evidence that other states have been engaging in balancing against the United States – including hard balancing.”17 The emerging great powers, especially China and Russia, will have a profound impact on the conduct of international relations in the years to come. Perhaps the most important area of security competition that has gone under- scrutinized from a systemic standpoint is the increased level of interest in the Arctic. Currently, the competing claims for the circumpolar region are mostly peaceful and focusing on diplomatic and legal battles, but recent trends suggest that non-violent strategy may not continue. As the era of American hegemony comes to an end, and a multipolar system begins to emerge, the impact on the Arctic region is likely to be profound due to the militaristic nature of state security strategies, unpredictability and a potential retreat from cooperation normally seen in multipolar structures. The Arctic in the unipolar moment One of the cornerstones of America’s unipolar moment has been the remarkable decline in interstate conflict. Since the fall of the Soviet Union in 1991, the international system has not been on the verge of any major war, nor have great powers aggressively pursued policies that would balance against American power in a way that would be taken seriously. According to many scholarly studies, the world since the end of the Cold War has become far more secure in the interstate sense, and security and defence policies of states are now preoccupied more with human- centric and intrastate variables than anything else. Though it is difficult to deny that the world has become more stable at the systemic level, the role of hard power and military capabilities did not disappear with the Soviet Union; instead, the use of militarism to achieve national goals in the unipolar moment greatly decreased as a direct result of the values and grand strategy of the United States. The impact of a unipolar systemic arrangement on state behaviour is best explained by the hegemonic stability theory.18 According to this theory, a unipolar structure is able to pacify the relations of states because there is recognition of the hegemon’s ability to control or intervene in conflicts that may threaten its power, or the order of the system. Wohlforth summarizes the basic precept of hegemonic stability theory by contending: The theory stipulates that especially powerful states (“hegemons”) foster international orders that are stable until differential growth in power produces a dissatisfied state with the capability to challenge the dominant state for leadership. The clearer and larger the concentration of power in the leading state, the more peaceful the international order associated with it will be [...] If the system is unipolar, the great power hierarchy should be much more stable than any hierarchy lodged within a system of more than one pole. Because unipolarity is based on a historically unprecedented concentration of power in the United States, a potentially important source of great power conflict – hegemonic rivalry – will be missing.19 It is essential to note two things about the status of the United States as systemic hegemon throughout the immediate post-Cold War era – first, that its preponderance of power in every area of capability measurement created a stable and less tense system in which states were able to interact; and second, that the United States’ time as hegemon has fostered the growth of multilateral institutions and agreements rather than a bullying type of unipolarity.20 From a systemic standpoint, it would seem that there is little reason to be concerned about military aggression, arms racing and distrustful competition in the modern system, but one vital concern to note is that much of the unipolar and hegeomic stability literature completely ignores the role of the Arctic in state security calculations. Throughout an era of institutional binding, regional integration, humanitarianism and soft power growth, the competition for the Arctic was following much of the same pattern, with states preferring to make their claims in institutional or legal settings. Yet, as the unipolar moment has started to decline, and multipolarity is on the horizon, the competition in the circumpolar region has taken on a very different tone. Competing claims over Arctic territories, such as the Northwest Passage, Beaufort Sea and other maritime boundaries, and the use of the region as a space for military exercises are by no means new and they have not come to the forefront of the strategic security agendas of states since the post-9/11 era. Rather, throughout the Cold War, the Arctic was a realm of constant supervision, not because either superpower wanted to develop the region, but more because of the mutual fear each side had of offensive attacks being launched over the pole. Even throughout the unipolar moment, the Arctic has been a space for sovereignty competition, but the nature of the competition had been mostly legal, institutional or soft power focused.21 Worth noting as well is the very complex nature of reasons for state interests in the Arctic. Mark Nuttall effectively summarizes the complexities of the high north as he claims: In the post-Cold War world [the Arctic] is seen as a natural scientific laboratory, under- stood as a homeland for indigenous peoples, a place of sovereignty conflicts, an emerging hydrocarbon province with which the world is coming to think of as one of the last major frontiers for oil and gas, and a region of dramatic environmental change.22 Though the intricacies of Arctic competition are intriguing to note, it is how states are strategically asserting their claims that is of particular importance. The start of America’s hegemonic decline has allowed states to revisit their approaches to the Arctic as nations jockey for position by balancing or rivalling American preferences. As a result, the nature of Arctic competition has incorporated both soft power and hard power elements. Further, the nature of militarism and hard power tension has increased due to the recent spending and strategic shifts by many Arctic states in recent years, including Canada, Norway, Sweden and Russia.23 The reasons for America’s decline are relatively unsurprising – military overextension in Afghanistan and Iraq; the lack of international support for American foreign policy objectives throughout the Bush era; the 2008 economic recession; and the utter dis- trust by most states, including close American allies, of the United States’ political objectives.24 The system remains unipolar, of course, but as stated above, the preponderance of power capabilities has substantially diminished, opening the door for others to balance and rival American power in the coming years. Coincidentally, it has also been the revelations of science in recent years that have also promoted a faster pace for those states making Arctic claims. The role of climate change and its impact over the Arctic has allowed for states to more freely move into the region and pursue strategies previously unavailable.25 According to Lotta Numminen, climate change has recently affected states’ perceptions of the possible economic opportunities in the Arctic in four ways: first, that the subsurface of the Arctic Ocean floor is assumed to contain substantial oil and gas reserves, to which there will be increased access; second, that melting waters will provide new waters for international fisheries; third, the increase in research strategies; and fourth, is the greater access to sea passages.26 One of the main reasons states see the Arctic region as such a lucrative area is the potential for increasing their respective economic and natural resource capabilities. Previously, the northern ice caps prevented states from entering most of the Arctic Ocean and surrounding areas, but as these environmental situations change, states have readily identified the high north as a priority in both their security and economic strategies. Among the main reasons the Arctic has not been more readily seen as a potential area for security competition and conflict is the interpretation that the United States has little or no interest in the circumpolar region at all. According to Stephen Brooks and William Wohlforth, American hegemony throughout the post-Cold War era was seen as passive, stable and enduring because of the lack of counter power being demonstrated in the system: Bounded by oceans to the east and west and weak, friendly powers to the north and south, the United States is both less vulnerable than previous aspiring hegemons and also less threatening to others. The main potential challengers to its unipolarity, meanwhile – China, Russia, Japan, and Germany – are in the opposite position. They can- not augment their military capabilities so as to balance the United States without simultaneously becoming an immediate threat to their neighbors. Politics, even international politics, is local. Although American power attracts a lot of attention globally, states are usually more concerned with their own neighborhoods than with the global equilibrium. Were any of the potential challengers to make a serious run at the United States, regional balancing efforts would almost certainly help contain them, as would the massive latent power capabilities of the United States, which could be mobilized as necessary to head off an emerging threat.27 Almost completely omitted from such interpretations, however, are America’s north- ern borders over Alaska and into the Arctic. Latitudinal thinking would seem to indicate that Brooks and Wohlforth are correct in terms of America’s interests in many areas of the globe, but this ignores what has been happening at the top of the world in the high north. It is not as if the United States has been ignorant of its own decline in power, especially regarding the Arctic. In 2009, the United States issued National Security Presidential Directive 66 and Homeland Security Presidential Directive 25 that deal exclusively with American Arctic policy. According to these directives, the alterations to national policies of other states regarding the Arctic compelled the United States to clearly outline the security and development strategies they would use to protect its Arctic interests. Among the first, and most clear, elements of the directives is the clear intention of the United States to defend their national security interests. According to Article III, subsection B 1 of the directives: The United States has broad and fundamental national security interests in the Arctic region and is prepared to operate either independently or in conjunction with other states to safeguard these interests. These interests include such matters as missile defense and early warning; deployment of sea and air systems for strategic sealift, strategic deterrence, maritime presence, and maritime security operations; and ensuring freedom of navigation and overflight.28 The contemporary changes to the international system as the era of American hegemony has begun to wane, the effects of climate change and greater access, and the increasingly militaristic strategies of most every Arctic state have led to a situation where tensions are at an all time high, and that legal or institutional processes are unlikely to resolve anything amicably. As the system continues its transition away from unipolarity, observers are left to ponder what might come next after an era of relative interstate stability. Multipolarity and the circumpolar In their 2002 article on the nature of United States primacy and the enduring aspects of American hegemony, Brooks and Wohlforth argue that the United States would have to act as a benevolent hegemon in order to prevent counterbalancing and to be able to build effective regimes worldwide. They argue: Magnanimity and restraint in the face of temptation are tenets of successful statecraft that have proved their worth from classical Greece onward. Standing taller than leading states of the past, the United States has unprecedented freedom to do as it pleases. It can play the game for itself alone or for the system as a whole; it can focus on small returns today or larger ones tomorrow. If the administration truly wants to be loved as well as feared, the policy answers are not hard to find.29 The problem with such analyses of American hegemony is that the Bush administration chose to ignore utterly such warnings and, rather than acting magnanimously, post-9/11 American foreign policy did precisely what it should not have. Pre-emption, coercion and irrational interventions, combined with a major economic recession, all serve to explain why American hegemony began to decline by 2005 in terms of both actual power levels and perceptions of legitimate hegemonic status.30 The clearest sign that American exceptionalism has been decreasing is the aggressive and regional balancing dynamics taking place between states in the Arctic region. Security strategy in the circumpolar region has altered dramatically since 2005, with more states showing interest, hard power spending increasing, and legal processes being coupled by at times overtly offensive strategy.31 Russia, Canada and a number of European states, especially Norway and Sweden, exemplify this line of argument about how sovereignty claims have become focused on traditional inter- state arms racing and militarism while soft power components, like governance structures and legal processes, continually evolve.32 As mentioned previously, even the United States has woken up to see that, as their hegemony declines, other states have begun to balance against them in the Arctic, thus provoking the 2009 Presidential Directives. Even so, Arctic interested nations have not yielded to American claims, nor has there been any evidence of America’s closest allies backing down in the face of its Arctic assertions, most clearly evidenced by Canada’s continued claims over the Northwest Passage.33 In the international relations canon, most observers point to either India or China as emerging great powers that are the most likely to counterbalance American power. The 2004 American National Intelligence Council report highlights this theory by stating: The likely emergence of China and India as new major global players – similar to the rise of Germany in the 19th century and the United States in the early 20th century – will transform the geopolitical landscape, with impacts potentially as dramatic as those of the previous two centuries. In the same way that commentators refer to the 1900s as the American Century, the early 21st century may be seen as the time when some in the developing world led by China and India came into their own.34 Both China and India have recently expressed their interest in Arctic affairs, but no power is as close to rivalling or challenging American power in hard power terms than Russia. This is especially true in the Arctic, as Russia’s Arctic policies have made its intentions towards asserting its control over territory it deems to be sovereign very clear. The role of the Arctic in Russian foreign policy cannot be understated. According to Russia’s 2008 Arctic policy document, the region is seen as the epicentre of Russia’s military and socio-economic development. The top two priorities for Russian Arctic interests are defined as follows: (a) In the sphere of socio-economic development – the expansion of the resource base of the Arctic Zone of the Russian Federation, in order to substantially satisfy Russia’s needs in hydrocarbon resources, hydro-biological resources, and other types of strategic raw materials; (b) In the sphere of military security, defense, and safekeeping of the state borders of the Russian Federation located in the Arctic Zone of the Russian Federation – the upkeep of a favorable operational regime in the Arctic Zone of the Russian Federation, including the maintenance of the required combat potential of military groupings under the Armed Forces of the Russian Federation, other troops, military formations and agencies in this region [...]35 In order to achieve these goals, the Russians have created a unique military brigade to be permanently posted in the Arctic, have placed a Russian Federation flag on the Arctic Ocean seabed, have conducted various missile tests, have sailed their nuclear submarines through contested waters and have openly challenged the abilities of other states to enforce their own claims. In response to Russian offensive posturing and the inability of the United States to dissuade security competition in the area, middle and minor powers have begun to use hard power as a means of trying to enforce their sovereignty. Perhaps the best example here is Canada, whose military capabilities are extremely weak, but strong rhetoric and a drastically increased level of high-north military spending since 2006 seems to indicate that the Canadian government cannot rely on its American alliances to protect its interests, and that posturing by states like Russia or even Denmark clearly threaten Canada’s national interests. As Norway, Sweden and Denmark have begun to put an emphasis on hard power capabilities to extend or defend northern claims, Canada has done the same. Worth noting as well in the Canadian context is that, while great powers like Russia and the United States can easily defeat any middle or minor power, Canada’s capabilities are being either rivalled or surpassed by European states like Norway.36 Canada’s realization of the evolving security and environmental climate in the Arctic has compelled changes to its domestic and foreign security policies, each seeking to assert Canadian sovereignty over areas of the Arctic, especially the Northwest Passage. One of the main components of now Prime Minister Harper’s 2005–06 campaign was to bolster Arctic security resources, as many Canadians have identified the region as an essential part of Canada’s national security and identity.37 Rob Huebert argues: The Harper government has increasingly recognized the significance of maintaining a strong presence in the Arctic and has vigorously begun to improve Canada’s northern abilities [...] The Harper government has also made a series of promises to consider- ably expand Canada’s northern capability [...] If these promises are implemented, Canada will have significantly improved its ability to control activity in its Arctic.38 In virtually any other area of the world, Canadian national security cannot be divorced from the United States, which is a partial explanation for why Canada has traditionally been considered a middle power since the end of World War II.39 Yet, since the start of American decline, the Canadian government has recognized that its fate in the Arctic will be its own, and not intrinsically tied to the protection of the United States, as the Americans have their own interests in the region and have shown a complete disregard for Canadian claims over the Northwest Passage and the Beaufort Sea. As the world moves towards multipolarity, it has become increasingly obvious that the Arctic region represents an area of increased security competition and a potentially conflictual region in the future. Multipolar systems are the most unstable, and history has shown these to produce military conflict due to the natural effects brought by a larger number of self-interested powers vying for power and security. Further, as new great powers begin to emerge, American strategic considerations will be spread so thin that they will be unable to prevent against their eventual loss of hegemony. The largest mistake being made at this time by international security scholars and policymakers is their normal obsession with China, India and latitudinal thinking. The next area of major war is not likely to be the Middle East, the Indian Ocean or the South China Sea, due to traditional security balancing, deterrence and economic interests in each of these areas. Multipolarity naturally brings the possibility of war. Mearsheimer contends that war is far more likely in multipolar systems for three reasons: First, there are more opportunities for war, because there are more potential conflict dyads in a multipolar system. Second, imbalances of power are more commonplace in a multipolar world, and thus great powers are more likely to have the capability to win a war, making deterrence more difficult and war more likely. Third, the potential for miscalculation is greater in multipolarity: states might think they have the capability to coerce or conquer another state when, in fact, they do not.40 Presently, there is little reason to believe that tension and strategic posturing will lead to the outbreak of war in the near future. That said, as America’s influence continues to wane, other states have shown their desire to take full advantage of the United States’ inability to control northern affairs. If the United States does lose its hegemony, which many commentators believe is inevitable, there will be at least four dyads in security calculations, with Russia, China and India entering the fray, and two of those states have Arctic borders and a historical legacy of conflict. Power imbalance in the Arctic is already apparent, with only Russia and the United States as great powers, while the other Arctic states are middle or minor powers with no hope of preventing a great power from doing as it pleases. Lastly, miscalculation is evident in the present context, as Sweden and Norway are both arming for possible Russian aggression, though Russia has shown little or no overtly aggressive tendencies towards Nordic nations. Unipolarity was not going to last forever, but as it fades the probability of northern conflict is ever increasing. The shift to hard power strategies, the effects of cli- mate change, and the decline of the United States all speak to the fact that multipolarity can increase levels of tension and mistrust, thus altering the currently stable nature of Arctic affairs. Efforts at Arctic governance through institutional binding or legal claims, as seen in the Arctic Council and UNCLOS, are able at present to mitigate the ongoing and ever increasing security competition in the high north, but as the system changes from unipolarity to multipolarity, constraining state behaviour becomes increasingly difficult. As such, observers must be mindful of the systemic variables at play when explaining and forecasting Arctic politics, as changes to the structure are very likely to translate into changes to state security strategies.

#### Coast guard solves biological attacks on US ports

Warren 2012 (Commander Robert W. Warren, United States Coast Guard, March 22, 2012, “The Coast Guard’s Critical Role as an Armed Service,” US Army War College, online)

America’s maritime Homeland Security is challenged by a broad array of nontraditional and asymmetric threats.54 These range from the smuggling of drugs, weapons and people into the country through the maritime domain to piracy on the high seas, and the proliferation of chemical, biological, radiological, and nuclear devices that potentially threaten U.S. ports. The Coast Guard’s status as an armed force as well as the nation’s principal maritime law enforcement and response organization is a key element of unique value to U.S. Homeland Security as well as the nation at large.¶ The combination of military and law enforcement authorities and capabilities provides the nation a unique and versatile maritime and naval instrument in the U.S.’ national security tool bag. The multi-mission and military efficiencies realized by a single Coast Guard cutter underway in U.S. waters serving not only to ensure the safety and security of the recreational and commercial users of the waterway, but also being available for the enforcement of applicable fiscal, immigration, sanitary and customs laws, the protection of natural resources, the denial of foreign incursions, and defense of our national maritime sovereignty is remarkable. The Strategy for Homeland Defense and Civil Support calls for an active layered defense to secure the nation’s borders. That layered defense leverages DOD’s and the Navy’s resources in the forward regions of the world and seamlessly integrates them with the Coast Guard, DHS, and other federal agencies closer to our shores. The Coast Guard’s status as an armed force and the interoperability and integration it has gained with other military branches as well as DHS and partner agencies makes it an invaluable resource for DHS as it looks to secure the nation’s vast maritime borders.

#### Bio attack causes extinction

Ochs 2002 (Richard Ochs, former president of the Aberdeen Proving Ground Superfund Citizens Coalition, member of the Depleted Uranium Task force of the Military Toxics Project, member of the Chemical Weapons Working Group, June 9, 2002, “Biological Weapons Must Be Abolished Immediately,” http://www.freefromterror.net/other\_articles/abolish.html)

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