# Oil Advantage CP

## 1NC

### CP Text: The United States Federal Government should develop and implement a strategy to switch from oil to shale gas as its main source of energy

### Contention 1: Solvency

### Natural gas can solve energy – replaces oil

DeHaemer ’08 (Christian, Staff Writer for Seeking Alpha. “New Technology Makes Natural Gas a Viable Replacement for Oil” http://seekingalpha.com/article/99213-new-technology-makes-natural-gas-a-viable-replacement-for-oil. )

The U.S. is set to become the world’s leading producer of natural gas — and is on track to become an exporter of the same. And yet you hear none of this on the radio or see it in other mass-media outlets. T. Boone Pickens isn’t a stupid man. He’s made billions from oil. In the last few months, he has spent $60 million advertising his belief in the future of natural gas for use in transportation and electricity. (And why not; we have plenty of natural gas.) Perhaps you’ve seen his commercial? A few years ago, the talk was in building liquid natural gas terminals to import gas from Russia and Africa. But now, the talk in certain circles is about the U.S. exporting natural gas. The landscape for hydrocarbons is changing rapidly. It’s not 2006 anymore. The reason that natural gas sold off over the past two months lies trapped in shale. There have been two major finds in the past few years: one in the Barnett Shale region near Fort Worth, Texas, and the other more recently from Shreveport, Louisiana, called the Haynesville Shale find. Both these discoveries are turning landowners into Jed Clampett-style multimillionaires. According to the San Francisco Chronicle, one unemployed machinist named Chris Moreno, who owes 45 acres, was offered $750,000 to drill on his land as well as 25% of the production yield. Profit From the Natural Gas Boom: New Technology Makes It Work The process for retrieving this natural gas from shale is more expensive than the traditional wells and requires breaking up the shale using fracture pumps and horizontal drilling techniques. That said, when natural gas is over $5.50, it works… and there is a lot of natural gas to be extracted. New horizontal drilling technology, including hydrofracturing, has made shale-based natural gas accessible. Natural gas in places like the Haynesville formation in Louisiana is situated in vertical columns. Imagine six milk cartons in a row. If you stick a straw in one carton, you get one carton of milk. If you stick six straws end on end and drill it horizontally through all six cartons, you get all the milk with one really long straw. Profit From the Natural Gas Boom: “But This One Goes Up to 11…” Chesapeake Energy (CHK) has pioneered using six sections and is now using eight sections for its sideways drills.This greatly reduces the cost per unit of gas recovered. In fact, CHK has some rigs down to below $5.50 MMBtu. In hyrdofracture drilling you simply pump pressurized water down into the well. This breaks up shale and releases more gas. You then fill the gaps with permeable sand and pump out the water and gas. The benefit of the Haynesville site is that it is naturally pressurized. This means that instead of pumping out the gas it squirts out by itself, again saving money. Chesapeake believes that it can get its costs down to $5 and change. Today, the futures market values natural gas at $7.50, down from $14. Profit From the Natural Gas Boom: U.S. Production Booming U.S. production increased by 8.8% in the first five months of 2008 compared with the same period in 2007. This is the biggest percentage increase since 1959. There is a huge difference between U.S. oil production and natural gas. U.S. oil production peaked in 1970, and is down 21% in the past decade alone. This is why you see T. Boone Pickens running around talking up natural gas as a replacement for oil. Not only is natural gas the cleanest of the hydrocarbon fuels, but the U.S. has a lot of it. Navigant Consulting claims there is as much as 842 trillion cubic feet of natural gas trapped in shale in the U.S. That’s enough to meet four decades of current demand. Profit From the Natural Gas Boom: Natural Gas Cars Utah has developed the public infrastructure for natural gas pumps. You can fill up your car at 82 cents-a-gallon equivalent (compared to $3.50 per gallon of traditional gasoline). This has caused a sales boom in the Civic GX from Honda (HMC), the only car company currently selling natural gas cars to the public. The Civic GX fills its tank in your garage using a slow fill method from your gas line. It takes about five hours to fill up and will drive for 200 miles. The governor of Utah converted his state-owned SUV to natural gas using his own money. According to the Energy Department, there are 8 million natural gas vehicles operating worldwide, but only 116,000 or so in the United States — most of these vehicles are used by state or corporate fleet. I know Baltimore has switched over from diesel buses to natural gas. (I know this because that diesel stink doesn’t flow in the vents anymore when I’m trapped behind them.) Peterbilt has been selling a Model 320 with the Cummins-Westport natural gas engine, which has a liquid natural gas fuel system, for the past four years. It also offers a dual-fuel (diesel and liquid natural gas) Caterpillar (CAT) engine. If you are in the trucking business, your biggest expense is fuel. This country needs a national network or filling stations (both compressed natural gas and liquid natural gas). Natural gas is the only viable long-term energy solution for transportation. With a new man in the Oval Office, I predict that we’ll see a natural gas infrastructure buildout announced in his first 100 days in office.

### Natural gas can solve – replaces oil

CNBC ’10 (Global newswire, “Pickens: Exploit US Natural Gas, Replace OPEC Oil”http://www.cnbc.com/id/35708720/Pickens\_Exploit\_US\_Natural\_Gas\_Replace\_OPEC\_Oil. 4 Mar 2010)

The U.S. will make a monumental mistake if it doesn't utilize one of its most prevalent energy resources, natural gas, energy tycoon Boone Pickens told CNBC Thursday." You've got 4,000 trillion cubic feet of natural gas—that makes us number one in the world," Pickens said. "We're going to be fools, we'll be identified as the dumbest people in the world if we don't capitalize on this resource and replace OPEC oil." Pickens said one of the most simple ways to introduce natural gas to the automobile business is to make it the primary option for larger transportation vehicles. "What you do is go after the 8 million 18-wheelers, and when a new 18-wheeler is purchased it will go to domestic fuel, which would be natural gas," said Pickens. "If we had those we would cut OPEC in half." Pickens cited AT&T as a company that's using natural gas as the energy source for its automobile fleet. In March of 2009, AT&T [T 30.32 0.04 (+0.13%)] said it would commit up to $565 million on alternative-fuel vehicles over the span of ten years. Of that sum, $350 million would go to purchasing 8,000 vehicles that run on compressed natural gas, according to the company Web site. It is estimated that the company's 10-year commitment will reduce carbon emissions by 211,000 metric tons, according to a statement on the company Web site.

## A2: Prices

### Natural gas stable – no price spikes

Dezember ’11 (Ryan, Staff Writer for The Wall Street Journal. “Natural-Gas Price Is Unlikely to Flare Higher” <http://online.barrons.com/article/SB50001424053111903337604576455972993091918.html?mod=BOL_twm_mw>. JULY 23, 2011)

This was supposed to be the year that low natural-gas prices prompted a reduction of supplies. Analysts have long said that a sustained period of gas priced below $5 per million British thermal units would slow the boom in drilling, curtailing output. So far, the opposite has occurred, leading to the inevitable conclusion that natural-gas futures aren't going to gain much, if any, ground above the $5 mark. On Friday, natural-gas futures for August delivery ended at $4.399/MMBtu on the New York Mercantile Exchange, down 3.2% on the week. Production from U.S. shale formations, deeply buried rocks, came onto the scene a few years ago and sent prices tumbling. Production in the lower 48 states reached a shale-era record in March, and topped that mark in April. In response, the Energy Information Administration says it expects 2011 output to total 23.8 trillion cubic feet, which would shatter the U.S. production record set in 1973. Demand-side conditions have been favorable for a push higher in prices. Imports from Canada are down. Meanwhile, exports to Mexico are up. Balmy summer weather arrived early, coinciding with spring-maintenance shutdowns at several nuclear-power plants. That led to more demand for gas-fired electricity at a time of year when use is usually low. In addition, the heat wave in much of the U.S. is causing a short-term demand spike. While those factors have helped keep prices above $4/MMBtu since mid-March, they weren't enough to push prices beyond the $5/MMBtu ceiling that's developed "due to unrelenting production growth," said analysts with Houston investment bank Simmons & Co. in a recent report. This level of production looks set to continue beyond 2011, as companies flush from high oil prices rush to tap newly discovered shale formations and install pipelines and processing plants to bring to market gas that is now being flared. And just because companies are redirecting drilling rigs toward oil deposits doesn't mean they aren't unleashing an abundance of gas in the process. Meanwhile, BHP Billiton (ticker: BHP) recently announced it will spend $12.1 billion to buy Houston-based Petrohawk Energy (HK), a company whose reserves are 87% gas. BHP says it plans to ramp up drilling in the Texas and Louisiana energy fields it will acquire in the deal, boosting spending from $2.85 billion to as much as $5 billion a year by 2015. Market participants closely watch rig counts, such as the data published by oilfield-service company Baker Hughes, to predict where production is headed. The total number of rigs drilling for natural gas in the U.S. is currently 889, down by 93 rigs from a year ago—while the number of rigs aiming for oil has nearly doubled, to 1,021. That might seem bullish for natural gas, but in recent years, more than 22% of all U.S. natural-gas production has come from oil wells. Indeed, the rush to plumb onshore reserves for crude is yielding more gas than some distribution systems can handle. Each day in April, for example, producers in North Dakota's Bakken shale formation flared about 100 million cubic feet of gas that local pipelines and processing facilities couldn't handle, say analysts at Bentek Energy. That gas, enough to fuel 500,000 typical U.S. homes a day, will eventually hit the market when infrastructure construction catches up to drilling. In all, Simmons estimates that supply is exceeding demand by about 1.1 billion cubic feet a day this year, and will do so at a rate of 0.6 bcf per day in 2012. The likely effect: prices will stay in the $4 to $5 range—with potential forays below $4 if weather conditions moderate—through the next year.

## A2: Not Enough Gas

### Plenty of gas in the US

UPI ’11 (Global Newswire, “U.S. shale a geopolitical game changer” <http://www.upi.com/Business_News/Energy-Resources/2011/07/22/US-shale-a-geopolitical-game-changer/UPI-89651311330812/?spt=hs&or=er>. July 22, 2011)

HOUSTON, July 22 (UPI) -- The geopolitical consequences of expanding the production of shale gas deposits in the United States will be "enormous," a research study concluded. The United States holds some of the richest deposits of natural gas locked in shale formations in the world. The U.S. Department of Energy estimated that there's enough domestic natural gas to last 90 years at current production rates. Researchers at Rice University in a study said the subsequent Russian share of the natural gas market in Europe could fall from 27 percent in 2009 to 13 percent by 2040. Rising natural gas production in the United States could diminish Iran's influence as well, the report said. "The geopolitical repercussions of expanding U.S. shale gas production are going to be enormous," Amy Myers Jaffe, one of the report's authors, was quoted by the online Oil and Gas Journal as saying. The study estimated that shale production in the United States could make up more than half of the total U.S. natural production within the next 20 years. Critics claim the potential environmental consequences of shale gas production aren't worth the benefits. A recent report in The New York Times sought to cast a shadow over shale gas optimism, though the newspaper's ombudsman later questioned the report. Energy companies involved in shale gas production say that, when done correctly, the environmental impact of shale production is minimal.

## A2: Not economically feasible

### Natural gas priced right - rising oil prices

Marron ’10 (Donald, Writer for iStockAnalyst, “Can Natural Gas Replace Oil For Diesel?” <http://www.istockanalyst.com/article/viewarticle/articleid/4768884>. Dec 24, 2010 )

In a series of posts (most recent here), I've noted that oil and natural gas prices have become unhinged from each other. Oil (denominated in $ per barrel) used to trade at 6 to 12 times the price of natural gas (denominated in $ per MMBtu). But lately that ratio has been north of 20, thanks to a surfeit of new gas in the United States (and elsewhere) and, recently, growing global demand for oil. The wide spread between oil and natural gas prices provides a tempting incentive for any innovators who can figure out how to use natural gas, rather than oil, to make transportation fuels. Over at the New York Times, Matthew Wald identifies one possibility, using natural gas to produce diesel: Diesel and jet fuel are usually made from crude oil. But with oil prices rising even as a glut of natural gas keeps prices for that fuel extraordinarily cheap, a bit of expensive alchemy is suddenly starting to look financially appealing: turning natural gas into liquid fuels. A South African firm, Sasol, announced Monday that it would spend just over 1 billion Canadian dollars to buy a half-interest in a Canadian shale gas field, so it can explore turning natural gas into diesel and other liquids. Sasol's proprietary conversion technology was developed decades ago to help the apartheid government of South Africa survive an international oil embargo, and it is a refinement of the ones used by the Germans to make fuel for the Wehrmacht during World War II. The technology takes "a lot of money and a lot of effort," said Michael E. Webber, associate director of the Center for International Energy Environmental Policy at the University of Texas, Austin. "You wouldn't do this if you could find easy oil," he said. But with the huge spread between oil and gas prices, and predictions of oil topping $100 a barrel next year, the conversion technology could be a "a money-maker for whoever is a first mover in that space."

## Natural Gas K2 National Security

### Shift to natural gas boosts US national security

Houston Chronicle ’11 (“The case for shale gas” <http://www.chron.com/disp/story.mpl/editorial/7666551.html>. July 23, 2011)

If the Obama administration needs further proof of the pivotal importance to national and global security of developing our abundant domestic natural gas resources, it will find it in a landmark study by scholars at Rice University's Baker Institute, released last week. "Shale Gas and U.S. National Security," coauthored by Baker scholars Kenneth B. Medlock III, Amy Myers Jaffe and Peter Hartley, offers exhaustive, objective and incontrovertible scholarly argumentation for aggressive development of this resource. The work provides a veritable connect-the-dots between development of shale gas in places like South Texas, Arkansas, West Virginia and Pennsylvania and the undeniable national security benefits such development would bring. The study calls the emergence of shale gas "perhaps the most intriguing development in global energy markets in recent memory." Expanded use of shale gas would, among other things: Virtually eliminate U.S. requirements for liquefied natural gas from the Middle East for at least two decades. Reduce competition for LNG supplies from the Middle East, thereby moderating prices and spurring greater use of natural gas, an outcome with significant implications for global environmental objectives. Combat the long-term monopoly power of a "gas OPEC" or a single producer such as Russia to exercise dominance over large natural gas consumers in Europe or elsewhere. Reduce the future share of world gas supply from Russia, Iran and Venezuela from about 33 percent in 2040 to 26 percent. Reduce U.S. and Chinese dependence on Middle East gas supplies, lowering the incentives for geopolitical and commercial competition between the two largest consuming countries. Reduce Iran's ability to tap energy diplomacy as a means to strengthen its regional power or to buttress its nuclear aspirations. These are very real benefits. Only recently it appeared that the aggressive and hard-line Russian state gas producer, Gazprom, would have a virtual death grip over Western Europe as the major source of natural gas. Likewise with the dictatorial Chavez regime in Venezuela across South America. As the Baker report notes, the benefits also include the significant economic ones of price stability, job creation and a significant impact on this country's dangerously negative balance of payments. This report is as important as any national security document in recent memory, touching as it does on energy policy, economic policy and national security, and offering clear solutions to what have long seemed to be intractable diplomatic and political problems. It deserves wide circulation among Washington's top policy-makers — not least the president of the United States. We urge President Obama to read it carefully and thoroughly. He will find solutions that can make all the difference in charting a prosperous, secure future for this country.

### Foreign gas dependence w/o shale gas

Medlock, Jaffe, Hartley ’11 (Kenneth, Susan G. Baker Fellow in Energy and Resource Economics, Amy, WALLACE S. WILSON FELLOW IN ENERGY STUDIES, and Peter, WALLACE S. WILSON FELLOW IN ENERGY STUDIES. "Shale Gas and U.S. National Security” <http://bakerinstitute.org/publications/EF-pub-DOEShaleGas-07192011.pdf>. July 2011)

Prior to the innovations that led to the recent growth in shale gas production, huge production declines were in the United States, Canada, and the North Sea. That meant an increasing reliance on foreign-sourced supplies, which, in turn, left two countries in particular with an apparent stranglehold over future supplies: Russia and Iran. Before the revelations about shale, these nations were expected to account for more than half of the world's known gas resources. Russia made no secret about its desire to leverage its position and create a cartel of gas producers—a kind of latter-day OPEC. This seemed to set the stage for a matriculation to the gas market of the oil issues that have worried the world over the past 40 years—geopolitical instability, the policing of sea lanes, and hand-wringing about the security of supply.

### Domestic gas kills foreign dependence

Medlock, Jaffe, Hartley ’11 (Kenneth, Susan G. Baker Fellow in Energy and Resource Economics, Amy, WALLACE S. WILSON FELLOW IN ENERGY STUDIES, and Peter, WALLACE S. WILSON FELLOW IN ENERGY STUDIES. "Shale Gas and U.S. National Security” <http://bakerinstitute.org/publications/EF-pub-DOEShaleGas-07192011.pdf>. July 2011)

For the United States, the geopolitical impacts of rising domestic shale gas production are dramatic. Even a casual examination of projected North American shale gas production (see Figure 11) makes obvious the dramatic implications that this resource will have on the domestic supply-demand balance. U.S. natural gas imports from the Middle East are virtually nil from 2011 to 2030 under the Reference Case and then only rise modestly in the 2030s. This is in contrast to markedly higher foreign dependency conditions that might have emerged, had U.S. shale developments not occurred. In fact, under Scenario Two, U.S. LNG imports rise substantially (see Figure 12). This increased competition for global LNG supplies results in higher prices and allows greater entry by suppliers from historically volatile regions. The U.S. economy already faces challenges from the high costs of importing foreign oil. Large trade deficits driven by expensive oil imports contribute to the overall weakening of the dollar, and the threat of oil supply disruptions remains a risk factor to overall economic growth and stability. Increasing U.S. exposure to events in the Middle East or Russia through rising purchases of imported LNG is a less desirable outcome than being able to rely on domestic energy supplies that are not subject to geopolitical risks and where monies paid for energy remain inside the U.S. economy. Thus, to the extent that natural gas supplies can be sourced from North America and not in the form of imported LNG, the United States is—all things considered—better off.

# Global Warming Adv CP

## 1NC

### CP Text: The United States Federal Government should develop and implement a strategy of accelerating carbon sequestration in peridotite

### Contention 1: Solvency

### Peridotite solves global warming – two possible methods

Lumoa ’09 (Jon, author of three books on environmental issues and a contributing editor at Audubon. He has written for National Geographic and the New York Times Magazine. “Scientists Recommend Permanent Method For Carbon Sequestration: Turn CO2 into Rock” <http://www.popularmechanics.com/science/environment/4292181>. October 1, 2009)

The problem of what to do with carbon dioxide once it's been captured has long perplexed scientists pursuing carbon sequestration. Do we store it in the ocean? In salt formations underground? And how long will those solutions work? A new study suggests that huge volumes of the key greenhouse gas could be converted into inert rock--and stored safely forever. As PM reported in July, Columbia University geologist Peter Kelemen has been studying peridotite, a highly-reactive rock that covers about half the landscape of Oman, and appears at scattered locations worldwide. The rock naturally reacts with carbon dioxide (CO2), removing it from the air to form limestone and other carbonates. In a study published November 11 in the Proceedings of the National Academy of Sciences, Kelemen and Columbia geochemist Jurg Matter suggest the natural process of removing CO2 from the air could be accelerated 100,000 fold, enough to make a significant dent in global warming. They calculate that Oman's peridotite alone could sequester 4 billion tons of CO2 per year, one-eighth of the 30 billion tons of CO2 humans emit annually. The researchers suggest that CO2 captured from power plants and other sources could be pumped down boreholes into peridotite. Using fracturing technology borrowed from the petroleum industry to shatter the rock and expose more of its surface area, CO2 would seep into the peridotite hundreds of feet below the ground. Heat would be added initially to accelerate chemical reactions. But as new carbonate rock begins forming, the process could start feeding on itself, with new carbonate rock continually fracturing the host rock further, and the heat from the reaction supplementing the deep-Earth's heat. "It's a little like setting a coal seam on fire," Kelemen says. The two scientists also offered a second scenario that Kelemen calls "even more intriguing." The alternative method would remove CO2 directly from the air and transfer it to boreholes drilled into peridotite formations in shallow water just off the Oman coast. Surface seawater naturally sponges up carbon dioxide until it reaches chemical equilibrium; a saturation point. In this scenario, seawater would be pumped deep into one borehole. Heated naturally by the Earth to about 185 C, it would release its CO2 again to form carbonate rocks. Rising to the surface via a second, paired hole, the seawater could then sop up more CO2, continuing a cycle that, once started, might be self-sustained by simple convection. If it worked, the second method would require far more extensive fields of boreholes because of the limited ability of seawater to take up CO2. But it would also eliminate both the complexity and cost of capturing pure CO2 at the source, and of transporting it. "The air," says Kelemen, "transports CO2 for free." There are other major advantages to what Keleman terms air capture." "Not only don't we have to capture the CO2 at places like power plants," he says, "there's a substantial portion of CO2 that comes from places where we wouldn't have any hope of capturing it--CO2 emitted by cars, for example." Kelemen notes that there appear to be few ways to accelerate the rate of carbon transformation in this second option. Even if it were possible to pump more seawater through the boreholes, doing so would be self-defeating. "If you pumped at an intensified rate, you'll just cool the rocks down," he says. Yet he notes that "with enough holes" this approach alone might still be able to capture a large portion of the atmosphere's excess greenhouse gas. Effective air-capture technology could also mean that peridotite formations in shallow seas elsewhere, including remote New Caledonia and Papua New Guinea, could come into play. Kelemen cautions, however, that the team has only begun its work on the seawater option, and that data are far more preliminary than for the more developed land-based scenario. In the short term, a land-based system in Oman could be fed pure CO2 captured from power plants and refineries across the Middle East and fed down a pipeline, one that might eventually be extended to the Balkan states or beyond. Although some peridotite formations lie off the coast of California, options for using the technology to help directly control CO2 emissions in the U.S. are limited. No matter, says Kelemen. "The problem is global. We'll need lots of approaches. I don't think it's wise to even be looking for one, big golden fix."

### Peridotite solves global warming – Oman study proves

MSNBC ’08 (Global newswire. “Might rock deposit help soak up warming gas?” http://www.msnbc.msn.com/id/27593907/ns/us\_news-environment/t/might-rock-deposit-help-soak-warming-gas/#. 11/7/2008)

NEW YORK — A common rock can be harnessed to soak up the main greenhouse gas carbon dioxide at a rate that could help slow global warming, scientists reported in a new study. When carbon dioxide comes in contact with the rock, known as peridotite, the gas is converted into a solid carbonate like limestone or marble. Geologist Peter Kelemen and geochemist Juerg Matter said the naturally occurring process can be supercharged 1 million times to grow underground minerals that can permanently store 4 billion or more of the 30 billion tons of carbon dioxide emitted by human activity every year. Peridotite is the most common rock found in the Earth's mantle, or the layer directly below the crust. In some places it also appears on the surface — particularly in the Middle Eastern nation of Oman, which is conveniently close to a region that emits substantial amounts of carbon dioxide in the production of fossil fuels. "To be near all that oil and gas infrastructure is not a bad thing," Matter said in an interview. Supercharge via drilling, hot water The scientists, who are both at Columbia University's Lamont-Doherty Earth Observatory in New York, say they could kick-start peridotite's carbon storage process by boring down and injecting it with heated water containing pressurized carbon dioxide. "Once jump-started in this way, the reaction would naturally generate heat — and that heat would in turn hasten the reaction, fracturing large volumes of rock, exposing it to reaction with still more CO2-rich solution," the university said in a statement. "Heat generated by the Earth itself also would help, since the further down you go, the higher the temperature. The scientists say that such a chain reaction would need little energy input after it was started." The peridotite field in Oman is already naturally absorbing 10,000 to 100,000 tons of carbon a year, the researchers found, far more than anyone had thought. The two made the discovery during field work in Oman's desert. "Their study area, a Massachusetts-size expanse of largely bare, exposed peridotite, is crisscrossed on the surface with terraces, veins and other formations of whitish carbonate minerals, formed rapidly in recent times when minerals in the rock reacted with CO2-laden air or water," the university stated. Peridotite also occurs in the Pacific islands of Papua New Guinea and Caledonia, and along the coast of the Adriatic Sea and in smaller amounts in California. The study by Kelemen and Matter will appear in the Nov. 11 edition of the Proceedings of the National Academy of Sciences.

## A2: Not Enough Rock

### Dominant rock in Earth – we can’t run out

New World Encyclopedia (Knowledge Database, “Peridotite”, <http://www.newworldencyclopedia.org/entry/Peridotite>)

Peridotite is the dominant rock of the upper part of Earth's mantle. It is obtained either in the form of solid blocks and fragments or crystals accumulated from magmas formed in the mantle. The compositions of peridotite nodules found in certain basalts and diamond pipes (kimberlites) are of special interest because they provide samples of the mantle roots of continents, brought up from depths ranging from about 30 kilometers (km) to 200 km or more. Some of the nodules preserve isotope ratios of osmium and other elements that record processes over three billion years ago. Thus, they provide clues to the composition of Earth's early mantle and the complexities of the processes that took place. Consequently, they are of special interest to paleogeologists.

## A2: Environmental Sanctions

### Peridotite key – only active removal of greenhouse gases solves global warming

Kornell ’09 (Sam, Staff Writer for Miller-McCune. “A Rock That Helps Out In a Hard Place” <http://www.miller-mccune.com/science-environment/a-rock-that-helps-out-in-a-hard-place-10909/>. November 10, 2009”

Folded into the mountains of northern Oman is a rare burst of peridotite rock. Viewed from above, its black-and-white striations make it look like a great scoop of marble fudge ice cream has been slathered across the earth. In January 2008, a Columbia University doctoral student named Sam Krevor traveled to Oman to study the peridotite. For three showerless weeks he and a team of researchers surveyed, observed and catalogued the rock, camping under the stars and subsisting on an unlikely diet of cabbage and canned shellfish (nonperishable food items not being a staple of Omani grocery stores). What were they looking for? The answer is as intriguing as it is unexpected. Peridotite, it turns out, absorbs carbon dioxide, and according to Krevor it potentially represents one of the greatest — if most bafflingly ignored — solutions to climate change in the world. Originating deep in the earth, peridotite is a part of a family — “ultramafic rock” — that reacts naturally with CO2 to form solid minerals. Last May, Krevor was the lead author of a study identifying and mapping enough ultramafic rock in the United States to sequester an enormous amount of carbon dioxide. Taking into account various land-use constraints — private property, proximity to cities, national and state parks — he and his fellow researchers found storage potential for 500 years of the country’s CO2 emissions. So it’s a mystery of current climate studies that the U.S. Department of Energy, the country’s largest single source of funding into clean energy research and development, has awarded just one small grant, in 2003, to researchers studying mineral sequestration. “It’s very striking,” Krevor said. “This is a technology that’s a potential game changer, and there’s been very little research done in the area.” Scientists have long mulled various strategies for capturing and storing greenhouse gas, thus far with limited practical success. In recent years, even the idea of sequestering carbon dioxide has become a source of contention. Some experts are skeptical that large amounts of CO2 can be sucked out of the air and stored safely and permanently, and they worry that “carbon capture” technology could be used to justify the continued expansion of coal power plants, among the most profligate sources of carbon emissions in the world. And yet the pace of climate change is now so rapid that sequestration may be necessary to avert catastrophe. Even if strong international agreements to reduce global carbon emissions are signed in the near future — a not-at-all-certain prospect — there may now be so much greenhouse gas caked into the atmosphere that actively removing it from circulation is necessary to avoid violent upheaval in weather and temperature patterns across the globe. “Unless we’re able to capture and store CO2 at a reasonable price, we’re in huge trouble,” says Wally Broecker, a professor and scientist at Columbia University. One of the world’s foremost authorities on climate change — he coined the term “global warming” in 1975 — Broecker worries that without major changes in the global energy infrastructure the world is headed toward climate disaster. Broecker isn’t a Cassandra: A few days after I spoke with him, the Met Office, the leading climate laboratory of the British government, issued a report finding that without a substantial reduction in carbon emissions, within 50 years global average temperatures will rise by up to 10 degrees Fahrenheit, with much of the United States warming by between 13 and 18F — a change which, scientists agree, would make large parts of the Earth more or less unlivable, including large parts of the American Southwest. (By contrast, climate observers hope action now can keep the world’s heating to 3.6 degrees F.) Broecker believes that solar power will eventually become the world’s primary energy source, but because it will take time before solar can directly compete with coal and oil, carbon sequestration is an essential stopgap measure to curb climate change. “There are only three energy sources that can supply the bulk of the world’s needs: nuclear power, solar power and fossil fuel,” he said. “I have a hard time believing nuclear is going to run the world. Solar is going to eventually come down in price and then it will run the world, but that will take time. And so in the meantime, we’re going to have to learn to capture and store CO2.” Sequestration efforts in the U.S. and Europe have so far focused on geologic storage -capturing the CO2 at power plants and piping it, in gaseous form, into massive underground wells in, say, Nevada. “Air capture,” a less researched field, would suck CO2 directly out of the atmosphere.

## A2: Not Permanent

### Carbon sequestration solves – permanent storage

Kornell ’09 (Sam, Staff Writer for Miller-McCune. “A Rock That Helps Out In a Hard Place” <http://www.miller-mccune.com/science-environment/a-rock-that-helps-out-in-a-hard-place-10909/>. November 10, 2009”

According to Krevor, using ultramafic rock to store CO2 — which scientists call “mineral sequestration” — has a couple of major advantages over other forms of carbon storage. For one thing, silicate rock, of which ultramafic rock is a subset, is the second most common mineral in the crust of the Earth, which gives it vast storage capacity. For another, it’s safe. Once carbon dioxide is incorporated into the chemical structure of ultramafic rock, it’s there to stay. “There are no other forms of carbon as stable as carbonate rocks,” Krevor said.

## A2: Underground Gas Injection

### Only peridotite solves – other solutions risk reversal

Kornell ’09 (Sam, Staff Writer for Miller-McCune. “A Rock That Helps Out In a Hard Place” <http://www.miller-mccune.com/science-environment/a-rock-that-helps-out-in-a-hard-place-10909/>. November 10, 2009”

Klaus Lackner, a professor of geophysics at Columbia who was Krevor’s doctoral adviser, and who was one of the first to suggest ultramafic rock as a climate solution, said the lack of funding for mineral sequestration is the result of “a fairly conscious decision that the center of gravity should be injecting CO2 into the ground. [The scientific community] has decided, for better or for worse, to put all of our eggs into one basket.” Lackner and Krevor both took pains to note that they support developing methods to safely store CO2 underground. Indeed, Krevor is now a post-doctoral researcher at Stanford, where he is studying geologic sequestration. But both men pointed out that the safety and permanence of mineral sequestration makes it an attractive alternative to traditional geologic sequestration. “If you store CO2 as a gas, you are ultimately responsible, virtually indefinitely, for ensuring that that gas doesn’t come back into the air,” Lackner said. “The more you put underground, the greater the responsibility, because if it begins to leak it would be disastrous.” What’s more, both worry that there is simply not enough room underground to store the amount of CO2 necessary to curb global warming over the long run. “We run the risk that 20, 30, 40 or 50 years from now, we’ll run out of space,” Lackner said. “The challenge we face right now” — with climate change — “is so big that I’m uncomfortable with the idea of investing entirely in this technology with the possibility that in 50 years it’s over.”

# Heg CP (Deficit)

## 1NC

### CP Text: The USFG should develop and implement a strategy to reduce the national deficit

### Contention 1: Solvency

### Deficit reduction key to US hegemony- saves the economy

Ensinger ’10 (Dustin, Staff Writer for Economy in Crisis. “Huge Deficits Altering U.S. Hegemony” <http://economyincrisis.org/content/huge-deficits-altering-us-hegemony>. February 2, 2010)

The sun may finally be setting on the American Century, according to The New York Times, which claims that America‘s massive and unsustainable debt will be the cause of waning influence around the world in the near future. Not only is the deficit out-of-control - expected to be 1.3 trillion in the 2011 fiscal year - but the nation’s projected long-term debt is even more unsustainable. By the end of the decade, deficits are projected to rise to over five percent of gross domestic product. “[Obama’s] budget draws a picture of a nation that like many American homeowners simply cannot get above water,” The Times writes. Even worse, much of that debt is borrowed from foreign central banks, especially Asian powers Japan and China. As of September 2009, China held $790 billion of U.S. debt while Japan held roughly $752 billion. The problem is exacerbated by the political impasse in America, in which each side is firmly entrenched in an unwavering ideological battle. Republicans refuse to even entertain the idea of any tax increase while Democrats chafe at the though of entitlement cuts. In reality, to put America back on a path of fiscal sanity and ensure that America remains a hegemony, there needs to be a combination of both. There are some analysts and experts, however, that believe America will remain the world’s preeminent power for some time. Some believe that China, long thought of as America’s top competitor for superpower status, will not be able to maintain its current pace of economic growth long enough to pass the U.S. as the world’s largest economy. Others point out that America’s military might is still unmatched around the world, and that the U.S. economy is still by far the largest. As of 2009, the U.S. accounted for nearly half of all the world’s military expenditures. The next closest was China at just eight percent, followed by Russia at five percent. And since the 1960s America’s gross domestic product has represented roughly 20 to 25 percent of the global economy. Still, others see America’s imminent demise. An extremely low savings rate, the decline of America’s manufacturing base, unsustainable trade deficits and concerns about the strength of the dollar have all caused some experts to question America’s place in the world and suggest that American influence may be rapidly dwindling. “Unless miraculous growth, or miraculous political compromises, creates some unforeseen change over the next decade, there is virtually no room for new domestic initiatives for Mr. Obama or his successors,” The Times writes. “Beyond that lies the possibility that the United States could begin to suffer the same disease that has afflicted Japan over the past decade. As debt grew more rapidly than income, that country’s influence around the world eroded.”

### Debt kills econ – no growth factor

Sanger ’10 (David, Staff Writer for the New York Times. “Deficits May Alter U.S. Politics and Global Power” <http://www.nytimes.com/2010/02/02/us/politics/02deficit.html>. February 1, 2010)

In a federal budget filled with mind-boggling statistics, two numbers stand out as particularly stunning, for the way they may change American politics and American power. The first is the projected deficit in the coming year, nearly 11 percent of the country’s entire economic output. That is not unprecedented: During the Civil War, World War I and World War II, the United States ran soaring deficits, but usually with the expectation that they would come back down once peace was restored and war spending abated. But the second number, buried deeper in the budget’s projections, is the one that really commands attention: By President Obama’s own optimistic projections, American deficits will not return to what are widely considered sustainable levels over the next 10 years. In fact, in 2019 and 2020 — years after Mr. Obama has left the political scene, even if he serves two terms — they start rising again sharply, to more than 5 percent of gross domestic product. His budget draws a picture of a nation that like many American homeowners simply cannot get above water. For Mr. Obama and his successors, the effect of those projections is clear: Unless miraculous growth, or miraculous political compromises, creates some unforeseen change over the next decade, there is virtually no room for new domestic initiatives for Mr. Obama or his successors. Beyond that lies the possibility that the United States could begin to suffer the same disease that has afflicted Japan over the past decade. As debt grew more rapidly than income, that country’s influence around the world eroded. Or, as Mr. Obama’s chief economic adviser, Lawrence H. Summers, used to ask before he entered government a year ago, “How long can the world’s biggest borrower remain the world’s biggest power?” The Chinese leadership, which is lending much of the money to finance the American government’s spending, and which asked pointed questions about Mr. Obama’s budget when members visited Washington last summer, says it thinks the long-term answer to Mr. Summers’s question is self-evident. The Europeans will also tell you that this is a big worry about the next decade. Mr. Obama himself hinted at his own concern when he announced in early December that he planned to send 30,000 American troops to Afghanistan, but insisted that the United States could not afford to stay for long. “Our prosperity provides a foundation for our power,” he told cadets at West Point. “It pays for our military. It underwrites our diplomacy. It taps the potential of our people, and allows investment in new industry.” And then he explained why even a “war of necessity,” as he called Afghanistan last summer, could not last for long. “That’s why our troop commitment in Afghanistan cannot be open-ended,” he said then, “because the nation that I’m most interested in building is our own.” Mr. Obama’s budget deserves credit for its candor. It does not sugarcoat, at least excessively, the potential magnitude of the problem. President George W. Bush kept claiming, until near the end of his presidency, that he would leave office with a balanced budget. He never got close; in fact, the deficits soared in his last years. Mr. Obama has published the 10-year numbers in part, it seems, to make the point that the political gridlock of the past few years, in which most Republicans refuse to talk about tax increases and Democrats refuse to talk about cutting entitlement programs, is unsustainable. His prescription is that the problem has to be made worse, with intense deficit spending to lower the unemployment rate, before the deficits can come down. Mr. Summers, in an interview on Monday afternoon, said, “The budget recognizes the imperatives of job creation and growth in the short run, and takes significant measures to increase confidence in the medium term.” He was referring to the freeze on domestic, non-national-security-related spending, the troubled effort to cut health care costs, and the decision to let expire Bush-era tax cuts for corporations and families earning more than $250,000. But Mr. Summers said that “through the budget and fiscal commission, the president has sought to provide maximum room for making further adjustments as necessary before any kind of crisis arrives.” Turning that thought into political action, however, has proved harder and harder for the Washington establishment. Republicans stayed largely silent about the debt during the Bush years. Democrats have described it as a necessary evil during the economic crisis that defined Mr. Obama’s first year. Interest in a long-term solution seems limited. Or, as Isabel V. Sawhill of the Brookings Institution put it Monday on MSNBC, “The problem here is not honesty, but political will.” One source of that absence of will is that the political warnings are contradicted by the market signals. The Treasury has borrowed money to finance the government’s deficits at remarkably low rates, the strongest indicator that the markets believe they will be paid back on time and in full. The absence of political will is also facilitated by the fact that, as Prof. James K. Galbraith of the University of Texas puts it, “Forecasts 10 years out have no credibility.” He is right. In the early years of the Clinton administration, government projections indicated huge deficits — over the “sustainable” level of 3 percent — by 2000. But by then, Mr. Clinton was running a modest surplus of about $200 billion, a point Mr. Obama made Monday as he tried anew to remind the country that the moment was squandered when “the previous administration and previous Congresses created an expensive new drug program, passed massive tax cuts for the wealthy, and funded two wars without paying for any of it.” But with this budget, Mr. Obama now owns this deficit. And as Mr. Galbraith pointed out, it is possible that the gloomy projections for 2020 are equally flawed. Simply projecting that health care costs will rise unabated is dangerous business. “Much may depend on whether we put in place the financial reforms that can rebuild a functional financial system,” Mr. Galbraith said, to finance growth in the private sector — the kind of growth that ultimately saved Mr. Clinton from his own deficit projections. His greatest hope, Mr. Galbraith said, was Stein’s law, named for Herbert Stein, chairman of the Council of Economic Advisers under Presidents Richard M. Nixon and Gerald R. Ford. Stein’s law has been recited in many different versions. But all have a common theme: If a trend cannot continue, it will stop.

## A2: No Support

### Public support high for deficit reduction

Jones ’10 (Jeffrey M., Staff Writer for Gallup. “Americans Prioritize Deficit Reduction as an Economic Strategy” <http://www.gallup.com/poll/144956/americans-prioritize-deficit-reduction-economic-strategy.aspx>. November 30, 2010)

PRINCETON, NJ -- Americans are most likely to choose deficit and debt reduction as the best approach for dealing with the economy over three widely discussed alternatives: raising taxes on the wealthy, cutting taxes, and increasing stimulus spending. These results are based on a USA Today/Gallup poll conducted Nov. 19-21 as the U.S. economy continues to suffer from sluggish growth and high unemployment. Americans do not show a strong consensus for any of the approaches, but clearly reject additional economic stimulus spending. The increased government spending in late 2008/early 2009 to bail out major U.S. corporations and attempt to jump-start the economy concerned many Americans and helped fuel the Tea Party movement, leading to significant Democratic losses in Congress in the midterm elections. That concern is also reflected in Americans' endorsing deficit reduction as an economic strategy over generally popular approaches like tax cuts or tax hikes on the wealthy. Both independents and Republicans choose deficit reduction as the preferred economic approach. Republicans even choose it over tax cuts, a core Republican Party goal, by a 14-point margin. Democrats are less inclined to back deficit reduction, with a majority instead choosing to increase taxes on the wealthy. President Obama, who has received low scores from the public for his handling of the federal budget deficit since last summer, made deficit reduction a priority earlier this year by establishing a bipartisan commission on reducing the deficit and national debt. The commission's report is due in December, but a draft of the report has already outlined some of the commission's proposed solutions, including changes to the major entitlement programs such as Social Security and Medicare that make up a large part of the budget each year. Gallup finds 75% of Americans saying that failing to address the costs of those programs would create major economic problems for the U.S. in the next 25 years. Among this group, more favor tax increases as the better solution than benefit cuts -- 30% vs. 19%; however, the largest segment, 46%, favors a combination of both. Americans place a higher priority on deficit reduction than on changes to the tax structure or increasing government spending as a way to deal with the economy. Americans' concern about the deficit is also apparent in the higher percentage who mention it as the most important problem facing the country today, averaging 8% this year, compared with 5% in 2009 and 2% from 2001-2008. Additionally, Americans were most likely to perceive the deficit as the most important problem the country will face 25 years from now. However, Americans in the past have not embraced some of the tough approaches the deficit commission is calling for, such as cutting Social Security benefits, raising the Social Security retirement age, and eliminating the mortgage interest tax deduction. Indeed, even members of the president's deficit commission do not agree on some of its likely proposals, and it is not clear the commission will have the supermajority needed to prompt congressional action on its recommendations.

## A2: Deficit =/= Econ

### Deficit reduction key – bridges gap between spending and income

Tonelson ’11 (Alan, Staff Writer for AmericanEconomicAlert. “Trade Deficit Reduction -- America's Only Way Out” <http://americaneconomicalert.org/view_art.asp?Prod_ID=4658>. July 29, 2011)

This morning’s dismaying report from the government on gross domestic product confirms that economic growth is virtually dead in the water. It also reveals that none of the recovery strategies dominating the headlines, and none of the issues being debated during the current budget crisis, by themselves can generate desperately needed output and hiring without boosting America’s already dangerous levels of debt. Literally trillions of dollars of stimulus from the Fed and the last two administrations obviously have flunked this test since the crisis began. And major tax cuts plus more Fed stimulus flunked it in the pre-crisis years, producing the weakest U.S. expansion until the present. The message to the President and Congress, and Republicans, Democrats, and Tea Partyers alike couldn’t be clearer: America’s damaged economy will never be healed unless recovery programs emphasize slashing the nation’s still-massive and chronic trade deficits. Greatly narrowing the gap between exports and imports represents the only realistic way to foster growth without artificially boosting anemic domestic demand further – whether through more government spending or more tax cuts. As a result, it’s the realistic way to promote output and job-creation without plunging the economy even deeper into the red financially. The new government report revised the economy’s growth figures going back to 2003, and thus included an update on U.S. performance from the last recession’s official onset at the end of 2007. Its verdict: the downturn, which officially ended in mid-2009, was considerably worse than originally estimated. Rather than growing at an average annual rate of 0.1 percent between 2007 and 2010 (after inflation), the government now says the economy shrunk by an average annual rate of 0.3 percent in real terms. This year’s “soft patch” in growth, moreover, is looking more worrisome, too, as a result of the revisions. Rather than expanding at a 1.9 percent annualized rate in real terms during the first quarter of 2011, growth was only 0.4 percent – barely measurable. Preliminary figures for second-quarter annualized growth were better, but still sickly at 1.3 percent. Real growth for 2010 was revised upward slightly, from 2.9 to 3 percent. But the new data also showed that the second half of last year saw a sharper-than-reported slowdown in real growth, with the fourth quarter number being slashed from 3.1 percent to 2.3 percent. As this morning’s report showed, a greater worsening of the trade deficit than originally estimated dragged down first quarter growth this year much more than either weaker consumption, business investment, or government spending. Although the new data peg export growth during the quarter at an annualized 7.9 percent rather than 7.3 percent, they also show a much greater rise in imports – from an annualized 5.1 percent increase to 8.3 percent According to preliminary figures, moreover, the trade deficit’s shrinkage made the private sector‘s biggest contribution to the modest growth speed-up in the second quarter. But these new government numbers also demonstrate that the way the trade deficit is narrowed matters greatly. Since the economic crisis broke out in the summer of 2007, the only significant progress on this front has come when domestic demand has nosedived, and sharply depressed imports. Trade deficit reduction strategies must emphasize replacing imports with domestically produced goods and services on a massive scale. Only this way can growth be accelerated without inflating current levels of demand – and indebtedness. In fact, trade deficit reduction can boost growth even if domestic demand falls. Increasing U.S. exports, as President Obama has proposed, can help of course. But as the U.S. Business and Industry Council keeps reminding him, export expansion per se can only increase growth and job-creation on net if it’s great enough to reduce the trade deficit. And given today’s world of still-formidable foreign trade barriers and slowing growth, that’s clearly a pipe dream. These conditions, of course, also further undermine the weak case for the Colombia, Korea, and Panama trade agreements as American growth and employment bonanzas. Bottom line: Without tight curbs on imports, such as those the Council has long urged, the U.S. economy will be stuck in a slow-growth/high-unemployment mode for years. And that’s the most optimistic scenario.

## A2: Spending Cuts Solve

### Spending necessary – only deficit cuts avoid econ collapse

Leonard ’11 (Andrew, Staff Writer for Salon. “How to make a bad economy even worse” <http://www.salon.com/news/us_economy/?story=/tech/htww/2011/07/29/debt_ceiling_gdp_and_the_economy>. JUL 29, 2011)

Here's how monumentally screwed up our national priorities are. Just two hours after the government's Bureau of Economic Analysis released disastrous new figures indicating that GDP growth has essentially flat-lined, the president of the United States gave a brief address to the nation calling for both political parties to come to bipartisan compromise on "how to cut spending responsibly." Obama was responding to Thursday night's monumental failure by House Republicans to pass their own debt ceiling bill, after a revolt by conservatives who deemed the measure unsatisfactory because it doesn't cut spending enough. With the default deadline only four days away, and at the end of a week when stock market indexes have already fallen by about 4 percent, when short-term credit markets are showing signs of stress and investors are pulling billions of dollars out of money market funds, the display of Republican incompetence was the last thing a nervous economy needs. A little reassurance that the White House was on top of the situation would have been sorely appreciated. Because the GDP numbers are the icing on this recessionary cake. The BEA pegged growth in the second quarter at a paltry 1.3 percent. The first quarter was revised down to a moribund .4 percent. And perhaps most noteworthy at all, revisions to even earlier data showed that the depths of the recession were much worse than anyone realized at the time. In the fourth quarter of 2008, for example, growth fell by an incredible 8.9 percent. With those numbers ringing in our ears, President Obama addressed the nation and warned us that "on a day when we have been reminded about how fragile the economy is" both parties need to get together and cut a deal. And thus he demonstrated once again the amazing disconnect between the current obsessions dominating our political system and the economic plight of the nation. Yes, we need a deal that avoids default. But if the GDP data proves anything, spending cuts shouldn't be part of it. Shrinking state and local budgets are already a significant drag on growth. Consumer spending is weak. And yet everyone seems to agree: Obama, Republicans and Democrats, that the first order of business should be shrinking government even further, subtracting even more demand from the economy, and likely accelerating our economic decline. Conservatives have been fond of arguing that the weak economy proves that Obama's stimulus didn't work, and I'm sure they'll be citing today's GDP numbers as additional evidence. But if there's anything that should jump out of the GDP data, it's the confirmation that the Obama stimulus was far too small to deal with the true state of the economy. Based on the data that we were aware of at the time, administration economists such as Christy Romer, chair of the Council of Economic Advisers, were recommending at least $1.2 trillion in stimulus. Instead we ended up injecting a little under $800 billion -- and half of that was in the form of tax cuts. Now we know that the economy was contracting much faster than anyone imagined. Is it any wonder that the badly designed, cash-poor Recovery Act only managed to have the mild effect of keeping unemployment from rising even higher than it would have without stimulus? The political dysfunction over debt ceiling negotiations has already hurt an ailing economy. But neither the Reid Plan nor the Boehner plan offers the right medicine. Neither is even focused on treating the right disease. Yes, it's clear that there is no political will for any further efforts to boost demand in the economy. But the first commandment here is simple: Do no harm.

# Heg CP

## 1NC

### CP Text: The USFG should pass a new deficit reduction bill.

### Deficit reduction key to US hegemony- saves the economy

Ensinger 10 [Dustin, 2/2/10, “Huge deficits altering US hegemony”, http://economyincrisis.org/content/huge-deficits-altering-us-hegemony]

The sun may finally be setting on the American Century, according to The New York Times, which claims that America‘s massive and unsustainable debt will be the cause of waning influence around the world in the near future. Not only is the deficit out-of-control - expected to be 1.3 trillion in the 2011 fiscal year - but the nation’s projected long-term debt is even more unsustainable. By the end of the decade, deficits are projected to rise to over five percent of gross domestic product. “[Obama’s] budget draws a picture of a nation that like many American homeowners simply cannot get above water,” The Times writes. Even worse, much of that debt is borrowed from foreign central banks, especially Asian powers Japan and China. As of September 2009, China held $790 billion of U.S. debt while Japan held roughly $752 billion. The problem is exacerbated by the political impasse in America, in which each side is firmly entrenched in an unwavering ideological battle. Republicans refuse to even entertain the idea of any tax increase while Democrats chafe at the though of entitlement cuts. In reality, to put America back on a path of fiscal sanity and ensure that America remains a hegemony, there needs to be a combination of both. There are some analysts and experts, however, that believe America will remain the world’s preeminent power for some time. Some believe that China, long thought of as America’s top competitor for superpower status, will not be able to maintain its current pace of economic growth long enough to pass the U.S. as the world’s largest economy. Others point out that America’s military might is still unmatched around the world, and that the U.S. economy is still by far the largest. As of 2009, the U.S. accounted for nearly half of all the world’s military expenditures. The next closest was China at just eight percent, followed by Russia at five percent. And since the 1960s America’s gross domestic product has represented roughly 20 to 25 percent of the global econombhhhhh5 ttyyytyhy. Still, others see America’s imminent demise. An extremely low savings rate, the decline of America’s manufacturing base, unsustainable trade deficits and concerns about the strength of the dollar have all caused some experts to question America’s place in the world and suggest that American influence may be rapidly dwindling. “Unless miraculous growth, or miraculous political compromises, creates some unforeseen change over the next decade, there is virtually no room for new domestic initiatives for Mr. Obama or his successors,” The Times writes. “Beyond that lies the possibility that the United States could begin to suffer the same disease that has afflicted Japan over the past decade. As debt grew more rapidly than income, that country’s influence around the world eroded.”

# Aerospace Industry & Tech Advantage CP

## FYI

### ITAR (International Traffic in Arms Regulations) is a system of regulations by the USFG that regulate and control the exporting and importing of US defense-related stuff that’s on the USML (United States Munition List). It forces any US companies to jump through a set of legal hurdles that take ages when they are trying to obtain contracts with other foreign businesses. Basically, just a ton of paperwork and filing with the government. It also prevents non-US citizens from joining the aerospace industry b/c of the restrictions from ITAR. ITAR was enacted with the purpose of maintaining US dominance. They attempted to achieve this by throttling the amount of US tech that foreign nations and countries could get. This was okay in the 70’s when it was first implemented but the more global economy system today means that big clients just favor non-US partners since ITAR complicates business immensely. The counterplan kills ITAR and opens up the US aerospace industry to global partnerships.

## 1NC (Aerospace)

### CP Text: The United States Federal Government should repeal the International Traffic in Arms Regulations (ITAR)

### Contention 1: Solvency

### Killing ITAR will boost aerospace industry – foreign collaboration

Boessenkool 5/13 (Antonie, Staff Writer for DefenseNews, a Gannet Company. “ITAR Hurts U.S. Innovation, Industry Group Says” http://www.defensenews.com/story.php?i=3524389&c=AME&s=TOP. May 13, 2011”

The International Traffic in Arms Regulations (ITAR) that govern the export of defense-related goods is hurting innovation in the U.S. space industry and threatening national security, said retired U.S. Air Force Maj. Gen. Craig Weston, an associate fellow at the American Institute of Aeronautics and Astronautics. The U.S. companies most affected by ITAR in the aerospace industry are second- and third-tier satellite component suppliers, not prime contractors, and those suppliers have provided much of the innovation within the industry, Weston told reporters at a May 12 AIAA press briefing. "Second- and third-tier suppliers invest significantly more in their internal research and development when compared to U.S. prime contractors," he said. "As these suppliers lose market share in the global marketplace, the long-term impact is a reduction in the funding they have available to invest in cutting-edge technological development." At the same time, "rapidly emerging foreign industrial capabilities are challenging U.S. space superiority, which is contrary to the intent of ITAR," Weston said. "Moreover, ITAR has blocked the U.S. from benefiting from the growth of foreign space capabilities." The AIAA recommends several steps, including taking some satellite components made by U.S. companies off the list of products regulated by ITAR, thereby giving those companies a broader market. AIAA has put together a team of technical experts to compare the commercial performance levels of U.S. commercial satellite components with that of equivalent foreign components and will recommend that U.S. components that perform at or below a set commercial performance level no longer be controlled by ITAR, Weston said. Those components "will not be militarily useful to foreign nations." AIAA has just begun work on this initiative but hopes to have initial findings by early summer. ITAR also has discouraged foreign companies from working with the U.S., Weston said. "U.S. satellite capabilities have historically benefited from foreign collaboration" and hiring foreign workers, he said. "ITAR has increasingly discouraged open exchanges of ideas and innovations, to the point that collaborative efforts with the U.S. are no longer considered as viable or desirable models and are often presumed to be prohibited by foreign companies," Weston said. The AIAA also talked about the aerospace work force: Many employees are preparing to retire in the next five to 10 years, yet finding, attracting and retaining qualified replacements is becoming more difficult. The average age of employees in the aerospace industry is 45, said incoming AIAA President George Muellner. "Despite the fact that the U.S. graduates almost 200,000 engineers and scientists every year, the aerospace industry is finding a much more competitive environment to bring them in and keep them in, and there just aren't enough engineers and scientists out there," Muellner said. Last year, Aviation Week identified almost 40,000 jobs in aerospace that weren't filled, he said. Shortfalls in science and engineering education are part of the problem. "Right now, America is the most productive nation in the world," Muellner said. "We run the risk of losing that. The reason is because of our lack of investment, the education issues and various [research and development] issues … where other nations are spending more time and energy in those areas."

## 1NC (Technology)

### CP Text: The United States Federal Government should repeal the International Traffic in Arms Regulations (ITAR)

### Contention 1: Solvency

### Killing ITAR will boost space tech – squo restricts development

Sutherland ’09 (Benjamin, Staff Writer for Newsweek. “Why America Is Lost in Space” <http://www.newsweek.com/2009/01/30/why-america-is-lost-in-space.html>. January 31, 2009)

"Contaminated by American technology" makes for a curious but enlightening description. For most of the past century, the world has viewed American technology as unrivaled, and the notion that the U.S. space industry could be shunted to the margins would have seemed absurd. But the attitude of European space-industry executives toward U.S. components and software has changed in recent years. When building, launching or operating satellites and other spacecraft, many have come to believe, American know-how is now a liability. The culprit is not American technology per se, but onerous restrictions the U.S. government has placed on the export of space components to all countries—enemies and allies alike. Ten years ago the U.S. Congress, fearful that U.S. technology would wind up in Chinese missiles and bombs, put commercial satellites under the jurisdiction of the International Traffic in Arms Regulations, a set of rules for purchasers of American military products. The rules say that each component of civilian spacecraft—even a rivet, if it was designed specifically for space—must be treated as a weapon. Those rules have imposed huge bureaucratic burdens on European and Asian firms that want to use even the most modest technology made in America. The effect has been to hamper U.S. competitiveness in the space business and to give Europe a boost. The decade since ITAR took effect has seen a rapid rise in the demand for satellites and rockets to launch them, fueled by the markets for mobile phones, especially in Africa, Asia and the Middle East. Washington seems to have imposed stringent rules just as space services began to soar and alternatives to American technology took root. The impact is most keenly felt in the $123 billion commercial-satellite business, which has been growing at more than 10 percent a year for more than a decade. In 1998, the year before ITAR took effect, U.S. firms accounted for 73 percent of the world market. Two years later U.S. market share had plunged to 27 percent. During the same period, Europe's share rose from about a quarter to more than half, according to the Satellite Industry Association in Washington, D.C. The rules have also hamstrung U.S. suppliers in the growing space-launch business. U.S. launch firms earned $304 million in revenues from launch services in 2003, but by 2007 their take was down to $150 million. In the same period revenues from European launches increased from $178 million to $840 million, according to Forecast International, a consultancy in Newtown, Connecticut. France's reliable, heavy-payload Ariane V rocket is now the hands-down world leader, with six launches last year. The entrepreneurial spunk and national pride of Europe and other space powers also have something to do with America's general decline. But "market distortions created by the government" due to applying ITAR to commercial satellites were the single biggest factor, says Loren Thompson, a space and defense expert at the Lexington Institute, a think tank in Arlington, Virginia. The procedures for obtaining an ITAR export license are "so unpredictable and inconsistent, and not transparent," that U.S. satellite-technology sales have suffered, says Kalpak Gude, vice president of regulatory affairs at Intelsat in Washington, D.C., the world's largest operator of commercial satellites. Consider the experience of Las Vegas, Nevada–based Bigelow Aerospace. In 2006, ITAR officials decided that the company's Genesis prelaunch satellite stand—similar in size, shape and technological sophistication to a coffee table—could only travel to Russia escorted by two armed guards. Bigelow was billed for the security detail. Once cleared for export, even the smallest component comes with strings attached. If a satellite built by French giant Thales Alenia Space incorporates a line of computer code from a U.S. firm, it cannot be moved from France to a third country—not even a longstanding ally like Germany—without permission from Washington. Nor can it be launched from France's spaceport in Kourou, French Guiana, for a third country (a common practice) without U.S. approval. American officials can also block delivery of spare parts. Even conversations between U.S. researchers at universities and foreign experts are restricted. Handicapped and spooked by what they see as Washington paranoia, space agencies and firms worldwide have responded by developing their own capabilities. The biggest beneficiaries, by far, are European firms, which have now mastered the gamut of satellite technology, from component manufacturing to assembly, launch and in-orbit management. The most advanced remote-sensing satellites (among those publicly acknowledged to exist) are now built by firms in Italy (Cosmo-SkyMed), Germany (SAR-Lupe) and Britain and Germany (TerraSAR-X). The damage to U.S. commercial interests might be worthwhile if it truly protected military technologies. But it doesn't, many experts argue. Many of the technologies that militaries rely on—satellites for communications, munitions-guidance systems and unmanned aerial vehicles, to name a few—are now widely and legally available worldwide. A consensus is now emerging that export controls have actually hurt America's national security by chipping away at the ability of U.S. firms to innovate. A 2008 report from the Center for Strategic & International Studies, a Washington think tank, says that a lack of sales abroad is rendering U.S. firms overly dependent on U.S. government contracts; the reduced cash flow is undermining their ability to conduct research. Arguably the most innovative companies—the small and medium-sized contractors—have been hurt the most by the export rules. They don't have enough resources or legal expertise to navigate the labyrinth of bureaucracy or weather production lulls while waiting out the often lengthy ITAR approval process. The strictures of ITAR have strengthened the hand of European leaders seeking greater military independence from the United States. Space agencies in Europe—and, in particular, the EU's European Space Agency and France's Centre National d'Études Spatiales—encourage spacecraft makers to design indigenous technology by giving them technical assistance. For instance, Marotta, a Cheltenham, England– based maker of satellite and launch-vehicle systems, has received guidance from ESA officials on how to develop "ITAR-free" spacecraft components that have no American parts. In Europe's defense-policy circles, reducing technological dependence on politicians and bureaucrats in Washington is "becoming almost a must," says Siemon Wezeman, a defense expert at the Stockholm International Peace Research Institute. Many European firms have few qualms about selling ITAR-free products to other nations—for the most part, emerging countries in Asia, Latin America and the Middle East—which can use them without approval from Washington. Large European companies that offer ITAR-free satellites or space components include EADS (a giant consortium headquartered in the Netherlands) and Thales Alenia Space, a joint venture between Thales of France and Finmeccanica of Italy. Dozens of smaller companies produce ITAR-free parts and software. Some buyers are willing to pay a 5 to 10 percent premium for an ITAR-free satellite because it can be launched on one of China's Long March rockets for 20 percent less than on U.S., French or Russian rockets, say analysts. ITAR defenders in the U.S. State Department say the controls are necessary to protect military technology. One official, who wouldn't speak on the record, says overseers have found no evidence in the data that export controls are hurting U.S. space firms. The Obama administration is likely to look favorably on calls to focus ITAR narrowly on key technologies that truly confer a military advantage. Given the more pressing crises at hand, however, swift action is unlikely. U.S. space firms will just have to make the best of it.

## A2: ITAR Good

### ITAR kills aerospace – eliminates worker base

Goff ’11 (Jonathan, Head Writer for Selenian Boondocks. “The ITAR/Immigration Bifecta of Suck” <http://selenianboondocks.com/2011/02/the-itarimmigration-bifecta-of-suck/>. February 16, 2011)

I know I’ve written about this topic before, but I think it’s worth bringing it up again. When you combine the stupidity of ITAR as it exists with the difficulty of getting even a green-card for your typical foreign engineering student studying in the US, you get a particularly pathetic situation. While they’re in school, they can get plenty of training, they can even work on aerospace related research (there are certain exemptions in ITAR for research done at places like universities). But then when they graduate, they’re screwed. They only have two options, either go home, or find a job outside aerospace. This point was driven home to me talking with an India-born aerospace engineering student at the University of Michigan last week. I was out there giving a talk on space entrepreneurship, and afterward this gal comes up to me to ask for help on what to do about work after graduation. She loves being in America, and doesn’t want to leave. She loves aerospace, and it has been her passion. But wunderkinden in DC think that somehow preventing her from using her hard-won education to benefit our country is somehow protecting national security or protecting our borders. Conversations like this just make me sick inside. Here’s a talented young lady who wants to contribute to our society. But because of a combination of stupid laws, that politicians aren’t willing to change for fear of looking “soft on defense” or “weak on immigration”, I bet there are thousands or tens of thousands of foreign-born engineering students facing similarly crappy choices. I just think about my coworker Ian. Here’s an enormously talented GN&C engineer, who did amazing things at Masten, and is making a huge contribution at Altius. The only reason why he wasn’t screwed by ITAR and Immigration laws was because he was from Cuba, and due to Florida politics, Cubans have a much easier time getting a green card and eventual citizenship. Had he been born on a different island in the Caribbean, it would’ve been official US policy to tell him to go take a flying leap and work for some other country. I have to agree with @joestump’s tweet: “If Obama was serious about us out-innovating and out-building, we should be granting every law abiding immigrant w/ a degree legal status.” In the end I was able to give this young lady a suggestion on how to proceed. I suggested that she find a job outside of aerospace (and outside of ITAR-covered technologies) that required similar skills to the job she wants to do inside aerospace. That way she could work for a few years until she could get green-card status, and then she could move back to aerospace. In her case it worked, but I wonder how often our shortsighted policies mean that we’re training engineers for foreign countries who would rather stay here and be Americans. Something needs to change.

### ITAR kills aerospace – zero foreign collab

Kaufman ’08 (Marc, Staff Writer for the Washington Post. “US Finds It's Getting Crowded Out There” <http://www.globalpolicy.org/component/content/article/152-challenges/25824.html>. July 9, 2008)

Satellite Launches Fall The study by Futron, which consults for public clients such as NASA and the Defense Department, as well as the private space industry, also reported that the United States is losing its dominance in orbital launches and satellites built. In 2007, 53 American-built satellites were launched -- about 50 percent of the total. In 1998, 121 new U.S. satellites went into orbit. In two areas, the space prowess of the United States still dominates. Its private space industry earned 75 percent of the worldwide corporate space revenue, and the U.S. military has as many satellites as all other nations combined. But that, too, is changing. Russia has increased its military space spending considerably since the collapse of the Soviet Union. In May, Japan's parliament authorized the use of outer space for defense purposes, signaling increased spending on rockets and spy satellites. And China's military is building a wide range of capabilities in space, a commander of U.S. space forces said last month. Last year, China tested its ground-based anti-satellite technology by destroying an orbiting weather satellite -- a feat that left behind a cloud of dangerous space debris and considerable ill will. Ironically, efforts to deny space technology to potential enemies have hampered American cooperation with other nations and have limited sales of U.S.-made hardware. Concerned about Chinese use of space technology for military purposes, Congress ramped up restrictions on rocket and satellite sales, and placed them under the cumbersome International Traffic in Arms Regulations (ITAR). In addition, sales of potentially "dual use" technology have to be approved the State Department rather than the Commerce Department. The result has been a surge of rocket and satellite production abroad and the creation of foreign-made satellites that use only homegrown components to avoid complex U.S. restrictions under ITAR and the Iran Nonproliferation Act. That law, passed in 2000, tightened a ban on direct or indirect sales of advanced technology to Iran (especially by Russia). As a result, a number of foreign governments are buying European satellites and paying the Chinese, Indian and other space programs to launch them. "Some of these companies moved ahead in some areas where, I'm sorry to say, we are no longer the world leaders," Griffin said. Joan Johnson-Freese, a space and national security expert at the Naval War College in Rhode Island, said the United States has been so determined to maintain military space dominance that it is losing ground in commercial space uses and space exploration. "We're giving up our civilian space leadership, which many of us think will have huge strategic implications," she said. "Other nations are falling over each other to work together in space; they want to share the costs and the risks," she added. "Because of the dual-use issue, we really don't want to globalize."

### ITAR kills aerospace – government dependences crowds out contractors

Borst et al ’10 (Jay, a PhD student in systems engineering at the George Washington University, Professor Shahram Sarkani has been engaged in engineering research, technology development, and engineering education since 1980, Thomas Mazzuchi is a professor of Operations Research and Engineering Management at the George Washington University, Excerpt From the Proceedings of the Seventh Annual Acquisition Research Symposium Thursday Sessions Volume II “US Space Acquisition Policy: A Decline in Leadership” May 12-13, 2010 <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA530182&Location=U2&doc=GetTRDoc.pdf>)

When examining the health of the space industrial base there seems to be two primary issues. First, is the International Traffic in Arms Regulation (ITAR) export regulations controlled by the US State Department? Second, is their large dependence upon the US Government for business and revenue? Specifically, 60% to 65% of sales for the space industrial base were from the US Government between the years 2003 to 2006 (Chao, 2008). In either case, while the first-tier contractors (Northrop Grumman, Lockheed Martin and Boeing) are showing minimal profit margins, the second- and third-tier contractors are leaving the industry. They are either going out of business or don’t feel there is enough of a business case to continue to engage in space acquisition. ITAR is designed to prevent protected technology and munitions from transferring to other nations and to enable the US to maintain its technological superiority. It is administered by the US State Department and was brought about as a result of Chinese technological gains from their observation of US investigative techniques on the failed ASTAR II launch (DoD, 1998). Despite its good intentions, strong arguments are arising that it is failing to prevent space technology from developing in other nations and is hurting the US’s technological superiority. For example, many foreign competitors, such as Thales, are advertising their satellites as ITAR free. The benefit provided here is that foreign companies don’t have to progress through a complex and confusing export license process to acquire similarly capable components. Additionally, many nations when issuing a request for proposal purposely restrict the response to their proposal to less than sixty days. This virtually eliminates US firms without having to worry about economic retaliation because US firms first have to apply for an export license under ITAR before they can compete. According to a recent survey conducted by AFRL, the average turnaround time for a license approval was 106 days in 2006 (Chao, 2008). Thus, it would appear that ITAR is further encouraging US firms to remain dependent upon the government as it is increasingly difficult to enter and compete in international markets. It would also seem that ITAR has encouraged foreign nations to develop their own space technology. For example, we are seeing greater cooperation among foreign competitors in space, particularly among the Europeans. Further, China is closing the space gap with the US. They have developed their own positional navigational system, conducted their first manned space flight, demonstrated a successful space walk and successfully tested anti-satellite weapons technology (Chao, 2008). This would suggest that ITAR is not achieving its objective of maintaining US technical superiority in space.

### ITAR kills aerospace – US industry can’t compete with globe

Hauser & Walter-Range ’08 (Marty and Micah, Research analysts, “BRIEFING: ITAR & The U.S. Space Industry”, http://www.milsatmagazine.com/cgi-bin/display\_article.cgi?number=1351540453&method=print . November 2008)

The concerns of the U.S. space industry with regard to ITAR encompass issues of competitiveness, access to the global market, technological development, and leadership in the space domain. The industry recognizes that there are valid national security concerns with regard to space technology that ITAR is trying to protect. Of the respondents to the Space Foundation’s ITAR survey, more than half believed that ITAR, in its present form, protects the national security interests of the United States. This corresponds closely with a 2006 survey of executives in the broader aerospace and defense community, which revealed that two out of three believed that the export control system effectively protected U.S. national security interests.4 However, the export control process is not fully protecting the interests of the United States because it is damaging the health of the space industrial base. One of the reasons that the U.S. space industry finds fault with the current regulatory regime is because it perceives ITAR as a barrier to fair competition. A U.S. government study conducted in 2007 revealed that export controls were considered to be the number one barrier to entry for U.S. firms attempting to penetrate foreign markets, with foreign purchasing preferences ranked as a distant second.5 Since foreign firms do not have to deal with an equivalent set of export regulations, it gives them a competitive advantage in the global marketplace. In the fast-moving world of the telecommunications industry, a company might issue a request for proposals with a significantly shorter timeline than would allow a U.S. company to receive the necessary approval from the State Department’s Directorate of Defense Trade Controls (DDTC) to bid on the project. Foreign companies may view this as regrettable if they are interested in buying from the United States, but foreign governments sometimes intentionally set deadlines that they know U.S. companies will be unable to meet due to ITAR, thereby effectively creating a trade barrier and protecting their own space industries without the risk of diplomatic repercussions.6 In this way, the security measures of the United States can have a negative effect on the health of its domestic space industry, even in circumstances where the export would have been approved by the U.S. government eventually. The length of the licensing process has long been a cause for complaint; there are several factors that contribute to the delays. Due to the nature of the items and services being traded, the expertise required to understand the technical details often lies outside the State Department and consultation is time-consuming. However, there have been some positive actions on the part of the government in this regard. New management of DDTC since May 2007 has been instrumental in reducing the backlog of some 10,000 licensing applications. On January 22, 2008, President Bush signed National Security Presidential Directive 56 (NSPD 56) on defense trade reform. NSPD 56 directed the State Department to complete its review and adjudication of licensing applications within 60 days of receipt, unless national security exceptions are applicable.7 The U.S. House of Representatives supported and expanded upon NSPD 56 in May 2008 with H.R. 5916, the Security Assistance and Arms Export Control Reform Act of 2008.8 The bill acknowledged several of the problems inherent in the export control regime and prescribed changes to the licensing process. Government statistics showed the median processing time for arms export cases (of which space technology forms a subset) had doubled over the period from 2002 to 2006.9 Space-related deals are typically complex and may require multiple licenses at various stages of the project as modifications are made and as construction of the final product progresses. This opens the door to cumulative delays and the House recognized that the backlog in applications and the long processing times “led to an impairment of United States firms in some sectors to conduct global business relative to foreign competitors.”10

### ITAR kills aerospace – India proves

Erwin ’11 (Sandra, Staff Writer for National Defense Magazine. “U.S. Industry Loses Big in India: Is ITAR to Blame?” <http://www.nationaldefensemagazine.org/blog/lists/posts/post.aspx?ID=402>. 4/28/2011)

Defense contractors and industry experts are trying to come to grips with India’s decision to exclude The Boeing Co. and Lockheed Martin Corp. from its $11 billion competition for a new fighter jet. No specific rationale has yet been given by the Indian government for its determination to jettison Boeing's F/A-18, Lockheed F-16 and Saab’s Gripen fighters, and proceed with a head-to-head contest only between two European offers — the Eurofighter and the Dassault Rafale. “Companies are very concerned about the logic for the decision,” said a U.S. industry source. “There’s a bit of puzzlement.” India's decision was very surprising, says Tom Captain, vice chairman of global and U.S. aerospace and defense leader at Deloitte LLP. If the selection was based on technical merits, "It is difficult to explain how those two very capable aircraft were eliminated." In the absence of factual information about how the selection was made, speculation is growing that restrictive U.S. export policies may have played a significant role in India’s evaluation of fighter jet candidates. Analysts had predicted that at least one of the two U.S. contenders would have the inside track. U.S. technology is considered more advanced, and more coveted by rising powers such as India. President Obama also raised the stakes by personally making a pitch on behalf of U.S. industry to Prime Minister Manmohan Singh during his visit to India. He also sent Singh a letter reinforcing the importance of India’s fighter program to the Obama administration. India is expected to buy up to 200 new aircraft. “We feel that our products are the best possible available,” said the industry source.” India is projected to spend $80 billion on new weapons and space systems over the next five years. It’s only a small fraction of what the United States spends, but the industry still regards it as a promising region where, once you get a foot in the door, opportunities could blossom. Defense industry analyst Byron Callan contends that “technology transfer was a major consideration in this competition.” Callan presumes that the U.S. government was “unwilling to see key AESA [active electronically scanned array] radar and other avionics and electronic warfare technology made available at the level India wanted,” Callan writes in a memo to industry investors. “Technology transfer has also been a key consideration in Brazil’s FX fighter competition which has been delayed.” One issue to watch as a result of this decision, says Callan, is “whether the U.S. further relaxes defense technology export restrictions in order to keep domestic production lines open.” This is a major concern for U.S. manufacturers as Pentagon spending begins to contract next year. In the past, Callan says, “when the U.S. restrained or reduced its defense spending, policy shifted to exporting advanced weapons to strategic partners.” He notes that F/A-18 production “may still run through the end of this decade based on U.S. orders and from countries that had hoped for F-35s and who operate earlier-generation F/A-18s.” The longevity of the F-16, meanwhile, “hinges on its ability to win in niche markets in the Middle East, but it is less relevant to Lockheed Martin and Northrop Grumman (which makes the radar) with F-35 and the new bomber program ramping up.” For Boeing, losing India’s sales is a big blow because it needs foreign sales to keep the F/A-18 line open beyond the coming decade, unlike Lockheed, which has a long-term lifeline in the multinational Joint Strike Fighter. “It will be interesting to see what India does with combat fighter technology acquired from either Dassault or EADS and BAE Systems, and engine companies as well,” Callan writes. Larry Christensen, an export controls attorney at Miller & Chevalier, in Washington, D.C., believes the Indian decision will have lasting implications for U.S. industry, even though he says he has not seen any proof that India’s choice was influenced by ITAR, the International Traffic in Arms Regulations that restrict exports of sensitive U.S. technology. The fact that an emerging power such as India would snub U.S. advanced weaponry offers further evidence that the current export control system — which dates back to the Cold War — has outlived its effectiveness, Christensen says. “The U.S. government cannot repeal the laws of economics,” he says. As the United States denies access to some of its best technology, it leaves a market void that, sooner or later, another country will fill. “When that happens, the U.S. export control policy of denial, or policy of heavy restrictions, become ineffective” for the purposes of barring potential enemies access to advanced weaponry, he says. It is conceivable that India concluded that U.S. restrictions on technology sharing are not worth the hassle, Christensen suggests. Although the United States wanted India to buy its fighter jets, it was “putting strings on those sales” that would have curtailed India’s ability to upgrade components, software or sensors, or collaborate with other countries, he says. If India had picked a U.S. aircraft, ITAR would have "restricted them in their ability to move forward with that platform.” On a smaller scale, the same problem affects U.S. suppliers of less flashy products such as surveillance, law-enforcement and border protection technology, says Christensen. “I know small firms that feel the pain of commercial customers saying that they like the U.S. product but they can’t live with the restrictions and the overhead that goes with ITAR controls.” The consequences for U.S. competitiveness are significant, he says. “The market is changing. Other countries are developing good technology.” The time has passed when only the U.S., U.K., France or Germany were viable supplies of advanced hardware, he adds. “Technology is now available from Russia, China and Israel, countries that are tend to place fewer restrictions” on transfers. Christensen points out that the Obama administration is taking meaningful steps to reforming ITAR to boost U.S. industry. “I believe that there is significant movement,” he says. Hundreds of government officials currently are busy redrafting regulations,” he says. “It’s a long arduous task, and I’m glad they’re taking the time to do it right.” Despite the Indian loss, U.S. arms are still hot sellers. The Pentagon is projecting arms sales to foreign buyers to exceed $46 billion in fiscal year 2011. Demand for U.S. weaponry is “higher than ever,” according to Richard A. Genaille Jr., deputy director of the Defense Security Cooperation Agency. DSCA currently oversees a $330 billion portfolio of foreign military sales to 220 countries and international organizations. At an industry conference in April, Genaille discussed efforts by the administration to increase foreign military sales as a means to court allies and boost Third World countries’ internal security. The goal is to revamp how the U.S. government manages international arms sales so it can be more “anticipatory” of future needs and more responsive to foreign allies’ requests. The Obama administration, which regards weapon exports as a vehicle for bolstering the U.S. economy, believes that current methods for managing arms sales are too reactive, rather than proactive, he said. “It’s hard to be responsive when our system is geared to wait for a ‘letter of request’ from a country and then take action.”

# Colonization Adv CP

## Colonization Adv---Refuge CP---1NC

### CP Text: The United States federal government should construct and maintain self-sufficient, remote, permanently occupied refuges meant to protect humanity from extinction events. We’ll clarify.

### It’s not try or die. CP prevents extinction- as long as a few hundred people survive, extinction is no longer inevitable

Matheny 7 (Jason G., Candidate in Applied Economics at Johns Hopkins University, Research Associate at Oxford University, Ph.D., Master’s in Public Health from Johns Hopkins University and a M.B.A. from Duke University, “Reducing the Risk of Human Extinction”, Risk Analysis, Volume 27, Number 5, 2007, http://www.upmc-biosecurity.org/website/resources/publications/2007/2007-10-15-reducingrisk.html) OP

Perhaps more cost effective than building refuges in space would be building them on Earth. Elaborate bunkers exist for government leaders to occupy during a nuclear war (McCamley, 2007). And remote facilities are planned to protect crop seeds from “nuclear war, asteroid strikes, and climate change” (Hopkin, 2007). But I know of no self-sufficient, remote, permanently occupied refuge meant to protect humanity from a range of possible extinction events. Hanson (2007) argues that a refuge permanently housing as few as 100 people would significantly improve the chances of human survival during a range of global catastrophes. The Americas and Polynesia were originally populated by fewer than 100 founders (Hey, 2005; Murray-McIntosh et al., 1998). Although it would take thousands of years for 100 people to repopulate Earth, this would be a small setback compared to extinction.

## Colonization Adv--- Refuge CP---Solves Better than Asteroid Deflection

### The CP is more cost-effective than any asteroid deflections program. Matheny 7 (Jason G., Candidate in Applied Economics at Johns Hopkins University, Research Associate at Oxford University, Ph.D., Master’s in Public Health from Johns Hopkins University and a M.B.A. from Duke University, “Reducing the Risk of Human Extinction”, *Risk Analysis,* Volume 27, Number 5, 2007, http://www.upmc-biosecurity.org/website/resources/publications/2007/2007-10-15-reducingrisk.html) OP

Even if we expected humanity to become extinct within a generation, traditional statistical life valuations would warrant a $16 billion to $32 billion annual investment in asteroid defense (Gerrard & Barber, 1997). Yet the United States spends only $4 million per year on asteroid detection and there is no direct spending on mitigation.17 Some extinction risks are probably greater than asteroid impacts, and some risk-reducing projects are probably more cost effective than asteroid defense. A refuge would probably cost less than $20 billion to build and occupy, and would provide a stronger insurance policy against a broader range of extinction risks. Like other forms of catastrophic insurance, the probability of its being needed is low, but its expected value is high.

# Overpopulation Adv CP

## Overpopulation Adv---Voluntary Contraception CP---1NC

### CP Text Rough Draft: The United States federal government should promote voluntary contraception for women.

### Reproductive liberty empowers women

**Stoebenau and Molhotra 11** (Kirsten, gender and population specialist, and Anju, vice president of research, innovation and impact at International Center for Research on Women, “Link Between Fertility Declines and Women’s Empowerment Could be Transformative”, http://www.icrw.org/media/news/commentary-does-access-contraception-empower-women) OP

Such positive outcomes of empowering women can come from a variety of opportunities, such as completing secondary school and earning money. But a crucial contribution to women’s empowerment that’s missing from the global dialogue on the issue is the role that increased access to contraception and reductions in family size in low- and middle-income countries play toward empowering women and transforming gender inequalities. At ICRW, we believe this is one of the most important considerations of this century -- the world is finally poised to not only address the needs of women as 50 percent of humanity, but also to realize their contributions to a more productive, egalitarian and sustainable planet. Over the past several decades, debates about the role of family planning programs have evolved. From the 1960s to the 1980s, the main emphasis was on the role of family planning in lowering fertility levels and stabilizing population growth, as a route to sustainable development. In the 1990s, the integration of women’s reproductive health and rights into the delivery of family planning services gained importance. As we progress in the new millennium, both these issues remain relevant, but family planning programs have the potential to play an even larger role in creating social change. Today, most women around the globe want to have fewer children than they did 40 years ago. This is evidenced by the dramatic decline in the average family size in many countries worldwide – often a result of women’s voluntary use of contraception. For example, in 1960, the average Egyptian woman had 6.6 children, while in 2008, she had only three. That same year, 60 percent of women used contraception, compared to 25 percent in 1970. Similarly in Colombia, the average woman had 6.7 children in 1960, whereas in 2009, she had only 2.4. And while in 2005, 78 percent of Colombian women used contraception, only 21 percent did in 1970, according to UN Women’s Indicators and Statistics Database. These changes may have profound consequences for women’s lives and position in society. A woman who can choose from easily accessible, widely available contraceptive methods to control when and how many children she has could be better poised to take on roles outside of the domestic sphere. Having such control may also lead to less stringent gendered roles and norms within households. Access to contraception may also contribute to the increasing number of women worldwide who are becoming educated and joining the labor force or becoming civic and political leaders.

### Improved women’s status solves overpopulation-lower fertility rates.

**Kates 4** (Carol A., professor of philosophy at Ithaca College, “Reproductive Liberty and Overpopulation”, http://www.library.spscc.ctc.edu/electronicreserve/electronicreserve/envr110/leigh/Reproductive%20Liberty%20and%20Overpopulation.pdf) OP

There is evidence that improvements in women's status significantly enhance the transition to lower fertility rates. Women who have access to birth control, and are able to make decisions about reproduction, are likely to have fewer children. So, it might appear that a left/liberal defense of "reproductive liberty" and a feminist perspective on the need to "empower" women through access to education and paid employment coincide with the most efficient means to resolve the population problem.

## Overpopulation Adv---Voluntary Contraception CP---A2: Women Won’t Use Contraceptives

### A voluntary approach is only way to solve- Kerala proves

**Kates 4** (Carol A., professor of philosophy at Ithaca College, “Reproductive Liberty and Overpopulation”, http://www.library.spscc.ctc.edu/electronicreserve/electronicreserve/envr110/leigh/Reproductive%20Liberty%20and%20Overpopulation.pdf) OP

Sen has acknowledged a need to slow down population growth (for environmental reasons), or "the world certainly would be tremendously overcrowded before the end of the twenty-first century". But he rejects coercive methods as incompatible with human rights and as unnecessary, because empowering women is the most efficient way to achieve demographic transition. Sen has repeatedly cited a comparison between fertility reductions in the Indian state of Kerala and in China as evidence for the efficiency claim. Kerala reduced its fertility rate from 3.0 in 1979 to 1.8 in 1991 with no coercive policies, while China, which introduced the one-child policy in 1979, only reduced its rate in that period from 2.8 to 2.0. Sen argues that the key variables which explain fertility reduction in Kerala are high levels of basic education, especially for women, along with access to health care and an important role for women in the economic and political life of Kerala. If this example can be generalized, it follows that coercive population programs are unnecessary. In effect, women's reproductive rights are the best contraceptive.

## Overpopulation Adv---Voluntary Contraception CP---A2: Not Cost-effective

### Investments in forms of family planning boost economy.

**Bongaarts and Sinding 9** (John, Ph.D., Population Council vice president and Distinguished Scholar, and Steven, former Population Advisor to the World Bank, Director of Population Sciences for the Rockefeller Foundation and Professor of Population and Family Health at Columbia University, “A Response to Critics of Family Planning Programs”, International Perspectives on Sexual and Reproductive Health in Volume 35, No. 1, http://www.guttmacher.org/pubs/journals/3503909.html) OP

Investments in family planning are often also justified on economic and environmental grounds. Rapid population growth and high fertility typically lead to slower economic growth and higher levels of poverty than would otherwise be the case.4 Conversely, rapid fertility decline creates a so-called "demographic dividend," which boosts economic growth for a few decades by increasing the size of the labor force relative to both young and old dependents and by stimulating savings.

# Asteroid Adv CP

## Asteroid Adv---Asteroid Mapping CP---1NC

**CP Text: The United States federal government should provide necessary funding for the National Aeronautics and Space Administration to identify and track at least 90% of near- Earth objects at least 140 meter across, and to develop a strategy for mitigation of near-Earth objects at least 140 meters across determined likely to impact Earth.**

### Mapping is crucial to early warning and mitigating asteroids.

**Barbee** and Fowler et al 06 (Brent William, Aerospace Engineer @ Emergent Space Technologies, and Wallace T., Professor of Aerospace Engineering @ UT-Austin, with George W. Davis and David E. Gaylor, “Optimal Deflection of Hazardous Near-Earth Objects by Standoff Nuclear Detonation and NEO Mitigation Mission Design,” Paper presented at NASA Workshop on Near-Earth Object Detection, Characterization, and Threat Mitigation, 26 June 2006 (Vail, CO). [PDF Online @] http://www.aero.org/conferences/planetarydefense/

resources.html) OP

Improved techniques and equipment for accurate processing of orbital observation data and orbit propagation are constantly under development, and this development should be continued. In addition, systems for detecting and tracking NEOs should be continually upgraded and expanded to minimize the time required to both detect a NEO and determine whether it is a threat. Early warning is the most important ingredient in successful mitigation of a hazardous NEO.

### Mitigation prevents extinction.

**Barbee** and Fowler et al 06 (Brent William, Aerospace Engineer @ Emergent Space Technologies, and Wallace T., Professor of Aerospace Engineering @ UT-Austin, with George W. Davis and David E. Gaylor, “Optimal Deflection of Hazardous Near-Earth Objects by Standoff Nuclear Detonation and NEO Mitigation Mission Design,” Paper presented at NASA Workshop on Near-Earth Object Detection, Characterization, and Threat Mitigation, 26 June 2006 (Vail, CO). [PDF Online @] http://www.aero.org/conferences/planetarydefense/

resources.html) OP

Hazardous NEO mitigation represents a multi-disciplinary engineering design problem and is best treated with a systems engineering approach. Finding solutions to this problem will enhance our scientific knowledge of asteroids, comets, and our solar system. It will also enhance our spacecraft technology. Since Congress has passed legislation requiring NASA to assume responsibility for NEO mitigation, we recommend that mitigation system testing begin as soon as possible, starting with standoff nuclear detonation. It is both an honor and challenge for NASA to be tasked with developing such systems. We hope that they will never be needed, but proving our ability to mitigate the threat posed by hazardous NEOs is necessary to ensure the survival of humankind.

## Asteroid Adv---Asteroid Mapping CP---A2: Links to Spending

### Plan is inexpensive in comparison with the overall NASA budget

**Streiber 10** (ANNE, Editor in chief for unknown country, “Saving Us from Asteroids is CHEAP”)

It's not even expensive: Adding just $250 million to $300 million to NASA's budget over the next decade would allow them to do a complete inventory of incoming asteroids, as well as develop and test methods of deflecting them. After that, $50 to $70 million per year would keep the program up and running. This isn't a lot of money in government terms--in fact, it's a drop in the bucket compared to the trillions of dollars we are spending right now to fight two wars. Schweickart says, "By preventing dangerous asteroid strikes, we can save millions of people, or even our entire species. And, as human beings, we can take responsibility for preserving this amazing evolutionary experiment of which we and all life on Earth are a part."

# Miscalc Adv CP

## Miscalc Adv---“Missile Killer” CP---1NC

**CP Text: The United States federal government should fund the development and implementation of a series of laser used to destroy a missile after launch…?**

**Or All nuclear states should install Destruct-After-Launch systems on all nuclear weapons in order to allow nuclear missiles to be destroyed after being launched?**

### Solves miscalculation- allows time to assess the situation and prevent inadvertent nuclear war

**Frankel 90** (Sherman, Professor of Physics at the University of Pennsylvania, “Aborting Unauthorized Launches of Nuclear-armed Ballistic Missiles through Postlaunch Destruction”, *Science & Global Security*, Volume 2, 1990, http://www.princeton.edu/sgs/publications/sgs/pdf/2\_1Frankel.pdf) OP

It is generally believed that both the US and USSR have operational arrangements in place that allow for retaliation against a first strike before the incoming weapons have actually reached their targets. Proponents treat launch on warning as a deterrent to a first strike, serving to dissuade the enemy from attacking MIRVed ICBMs in their silos. Opponents fear that mistakes and misinterpretation in time of crisis will result in actual launches in response to incorrect information of attack, resulting in an inadvertent nuclear war. The weakness of the proponents' argument is that it is based on the assumption that the launch on warning posture is credible to an enemy. The main reason to doubt its credibility is that the actual time available to the national command authorities to decide that an attack has taken place is very small. By the time the information is collected and transmitted and the authorities are assembled, precious few minutes are left for such crucial decision making. Thus an enemy may believe that launch on warning would never be used and not be deterred from a first strike. However a DAL system would materially alter the equation since it would allow the authorities the additional ICBM transit time (about 20 minutes) to come to a correct assessment. With that time available, launch on warning of some fraction of the ICBMs becomes more credible and thus gains value as a deterrent.

### DAL technology already exists in the status quo

**Mosher 03** (David E., Senior Policy Analyst at the RAND Corporation, “Beyond the Nuclear Shadow: A Phased Approach for Improving Nuclear Safety and U.S.-Russian Relations”) OP

A mislaunched missile can be destroyed in several ways. The first way is to deactivate the warhead, which involves making complicated alterations to the missile and, since the missile continues along its original trajectory, provides no way for the target country to determine whether the warhead is, indeed, deactivated. Two other methods—destroying the missile in the boost phase and destroying or disabling the warhead in the midcourse phase—are better ways to build the target country’s confidence that the missile or warhead is no longer lethal. Approach 1: Destroy the Missile in Boost Phase. In Approach 1, the missile is destroyed in the boost phase using conventional explosives. Launch detection by the DALcc can be accomplished using a radar system, and satellites are not needed to communicate the destruct signal. This simplifies the DAL system structure. The technical capabilities needed to fulfill this approach already exist and are employed for test launches. In fact, every U.S. space launcher launched and every ballistic missile launched during a test is equipped with exactly this type of DAL mechanism for safety reasons. 37 With this approach, the missile is not detected by the target country’s radar system, and a crisis can be quickly defused. It allows approximately 3 minutes to communicate a self-destruct signal to an ICBM. 38 This is a short window of opportunity for the DAL system to operate within.

## Miscalc Adv---“Missile Killer” CP---Potential Net-Benefit?

### Strong area for global cooperation and forces countries to be responsible for their actions

**Frankel 90** (Sherman, Professor of Physics at the University of Pennsylvania, “Aborting Unauthorized Launches of Nuclear-armed Ballistic Missiles through Postlaunch Destruction”, *Science & Global Security*, Volume 2, 1990, http://www.princeton.edu/sgs/publications/sgs/pdf/2\_1Frankel.pdf) OP

DAL deployment may be an attractive area for cooperation between nuclear powers to improve nuclear weapon safety, especially since it is to each side's advantage that the other side deploy DALs. Listed below are some possible areas of cooperation: Joint Technical Collaboration One obvious area of cooperation would involve joint US-Soviet launching of the transponder satellites to relay the destruct signals to an errant missile. For example, separate packages containing the classified circuitry of each nation could be installed on the satellite. Satellite, booster rockets, and launch costs could be shared. Crisis Management Any DAL system must rely on prompt notification to the target country that an unauthorized launch has taken place. It would be desirable to provide details of the exact time, position, and trajectory of the missile to allow verification of the destruction. "Hot line".like communications should therefore be built in automatically at the DAL control level. International Agreements A consideration of postlaunch controls helps focus the question of responsibility for accidents, since it implies a responsibility on the part of the party to negate a launch. Consideration of a DAL deployment would help begin the debate on economic and legal implications of unauthorized launch.

# China Miscalc Adv

## China Miscalc Adv---Confidence Building Measures CP---1NC

**The United States federal government should establish a regional communication center in order to increase the number of confidence building measures between the United States and China.**

### Increased communication during times of crisis prevents miscalculation.

**Sheffield 9** (Joseph L., Major, USAF B-1 Pilot, USAFA, “MILITARY-TO-MILITARY CONFIDENCE BUILDING MEASURES AND COOPERATION WITH THE PEOPLE’S REPUBLIC OF CHINA”, http://dodreports.com/pdf/ada539454.pdf) OP

Communication confidence building measures are required to improve transparency and verification capability. They also helps to defuse tensions during moments of crisis. Through an agreed procedure, communications CBMs clarify misperceived and unintended actions expeditiously and conveniently. Establishing these procedures will also improve discussion and consultation during benign times. During a strategic dialogue conference between the U.S. and China, at the end of 2007, the Secretary of Defense and the President of China announced the official establishment of a communication CBM – a direct telephone line between DoD and the PLA. 42 This is the first official communication CBM of the Sino-American relationship. It is also the only “official” CBM currently existing between both militaries. Effective communication requires more than a “hot line” between senior defense leaders. It also requires coordination at middle to lower levels. For example, the U.S. Pacific Command could establish a regional communication center for mid-level DoD commanders to communicate with mid-level PLA commanders. This center would connect operational and tactical commanders. It would connect leaders from both sides during inadvertent operational encounters in order to mitigate misunderstanding and resolve crises before they become strategic concerns.

### Improves relations with China, increases US national security and overall global security.

**Sheffield 9** (Joseph L., Major, USAF B-1 Pilot, USAFA, “MILITARY-TO-MILITARY CONFIDENCE BUILDING MEASURES AND COOPERATION WITH THE PEOPLE’S REPUBLIC OF CHINA”, http://dodreports.com/pdf/ada539454.pdf) OP

China’s rapid military modernization; its commitment to reunifying Taiwan; and its lack of transparency and reciprocity represent unique strategic security challenges for the United States. Whether the PRC is perceived as a threat or potential partner, the unsettled relationship of suspicion, misunderstanding, and misperception remains, increasing the potential of an unintended confrontation. Without effective confidence building measures to improve communication, transparency, and verification, the U.S-China security relationship will remain volatile and unpredictable. A systematic military-to-military cooperative agreement is essential to dissipate distrust and reduce suspicion. Thus, it is in the United States’ national security interests to engage with the People’s Republic of China in military-to-military confidence building measures, military exercises, and security cooperation. These military policy actions will eventually improve U.S. national security, enable both countries to achieve higher levels of peace than they could unilaterally, and ultimately benefit the entire global security community.

# Russian Miscalc Adv CP

## Russian Miscalc Adv---JDEC Revival CP---1NC

**CP Text: The United States federal government should resolve its issues with Russia surrounding the Joint Data Exchange Center in order to increase transparency between the United States and Russia.-should there be something about renovating Russia’s early warning systems like the Podvig card talks about?**

**Solves miscalculation- repairing Russia’s early warning systems decreases chance of accident**

**Podvig 06** (Pavel, affiliate and former research associate at the Center for International Security and Cooperation at Stanford University, “Reducing the Risk of an Accidental Launch”, http://www.princeton.edu/sgs/publications/sgs/pdf/14\_2-3\_%20Podvig.pdf) OP

Another important set of proposals that emerged from the discussion of dealerting includes a series of measures that are supposed to help Russia to repair its early-warning system. The measures that have been suggested include direct assistance to Russia to help it launch satellites or complete construction of early-warning radars, establishing U.S.–Russian early-warning data exchange center, or augmenting the existing early-warning networks with additional sensors. The assumptions behind these proposals are that the deterioration of the Russian early-warning network after the breakup of the Soviet Union has left it without adequate warning capability and that this lack of early warning **increases probability of an accident**. The idea of cooperation in strengthening early-warning capabilities, whether in the form of providing Russia with assistance in completing its system or of establishing data-exchange mechanisms, has been supported by advocates of de-alerting and its opponents alike. This is one of the few proposals that came close to being implemented—in 1998 the United States and Russia agreed to establish a Joint Data Exchange Center (JDEC) in Moscow for the purposes of information exchange. 7 Although this agreement has not been implemented in practice, some authors have suggested using the framework it created for expanding U.S.–Russian cooperation in early-warning information exchange. 8

### JDEC would establish cooperative relations between US and Russia

**Collina 10** (Tom Z., “over 20 years of Washington DC experience in arms control and global security issues”, Executive Director of the Institute for Science and International Security, Director of Global Security at the Union of Concerned Scientists, and Senior Research Analyst at the Federation of American Scientists, “Russia, U.S. Working on Joint Launch Notification”, http://www.armscontrol.org/act/2010\_07/JointLaunch) OP

Efforts to establish a Joint Data Exchange Center (JDEC) date back to September 1998, when President Bill Clinton and Russian President Boris Yeltsin first agreed to it. At that time, the United States was concerned that the poor condition of Russia’s early-warning system could lead to mistaken launches and crisis scenarios. Even so, 12 years later the JDEC remains unrealized, delayed first by various tax and liability issues and then by Russian concerns about Bush administration plans for strategic missile defenses. The aim of the JDEC is to enable the United States and Russia to share in real time their early-warning data on ballistic missile launches worldwide. The JDEC would supplement Russia’s early-warning data with data from U.S. sensors and satellites and could potentially play a role in establishing cooperative U.S.-Russian approaches on missile defense.

### Now is key- actual implementation of a joint agreement prevents Russian arms race

**Bloomberg News 11** (premier site for updated business news and financial information, “Russia, U.S. May Share Missile-Defense Information, Secretary Gates Says”, 5-21-11, http://www.bloomberg.com/news/2011-03-21/russia-u-s-may-share-missile-defense-launch-data-gates-says.html) OP

Still, Medvedev warned on Nov. 30 of a new arms race within the next decade unless Russia reaches an agreement with the U.S. and its allies on missile defense. A day later, Prime Minister Vladimir Putin said Russia would deploy strike forces and nuclear technology against “new threats” posed by U.S. missile-defense plans in Europe unless NATO accepted Russian proposals for a joint missile shield. Obama has made a priority of mending relations with Russia after they sank to a post-Cold War low following the ex-Soviet power’s invasion of Georgia in August 2008. The two presidents signed a new treaty to cut atomic weapons last year, and diplomats have worked together to pressure Iran and North Korea over their nuclear programs. The U.S. and Russia have talked for years about collaborative projects, including an agreement in 2002 to develop a joint data-exchange center that would share radar information detecting missile launches around the world. It was never implemented.

# Food Shortage Adv CP

## Food Shortages Adv---Food Aid CP---1NC

### The United States Federal Government should reform its food aid program by providing cash grants to purchase food locally.

### Improves food security- economic boost to local farmers increases productivity

**Carter modified 11** (Dr. Joanne, the executive director of RESULTS/RESULTS Educational Fund [Nonprofit, grassroots citizen's lobby working to create the political will to end hunger and the worst aspects of poverty.],“Food crisis points to need for reform of U.S. foreign aid”, http://alliancetoendhunger.org/resources/documents/RESULTS-FoodCrisisPoints.pdf) OP

Unfortunately, most of that aid will come in the form of American-grown food shipped at great expense on American vessels over thousands of miles. If that aid were given in cash grants to purchase food locally or regionally, about twice as much food could be delivered for the same amount of money. In addition, food purchased locally could provide an economic boost to farmers in developing nations and stimulate agricultural productivity and greater food security in those countries. The European Union understands this, and has shifted its policies so that approximately 97 percent of its food aid is bought locally or regionally, compared to only 1.4 percent the U.S. obtains from local sources. Of the aid just approved by Congress, only $50 million is designated to purchase food from local and regional sources. The U.S. approach to the food crisis, while well-intentioned, is extremely inefficient and points to the need for an overhaul not just of food aid, but of U.S. foreign aid more broadly. Congress can begin to remedy the situation by insisting that the majority of U.S. food aid be purchased locally or in the region where it is received. Flexible funding would allow assistance to be delivered quickly to those who need it most.

### Key to US heg and perception

**Brainard and Unger 08** (Lael, Vice President and Director, Global Economy and Development, and Noam, Senior Manager, Foreign Aid Reform Project, Global Economy and Development, “U.S. Foreign Assistance: Reform to Lead in the 21st Century” http://www.brookings.edu/opinions/2008/0616\_foreign\_assistance

\_reform\_brainard.aspx) OP

As favorable opinions of the U.S. have suffered in recent years — an issue reflected in commentary on these pages — we must refashion the image we present to the world by retooling the way we seek to influence it. Our consciences, our hearts, and our faith demand that we tackle deprivation because it is the right thing to do. But our assistance does more than help the poor gain access to shelter, medicine, sustenance, education, and opportunity, and it certainly does more than make Americans feel good: it also makes the world feel good about America. When the United States leads in helping lift the lives of the poor, we enhance our own influence and authority in the world community — building support for U.S. interests in other areas.

## Food Shortages Adv---Food Aid CP---Solves Food Shortages

### Local level food aid allows for long-term food security- prevents food crisis

**American Jewish World Service modified 11** (a nonprofit international development organization dedicated to alleviating poverty, hunger and disease among the people of the developing world, “U.S. Food Aid: Time to Get it Right”, http://ajws.org/emergencies/documents/hunger\_campaign/0611\_food\_aid\_fact\_sheet.pdf) OP

Support recipient countries’ capacity for food security. U.S. aid must support developing countries’ food self-sufficiency by investing in local agriculture. Strengthening the production capacity, infrastructure and markets for farmers at the local level will allow for long-term food security in developing countries while also providing us with more options for fast and cost-effective local purchase of food aid when regional food crises arise.

## Food Shortages Adv---Food Aid CP---A2: Links to Spending

### Cash grants for local aid saves money

**American Jewish World Service modified 11** (a nonprofit international development organization dedicated to alleviating poverty, hunger and disease among the people of the developing world, “U.S. Food Aid: Time to Get it Right”, http://ajws.org/emergencies/documents/hunger\_campaign/0611\_food\_aid\_fact\_sheet.pdf) OP

It’s expensive and wasteful. Shipping food from the United States to countries in crisis can cost upwards of 25 percent more than purchasing food locally, 3 so we’re spending more money and providing less food for those who need it. Most of the money we spend doesn’t even go to food purchase, because 65 percent of our food aid budget is consumed by shipping costs! 4

# \*\*\*Aff Answers\*\*\*

# Colonization Adv

## Asteroid Adv---A2: Asteroid Mapping CP---SQUO Solves

### Status quo – NASA funding for asteroid detection, not enough to stop asteroids

**Morrison 11** (David, NASA official at NASA Ames research center, “Asteroid and Comet Impact Hazards”, From the Strategic Plan for the NASA Space Science Enterprise, 7/11/2011, <http://impact.arc.nasa.gov/news_detail.cfm?ID=61>)

Asteroids and comets will get increased attention at NASA as a new program office is formed to coordinate data from spacecraft and ground-based observations of celestial bodies. This office will help avoid a repeat of the media frenzy surrounding the early March announcement that Earth might be on the receiving end of an asteroid in 2028, a possibility later retracted. The new office will increase financial support for the detection and characterization of Near Earth Objects (NEOs). It will work with other groups in the United States and abroad to create an inventory of NEOs. One of its goals will be to identify asteroids at sizes down to 1 km in diameter. Scientists estimate that 2000 Earth-crossing asteroids at least a kilometer in size have yet to be identified. The yet-to-be-named program office will be located at a NASA field center within the next few weeks, though some responsibilities will be maintained at NASA Headquarters in Washington, said Tom Morgan, discipline scientist for planetary astronomy. Morgan is shaping the duties of the new office. "The first job is to understand what is out there, increase the numbers of detections and get good orbits for them," Morgan told Space News March 27. He said the new office will strengthen NASA?s ground-based program and study data from spacecraft missions to asteroids and comets. Some $3 million is now being earmarked for the new program, a doubling of current NASA funding NEO work, he said. . . . "Part of our ongoing plan is to understand the composition, the mineralogy, the physical condition of increasing numbers of NEOs," Morgan said.

## Asteroid Adv---A2: Asteroid Mapping CP---Mapping Fails

### Ground-based mapping fails – several reasons

**Shaffer et al., 1996** William, Martin McHugh, Dexter Wang, “Space-Based Asteroid Detection and Monitoring System,” Report to Secretary of Navy, 7/11/11)

Currently, ground-based telescopes are used for detecting and monitoring NEAs and other near earth objects. However, ground-based monitoring and detection schemes suffer from several limitations. For example, small objects such as NEAs with diameters of 50 meteres cannot be reliably detected using ground-based telescopes. The performace of ground-based systems is affected by factors such as the sun, atmospheric turbulence, and cloud cover which limit the size and distance of the NEAs detected. Additionally, there are only enough ground-based systems to monitor a small fraction of the celestial sphere every day. Because the earth turns on its axis with a twenty-four hour period, any ground based system can examine only one latitudinal section of the celestial sphere per day. Thus ground based systems are either inherently slow, or require a unacceptably large number of telescopes. The high cost of building the many needed observatories, the great number of persons needed to operate the systems, and the limiting factors of the sun, clouds and atmosphere This iturbulence limit the use of ground-based telescopes.

# Russian Miscalc Adv

## Russian Miscalc Adv---A2: JDEC Revival CP---JDEC fails

### JDEC fails- miscalculation is inevitable and Russia doesn’t trust the US

**Forden 01** (Dr. Geoffrey, senior research fellow with the Security Studies Program at the Massachusetts Institute of Technology, “False Alarms in the Nuclear Age”, 11-6-01, http://www.pbs.org/wgbh/nova/military/nuclear-false-alarms.html) OP

After three of the four incidents, the U.S. government maintained that steps were taken that would prevent any future false alarms. However, it had to wait only seven months after the first incident (the computer tape incident) to see that complex organizations, relying on even more complex machinery, can find new and unexpected ways to fail. In fact, a comprehensive study of nuclear accidents has shown convincing historical evidence that, despite measures taken to prevent them, such accidents are inevitable.

The most recent example of solving the "last problem" was the Clinton administration's initiative to share early-warning data with Russia. The jointly manned center has been presented by the American side as a solution to the decline of Russia's early-warning facilities. Russians familiar with the negotiations, however, maintain that the center has no military significance. That view is underscored by the choice of the site for the center: an old schoolhouse nearly an hour away from downtown Moscow. In fact, U.S. Department of Defense officials familiar with the Joint Data Exchange Center (JDEC) admit that, even if the center had been active during the Norwegian rocket incident, its only effect would have been to facilitate the launch notification issued before the NASA launch. Any assistance the United States provides must increase Russia's confidence in the validity of its own early-warning systems. The JDEC fails that test. Russia would never believe that the United States would pass along launch indications if a U.S. nuclear attack had been launched.

## Russian Miscalc Adv---A2: JDEC Revival CP---No Solvency

### No solvency- too many insurmountable obstacles

**Andreasan 11** (Steven, consultant to the Nuclear Threat Initiative, professor at the University of Minnesota's Humphrey school of public affairs, served as director for defense policy and arms control on the National Security Council staff at the White House from 1993 to 2001, “Missile defence: The missing piece of the puzzle”, 3-28-11, http://www.thepeninsulaqatar.com/views/147097-missile-defence-the-missing-piece-of-the-puzzle.html) OP

First, political follow-through has been lacking. While US and Russian presidents have previously agreed in principle to pursue cooperation on missile defence, these agreements have rarely been followed by detailed accords. When agreements have been struck – like the one by Presidents Bill Clinton and Vladimir Putin in 2000 to establish a jointly-manned centre in Moscow to exchange data from US and Russian early warning systems – they have not been implemented. Second, identifying technical areas for cooperation on missile defence has been difficult, involving extremely sensitive technologies. Third, missile defence has historically been linked to nuclear deterrence; whether one accepts or rejects such a linkage, failure to develop a durable post cold war understanding of the offence-defence relationship has set back cooperation. Finally, there is a severe trust deficit, where each side suspects the others’ motives: Moscow fears Washington cynically seeks to co-opt Russia so America can deploy unlimited defences; Washington believes Moscow only wants to derail US missile defence programmes. What are the key principles that need to be established now to ensure that these historic and persistent barriers to a truly cooperative approach to missile defence do not thwart the current effort?

### Negotiations will inevitably fail- can’t surpass the trust issue

**Samson 7** (Victoria, served as a Senior Analyst for the Center for Defense Information (CDI), “Prospects for Russian-American Missile Defense Cooperation: Lessons from RAMOS and JDEC”, http://www.cdi.org/pdfs/SamsonLessonsFromRAMOS.pdf) OP

What it comes down to is that efforts between two former rivals to cooperate on missile defense, even when done with the best of intentions, often fall flat in execution. Looking at the two examples of RAMOS and the JDEC – the former which was cancelled after five fruitless years of discussions and the latter which is still seven years after its inception snagged on sticking points preventing its implementation – we can see that the United States and Russia have a long way to go before they can become open and trusting allies, at least in the field of missile defense cooperation. This is why statements from Washington and Moscow about future missile defense collaboration should be taken with a grain of salt. As much as the governments may wish to have the kind of relationship where they can depend on the other’s discretion with the most sensitive of military technologies, we are simply not at that point yet. It is debatable whether we can ever reach that point, given the United States’ continued descent into the morass in Iraq and Russia’s ascendance thanks to the rise of the price of oil. Both countries are shifting around in the ranks of the international system: we have still to determine where both will land before we know where the negotiating stances can begin.

### And, when talks fail it will collapse relations and return them to Cold War era relations

**Gorenburg 11** (Dmitry, Senior Analyst at CNA (a non-profit think tank), editor of the journal Russian Politics and Law and a Fellow of the Truman National Security Project, “Valdai Club 6: Missile Defense”, 6-8-11, http://russiamil.wordpress.com/2011/06/08/valdai-club-6-missile-defense/) OP

All that Russia really has to offer to the European system is the Gabala radar. The Armavir radar is focused primarily on the Mediterranean, not on Iran or North Korea. The future Kaliningrad radar station will also look at Europe. Russia hasn’t made any offers to build a radar looking south. Its satellites are not in good enough shape to offer a serious contribution. The S-500 interceptor system will not be ready for a long time. So there’s no reason to expect much from these discussions except more talk. Neither side is ready for serious cooperation. Meanwhile the failure of talks could lead to heated rhetoric that could threaten to return relations to the level of the Cold War. The only way to make anything happen is with more high-level stimulus. Negotiations at a staff level are likely to have only a negative effect.

# Food Shortages Adv

## Food Shortages Adv---A2: Food Aid CP---Local Food Aid Bad

### Buying locally creates an unbreakable cycle of poverty

**IRIN 7** (Integrated Regional Information Networks, independent, non-profit project of the UN Office for the Coordination of Humanitarian Affairs (OCHA), “CAMEROON: Buying food aid locally also has risks”, 11-9-07, http://www.irinnews.org/Report.aspx?ReportId=75225) OP

But there are also risks, he said. “We’re encouraging farmers to grow more and more,” he said. If the emergencies in the region end then WFP will stop buying and the farmers could get stuck with a lot of unwanted food. Even worse, if WFP were to buy up too much locally-produced food, prices for local consumers could rise and that could lead to food insecurity for the poor. “The worst thing that could happen is that in trying to stop a famine in one place we create a famine in another,” Doip said.

### Local aid fails and results in more food shortages

**IRIN 09** (Integrated Regional Information Networks, independent, non-profit project of the UN Office for the Coordination of Humanitarian Affairs (OCHA), “Africa: Buying Local Food is Cheaper But Not Always Easier”, 6-08-09, http://allafrica.com/stories/200906090575.html) OP

Planning LRP can be complicated by poorly functioning markets: in sub-Saharan Africa there is only one well-functioning agricultural commodities exchange, the South African Futures Exchange (SAFEX), so assessing the actual price of food in other African markets is often difficult, and many are informal. "For example, approximately 30 to 50 percent of Uganda's marketable surplus for maize is traded informally, often on bicycles across the borders to Kenya or Rwanda, according to WFP, USAID, and foreign government officials, and others we interviewed during fieldwork in Uganda," said the report. LRP can drive prices up in the country where food is being bought, Melito told Congress. "Although most of the WFP procurement officers we interviewed stated that local procurements of food aid generally do not affect market prices, our review of the literature and interviews during fieldwork show that there have been instances where LRP contributed to price hikes and price volatility in markets from which food is procured." A lack of good market intelligence was another hurdle. Melito cited Malawi's decision to sell food to WFP in 2007, which his team learnt had been based on inaccurate production estimates. "A few months later, Malawi experienced higher food prices and food shortages." Despite the "potential benefits" of LRP, a lack of reliable suppliers, limited logistical capacity, weak legal systems, donor funding restrictions and other problems often had to be overcome.

\*\*Note: LRP is local and regional procurement

## Food Shortages Adv---A2: Food Aid CP---Food Aid Bad (General)

### Food aid hurts local business

**VOA 10** (Voice of America News, “dynamic multimedia broadcaster funded by the U.S. Government, broadcasts accurate, balanced, and comprehensive news and information to an international audience”, “Food Aid Hurts Haiti's Farmers”, 4-29-10, http://www.voanews.com/english/news/americas/Food-Aid-Hurts-Haitis-Farmers--92405389.html) OP

"Food aid is never good for us," he says. "As a farmer, I'm one of the first affected. You can't send that to a country where that's what they grow." Surfoad says if he can't sell his rice, he won't have money to buy seeds for next season. And because he supplies about 50 neighbors with seeds, their next season will be affected, too. The entire supply chain can be affected, from farmers to wholesalers to merchants selling rice in local markets, many of whom say business is down because people are receiving free rice from donors. Food is one of the most urgent needs in a humanitarian crisis. But, these cases illustrate that when donors bring in food, those who make a living growing and selling food can suffer.