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\_\_\_\*\*ABL DA – 1NC Shell

1NC Shell

**Funding for the Airborne Laser has been cut--but it can be revived**

**Trimble 10** (Stephen, Flight International, 2/17, http://www.flightglobal.com/articles/2010/02/17/338475/airborne-laser-faces-uncertain-future-despite-historic-intercept.html)

**The Airborne Laser Testbed** (ALTB) **faces an uncertain future** as both a research project and an operational system **even after its** 1MW-class chemical **laser** successfully - and historically - **destroyed a ballistic missile** off the California coast on 11 February. The long-awaited intercept test proved that the modified Boeing 747-400F's key technology - a chemical oxygen iodine laser (Coil) invented by US Air Force researchers in 1977 - is a lethal weapon against ballistic missiles. A week before the ballistic intercept, the ALTB shot down a Terrier Black Brant, a two-stage sounding rocket that presents faster and smaller target to the Lockheed Martin-supplied beam and fire control system. **Moving the ALTB out of the research environment**, however, **remains** **an open question**. Despite passing a historic milestone for a directed energy weapons system, the intercept was completed in a sterile test environment. Moreover, the Missile Defense Agency classified the range of the test and obscured the length of time required to defeat the target, making it unclear how well the Coil technology really performed. Mike Rinn, Boeing vice-president and general manager for missile defence programmes, believes **the lethal demonstration opens the door for high energy lasers to become operational weapons**. "As we show things like we did last night, decisions can be made about whether this platform or some future platform or some incarnation of the current technology can be an operational system," Rinn says. But Rinn's top customer - **Secretary of Defense** Robert **Gates** - **remains opposed to making the** $6 billion **programme operational**. In 2009 **Gates** cancelled the second Airborne Laser aircraft and **downgraded the programme from operational prototype to testbed status**. **The programme now remains in limbo, awaiting the results of future budget decisions**. The Department of Defense has requested slightly less than $100 million for the ALTB in fiscal year 2011, which Rinn says is insufficient to preserve the industrial base for such high-energy lasers. But **the** **programme's future will be decided in the next round of budget planning**. The MDA is working on a study computing the lifecycle acquisition cost of an operational system, which requires buying up to seven aircraft. Meanwhile, the office of **DoD's** director for research and engineering **is analysing options for missile defences** in the boost and ascent phase, Rinn says. **That ALTB is a candidate in the director's ongoing analysis, which will inform the Pentagon's FY2012 budget request**, he says.

Pulling out means that we’d have to cut contractor funding

Bennis 9 (Phyllis, writer for Institute for Foreign Policy, http://www.ips-dc.org/articles/1117) GAT

Ending the U.S. occupation means ending all U.S. funding for the giant contractors — Dyncorp, Bechtel, Blackwater — that serve as out-sourced private unaccountable components of the U.S. military. The contractor companies — and the mercenaries they hire — were part of what led to Abu Ghraib. (Blackwater's recent name change to "Xe" should not allow its role in killing Iraqi civilians to be forgotten.) Even as some troops may be withdrawn, we will need to mobilize for congressional hearings, independent investigations, and more on the human rights violations and misuse of taxpayer funds by the war profiteers who run these companies. President Obama's decision to close the Guantanamo prison shows his awareness of severity of the crimes committed there. Ending the funding of the contractors who carried out so many of those crimes should be a logical next step.

1NC Shell

**Congress and contractors will demand ABL as compensation**

**Ellison 10** (Riki, Chairman and Founder of the Missile Defense Advocacy Alliance, 2/15/10 <http://www.defpro.com/news/details/13147/>)

"President **Obama** and Secretary of Defense Robert Gates **had cut the ABL program from the** FY2010 Missile **Defense Budge**t. **The** FY2011 **budget request** released on Monday, February 1st **adds $99 million into an ABL legacy program** called Directed Energy Research (DER). **This program calls for continued development and testing of airborne laser technologies in experiments and test bed formats taking the system out of weapon development.** The United States has invested around 5 billion tax dollars since the early 1990s on the ABL to make it a defensive weapon system. The ABL is similar in some ways to the development of the Joint Stars 707 aircraft that was thrust into the Iraq war with a test bed version and has become a tremendously useful military asset that is deployed in numbers today providing sophisticated surveillance and tracking on the ground from the air." "**The ABL is initially proven and should continue to be developed, tested and even deployed** if necessary. The successful test on February 12th gives weight to the release last week of the Ballistic Missile Defense Review endorsement of Missile Defense development by **the President** **and the Secretary of Defense** who **have** **recognized the quantitative and qualitative threat to our nation, allies and deployed forces from ballistic missiles.** Furthermore, in lieu of Iran's recent and continued nuclear developments, **the ability of our Military to use the ABL with U.S. air superiority to engage and destroy multiple Iranian missiles in seconds over Iran could be a critical asset** if in the future a situation arose between Iran and the United States. **This capability would have similar relevancy for the United States in the Korean peninsula in regards to North Korean's ballistic missile threats and nuclear capability in the region**." "The ABL should be given priority, further developed and be funded to be kept a fully viable defensive weapon system as a credible hedge against ballistic missile threats. The U.S. **Congress will inevitably challenge the** Department of Defense and the **administration** **to** fully fund and further **develop this system** to have an ability to deploy this system in crisis regions providing our armed forces and allies' necessary protection."

**Lobbying efforts ensure Obama will compensate**

**Bogoslaw 8** (David, @ Business Week, August 23, <http://www.businessweek.com/print/investor/content/aug2008/pi20080822_702066.htm>)

**The defense industry is** also **more consolidated** now, which means **any cuts in weapons spending might** well **put a contractor out of business**. "If you want to maintain an industrial infrastructure, you have to have people doing something," says Cowen's von Rumohr**. More coordinated, effective lobbying efforts by the industry**, he says, **could persuade U.S. policymakers to continue generous funding of weapons systems. Weapons procurement is a major source of concern among defense contractors**. There's a dichotomy between McCain's ideological stance on defense spending and his reputation for populist policy choices aimed at reining in government spending, says Aboulafia. Case in point: McCain's intention to press for eliminating multiyear procurement contracts, without which contractors find it hard to plan beyond one year. Locking in a project for four or five years allows them to buy materials in bulk, to negotiate better prices with suppliers, and to plan their workforce, cutting overall costs more than 10%, he adds. **Obama's lack of experience** with the Armed Forces and shorter trail of public policy statements **make it harder to predict what his Defense Dept. would look like** if he's elected. "We don't know what Obama will do, but **he's likely to stick with the experts' recommendations**, whereas McCain has a record of promoting his popular image with bad policy," says Aboulafia.

1NC Shell

**ABL ensures a directed energy weapon arms race**

**Rogers 2** (Paul Professor of Government at Bradford University, <http://www.opendemocracy.net/conflict/article_153.jsp>)

The United States development of **directed-energy weapons** – designed to advance protection of its forces, control of space, and the capacity to strike foreign targets at will – **appears to be a** seductive and **effective** **route to guaranteeing US security** in the 21st century. But**, in the absence of any arms-control regime, the result could instead be a higher level of threat.**  Some time in 2003, a unique new weapon will be tested by the United States air force in an attempt to destroy a Scud missile. It is a high-energy laser known as the **airborne laser** (ABL), **the first element** of an innovative system that **could end up arming a series** of powerful **satellites able to target anywhere** on the Earth’s surface with near impunity. **The impact of directed energy weapons** over the next quarter of a century **could be huge**, and some analysts argue that they are as potentially revolutionary as was the development of nuclear weapons sixty years ago. For now, directed energy weapons are being seen as an answer to ballistic missile defence but, in the longer term, military planners are already viewing them as serving many other functions. **The U**nited **S**tates has a pronounced lead over all other countries, but its **potential success may encourage others to follow sui**t, **setting up a new kind of arms race**; it may also lead to **opponents developing new ways of retaliating**. In the light of the attacks of 11 September 2001, this is not to be discounted.

**Extinction ensues – eliminates opportunity costs to nuclear war**

**Hech 84** (Jeff, M.Ed. Higher Education –MA in Electronic Engineering - Editor @ Laser Focus World, Beam Weapons: The Next Arms Race, p. 10-11)

It’s only appropriate that the obstacles to developing beam weapons are high because the stakes involved are very high. The science-fictional scenario of orbiting **antimissile battle stations would cause nothing short of a revolution in defense strategy**. For some two decades we have been living with an uneasy balance of nuclear terror called “*m*utual *a*ssured *d*estruction” or “MAD.” That balance is based on the knowledge that there is not effective defense against nuclear attack. If one side attacked, the other could launch a devastating counterattack—guaranteeing a nuclear holocaust. Under these ground rules a nuclear war cannot be won. Opponents of **beam weaponry** warn that their most insidious danger is that they **might make a nuclear war appear “winnable.”** That is, the **side with a beam weapon system able to defend against nuclear attack might decide it could launch its own attack with impunity**. Critics also warn of **other dangerous scenarios in which beam weaponry could dangerously destabilize the balance of power even if the actual weapon system was ineffective.** For example, **one side might attack a weapon system under construction in space to make sure that it never became operational, thereby triggering an ultimate escalation to World War III.**

\_\_\_\*\*ABL DA – UQ

2NC UQ Wall

The future of ABL is uncertain – its funding falls off in September

Brinton 10 (Turner Space News June 18http://www.spacenews.com/military/100618-airborne-laser-gears-for-next-shoot-down-test.html TBC 7/6/10)

The Pentagon’s Airborne Laser (ABL) is being prepared for a late July test in which it will attempt to shoot down an ascending target missile from twice the distance of the aircraft’s previous intercept tests, the program’s top official said. Originally conceived as an operational military system that would use a high-power chemical laser to destroy ballistic missiles in the early stages of flight, the ABL platform — only one has been built — has been relegated to the role of technology test-bed. The program is funded by the U.S. Missile Defense Agency (MDA) through September, but its future is uncertain beyond that.

ABL down now – funding has been cut for production

Robinson-Avila 9 (Kevin NMBW Staff New Mexico Business Weekly November 6 http://albuquerque.bizjournals.com/albuquerque/stories/2009/11/09/story1.html TBC 7/6/10)

The 2010 National Defense Authorization Act, which President Barack Obama signed on Oct. 28, slashed funding for the program from $401.2 million in FY 2009 to $186.7 million for the new year. Money is now authorized just for research and development on Boeing’s current laser prototype, thus terminating plans to build a second-generation aircraft and derailing any transition from R&D to production, said Shaun McDougall, a military analyst with Forecast International in Connecticut. “It ends plans for a second test aircraft and reduces the overall scope of the program,” McDougall said. “They’re not terminating it outright since testing will continue on the current aircraft. But the system’s development won’t expand at the rate it would have before.”

Congress is cutting funds now

Ennerson 9 (Shane 10/3 Freelance Writer http://www.goarticles.com/cgi-bin/showa.cgi?C=2136872 TBC 7/6/10)

This year, Congress has been all over the map on funding the Airborne Laser (ABL). The administration requested $549 million in the 2008 defense budget to complete work and prepare for a lethal demonstration against a ballistic missile in 2009. Congressional action began when the House Armed Services strategic forces subcommittee cut the request by $400 million, which would have killed the program. The full committee revised that draconian step, but still cut a very deep $250 million. The Senate Armed Services Committee weighed in with a $200 million cut. These are unusually deep cuts, especially on a program that is achieving considerable success. The stated rationale is that the limited funds available for missile defense should go to systems now being deployed.

ABL won’t be used now – Obama’s budget

Duffy 10 (Thomas Vol. 93, No. 4 April Airforce Magazine publisher of Inside Washington Publishers’ Defense Group http://www.airforce-magazine.com/MagazineArchive/Pages/2010/April%202010/0410laser.aspx TBC 7/6/10)

However, the successes probably came years too late for a program that was once a top missile defense priority. When the Obama Administration handed Congress its defense budget for Fiscal 2011, Pentagon officials announced that the Airborne Laser would be shifted out of MDA, which has managed the program since 2002. ABL will be given to the director of defense research and engineering for use as a directed energy test bed. That move appears to be the final signal that ABL will never see operational use. MDA officials are now pondering the future of what is now termed the Airborne Laser Test Bed (ALTB). “Subsequent experiments are in the planning stages pending data analysis from last week’s experiment,” said an MDA spokesman. “There is only a notional schedule with notional objectives at this time.”

2NC UQ Wall

ALTB funding has been slashed

Gaffney 10 (February 17th Frank J., Jr. president of the Center for Security Policy Washington Times http://www.washingtontimes.com/news/2010/feb/17/second-to-none/?page=1 ) TBC 7/7/10

At a time when the Obama administration is rushing anti-missile defense systems to the Persian Gulf in the face of intensifying regional concerns about Iran's ballistic missiles, one could be forgiven for thinking every effort would be made to bring to bear the Airborne Laser system's ability to perform boost-phase intercepts. Unfortunately, that is not the case. Far from contemplating the early deployment of the ALTB, the fiscal 2011 defense budget recently submitted to Congress by the Obama administration eliminates any further preparation of the platform as a weapon system. It will be confined, instead, to development and testing of laser technologies. To be sure, the ALTB is not an operational weapon; it is a test bed that has been prepared painstakingly to conduct certain experiments, not to deal with the myriad vicissitudes of war-fighting. Still, as Riki Ellison of the Missile Defense Advocacy Alliance pointed out last week, "The Airborne Laser is similar in some ways to the development of the Joint Stars 707 aircraft that was thrust into the [first] Iraq war as a test-bed version and has become a tremendously useful military asset that is deployed in numbers today, providing sophisticated surveillance and tracking on the ground from the air." The effective cashiering of the Airborne Laser fits a pattern of Obama defense procurement decisions with respect to advanced weaponry that is needed to provide our forces the qualitative edge upon which their mission success - and perhaps their lives and ours - may depend. For example, production has been halted on the world's best fighter aircraft, the F-22, well short of abiding Air Force requirements. Construction of stealthy, modern Zumwalt-class destroyers has been truncated in favor of additional purchases of ships with far more limited capability first designed 30 years ago. Defense Secretary Robert M. Gates will try once again to persuade Congress to stop further acquisition of the nation's only long-range heavy airlifter, the C-17. And a succession of needed replacements for obsolescing weapon systems will remain right where they are: on the drawing boards.

**Won’t pursue ABL**

**The Foundry 2010** (Heritage Foundation, http://blog.heritage.org/?p=26929, date accessed: 7/6/2010) AJK

Not bad for a defensive weapon once ridiculed as science fiction. **Skeptics** even **persuaded the Obama administration to slot the airborne laser for the ninth circle of procurement hell — a pit for dead-end researc**h and development programs. But this month’s dramatic success has put the critics on their heels. The Point Mugu exercise was what engineers call a “proof of principle” test. They tested it. It is proven. But don’t expect high-fiving in the White House. **The administration already passed on the option to build a second test aircraft. Rather than add the ABL to the military’s arsenal, the administration seems more than willing to let the project end as a successful science experiment**. It will argue laser missile defense makes no sense because the weapon’s range is limited to a few hundred kilometers. That would put the lumbering aircraft well within the range of air defense systems fielded by the likes of North Korea and Iran. On the other hand, here is what the administration won’t admit. There are other threats already out there that the Airborne Laser is well-suited to counter. One such danger is the “Scud in bucket” scenario.

UQ XT – ABL Cuts Now

**The program will be eliminated unless funds are redirected to it soon**

Ahearn 7 (David, writer for Bnet, <http://findarticles.com/p/articles/mi_6712/is_27_234/ai_n29350459/pg_2/?tag=content;col1>) GAT

Massive cuts to the Airborne Laser (ABL) ballistic missile defense (BMD) program would cripple or eliminate the ABL program, its three contractors said in a joint statement. The companies will attempt to overturn the $400 million cut to the $549 million that President Bush requested for ABL in FY '08. That $400 million cut was included in draft legislation written and approved by the House Armed Forces Committee (HASC) strategic forces subcommittee. The full HASC will decide later today whether to adopt or reverse the cut. Unlike other BMD programs, ABL would use a high-powered laser beam to destroy any enemy ballistic missile just after it is launched, in the boost phase, before it has time to spew forth multiple warheads or confusing chaff. The program has gained heightened urgency since North Korea fired test missiles last summer and detonated a nuclear warhead in October, and since Iran persisted in developing nuclear materials and test-fired an array of missiles, including one from a submerged submarine. "Given the importance of the boost phase mission and the proximity of demonstrating ABL's capabilities, it would be imprudent to cripple or terminate this program just when we are on the cusp of demonstrating ABL's capability," said Greg Hyslop, Boeing [BA] Airborne Laser vice president and program director. He read the joint statement on behalf of Boeing and the other leading contractors. Hyslop was joined by Guy Renard, Northrop Grumman [NOC] ABL program manager, and Art Napolitano, Lockheed Martin [LMT] ABL program director. The spoke to defense journalists on a teleconference. ABL has come a long way, the three stated, with many technical difficulties overcome, and it would be puzzling after all that to cancel the program. "The program remains on track to complete a lethal demonstration in 2009 that will validate the unique contribution ABL can bring to an integrated ballistic missile defense system...as a boost phase element," Hyslop said in the statement. "The laser system fired effectively at full power and full duration during ground testing in 2005. In 2007, low-power flight tests for the beam control/fire control system will be complete and the high power laser integration inside the aircraft will begin. In 2008, we will begin high-power system testing that will culminate in an early 2009 lethal demonstration." He asked why, given years of support for the program, it would be shredded financially now. "We stand on the verge of fully demonstrating a revolutionary warfighting capability. ABL technical risk has been substantially reduced as a result of previous investments by both Democratic and Republican Administrations and Congressional guidance," Hyslop noted. On other points, the briefers said: \* The cost of funding a slip in testing, where ABL will shoot down a target ballistic missile, from 2008 to 2009 will cost about $200 million, a cost that will be swallowed in the overall Missile Defense Agency budget. The price would go from about $3.6 billion over more than a decade to $3.8 billion. \* ABL could do more than shoot down ballistic missiles in their boost phase, with other missions possible such as anti-air or anti-cruise-missile duties. \* Criticisms of the program in a Government Accountability Office study released earlier this year have been countered. For example, as the program progresses, technical risk that the ABL system might not work as expected is declining. \* The system would be effective against a range of missiles, including those tested by North Korea. \* Laser systems have passed tests, jitter control of the laser system has been accomplished, and "we've been very, very successful," Napolitano said. "ABL is fast becoming a reality, on the cusp of demonstrating a revolutionary capability," Hyslop said.

**ABL cuts**

**Holmes 9** (Kim, VP of Foreign and Defense Policy Studies, http://www.heritage.org/Research/Commentary/2009/04/Why-cut-missile-defense-now, date accessed: 7/6/2010) AJK

An enemy tests a weapon that could kill millions of your countrymen in the near future. Having worked diligently on a defense against such attacks, your government has one within reach. Then, suddenly, it pulls back on this effort. You are puzzled. **You see a defense budget that preserves funding for weapons programs to defend other nations, but cuts back on the very weapons that could defend you. This is what the Obama administration is doing with the nation's missile-defense budget.** In the same week the North Koreans tested a long-range missile, the Pentagon announced a $1.4 billion cut in our missile-defense budget. Under the knife are the programs that could defend us against missile attacks from North Korea and Iran - the most hostile regimes America faces today. It's being done in the name of "restructuring" the missile-defense program. The administration is holding on to defenses against short-range missiles, while scaling back programs against long-range missiles - the kind North Korea and Iran recently tested. This makes no sense. Defenses against short-range missiles are all very fine, but they are not the missiles that most threaten the United States. That would be North Korea's Taepodong-2 missiles tested April 5, which when fully deployed, could reach Alaska and California. **One target of the cuts is the Airborne Laser (ABL)**, **an energy-directed weapon placed on a modified Boeing 747-400. The ABL is intended to knock down a long-range missile shortly after it leaves the launchpad** - the best time for an intercept because its warheads have not yet been deployed in space. Preliminary tests have been quite promising. An actual ABL intercept test could take place later this year. This "boost-phase defense" is precisely the kind of system needed to counter long-range nuclear missiles launched from North Korea or elsewhere.

UQ XT – AT: Withdrawal Now

**No real cuts**

**Morris 9** (Rachel, @ Mother Jones, 6/22, <http://freethoughtmanifesto.blogspot.com/2009/06/shock-and-audit-hidden-defense-budget.html>)

It would be tempting to blame all of these excesses on the Bush administration's lax attitude toward oversight: Overruns and delays definitely got worse between 2000 and 2008. But if you take a look further back, you see that overruns have increased at a predictable clip over the past 15 years—an average of 1.86 percent a year, to be exact. If Pentagon spending continues at its current rate, average overruns will reach 46 percent in 10 years. Source: Deloitte Consulting LLP **There has been much fanfare about Gates' spending "cuts,"** and there will be a brief obsession with whatever Congress approves when it eventually passes a defense budget. **But even if Congress resists the urge to stuff the bill with pork** and gives Gates everything he wants, **real Pentagon spending will inevitably be far, far higher**. Our Overruns Kick China's Ass That $296 billion in cost overruns is so staggering that I wanted to put it in some perspective. There is no single country whose entire military costs even close to what the US has wasted to date on big-ticket weapons programs. To wit: (Foreign defense budget totals are for 2008) That's right: **China**, which was **the world's single second-biggest defense spender** in 2008 after the US and supposedly such an existential threat that it justified the purchase of obsolete and exorbitant weapons programs, **spends less than a third of what the Pentagon is wasting**. In fact, the amount the US is wasting on weapons exceeds the GDPs of some sizeable countries, including A quick primer on the problem programs Gates wants to cut and the ones he left intact: F-22 Raptor Fighter Jet Designed for dogfighting with Soviet planes, **an F-22 costs $351 million**, more than double the original projections. It was put into production before being fully tested, and, not surprisingly, has run into all sorts of snags—in fact, it has never flown a single combat mission in Iraq or Afghanistan. **Gates wants to buy just 4 more**, capping the US's collection at 187 instead of the 243 that the Air Force wanted. However, **Lockheed Martin** cannily **ensured that manufacturing** and assembly for the planes **was dispersed across** at least 44 **states**, including Texas and California, **which have powerhouse congressional delegations**. Earlier this year **194 representatives and 44 senators wrote** **to** President **Obama urging him to buy more F-22s, and in mid-June** **lawmakers** on the House Armed Services commmittee **inserted money for 12 more jets** into the defense budget authorization bill. The fate of the F-22 will be the test of whether Gates can get his budget through Congress more or less intact. **C-17** Globemaster III Cargo Plane Gates actually likes this long-haul plane but says that **the Air Force already has 205 of them and doesn't need any more**, thanks very much. Try telling that to **those thoughtful folks on Capitol Hill who recently slipped $2.17 billion for the planes** into a recent war supplemental bill. The C-17s are another handy gauge of how the administration's budget proposal is faring on the Hill, because the plane has a lot of fans. Sadly, even Sen. Claire McCaskill (D-Mo.), who is normally great on the subject of wasteful government spending, has been urging Gates to buy more C-17s. Boeing, which makes the C-17, says that it provides 900 jobs in Missouri, or 6,000 direct and indirect jobs. **Future Combat Systems** This is the flagship of the Army's fancy modernization program, conjured up by Donald Rumsfeld. It **consists of weapons, vehicles, and robots linked by a common communication system**, and is yet another case where sci-fi wish lists were put into action before the technology was actually proven. (Exhibit A: the genius who ordered a tank that can be transported by plane before anyone knew whether that was possible.) **The FCS contract also ceded way too much oversight responsibility to the contractors**—in this case Boeing and Lockheed—**and so predictably costs got out of hand**. The overall price tag has jumped 73 percent since 2003 to about $159 billion. An internal DOD analysis from 2006 predicted that taxpayers will eventually get stuck with a $203 billion to $234 billion bill if the program is allowed to continue. Gates wants to axe some of the most controversial, pie-in-the-sky parts of FCS—thus saving a tidy $87 billion—and rethink the entire program in the coming months. VH-71 Presidential Helicopter Lockheed Martin was supposed to deliver 23 next-generation helicopters to be used by the president and other high-ranking officials. But the helicopters are six years late and will cost twice the original estimates. Obama called them a poster child for "the procurement process gone amuck." The DOD's new undersecretary for acquisitions, technology, and logistics, Ashton Carter, cancelled the program in May. Still, the existing presidential helicopters are pretty old, and it's worth watching closely how Congress decides to replace the failed contract. **DDG-1000 Destroyer** These ships were supposed to cost $4 billion but independent assessments put the real price at closer to $6 billion. They weigh 14,500 tons, so they're not exactly nimble. The **Navy initially signed up for 16 to 24,** **but** as problems piled up **it decided that it could really use the money for something cheape**r and more versatile. **So it cut the total DDG-1000s** it planned to acquire to eight, and then decided to buy just two instead. However, **a group of lawmakers from the New England states where the destroyers are made** (mostly Maine and Massachusetts) **threw a fit**. This year **Gates** **will attempt to phase out the program at three destroyers**. Missile Defense **Gates chopped** two of the most problematic aspects of this program—**the Airborne Laser Prototype aircraft** and the Multiple Kill Vehicle, both flawed Soviet-era relics.

**Minimal cuts – he’s not angering Congress**

**Margolis 10** (Eric, @ Toronto Sun, 3/7, <http://www.torontosun.com/comment/columnists/eric_margolis/2010/03/05/13130656.html>)

“Peace President” Barack **Obama** **has the chance to get rid of America’s** largely useless **nukes**, or at least reduce them to a dozen strategic missiles. **But while Obama may slightly narrow nuclear doctrine, it appears America’s increasingly potent national security complex and angry Republicans have pushed him into retaining the nuclear arsenal.**

UQ XT – AT: Nuke Cuts Now

**No major changes in the NPR—continues or enhances capabilities.**

**Ford 10** (Christopher A, senior fellow and director of the Center for Technology and Global Security at Hudson Institute, 3-8-2010, Hudson Institute, http://www.hudson.org/index.cfm?fuseaction=publication\_details&id=6813)

Interestingly, the review has been significantly delayed, and rumors are flying of bitter internal disputes. How things will come out is difficult for outsiders to assess, but it seems safe to say that **no NPR is likely to produce anything living up to the expectations the administration has taken pains to create.** Already, there are hints that **the** **administration's agenda may be suffering from scuffles with reality**. For example, it **has recently sought funding to refurbish our sole remaining air-delivered nuclear bomb** **and** has requested more money **for the weapons infrastructure** in the name of "reliability." **It is** once again **considering building a new bomber, and** has asked for money to study **a potential replacement for our current ballistic missile submarine.** Merely to study something, of course, is not to build it, but **it is at least possible that we will not forever continue to be -- as we are today -- the only nuclear weapons power not to be modernizing its forces**.

**Broad consensus was forged around NPR changes—only the plan triggers the disad**

**Ambinder 10** (Marc, politics editor of The Atlantic, 3-18, The Atlantic, <http://www.theatlantic.com/politics/archive/2010/03/white-house-revising-executive-summary-of-nuclear-document/37674/>)

**The long-awaited review of the United States nuclear posture has reached its final stage**, with the White House taking ownership of an executive summary and preparing for a public release in several weeks' time. Two senior administration officials, Derek Chollet of the State Department's Office of Policy Planning and Jim Miller, the Defense Department's principal deputy undersecretary for policy, submitted an executive summary of the Nuclear Posture Review after a meeting last Friday. President Obama has seen a draft of the summary, and his National Security Staff is working through the document. Administration officials said that **most of the critical issues had been settled, and that broad consensus about topics like the overall aims of the government's "declaratory policy' on nuclear weapons had been reached**, but the angels are in the details, and **Obama's own imprint** -- and ultimately the degree to which the document is seen as a radical statement of principles -- **will matter most**.

**NPR won’t have an impact**

**Kaplan 10** (Fred, editorialist, 3-3 Slate, <http://www.slate.com/id/2246737/>)

Next month, the **Obama** administration will **release its Nuclear Posture Review**, **a purportedly "seminal" document that,** according to a New York Times story, **will herald a new strategy on the use (or nonuse) of nuclear weapons**, "permanently reduce" the U.S. arsenal by thousands of warheads, and "annul or reverse" several of George W. Bush's plans to build new nuclear armaments. That's the buzz, anyway. **Don't count on any of it. This posture review, like the two before it** (the first under Bill Clinton in 1994, the second under Bush in 2002), **will almost certainly not result in anything new**, even if it alleges otherwise. **Even if** President Barack **Obama** **does pursue some new nuclear policies, this document will have had little to do with it.**

**Lab funding has compensated for previous anti-nuclear efforts**

**Gerstein 10** (Josh, @ Politico, 3/6, <http://www.politico.com/news/stories/0310/34010.html>)

And liberal arms control activists worry that **Obama’s** 2011 **budget** – which **would spend more on nuclear weapons labs** and related activities **than the U**nited **S**tates **did at the height of the Cold War, even adjusted for inflation—goes too far to assuage the concerns of the defense secretary and leaders of the nuclear weapons complex.**  “**Increasing funds for nuclear weapons appears to conflict with a vision of a world without them,**” former Office of Management and Budget analyst Robert Civiak said.

UQ XT – AT: Nuke Cuts Now

**NPR won’t piss off Congress -it’ll be a status quo document.**

**Sigger 10** (Jason, defense policy analyst, 3-4, http://armchairgeneralist.typepad.com/my\_weblog/2010/03/upcoming-nuclear-posture-review.html)

Whenever **the NPR** is released, I will agree with Jeffrey Lewis that the final document **isn't going to amaze** us **or inflame the conservatives** (too much). **The process by which the document is developed and the particular people involved will ensure that this will be a continuation of existing nuclear strategy, very much status quo**. **The liberal** hawks **and** the **conservative hawks are all in agreement with the Perry-Schlesinger commission report** and on the path forward. That's a shame, considering the options that could and ought to be taken, but it's not unsurprising.

**Obama is divided over how to frame the NPR**

**Lindsey 10** (Daryl, editor of Spiegel Online, 3/2, [http://www.spiegel.de/international/world/0,1518,681298,00.html](http://www.spiegel.de/international/world/0%2C1518%2C681298%2C00.html)]

But **Washington** **is deeply divided over how Obama should proceed with his nuclear strategy**, and the chapter has provided one of many illustrations of how Obama's message of "Yes, we can," has been met with a "no, you can't" in the past year. **Critics** in recent months -- both on the right and the left -- **have hammered Obama for not moving quickly enough to fulfil his nonproliferation pledges.** **Those on the right say his aspiration to have a nuclear weapons-free world is naïve** in the face of the Iranian and North Korean threat. Meanwhile, **those on the left are pushing for him to make a statement that the "sole" purpose of Washington's nuclear deterrent is to prevent a nuclear attack**. **Others would prefer more flexibile wording -- that deterrence be the "primary" purpose, but not the exclusive one**.

\_\_\_\*\*ABL DA – Links

Link UQ – Lobbying Now

Lobbying now

Duffy 10 (Thomas Vol. 93, No. 4 April Airforce Magazine publisher of Inside Washington Publishers’ Defense Group http://www.airforce-magazine.com/MagazineArchive/Pages/2010/April%202010/0410laser.aspx TBC 7/6/10)

In 2006, the Bush Administration, struggling with ABL, announced it was relegating the program to “technology demonstrator” status. The Air Force’s ABL procurement plans were put on hold at that time. Despite what appears to be a real uphill battle, ABL supporters in Congress plan to keep fighting to keep it alive. Franks will try to change the Obama Administration’s plans as Congress considers the Fiscal 2011 defense budget. “I am going to do everything I can to rally other members of Congress to recognize the amazing achievement that has occurred here with this lethal shootdown,” Franks said, adding that he would offer amendments to the defense authorization and appropriations bills. However, Franks acknowledges that missile defense supporters face big obstacles. “It’s been so discouraging working with members of Congress that either don’t have any understanding of the efficacy of this program or have an intrinsic bias against anything to do with missile defense, and this is especially true of the President of the United States,” he said. “The good news” is that the successful tests make it “impossible for them with a straight face to suggest that the system can’t work.”

Lobbying for ABL now

Wolf 10 (Jim Feb 12 Reuters journalist http://www.reuters.com/article/idUSTRE61B18C20100212 TBC 7/6/10)

The successful test prompted calls for the Pentagon to restore funding for further development of the Airborne Laser, which President Barack Obama turned into a kind of science experiment last year rather than a development program headed for deployment. "This defense project should be made ready to protect our homeland at a moment's notice," said Rep. Todd Tiahrt, a Republican from Kansas, where Boeing had been expected to do modification work on the Airborne laser. Riki Ellison of the Missile Defense Advocacy Alliance, a nonprofit funded partly by defense contractors, said the United States had spent about $5 billion on the Airborne Laser's development since the early 1990s. "Why would the US Congress and the Department of Defense not fully fund and further develop this system to have it ready to deploy to give our armed forces and allies protection against Iran and North Korea," he said in an email interview.

Link Shield – Congressional Push

Even if there’s opposition, there will still be a push in Congress for ABLs

Duffy 10 (Thomas, publishers of Washington Publishers’ Defense Group, Air Force Magazine, April 2010, Vol. 93, No. 4) GAT

Despite what appears to be a real uphill battle, ABL supporters in Congress plan to keep fighting to keep it alive. Franks will try to change the Obama Administration’s plans as Congress considers the Fiscal 2011 defense budget. “I am going to do everything I can to rally other members of Congress to recognize the amazing achievement that has occurred here with this lethal shootdown,” Franks said, adding that he would offer amendments to the defense authorization and appropriations bills. However, Franks acknowledges that missile defense supporters face big obstacle. The ABL, shown here in flight, could carry fuel that would last two weeks. (Boeing photo) “It’s been so discouraging working with members of Congress that either don’t have any understanding of the efficacy of this program or have an intrinsic bias against anything to do with missile defense, and this is especially true of the President of the United States,” he said. “The good news” is that the successful tests make it “impossible for them with a straight face to suggest that the system can’t work.” Franks said he believes the successful tests will “give people like me leverage to go to other members of Congress and help them understand the profound capability of this system and what it represents in our chain of technology for the future. I think lasers will ultimately be to missile defense what the silicon chip was to the computer industry.” In March 2009, Franks and six other House members wrote to Defense Secretary Robert M. Gates to express their worry that the ABL would see its funding cut in the Fiscal 2010 budget. One of the letter signers was Rep. Norman D. Dicks (D-Wash.), who became chairman of the House Appropriations defense subcommittee following the death of Rep. John P. Murtha (D-Pa.) in February. Franks said he expects ABL supporters to once again send Gates a letter and ask that the program be reconsidered in light of the two recent tests, but Gates has previously taken a particularly hard line on the program.

Link – Funding Fill-In

**Obama will placate Congress and contractors by funding weapon systems**

**Kaplan 9** (Fred @ Slate, 2/26, http://www.slate.com/id/2212323/pagenum/all/#p2)

President Barack Obama delivers remarks about his proposed financial year 2010 federal budget outline Much remains unknown about the shape of President Barack Obama's debut defense budget. Details won't be announced—several key decisions won't be made—until April. But from the broad numbers released this morning, two things seem clear: First, it is larger than it appears to be at first glance. Second, not counting the cost of the wars in Iraq and Afghanistan, which are projected to decline significantly—in other words, **looking just at the Defense Department's base-line budget** for weapons production, research and development, uniformed personnel, and so forth—**Obama's estimates** for military spending over the next few years **are roughly the same as** George W. **Bush's**. If huge **change** is in the works at the Pentagon, it **will come in the form of budgets reshuffled, not reduced**. And yet, there are signs—they can be gleaned from the numbers—that serious changes are in the offing, that **some lumbering weapons programs will be slashed,** perhaps canceled, **though** it's probably also the case that other programs will be boosted or accelerated to compensate.

**Despite a range of weapon effectiveness in recent tests, the military won’t invest in ABL’s because of a lack of funds.**

**Vergano 10**(Dan, USA Today, “'Star Wars' becoming real”5/14/10”JL

So years of research finally have produced lasers that could be effective on the battlefield, with one possible exception -- **ballistic missile defense** -- **the area of defense** in **which** the notion of **using lasers has attracted the most publicity**. Why? Cost is one reason. **Defense Secretary Robert Gates last year canceled plans to buy a laser-equipped 747, saving taxpayers $214 million this year.** **The program was** eight years behind schedule and **$4 billion over cost**. Gates also questioned the practicality of a laser that needed to be within about 80 miles of a missile to knock it down, meaning it would have to fly over hostile anti-aircraft defenses -- probably a suicide mission. "It's one thing to get a laser working aboard something as big as a 747. It's another to field something that makes sense as a weapon," says former Air Force chief scientist Mark Lewis, now at the University of Maryland. That would have been the military's second laser-outfitted plane. The existing "Airborne Laser Testbed" YAL-1 747 remains a research effort rather than a weapon. It's run by defense industry titans Northrup Grumman, Boeing and Lockheed Martin. This year, the Defense Department's Missile Defense Agency announced that a 100-kilowatt laser aboard **the research 747 had shot down Scud missiles in two tests,** the first since a weaker laser knocked down smaller Sidewinder missiles in the 1980s. But Air Force Gen. Norton Schwartz, who called the demonstration "**a magnificent technical achievement,**" said the type of chemical lasers used for the system were too heavy and unreliable for wartime use. Electronic solid-state lasers, an approach pursued by the U.S. Navy, seem more practical, because of their smaller size, power needs, easier cooling and insensitivity to vibrations. **The missile defense systems are still works in progress, but lasers are making gains in other military arenas**: \*Last year, a "Laser Avenger" mounted aboard a truck shot down unmanned aerial vehicles in tests at White Sands Missile Range in New Mexico. \*In October, a laser-equipped U.S. Air Force "Advanced Tactical Laser" C-130 airplane burned a hole in a slow-moving vehicle during a test at White Sands. \*The Pentagon's Defense Advanced Research Projects Agency (DARPA) signaled plans last year to develop a plane-mounted 150-kilowatt, 1,650-pound laser to knock down rockets and artillery shells in flight. Tests pointed to success shooting down mortar shells, the U.S. Army said. \*Not a weapon but a weapon tester, the Energy Department's National Ignition Facility is using the world's most powerful laser to simulate hydrogen bomb blasts on nuclear material. In 2008, a National Research Council Report called for the U.S. Army to speed development of a $470 million "mobile, 100,000-watt solid-state laser weapon system" to knock down mortar shells and rockets by 2018. The 100-kilowatt laser was demonstrated by Northrop in May last year. But it required a tractor-trailer-sized laser, Weinberger notes, not something that a Humvee could carry. "**There are a lot of people spending a lot of money** and a lot of time looking for military uses of lasers," Lewis says. **"The bottom line of this interest is that they haven't proven themselves yet, but they have overcome a lot of challenges."**

Link – Afghanistan

**Plan allows for strategic shift of defense spending to ABL’s – The war in Afghanistan will cost 105 billion dollars in 2010 alone.**

USA Today, 5-12-10. “Afghan war costs now outpace Iraq's,” <http://www.usatoday.com/news/military/2010-05-12-afghan_N.htm>.

The number of U.S. servicemembers in Afghanistan has risen to 87,000, on top of 47,000 from 44 other countries. At the same time, the number of U.S. servicemembers in Iraq has dropped to 94,000. By next year, Afghanistan is to have 102,000 U.S. servicemembers, Iraq 43,000. •**Afghanistan will cost** nearly **$105 billion in the 2010 fiscal year** that ends Sept. 30, **including most of $33 billion in additional spending requested by Obama and pending before Congress.** Iraq will cost about $66 billion. **In fiscal 2011, Afghanistan is projected to cost $117 billion**, Iraq $46 billion. To date, Pentagon spending in Iraq has reached $620 billion, compared with $190 billion in Afghanistan. •**Costs per servicemember in Afghanistan have been roughly double** what they are in Iraq **since 2005.** That is due to lower troop levels, Afghanistan's landlocked location, lack of infrastructure, high cost of fuel and less reliable security. "The cost just cascades," says Todd Harrison of the Center for Strategic and Budgetary Assessments. "That's always been an issue in Afghanistan."

Link – Iraq

**Plan frees up money to spend on ABL’s – each solider brought back from Iraq saves 390 thousand dollars a year.**

**White 6/18/10**(Deborah, Journalist and Suma Cum Laude from UCLA “Iraq War Facts, Results & Statistics at June 15, 2010”)JL

Spent & Approved War-Spending - **About $900 billion of US taxpayers' funds spent or approved for spending through Sept 2010.** U.S. 2009 Monthly Spending in Iraq - $7.3 billion as of Oct 2009 U.S. 2008 Monthly Spending in Iraq - $12 billion U.S. Spending per Second - $5,000 in 2008 (per Senate Majority Leader Harry Reid on May 5, 2008) **Cost of deploying one U.S. soldier for one year in Iraq - $390,000** (Congressional Research Service) Lost & Unaccounted for in Iraq - $9 billion of US taxpayers' money and $549.7 million in spare parts shipped in 2004 to US contractors. Also, per ABC News, 190,000 guns, including 110,000 AK-47 rifles.

Link – Japan

**Plan opens up space for spending on ABL’s – US no longer foots the bill for expenditures in Japan.**

**Okimoto 98**(Daniel, senior fellow of FSI, director emeritus of Shorenstein APARC, “The Japan-America Security Alliance: Prospects for the Twenty-First Century” January pg5)JL

JASA’s effectiveness is evident in what it has accomplished since its inception. In 1951, one of JASA’s prime goals was to foster Japan’s recovery from wartime devastation. From 1945 to 1948, **the United States channeled $750 million in direct economic assistance to Japan**. By 1952, the year the Occupation ended, the cumulative **total is estimated to have reached $2 billion,** **a whopping sum** but substantially less than the package of aid sent to Europe by way of the Marshall Plan.10 The United States also used military procurements and other forms of security assistance to help Japan get back on its feet. And if that was not enough, the United States interceded on Japan’s behalf to persuade Asian states, victims of Japanese aggression, to scale back their war reparation demands. **Japan wound up paying a total of $1.15 billion, far less than the amount** originally demanded. The bulk of the reparations consisted of grants of capital goods manufactured in Japan and low-interest loans tied to the purchase of Japanese goods (both of which stimulated Japan’s struggling economy). Most importantly, the United States opened its own huge market, giving Japan the opportunity to carve out sizable market shares in key sectors, such as steel, automobiles, and consumer electronics. Owing to JASA, **Japan has not had to spend much taxpayer money on national defense**. **Japan has been spared the need to divert scarce resources for military purposes**. This was especially beneficial when capital and resources were tight, as they were during the first decade of JASA’s existence (the 1950s). The “JASA dividend”—the amount saved in Japan’s defense budget as a result of JASA’s security umbrella—could be invested in productive civilian areas such as electrical power generation, social overhead infrastructure, and heavy plant equipment. Patrick and Rosovsky estimate that a heavier defense burden—6 percent of GNP rather than 1 percent—would have slowed Japanese annual growth rates by 2 percent per year between 1952 and 1974. Yearly rates would have fallen from 9 percent to 7 percent. Compounded over a period of two decades, a slowdown of that magnitude would have shrunk the aggregate size of Japan’s economy by 30 percent. Higher defense expenditures would not have halted Japan’s industrial development; but it would have stunted its growth rate.11

Link – PMCs

**PMC’s are reaping hefty profits in Iraq.**

**Lendman 10**(Stephen, The Dissident Voice, “Outsourcing War: The Rise of Private Military Contractors (PMCs)”, January)JL

They perform non-lethal services. They’re “supply-chain management firms… tak(ing) care of the back-end, (including) logistics and technology assistance….” They also supply intelligence and analysis, ordnance disposal, weapons maintenance and other non-combat functions. **Overall, the industry is huge and growing, grossing over $100 billion annually worldwide, operating in over 50 countries. By far, the Pentagon is their biggest client**, and in the decade leading up to the Iraq War, it contracted with over 3,000 PMCs, and **now many more spending increasingly larger amounts.** A single company, **Halliburton and its divisions grossed between $13-16 billion from the Iraq War, an amount 2.5 times America’s cost for the entire Gulf War**. **The company profits handsomely because of America’s commitment to privatized militarization**. More about it below. Since 2003, Iraq alone represents the “single largest commitment of US military forces in a generation (and) by far the largest marketplace for the private military industry ever.”

**PMC’s have already outnumbered American forces in Afghanistan.**

**Lendman 10**(Stephen, The Dissident Voice, “Outsourcing War: The Rise of Private Military Contractors (PMCs)”, January)JL

**In 2005, 80 PMCs operated there with over 20,000 personnel.** Today**, in** Iraq and **Afghanistan** combined, **it’s grown exponentially,** according to US Department of Defense figures — nearly 250,000 as of Q 3, 2009, mostly in Iraq but rising in Afghanistan to support more troops. Not included are PMCs working for the State Department, 16 US intelligence agencies, Homeland Security, other branches and foreign governments, commercial businesses, and individuals, so the true total is much higher. In addition, as Iraq troops are drawn down, PMCs **will replace them, and in Afghanistan, they already exceed America’s military force.**

Link – South Korea

**Plan opens the door for ABL spending – The USFK has a 10 billion dollar special fund surplus that would be relocated to other spending like ABL’s.**

**WRI 9**(War Resisters International, “South Korea pays the price for big US bases” The Broken Rifle No. 82 May)JL

**Since 1991, the US has received assistance from the ROK for the cost of building military facilities outlined by the Special Measures Agreement** (SMA). The SMA is renewed every 2-3 years and each time ROK's share of the burden increases. Unused money under the SMA should be repaid to the ROK. Instead, since 2002, **the USFK keeps this surplus in a special fund which has now accumulated US$10,000 million.**

Link – Nuclear Weapons

**The plan upsets military contractors and pro-defense Congress members**

**Chossudovsky, 4** [Michel, Prof of Econ at U of Ottawa http://www.globalresearch.ca/articles/CHO405A.html]

This green light decision of the Senate Armed Services Committee was followed a few months later by a major redefinition of US policy pertaining to nuclear weapons. On August 6, 2003, the day the first atomic bomb was dropped on Hiroshima, 58 years ago, **a secret meeting was held with senior executives from the nuclear industry and the military industrial complex** at Central Command Headquarters at the Offutt Air Force Base in Nebraska. "**More than 150 military contractors**, scientists from the weapons labs, **and** **other government officials** **gathered** at the headquarters of the US Strategic Command in Omaha, Nebraska **to** plot and **plan for the possibility of** "full-scale **nuclear war**" **calling for the production of a new generation of nuclear weapons**—more "usable" so-called "mini-nukes and earth penetrating "bunker busters" armed with atomic warheads." (Alice Slater, Bush Nuclear Policy A Recipe for National Insecurity, August 2003, http://globalresearch.ca/articles/SLA308A.html ) **The new nuclear policy explicitly involves the large defense contractors in decision-making**. It is tantamount to the "privatization" of nuclear war. **Corporations** not only **reap multibillion-dollar profits from the production of nuclear bombs, they also have a direct voice in** setting the agenda regarding **the use and deployment of nuclear weapons**. **The Nuclear weapons industry**, which includes the production of nuclear devices as well as the missile delivery systems, etc. **is controlled by a handful of defense contractors** with Lockheed Martin, General Dynamics, Northrop, Raytheon and Boeing in the lead.

\_\_\_\*\*ABL DA – Internals/Impacts

Internals – Funding k2 ABL

Every dollar counts – ABL funding is key to success
Seattle Times 8 (Boeing Concerned By Budget Cuts on Airborne Laser, p. <http://seattletimes.nwsource.com/html/localnews/2008169306_apboeingairbornelaser.html>)JFS

Aerospace manufacturer Boeing Co. on Tuesday expressed concern over potential budget cuts on its airborne laser aircraft in the upcoming fiscal year's budget, which is still being haggled over by lawmakers. Earlier this year, the House Armed Services Committee agreed to cut $42.6 million from the Missile Defense Agency's $421 million program in its version of the defense authorization bill due to continuing operational and affordability concerns. That cut is much larger than the proposed $15.7 million trim House appropriators have recently suggested. Neither committee has included funding for a second aircraft. The first of its kind, neither Congress or the Missile Defense Agency have put forth plans for a second aircraft beyond development funding until the technology has fully matured, and has proven its capability. The airborne laser aircraft is a modified version of a Boeing 747 freighter, and is designed to detect, track and destroy enemy ballistic missiles during the early stages of flight using a high-energy, infrared laser designed and developed by partner Northrop Grumman Corp. The system can also pass on information about launch sites, track targets and predict impact points of the missile. "It would be a shame to mark even a small amount of the president's budget request ... every dollar is very important," Mark Rinn, Boeing's vice president and program director, told reporters on a conference call Thursday.

Internals – Contractors <3 ABL

**They’d want ABL in return –they’re pleading for it**

**Spillius 8** (Alex, @ The Telegraph, December 23, http://www.telegraph.co.uk/news/worldnews/northamerica/usa/barackobama/3919719/US-laser-warplane-under-threat-from-Barack-Obama.html)

**One of** first **the first decisions** of US defence **that the President-elect will** **face** in office **will be** whether or not **to continue funding** for **the** futuristic **Airborne Laser** weapons programme. The system aims to send an invisible, ultra-powerful laser beam from aircraft hundreds of miles from their targets, and could one day alter the nature of aerial warfare. Primarily designed to strike enemy missile silos, **the US Missile Defence Agency has called the ABL the answer to "rogue states" or terror groups equipped with intercontinental ballistic missiles**. The first, very limited, test firing was staged in late November. The laser was loaded on to a Boeing 747 and fired from a stationary plane at a target on the ground just a few yards away. But already 12 years in the making and way over budget at $4.3 billion (£2.9 billion), **developers Boeing, Lockheed Martin and Northrup Grumman fear it could fall victim to the new administration as it seeks to save costs**. Mr Obama has stated a preference for abandoning weapons whose efficacy is not yet proven. **Boeing is now planning to develop the weapon's planned target range to include aircraft and enemy ballistic missiles in flight**. Mike Rinn, head **of Boeing's Airborne Laser programme, has indirectly pleaded for leniency from** the **Obama** administration. "We remain on track to complete a lethal demonstration in 2009," he told the New Scientist. "**There's nothing like flaming missile wreckage to show the world the system is viable**." **He added: "It's important that we keep this momentum going for this critical technology.**"

**ABL is a top request for defense contractors**

**Vartabedian 95** (Ralph, @ LA Times, 10/30, <http://articles.latimes.com/1995-11-30/news/mn-8786_1_air-force-officials>)

However, the history of high-power military lasers is littered with embarrassing failures in which too much was promised, and false expectations were created a decade ago during the early "Star Wars" program. So critics say it is too early to tell whether the new system, known as the airborne laser, will work any better. They caution that building the device will involve major technical hurdles. But **senior defense officials insist that the story will be different** this time **because the technology is in hand and the need for a weapon** to protect American troops **is rooted in** a visceral memory of **Iraq's deadly Scud attack against a U.S. barracks** during the 1991 Persian Gulf War. **The aerospace industry smells big business in the future of lasers, foreseeing the day when such weapons are used for all kinds of battlefield shooting matches.**

**It’s the perfect deal for Obama to offer—pleases the right and left**

**Landrith 10** (George Landrith, President of Frontiers of Freedom, a Washington, DC based think tank, 2/24, <http://www.humboldtbeacon.com/ci_14463197>)

**The ABL is endorsed by soldiers in the field**. Lt. Gen. Lloyd Utterback said, “... **the ABL offers ... a significant capability for boost phase missile defense and other critical tactical missions.** As a boost intercepter, **it will take the battle to the enemy and defeat threat forces before countermeasures can be deployed.** I am also excited by the ABL's potential capability to counter surface-to-air and cruise missiles.” **Even** **if those on the left have no interest in the ABL** from a national security standpoint, **couldn't they support it as a stimulus or jobs program**? Obama has committed to spending hundreds of billions on stimulus, and even a tiny fraction of that could fully fund missile defense. **Wouldn't that be precisely the bipartisan compromise he is looking for?**

Internals – Contractors <3 ABL

Contractors want ABL and are going to fight to get it

Sieff 7 (Martin, writer for United Press International, http://www.spacewar.com/reports/The\_Battle\_To\_Save\_The\_ABL\_999.html) GAT

But Boeing, Northrop Grumman and Lockheed Martin, the "big three" defense aerospace contractors most involved in the ABL, are not sitting back waiting for their congressional supporters to step in and fight Tauscher's proposed cuts. They are already out in the marketplace of ideas making their case for saving the ABL. In a joint statement issued Tuesday, the three giant companies noted that the Airborne Laser is intended to provide a boost-phase intercept capacity to shoot down intercontinental ballistic missiles after they are launched. They said the ABL program "remains on track to complete a lethal demonstration in 2009 that will validate the unique contribution ABL can bring to an integrated ballistic missile defense system (BMDS) as a boost phase element." "The laser system fired effectively at full power and full duration during ground testing in 2005," the statement said. "In 2007, low-power flight tests for the beam control/fire control system will be complete and the high-power laser integration inside the aircraft will begin. In 2008, we will begin high-power system testing that will culminate in an early 2009 lethal demonstration. "We stand on the verge of fully demonstrating a revolutionary warfighting capability," the companies said. "ABL technical risk has been substantially reduced as a result of previous investments by both Democratic and Republican administrations and congressional guidance. Given the importance of the boost-phase mission and the proximity of demonstrating ABL's capabilities, it would be imprudent to cripple or terminate this program just when we are on the cusp of demonstrating ABL's capability. "We most respectfully urge Congress to support the full fiscal year '08 budget request for the Airborne Laser program," the joint statement said. If the ABL program goes operational it will involve pairs of giant aircraft carrying the weapons that will patrol within friendly airspace at altitudes of around 40,000 feet, ready to track and acquire as targets ascending ICBMs. A key attraction of the ABL concept is that, whereas the fastest ballistic missile or ABM interceptor can accelerate to 15,000 to 18,000 miles per hour, lasers fire at the speed of light, which is 186,000 miles per second.

Impact Shield – ABLs Fail

ABLs fail – Logistics

Duffy 10 (Thomas Vol. 93, No. 4 April Airforce Magazine publisher of Inside Washington Publishers’ Defense Group http://www.airforce-magazine.com/MagazineArchive/Pages/2010/April%202010/0410laser.aspx TBC 7/6/10)

That five-year goal came and went as the program was plagued with technical issues and rising costs. The Air Force’s original plan for operating the ABL called for seven aircraft dispersed to two combat theaters, three in each location with one additional aircraft that could be used if any aircraft were down for maintenance. The service estimated each ABL would cost between $1 billion and $1.5 billion, and that it would take at least two years to roll one off a production line. Critics seized on the cost of the aircraft—ABL would have been the second most expensive production aircraft behind the B-2 bomber—and a questionable operating concept. Because the ABL would be a slow moving, very large target, USAF planned to have fighter aircraft escort it on missile defense sorties, adding to the operating cost. The Missile Defense Agency in a 2006 report to Congress revealed an operating concept that required “at least three aircraft for a near-continuous single combat air patrol station.” Additional aircraft “may be required depending on the length of deployment, capabilities of the aircraft available, and whether or not the combatant commander needs near-continuous or continuous coverage,” MDA added. “The specific quantity of operational assets required for deployment periods of seven days, 30 days, 90 days, and one year” had not been determined. The aircraft would also be limited in where they could be used.

**ABL couldn’t be strategically deployed in a time of crisis.**

**Pike 9** (John, one of the world's leading experts on defense, space and intelligence policy, “Airborne Laser Testbed (ALTB) Airborne Laser”)JL

By 2006 **the Airborne Laser program** **had hit hard times**, **beset by** delays and **major technical problems**. For the following two years, the laser program was relegated to a technology demonstration status while a planned five-aircraft purchase by the Air Force was put on hold. As of early 2009 the beam had been fired in the air and was performing well to ranges beyond 100km. According to an American Physical Society report in 2004, the Airborne Laser could shoot down a typical liquid-fuel intercontinental ballistic missile (ICBM) from up to 600km away. **However,** against **solid-fuel ICBMs**, which **are more resistant to heating**, the useful range would be about 300km. **The weapon system's ability to compensate for atmospheric conditions between it and its target was a make-or-break matter**, and at that time it was doing fine. ABL may be able to carry out as few as 6-10 "shots" before refuelling, **though a reload of the toxic chemical fuels for an ABL would fill two C-17 transport planes.** The ABL was expected to achieve effective range of at most 400km. While impressive, **the system would be hard to use against Russia and China, since the ABL would be unlikely fly into these countries’ airspace during crisis.**

**ABL Technology won’t be successful for the nation’s defense for 20-30 years.**

**Kramnik 10**(Ilya, military commentator for RIA Novosti “How real is the threat of laser weapons?” 2/16/10)JL

The YAL-1 can hit ballistic missiles during their boost phase and has a range of 200-250 km. **The effective range is limited by the laser unit's power**, the laser beam's atmospheric dissipation, **atmospheric aberration** affecting siting accuracy **and the laser-beam gas breakdown** effect which **has not yet been eliminated**. Moreover, an **excessively powerful laser unit** could **overheat the fuselage and cause the plane to crash.** These factors and the system's low rate of fire currently make it possible only to intercept individual missiles at short range. It appears that **such systems will be unable to neutralize an all-out nuclear strike in the next 20-30 years**. Speaking of a hypothetical Russian-U.S. conflict**, airborne laser weapons would have to be deployed in Russian air space in order to be able to intercept Russian missiles** in their boost phase and during the separation of their multiple independently targetable reentry vehicles (MIRVs). In fact, **they would have only 3-5 minutes to accomplish this objective.** However, even **Russia**'s problem-ridden air-defense system **would not allow a B-747 to roam free in national air space.** Airborne laser weapons present a greater threat to strategic ballistic missile submarines which either patrol Russian territorial waters or international waters. However, there is one limitation. As the submarines spend most of their time underwater, laser-carrying aircraft could not quickly reach the optimal firing position necessary for a successful missile interception.

Impact Shield – ABLs Fail

ABL fails to deter ICBMs – they are heat resistant

Hardesty 5 (David, Naval War College Review, 58(2), Questia)JFS

Some analyses cast doubt upon the likelihood that any boost-phase intercept systems could be deployed before countermeasures made them ineffective. The American Physical Society recently concluded that neither interceptors nor airborne lasers were likely to be useful against solid-propellant ICBMs, which are more heat resistant and burn faster, reducing engagement time lines. While some of the study's assumptions are open to challenge, there is little doubt that terrestrially based boost-phase intercept against high-end ICBM threats would be challenging. Space-based systems, however, suffer similar drawbacks. The same study calculated that over 1,600 space-based interceptors would be required to eliminate a single solid-propellant ICBM, requiring "at least a five-to ten-fold increase in the current annual U.S. launch capacity." Additionally, most potential countermeasures to and limitations of airborne lasers also apply to space-based laser systems.

ABLs 🡪 Afghanistan Collapse

**ABL undermines aerial refueling – overstrech**

**Hildreth, 7** (Steven A, Specialist in National Defense Foreign Affairs, Defense, and Trade Division – CRS, July 9, http://fas.org/sgp/crs/weapons/RL32123.pdf)

ABL proponents admit that the laser modules are currently heavier than anticipated. Nonetheless, they argue that they are within the requirement for the whole weapon system to fit within the 747’s maximum takeoff weight — 800,000 CRS-9 23 ABL officials argue that given system integration lab ground results in 2005, the ABL is expected to provide an operational viable capability with six laser modules. lbs. with the six laser modules on the aircraft.23 **ABL critics remain skeptical that with fewer modules the same level of lethality can be achieved, thus raising questions as to whether the ABL will be required to fly closer toward its targets in hostile air space and whether weight trade-offs will result in reduced fuel capacity and increased need for aerial refueling to perform its mission. Recent military operations in Afghanistan** and Iraq **suggest that DOD’s aerial refueling fleet is already overburdened**.

**Adequate aerial refueling is critical to success in Afghanistan**

**Nasso 10** (Samuel, Lance Corporal in the Marines, 1/5, [http://www.usmc.mil/unit/iimef/2ndmeb/Pages/VMGR-352RaidersTransportTroops,CargoforMEB-Afghanistan.aspx](http://www.usmc.mil/unit/iimef/2ndmeb/Pages/VMGR-352RaidersTransportTroops%2CCargoforMEB-Afghanistan.aspx))

**For the Marines in Afghanistan**, the need for ammunition, fuel, water and other supplies is constant. But unlike in Iraq, **most supplies need to be airlifted throughout the country due to fewer secure ground transportation route**s. The Marines of Marine Aerial Refueler Transport Squadron 352, Marine Aircraft Group 40, Marine Expeditionary Brigade-Afghanistan, provide the needed air transportation using KC-130J Hercules aircraft to transport cargo all around Afghanistan to give the troops what they need. But in addition to regular **Hercules flights** transporting troops or pallets of supplies from one installation to the next, VMGR-352 **accomplishes a host of other missions**. "**We conduct** battlefield illumination, rapid ground refueling, command and control missions, obviously transport troops and supplies, and also **fixed-wing aerial refueling,"** said 1st Lt. Jon Baker, a co-pilot with VMGR-352. The commanding officer of Marine Attack Squadron 231 and Marine site commander for Kandahar Airfield, Lt. Col. Robert Forrest, agrees. "**With the aerial refueling keeping us in the fight longer, the movement of parts, supplies and logistics, they are indispensible**," said Forrest.

ABLs 🡪 Global Instability

**Directed energy weapons destabilize the international arena—and the US would intervene in Taiwan**

**Zhang 4 (**Hui Zhang, research associate in the Project on Managing the Atom at Harvard University’s John F. Kennedy School of Government, <http://www.nuclearfiles.org/menu/key-issues/space-weapons/issues/zhang-chinese-perspectives.htm>)

**Research on the Space Based Laser had been conducted for some time** for boost phase missile defense. In 2002, the Missile Defense Agency cancelled the SBL program. However, a number of directed energy initiatives can be found in various other programs. The possibility that the SBL program will be revived in the Missile Defense Agency is still there. In addition, a space-based BMD system would encourage other countries to deploy ASAT weapons, since, as discussed in the following section, these space weapons and sensor satellites would themselves become prime high value target and the most vulnerable elements for ASAT attacks. Finally, in addition to these space weapon programs for missile defense, there are **several space weapons research programs** that the Pentagon plans **for** prompt, **global force projection**. These space weapons would be used to attack terrestrial targets. For example, the long-rod penetrator, often termed “Rods from God,” is one of the active research programs in the Pentagon. The use of space-based lasers against ground targets is also discussed. Operation Practice for “Space Control” Beyond these space weapons programs, **the organizational aspect is also steadily moving towards space weaponization**. For example, in October 2002, the U.S. Space Command was merged with the U.S. Strategic command, which now unifies the management and operation of space systems, missile defense systems, and strategic nuclear forces. Since 2000, the U.S. has established 527th Space Aggressor Squadron and the 76th Space Control Squadron. And the U.S. Air Force Space Command conducted space warfare exercises in 2001 and 2003. Consequence of Space Weaponization Space Weaponization and International Security The advocates of space weaponization claim that U.S. space assets would face a “Space Pearl Harbor” threat. However, **many experts do not believe there are credible threats to U.S. space assets from other countries. Besides the U.S., only the Soviets had** explored, tested, and **developed** ASAT weapons or **other space weapons**. However, **Russia announced a moratorium of its** ASAT **program in the** early 19**80s**. **There is little reason to believe that Russia has changed its policy** against deploying such weapons. There is also no evidence that any other nations have any intention to launch a war in space. **Although some countries would have the capability** to attack U.S. satellites, t**here is no reason to believe that any government would take such a risk by incurring a deadly U.S. response**. On the contrary, most countries, including China and Russia, have given high priority to negotiations on the prevention of space weaponization. Many Chinese believe that the real purpose of “space control” is to achieve space domination. **By unilaterally developing missile defense and pursuing space weaponization, the U.S. will establish a global military superiority** in both offense and defense **and dominate both outer space and the Earth**, thus hoping to achieve unilateral absolute security and perpetual superiority. Moreover, **because of their vulnerability to other cheaper, asymmetric measures** (e.g. ground-based kinetic energy ASAT weapons**), those space weapons are inherent first-strike weapons**. Consequently, **their deployment will disrupt the global strategic balance and stability and further destabilize the international situation.** Many Chinese are concerned that **this will make U.S. hegemony more aggressive. With** the unilateral **absolute military superiority** and security **at the cost of other countries’ security, the U.S. will gain absolute freedom in using** or threatening to use **force in international affairs**. Specifically**, the U.S. would use such freedom to interfere China’s Taiwan affair**. Indeed, the Taiwan issue is taken as one threat in the 2001 Commission Report. And furthermore, China was taken as an assumed enemy in the 2001 space war exercise. Given the tremendous military advantage that space weaponization could provide, **as a sole possessor, the U.S. would have great flexibility in launching global strikes and would put other nations in serious danger**. Thus, **it will inevitably encourage other countries to respond** both politically and **militarily**.

ABLs 🡪 Global Instability

**A shift in nuclear primacy causes multiple scenarios for nuclear war**

**Lieber and Press 6** (Keir A. Lieber, Prof. of IR @ Notre Dame, Daryl G. Press, Prof. of Government @ Dartmouth, International Security 30.4, p. muse)

**The shift in the nuclear balance could** signiªcantly damage relations among the great powers and **increase the probability of nuclear war.** First, **the U**nited **S**tates’ **growing offensive nuclear capabilities will pressure Russia and China to reduce the** peacetime **vulnerability of their forces. The steps that they** may **take** to do this—for example, building larger nuclear arsenals, dispersing nuclear forces, predelegating launch authority to local commanders, and adopting a hair-trigger nuclear retaliatory doctrine—**may signal the beginning of an** intense, new nuclear **arms race**. Even worse**, these steps may increase the danger of nuclear accidents**, including unauthorized and accidental nuclear war.64 In the past, both U.S. and Russian early warning systems have sounded false alarms of incoming nuclear attacks; this record suggests that the dangers associated with accidental nuclear war are serious.65 The second implication of the United States’ emerging nuclear primacy is that it may trigger dangerous dynamics during crises and wars. If Russia and China do not sufªciently reduce their peacetime vulnerability, they will feel compelled to do so if they ªnd themselves in a crisis with the United States. **Efforts to ready and disperse nuclear forces during a crisis,** however, **can be perilous**, especially once conventional military operations begin. For example, **a Chinese nuclear alert during a Sino-U.S. war** over **Taiwan might appear** to U.S. leaders **that** **China was preparing to use nuclear weapons**.66 Under these circumstances, U**.S. leaders would face great pressure to preempt a potential Chinese attack** rather than wait and see if China strikes nearby U.S. military forces, a U.S. ally, or (less likely) the American homeland. (U.S. leaders are well aware of repeated comments by Chinese military ofªcers suggesting that China might use nuclear weapons to destroy American cities if the United States supported Taiwan in a war for independence.67) In a similar vein, during a conventional war over Taiwan, **U.S. military forces would likely attack Chinese air defense radars,** communications hubs, military command and control sites, mobile missile launchers, and submarines. **These attacks—designed to win the conventional war—would be indistinguishable to China’s leaders from the steps the U**nited **S**tates might **take prior to attacks on China’s** small strategic **nuclear force**. Facing a possible nuclear strike, **China might** alert its nuclear forces or even **initiate regional nuclear war to deter further U.S. nuclear escalation**.68 Third, if Russia and China do not adequately reduce the vulnerability of their nuclear forces, **U.S. leaders will soon have the option of launching a disarming attack against either country.** Some analysts consider this scenario unthinkable: it would, after all, entail enormous risks and horrifying costs. History and current policy trends suggest, however, that **the possibility of a U.S. nuclear attack should not be entirely dismissed. Nuclear counterforce was the cornerstone of** American **national security strategy during the** previous **era of U.S. nuclear primacy** (the early 1950s until the early 1960s). **During this period, U.S. leaders planned to launch a massive nuclear attack on the Soviet Union, Eastern Europe, and China if the Soviets launched a conventional attack on Europe**.69 Indeed, in 1961, at the peak of the Berlin crisis, U.S. leaders modiªed war plans to improve the odds that a disarming strike on the Soviet Union would succeed, and President John Kennedy carefully explored the option of initiating such a surprise nuclear attack.70 Moreover, both the United States and the Soviet Union considered launching attacks on China to prevent its ascension to the nuclear club.71 **In a new era of U.S. nuclear primacy, U.S. policymakers may** once again be tempted to **consider nuclear escalation during intense crise**s or if nonnuclear military operations go unexpectedly badly for the United States (e.g., in Korea).72

**ABL creates the possibility for a first strike attack**

**Farmer 3** (Mark @ Popular Science, 2/19, [http://www.popsci.com/military-aviation-space/article/2003-02/dawn-airborne-laser#](http://www.popsci.com/military-aviation-space/article/2003-02/dawn-airborne-laser))

If all goes well and the ABL is accepted into service, the laser might qualify for any number of other missions. Perhaps the most novel application for **the ABL** is the possibility that it **may be used to shoot down enemy planes**. That was suggested in a recent Air Force report that said this could be accomplished by **using mirrors mounted on airships to extend the range of the laser beam and deflecting a beam straight down onto targets rather than at oblique angles through dense atmosphere**. "In our study, the time-on-targets were reasonable," says Ted Wong, the retired laser scientist who led the Air Force panel. "**A matter of a few seconds on target seemed enough to cause damage.** A lot of targets we're looking at are not that hard. **Aircraft, sensors and radars can be (highly vulnerable) to thermal effects.**" In the meantime, **Congress** is so pleased with the results of the ABL project that it **has already appropriated money to purchase a second airplane for conversion into an ABL-a passenger** version of the 747-400 with an extended upper deck to house the entire crew, eliminating the current, highly complicated airtight midcabin bulkhead separating the crew from the laser. This airplane will likely be the first to become truly combat-ready. If the project does get that far, decades of secret laser efforts will finally emerge from the world of briefing presentations and war games to become hardware. After long yearning for the power of the gods, the United States may soon be able to deliver a bolt from the blue.

ABLs 🡪 Great Power War

**ABL defense causes Russia-China alliance**

**Krepon 4** (Michael, Prof. of Politics @ Univ. of Virginia, <http://www.armscontrol.org/print/1689>)

**Even if space weapons are not used**, **their** flight-testing or **presence** overhead, capable of impairing a country’s ability to see, hear, navigate, detect impending danger, and fight, **would have profound implications for international relations**. The medium of space is not country-specific. The placement of **space weapons** in low-Earth orbit **will** **be of concern to any country over which the space weapon passes** or could pass with orbital adjustments. Washington policymakers do not talk often or publicly about space warfare, and China and Russia continue to seek improved ties to the United States. **There is**, however, **considerable awareness in Moscow and Beijing** about the Pentagon’s plans **and deep skepticism that the Pentagon’s interest in space warfare is directed solely at states such as North Korea** and Iran. Instead, the Air Force’s **new counterspace doctrine is widely viewed in the** broader **context of the Bush administration’s endorsement of pre-emptive strikes** and preventive wars, open-ended national missile defense deployments, and the integration of improved broad-area surveillance and conventional deep-strike capabilities alongside U.S. nuclear forces, which remain on high states of alert. **If U.S. counterspace programs proceed, Russia and China can be expected to forge closer ties, pursuing joint diplomatic initiatives to prevent the weaponization of space, alongside military research and development programs to counter U.S. military options**. Instead of engaging in a Cold War-like nuclear arms race with Washington, **Moscow and Beijing will compete asymmetrically, using less elaborate and expensive techniques, such as** by trailing expensive U.S. space weapons and satellites with cheap **space mines.[9]**

ABLs 🡪 I. Law Collapse

**ABLs are human rights violations**

**Reed 8** (Alexander, staff writer for the Anti Facist Encyclopedia, http://www.antifascistencyclopedia.com/allposts/directed-energy-airborne-lasers-to-replace-bombs-boeing-develops-new-ground-attack-weapon, date accessed: 7/6/2010) AJK

For its part, the **Air Force has devoted a significant amount of resources to researching directed-energy weapons.** Last month, the Air Force announced it completed a bioeffects study on a vehicle-mounted, nonlethal energy weapon called the “Active Denial System.” **This device emits a beam of radio waves, rapidly heating a human target’s skin, causing the individual to flee**, according to an Air Force statement. **Some human rights groups have protested the development and use of directed-energy weapons, claiming they may be illegal under international law.** Lasers have long been at the forefront of that criticism. For example, **American troops in Iraq have been issued rifle-mounted “dazzlers,” or low-power lasers designed to temporarily blind targets.** **Human Rights Watch protested** in 1995 **the** **military’s development of such lasers,** prompting a 1998 amendment to the Geneva Conventions, prohibiting the use of weapons “specifically designed, as their sole combat function or as one of their combat functions, to cause permanent blindness to unenhanced vision.”

ABLs 🡪 Ozone Collapse

**ABL tanks the ozone layer**

**Pae 2** (Peter, @ LA Times, October 20 http://www.globalsecurity.org/org/news/2002/021020-laser1.htm)

But in recent years, Pentagon officials have raised concerns about the size of the system required to fire a **deadly chemical beam**. What's more, some have expressed worries about **the potential environmental damage from caustic chemicals**. Weapons **developers** at Kirtland Air Force Base in New Mexico, for instance, **have been able to shoot a chemical laser** and put a basketball-size hole in a Scud missile replica from dozens of miles away. **But** to do **that required several** truck-size **vats filled with chemicals**. Environmentalists are concerned about the deployment of **a modified Boeing 747**, the world's largest commercial jet, that **would operate the** nation's first **airborne chemical laser**, contending that **the chemical beam could be harmful to the atmosphere** and that the potential for toxic spills is unacceptable.

**Ozone depletion causes complete extinction – scientific consensus is on our side.**

**Greenpeace 95** (http://archive.greenpeace.org/ozone/holes/holebg.html)

**When chemists** Sherwood Rowland and Mario Molina **first postulated a link between chlorofluorocarbons and ozone layer depletion** in 1974, **the news was greeted with scepticism**, but taken seriously nonetheless. **The vast majority of credible scientists have since confirmed this hypothesis**. The ozone layer around the Earth shields us all from harmful ultraviolet radiation from the sun. **Without the ozone layer, life on earth would not exist. Exposure** to increased levels of ultraviolet radiation **can cause** cataracts, **skin cancer, and immune system suppression** in humans as well as innumerable effects on other living systems. This is why Rowland's and Molina's theory was taken so seriously, so quickly - **the stakes are literally the continuation of life on earth.**

**Independently, ozone depletion shatters DNA – making survival impossible.**

**Earth & Society ’98** (<http://www.umich.edu/~gs265/society/ozone.htm>)

**The ozone layer is essential for human life. It is able to absorb much harmful ultraviolet radiation**, preventing penetration to the earth’s surface. Ultraviolet radiation (**UV**) is defined as radiation with wavelengths between 290-320 nanometers, which **are harmful to life because this radiation can enter cells and destroy the** deoxyribonucleic acid **(DNA) of many life forms** on planet earth. In a sense, the ozone layer can be thought of as a “UV filter” or our planet’s “built in sunscreen” (Geocities.com, 1998). Without the ozone layer, UV radiation would not be filtered as it reached the surface of the earth. **If this happened, “cancer would break out and all of the living civilizations, and all species on earth would be in jeopardy**” (Geocities.com, 1998). Thus, **the ozone layer essentially allows life, as we know it, to exist.**

ABLs 🡪 US-Russia War

**ABL causes Russia-US war**

**War Eye 9** (Online military news source, [http://wareye.com/u-s-airborne-laser-weapon-program-is-intended-to-deal-with-china-and-russia,](http://wareye.com/u-s-airborne-laser-weapon-program-is-intended-to-deal-with-china-and-russia%2C))JFS

Over the years, senior **Russian officials have said the interceptor missiles** and related items **is** **not** the Pentagon, and space operations in Europe and the Asia-Pacific region said the military alliance, it is **only a** so-called **rogue states** as the **goal, but** there are **more dangerous intent** . For the Pentagon’s missile interceptors on the ground its space program is the intention of the direct, in a recent article said: “The White House believes that **the project aims to** address, such as such as have or will **have a missile capable of reaching** U.S. territory of **the** country’s ‘**threat’**. Meanwhile, **the Kremlin** Temple **believes** that missile interception system, **the real goal is to eliminate Russia’s nuclear deterrent, so the Russian side is to be seen as a threat to Russian national security.** ” **Another** influential **Russian source said:** “The strategic importance of **these interceptor missiles will be increasing**, **and they gave** the U.S. first of all to **Russia the ability to launch a nuclear attack.** In this case, **the** interceptor **missile only need to deal with** the first round of the survival of **a** limited **missile attack**, **so that** the United States since the last century, 50 years since the first time in **a** **nuclear war in the hope of winning Russia. ”**

\_\_\_\*\*Lasers DA – Aff Answers

UQ – ABLs Now

Non-Unique – momentum for funding now

Koski 7/4 Olivia Wired Staff Writer http://www.wired.com/dangerroom/2010/06/laser-plane-gets-more-cash-to-blow-up-more-stuff-up/ TBC 7/6/10)

Once a half-billion-dollar a year operation, the Missile Defense Agency’s flagship laser weapon program got just $40 million this week to continue experiments. Boeing has to make due with a mere $330,000/day from June until September to keep the Airborne Laser Testbed (ALTB) going. The money brings the ALTB’s total budget this year to $146 million. In February, the modified 747 destroyed a missile in flight with nothing but coherent light, but by then the Obama administration had already decided to all-but-end the program. According to a Defense Department announcement, the money will fund “additional missile engagement scenarios and flight testing to include all required support.” In other words: we’re gonna blow more stuff up! There is $100 million set aside for the laser weapon in the 2011 defense budget. ALTB proponents hope to slip in at least another $50 million – a drop in the budget compared to the $10 billion or so that the Missile Defense Agency is supposed to get next year. In a markup yesterday of the Fiscal Year 2011 defense authorization bill, a House Armed Services Committee panel proposed adding more funds to revive the program. “It was clear that the budget request was not sufficient to support further flight testing using the Airborne Laser Test Bed,” said Rep. Michael Turner of Ohio, the top Republican on the House Armed Services Subcommittee on Strategic Forces.

Non-Unique – funding now

Hodge 10 (Nathan May 13 Wired Magazine http://www.wired.com/dangerroom/2010/05/zombie-laser-plane-returns-to-haunt-washington/ TBC 7/6/10)

But some members of Congress love their flying lightsaber. In a markup yesterday of the Fiscal Year 2011 defense authorization bill, a House Armed Services Committee panel proposed adding more funds to revive the ABL program. “It was clear that the budget request was not sufficient to support further flight testing using the Airborne Laser Test Bed as well as mature innovative directed energy technologies,” said Rep. Michael Turner of Ohio, the top Republican on the House Armed Services Subcommittee on Strategic Forces. Backers of ABL would like to see more tests like the one pictured here, in which the current test aircraft destroyed what the Missile Defense Agency described as a “threat representative” short-range missile back in February. And they’d also like to pour more money into the Ground-based Midcourse Defense program, which involves stationing interceptors in Alaska and California. The markup supports the completion of a second interceptor field in Alaska. It’s too early to say if ABL will actually stage a comeback: The Senate has a say in this, and appropriators need to pony up the cash. But it’s starting to look as if ABL is a candidate for our growing list of zombie weapons programs. And there’s good reason to expect that the final version of the authorization bill will be padded with extras. In a statement released this morning, Rep. Jeff Miller of Florida, the top Republican on the Armed Services Subcommittee on Terrorism, Unconventional Threats, and Capabilities, said his panel had included additional funds to address “unfunded requirements” for U.S. Special Operations Command. In other words, it’s a continuation of an old ritual: Congress adding money for things the services have not asked for — at least formally.

Link D – Military Doesn’t Want ABL

No usage – DOD hates ABL

Duffy 10 (Thomas Vol. 93, No. 4 April Airforce Magazine publisher of Inside Washington Publishers’ Defense Group http://www.airforce-magazine.com/MagazineArchive/Pages/2010/April%202010/0410laser.aspx TBC 7/6/10)

When he appeared before the House Appropriations defense subcommittee last year, Gates pulled no punches in his assessment of ABL. “I don’t know anybody at the Department of Defense, Mr. Tiahrt, who thinks that this program should, or would, ever be operationally deployed,” Gates said in answer to a question posed by Rep. Todd Tiahrt (R-Kan.). “The reality is that you would need a laser something like 20 to 30 times more powerful than the chemical laser in the plane right now to be able to get any distance from the launch site to fire.” Gates continued his stinging criticism of the program. “The ABL would have to orbit inside the borders of Iran in order to be able to try and use its laser to shoot down that missile in the boost phase,” he told Tiahrt. “And if you were to operationalize this you would be looking at 10 to 20 747s, at a billion-and-a-half dollars apiece, and $100 million a year to operate.” There is “nobody in uniform that I know who believes that this is a workable concept,” Gates added. “I have kept the first—the prototype—because we do need to continue the research on directed energy and on lasers, and that will be robustly funded because we do need to continue developing a boost-phase capability, but, operationally, this first test, for example, is going to be from a range of 85 miles.” The two recent tests don’t seem to have changed Gates’ mind any. During a Feb. 18 Pentagon press briefing, Gates’ spokesman Geoffrey S. Morrell said the Secretary has never been against the idea of a laser weapon for missile defense. “He had issues with the platform. The [concept of operation] on the platform didn’t work,” Morrell said.

Link Turn – Withdrawal 🡪 Contractors

**Contractors get new work managing troop withdrawals – Kuwait and Iraq prove**

World Tribune 4/22 (“Contractors to expedite U.S. withdrawal, shrink infrastructure in Kuwait,” http://www.worldtribune.com/worldtribune/WTARC/2010/me\_gulf0335\_04\_22.asp) GAT

The U.S. military has selected contractors to help reduce its presence in Kuwait. Officials said the Defense Department has been awarding contracts to U.S. firms to facilitate the reduction of forces in Kuwait. They said the U.S. military would thin its huge logistics and training infrastructure in Kuwait as the withdrawal of combat forces from Iraq concludes in September 2010. "We could have a much smaller footprint in Kuwait once there is no longer a need to support a combat presence in Iraq," an official said. On March 31, the Pentagon awarded a $46 million contract to Combat Support Associates, based in Fort Worth, Texas. Under the contract, Combat Support would help in the flow of U.S. troops and equipment from Kuwait. The company has already been under contract to the U.S. military. "This procurement is for base operations support services, including security and logistics for supplies and services, which are critical to accomplishing the mission and functions of assigned and tenant units moving into, out of, and within the country of Kuwait," the Pentagon said on April 6. Officials said the U.S. military has nearly 20,000 soldiers in Kuwait to help in the withdrawal from Iraq. They said this has marked an increase in American personnel based in the Gulf Cooperation Council sheikdom in an effort to enhance security and other functions. "Base operation services also support the Coalition/Joint Reception, Staging, Onward Movement, and Integration mission; promotes security and stability within the region; and provides operational support for Operation Iraqi Freedom, while simultaneously fulfilling international security commitments and theater deterrence in support of the Defense Cooperative Agreement between the United States and Kuwait," the Pentagon said. Officials said the U.S. military has been copying elements of its command and control network in Iraq for installation in Afghanistan. They said the Pentagon has awarded a $14 million contract to FedTech Services to develop an information technology solution in Afghanistan — termed Theater Network Management Architecture — that would be similar to that operating in Iraq. The contract with Combat Support would take place in Kuwait through September 2010. The statement said one bid was solicited and received. The Pentagon also awarded a $77 million contract to DRS Technical Services to assist in the U.S. military withdrawal from Iraq. Under the contract, DRS would support the transition of the military's command, control, communications and computer capabilities from several locations within Iraq to the Baghdad International Zone, the U.S. embassy, and other enduring forward operating bases. "The majority of the services involve project management, program planning and analysis, telecommunications engineering, systems and network engineering and integration, and communications infrastructure installation to include inside and outside plant architecture," DRS said on April 7.

ABLs Good – 2AC\*\*

ABL is key to peace in the nuclear era – deterrence, accidental launch, terrorism, Russia, China, and rogue states

Strategic Comments 4 (International Institute for Strategic Studies, Volume 10, issue 6, http://www.iiss.org/publications/strategic-comments/past-issues/volume-10-2004/volume-10---issue-6/the-impact-of-missile-defence-in-asia/)JFS

The decision to supplant the old deterrence-by-punishment approach with a new emphasis on strategic defences derived from the perception that the new threats to American security emerged from two different directions simultaneously: command-and-control infirmities in established or emerging nuclear states that could lead to accidental launches or mistaken authorised launches against the US homeland or American facilities overseas; and nuclear coercion by rogue regimes, terrorists, or emerging small nuclear powers. The strategic defence programme developed in response to these threats has taken the form of a layered system that is intended to have the capability to intercept ballistic missiles in all phases of flight – boost, midcourse and terminal – and act against short-, medium-, intermediate- and long-range threats. This programme has been structured in a series of two-year ’blocks’ that build iteratively upon each other. The Block 2004 objective, for example, consists of fielding an initial capability to defend against a small number of re-entry vehicles (probably not more than four) targeting the United States. The first step towards this goal occurred on 22 July 2004, when the first Ground Based Interceptor was emplaced at the Missile Defense Complex at Fort Greely, Alaska. A total of about 15 interceptors are expected to be in place by the end of 2005. The Block 2006 objective consists of increasing the depth and breadth of this initial capability by adding more interceptors, additional deployable radars and integrating these systems to maximise their performance. The Block 2008 objective, building on these mid-course intercept capabilities already deployed, focuses on protecting US forces deployed overseas and coalition partners abroad, and seeks to add an initial technological capability, probably via the airborne laser, to defeat missile threats in the boost phase. As these defences mature, the critical challenge facing the Bush administration and its successors will be getting the offence-defence mix right, if the new nuclear regime is to be stable over time. Specifically, that means that the new American BMD systems must be robust enough to defeat legitimate threats, but not so strong as to threaten the retaliatory capabilities of various national deterrents. Satisfying this condition will require a cooperative transition to the new global regime, because so long as offence-dominance prevails in the nuclear realm – meaning that offensive missiles have cost- and mission-advantages over their defensive counterparts – all capable state adversaries will be able to defeat US strategic defences in principle. If at some point in the future defence dominance were to obtain in the nuclear realm, the imperative of cooperative transitions would become less pressing. Until that point, however, effective and creative US diplomacy, as well as some measure of acquisition restraint, will be required to convince the established nuclear powers, particularly Russia and China, that the future American BMD capabilities are intended solely to deal with the problem of accidental or unauthorised launches and nuclear coercion by rogues, terrorists or unfriendly emerging nuclear powers, rather than to undermine their national deterrents. As long as US strategic defences consist of limited mid-course and terminal defence systems, reassuring traditional state competitors like Russia and China will not be difficult. But once the defensive ‘system of systems’ expands to include airborne or space-based lasers, as is scheduled after 2008, this task will become more complicated, as these boost-phase intercept systems can sanitise large areas of the globe and intercept offensive missiles more easily when they are relatively slow and before they deploy decoys. While boost-phase intercept capability is therefore ideal when dealing with rogue missile threats, it can also serve to undermine many of the features that make the Russian and Chinese missile deterrents relatively invulnerable today.

ABLs Good – 2AC\*\*

No risk of your turns – ABL is inevitable and solves conflict with Russia, North Korea, and Iran

Kramnik 10 (Ilya, RIA Novisti military commentator, http://en.rian.ru/analysis/20100216/157899270.html)JFS

Speaking of a hypothetical Russian-U.S. conflict, airborne laser weapons would have to be deployed in Russian air space in order to be able to intercept Russian missiles in their boost phase and during the separation of their multiple independently targetable reentry vehicles (MIRVs). In fact, they would have only 3-5 minutes to accomplish this objective. However, even Russia's problem-ridden air-defense system would not allow a B-747 to roam free in national air space. Airborne laser weapons present a greater threat to strategic ballistic missile submarines which either patrol Russian territorial waters or international waters. However, there is one limitation. As the submarines spend most of their time underwater, laser-carrying aircraft could not quickly reach the optimal firing position necessary for a successful missile interception. Consequently, this project's current version threatens only countries such as Iran or North Korea which have a small territory and are therefore unable to deploy missile bases far from their borders. In the next several decades, the potential for laser weapons may be enhanced, especially if it becomes possible to deploy them on hypersonic suborbital platforms operating in the upper atmosphere where laser dissipation is minimized. However, it would be pointless to deploy such weapons aboard spacecraft, unless payload mass is increased drastically because it would otherwise prove impossible to orbit high-power laser units. It is impossible to struggle against the development of laser weapons. Practical experience shows that legal documents seldom effectively limit technical progress. Consequently, we must start preparing for a new round of the arms race now. It is common knowledge that Russia is currently developing new-generation ballistic missiles which will be able to breach missile-defense systems with laser weapons. This objective can be accomplished by reducing a missile's boost phase, enhancing the maneuverability along this flight leg, etc. Analysts are discussing other measures that can shield missiles from laser beams. Naturally, Russia must conduct independent research in this area to be able to manufacture airborne laser weapons and to effectively cope with similar enemy systems. Media reports about the reinstatement of the A-60 program are particularly important in this context.

ABL solves all scenarios for conflict and is coming fast

Ennerson 9 (Shane 10/3 Freelance Writer http://www.goarticles.com/cgi-bin/showa.cgi?C=2136872 TBC 7/6/10)

More flight tests are being conducted, and later this year the high-energy laser will be installed in the aircraft. The program now is just two years away from demonstrating that it can hit and destroy a missile in the boost phase. Nearly all the hardware has been built and most of the cost has been paid. It is important to finish testing this advanced technology to find out whether high-energy lasers will be practical weapons in future warfare. An Airborne Laser patrolling near Iran could defend U.S. bases in the Middle East as well as Israel and other allies. And ABLs flying over the Western Pacific could protect U.S. bases in the area, in addition to our allies in Japan, South Korea and Taiwan. In a letter to Congress last month, U.S. Army Gen. B.B. Bell, commander of U.S. Forces Korea, noted that North Korea has some 800 ballistic missiles able to carry conventional and chemical weapons. Intercepting them in the boost phase "would be a huge combat multiplier," he wrote. Gen. Bell urged Congress to restore funding for the ABL test program.

ABL is inevitable and good

Ellison 10 (Riki Feb 12, Chairman and Founder of the Missile Defense Advocacy Alliance http://www.prnewswire.com/news-releases/laser-shoot-down-forces-congress-to-challenge-obama-missile-defense-budget-84229437.html TBC 7/6/10)

"The ABL is initially proven and should continue to be developed, tested and even deployed if necessary. The successful test on February 12th gives weight to the release last week of the Ballistic Missile Defense Review endorsement of Missile Defense development by the President and the Secretary of Defense who have recognized the quantitative and qualitative threat to our nation, allies and deployed forces from ballistic missiles. Furthermore, in lieu of Iran's recent and continued nuclear developments, the ability of our Military to use the ABL with U.S. air superiority to engage and destroy multiple Iranian missiles in seconds over Iran could be a critical asset if in the future a situation arose between Iran and the United States. This capability would have similar relevancy for the United States in the Korean peninsula in regards to North Korean's ballistic missile threats and nuclear capability in the region." "The ABL should be given priority, further developed and be funded to be kept a fully viable defensive weapon system as a credible hedge against ballistic missile threats. The U.S. Congress will inevitably challenge the Department of Defense and the administration to fully fund and further develop this system to have an ability to deploy this system in crisis regions providing our armed forces and allies' necessary protection."

ABLs Good – Bio-D 2AC

ABL key to restoring natural fish habitats

IANS 9 (Indo Asian News Service, Feb, http://www.india-forums.com/news/article.asp?id=157861, date accessed: 7/7/2010) AJK

Washington, Feb 23 (IANS) Lasers beamed from airplanes are greatly sharpening images of streams and rivers and interpreting how well water bodies can help maintain or expand fish stocks, according to a new study. 'It's kind of like going from your backyard telescope to the Hubble telescope,' says Boston College Geologist Noah P. Snyder. 'Restoring fish habitat is just one example. For the fisherman, backpacker, forester, land-use planner or developer - anyone who uses map data - this new technology is the next revolution in mapping.' Airborne laser elevation (Lidar) surveys provide a 10-fold improvement in the precision with which topographical features are measured. Lidar represents the latest technology to improve digital topographical maps - known as digital elevation models (DEM). Pulsing laser beams released by a Lidar device from a plane overhead bounce off of rocks, trees, soil, even water, and send signals back to the device, which makes topographical calculations based on the time it takes the laser signal to return at the speed of light. Hundreds of beams produce a dynamic topographical picture, Snyder said. In the case of streams and rivers, the technology means that channel features such as water surface, bank edges, floodplains, even the slope of a stream, can be measured, he reports in the journal. In addition, Lidar provides new types of data about the vegetation that covers a particular watershed, such as the height and density of the tree canopy, Snyder said. 'We can look at much finer scale features in streams using a remote mapping technique, as opposed to field work over the entire lengths of streams,' says Snyder, chairman of the steering committee of the National Centre for Airborne Laser Mapping. 'Digitally, we can now connect topographical features to habitat characteristics or the habitat that needs to be restored,' he said, according to a Boston release. That means geologists and other earth scientists will be able to digitally search large swathes of Lidar-mapped territory for a particular feature of interest - like salmon habitat or particularly steep sections of streams - then narrow down likely candidates for field study.

Collapse of fish habitats destroys biodiversity

Nuttal 6 (Nick, Head of Media Services for United Nations Environment Programme, “Overfishing: a threat to marine biodiversity,” http://www.un.org/events/tenstories/06/story.asp?storyID=800) AJK

Despite its crucial importance for the survival of humanity, marine biodiversity is in ever-greater danger, with the depletion of fisheries among biggest concerns. Fishing is central to the livelihood and food security of 200 million people, especially in the developing world, while one of five people on this planet depends on fish as the primary source of protein. According to UN agencies, aquaculture - the farming and stocking of aquatic organisms including fish, molluscs, crustaceans and aquatic plants - is growing more rapidly than all other animal food producing sectors. But amid facts and figures about aquaculture's soaring worldwide production rates, other, more sobering, statistics reveal that global main marine fish stocks are in jeopardy, increasingly pressured by overfishing and environmental degradation. “Overfishing cannot continue,” warned Nitin Desai, Secretary General of the 2002 World Summit on Sustainable Development, which took place in Johannesburg. “The depletion of fisheries poses a major threat to the food supply of millions of people.” The Johannesburg Plan of Implementation calls for the establishment of Marine Protected Areas (MPAs), which many experts believe may hold the key to conserving and boosting fish stocks. Yet, according to the UN Environment Programme’s (UNEP) World Conservation Monitoring Centre, in Cambridge, UK, less than one per cent of the world’s oceans and seas are currently in MPAs. The magnitude of the problem of overfishing is often overlooked, given the competing claims of deforestation, desertification, energy resource exploitation and other biodiversity depletion dilemmas. The rapid growth in demand for fish and fish products is leading to fish prices increasing faster than prices of meat. As a result, fisheries investments have become more attractive to both entrepreneurs and governments, much to the detriment of small-scale fishing and fishing communities all over the world. In the last decade, in the north Atlantic region, commercial fish populations of cod, hake, haddock and flounder have fallen by as much as 95%, prompting calls for urgent measures. Some are even recommending zero catches to allow for regeneration of stocks, much to the ire of the fishing industry.

Species loss outweighs nuclear war

Tobin 90 (Richard, “The Expendable Future, p 22) AJK

Norman Meyers observes, no other form of environmental degradation “is anywhere so significant as the fallout of species.” Harvard biologist Edward O. Wilson is less modest in assessing the relative consequences of human-caused extinctions. To Wilson, the worst thing that will happen to earth is not economic collapse, the depletion of energy supplies, or even nuclear war. As frightful as these events might be, Wilson reasons that they can “be repaired within a few generations. The one process ongoing…that will take millions of years to correct is the loss of genetic and species diversity by destruction of natural habitats.

ABLs Good – China/Rogues 2AC

Airborne Laser systems are key to solve impending threats from Iran, North Korea, al Qaeda, and China

Rayburn 10 (Maj. Gen. Bentley B., March 5 is the former commandant of the Air War College http://www.washingtontimes.com/news/2010/mar/05/killing-airborne-laser-jeopardizes-america/ TBC 7/6/10)

Many of us had hoped when the Berlin Wall fell, the Soviet Union disintegrated and, under the leadership of Ronald Reagan and Margaret Thatcher, the West won the Cold War without firing a shot, the world would be a safer place. The opposite has turned out to be the case. Into the vacuum left by defeated Soviet troops in Afghanistan stepped the Taliban and al Qaeda. China remains an aggressive rival of the U.S., its military and economic ambitions growing. Iran funds Hamas in Gaza and Hezbollah in Lebanon. North Korea and Iran both stand on the nuclear precipice, thumbing their nose at the civilized world and destabilizing Asia and the Middle East. Iranian supreme leader Ayatollah Ali Khamenei vowed to fight "the U.S. and the Zionist regime" from the deck of a newly minted cruise-missile destroyer in the Persian Gulf. This kind of saber-rattling from the leading state sponsor of terrorism poses a threat, not only to the U.S., but to moderate Arab states, Israel and Europe. This is why the development of anti-ballistic-missile technology is so essential to U.S. security. Off the coast of California on Feb. 11, an American high-powered laser weapon shot down a ballistic missile in the first successful test of an airborne anti-missile laser system. That's not the opening line of a new science fiction thriller; in fact, it's science fact. The so-called Airborne Laser aircraft is capable of training a megawatt-class laser on a missile traveling at 4,000 mph long enough to destroy it in flight. The potential for such lasers goes well beyond missile defense. Since the laser can be aimed with great precision over long distances, and fired for shorter or longer periods of time, it is a versatile tool in our arsenal for any number of situations requiring high mobility, precision and variable force levels. And in the same week, we were also reminded of why we are developing the Airborne Laser defense system: Iran recently claimed the ability to enrich uranium to weapons-grade levels and has been steadily developing its missile technology. North Korea, which already possesses nuclear weapons, is pursuing the same course. These and other persistent threats are ominous reminders that it falls to the United States to defend ourselves and our allies against rogue regimes, armed with conventional and unconventional missile technologies. The successful airborne laser test was as welcome and encouraging to most Americans as the ugly face of Iran's dictatorship was unwelcome and menacing. Unfortunately, the Pentagon budget is sorely out of sync with these realities. Congress and the Obama administration are actually defunding the very same Airborne Laser project that has just succeeded in doing something once relegated to science fiction movies.

ABLs Good – Democracy 2AC

**ABL good- prevents conflict and facilitates democracy**

**Curtis and Carafano 9** (Lisa and James, Senior Fellow and Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies, http://www.heritage.org/Research/Reports/2009/01/US-India-Strategic-Partnership-on-Laser-Based-Missile-Defense, date accessed: 7/6/2010) AJK

The United States and India share many security concerns, such as the threat of ballistic missiles. V. K. Saraswat of the Defense Research and Development Organization rightly told the Press Times of India: "If you have a laser-based system on an airborne or seaborne platform, it can travel at the speed of light and in a few seconds, [and] we can kill a ballistic missile coming towards [India]." India's Interest in developing directed energy defenses is understandable, as lasers have several distinct advantages. **Such weapons: Can** use a high-powered beam of energy to **disable electrical components or detonate explosives**, rendering the attack means such as the warhead or body of a missile useless; Come with an almost infinite magazine--as long as **the weapons** have power, they **can be recharged and fired again; Can be aimed effectively using existing target acquisition systems** (such as radars) and command and control systems (such as a computer battle management network); and Can be employed with a minimum of risk toward surrounding civilians, buildings, or vehicles (such as aircraft, cars, and ships). In addition, lasers are versatile. While high-powered lasers address ballistic missile threats, low-powered lasers have a number of potential security uses, from disabling small boats to downing shoulder-fired missiles to intercepting rockets and mortars. All these uses have application to Indian security concerns. It is also worth noting that **missile defenses, such as high-powered lasers, limit the potential for regional conflict. Missile defenses serve as important deterrents, undermining the effectiveness of enemy threats.** **They** also **provide an alternative to massive retaliation in the face of an actual attack.** The security provided by **missile defenses** actually **limits the likelihood of armed escalation or an arms race and makes diplomacy more effective**. It is no coincidence that the greatest strides in reducing the nuclear arsenals came in the late 1980s, at the same time the U.S. was pursuing the Strategic Defense Initiative. **A world with effective missile defenses is safer and more stable.**

**Turns the Aff – democracies limit military involvement and sustain development**

**Diamond 95** (Larry, senior researcher at the Hoover Institute, 1995 “Promoting Democracy in the 1990s” http://www.wilsoncenter.org/subsites/ccpdc/pubs/di/4.htm , date accessed: 7/6/2010) AJK

Second, regardless of how they perform economically, **democracies** with more coherent and effective political institutions **will be more likely to perform well politically in maintaining not only political order but a rule of law, in ensuring civil liberties, in checking the abuse of power, and in providing meaningful representation, competition, choice, and accountability.** Third, well-institutionalized **democracies** **are** also **more likely to produce**, over the long run, workable, **sustainable, and effective economic and social policies**, because they have more effective and stable structures for representing interests and because they are more likely to produce working legislative majorities or coalitions that can adopt and sustain policies. Moreover, **a strong party system facilitates governability and effective macroeconomic management even in the face of prolonged economic crisis**.82 Finally, and largely because of all these factors, **democracies** with capable, coherent democratic institutions **are better able to limit military involvement in politics and assert civilian control over the military.**

ABLs Good – Iran Scud Attack 2AC

ABL is key to prevent devastating scud attack from Iran

Carafano 10 (James Heritage Foundation Feb 22 http://www.opposingviews.com/i/dumping-airborne-laser-leaves-america-vulnerable-to-nuclear-attack TBC 7/6/10)

On the other hand, here is what the administration won’t admit. There are other threats already out there that the Airborne Laser is well-suited to counter. One such danger is the “Scud in bucket” scenario. Scud missiles are shorter-range weapons, originally manufactured and proliferated worldwide by the Soviets. Today, several other countries make their own versions. These missiles are so readily available — and cheap — that several years ago a U.S. arms collector bought one and tried to ship it home. Iran’s Shahab-3, an advanced Scud variant, seems capable of traveling 1,000 kilometers and carrying as much as a 10-kiloton warhead. It couldn’t reach Washington from Tehran, but then, it wouldn’t have to. Iran could easily extend the missile’s reach simply by moving it to a commercial freighter and firing it from nearby using an improvised vertical launch tube disguised as cargo. In many ways, Scud in a bucket is the ultimate weapon. It could sail close to U.S. waters without being subject to inspection by the Coast Guard or Customs. The enemy could fire the missile and scuttle the ship, leaving no record of who launched the attack. If Iran has one missile and nuclear weapon, it might have two. It could detonate one over New York in a low-altitude air burst that would kill up to a half-million and cripple Manhattan forever. Iran could fire a second at high altitude over the mid-Atlantic states, creating an electro-magnetic pulse that would take down a large portion of the national grid and plunge Washington, D.C., into permanent darkness. America would be crippled in a flash, with no obvious enemy at which to shoot back. An ABL could help neutralize this threat, and others. Advancing the technology alone will give the U.S. a dramatic advantage over potential adversaries. But if the administration has its way, we’ll see the ABL in the Smithsonian, rather than defending our coasts.

ABLs Good – Nuclear Terror 2AC

ABL checks nuclear terrorism before it happens

Smith 9 (W. Thomas former Marine rifle-squad leader, military/defense issues analyst, 9/15/, Airborne Laser Could Save Us From Terrorist Nightmare Scenario, Human Events, p. <http://www.humanevents.com/article.php?id=33538>)JFS

Perhaps one of the most frightening terrorist-attack scenarios is one wherein a nuclear-tipped missile is launched by terrorists from a seemingly harmless cargo ship somewhere off the coast of the United States. In such an attack, the missile could be hurtling skyward almost before our current missile-defense system had time to blink. The missile’s warhead could then be remotely detonated somewhere 20 to 60-plus miles above the visual horizon, and -- in addition to killing everyone in the blast and radiation radius -- trigger an electromagnetic pulse (EMP), which would basically fry every single electrical circuit in the blast’s line-of-sight for hundreds of miles in every direction. An EMP would effectively knock out all electrical grids, aircraft, trains, ships, automobiles, computers, medical equipment, ATM machines, cooling and heating systems, TVs, radios, telephones, blackberries, flashlights, electric toothbrushes, and children’s toys in an instant. In less time than that required to take a breath, a huge section of North America would be catapulted back to the 18th century. Yet because we are so completely dependent upon 21st century technology, the ensuing chaos, crime, starvation, and disease would be something unimaginable. A single enemy missile could do this to us. The U.S. Air Force and the U.S. Missile Defense Agency, however, have an answer to this threat in the Airborne Laser (ABL) program, essentially a high-energy laser-beam system housed in a Boeing 747-400 aircraft. (Boeing is the primary ABL contractor. Lockheed Martin and Northrop Grumman are partners developing the laser-weapon system.) The ABL system is designed to kill enemy ballistic-missiles -- short, medium, and long-range -- during the boost-phase portion of the missile’s flight, shortly after the missile has been launched. And being that the system is airborne, ABL is capable of patrolling the U.S. coastline as well as near-and-above “potential enemy ballistic-missile hotspots,” worldwide.

**Extinction**

**Sid-Ahmed 4** (Mohamed, political analyst, Managing Editor for Al-Ahali, “Extinction!” August 26-September 1, Issue no. 705, http://weekly.ahram.org.eg/2004/705/op5.htm)

**What would be the consequences of a nuclear attack by terrorists?** Even if it fails, it would further exacerbate the negative features of the new and frightening world in which we are now living. Societies would close in on themselves, police measures would be stepped up at the expense of human rights, tensions between civilisations and religions would rise and ethnic conflicts would proliferate. **It would** also **speed up the arms race and develop the awareness that a different type of world order is imperative if humankind is to survive.** But the still more critical scenario is if the attack succeeds. This **could lead to a third world war, from which no one will emerge victorious. Unlike a conventional war** which ends when one side triumphs over another, **this war will be without winners and losers. When nuclear pollution infects the whole planet, we will all be losers.**

ABLs Good – Nuclear Terror 1AR

**ABL key to solve terror attacks**

**Echevarria and Tussing 3** (Antulio J. and Bert, Director of National Security Affairs at the Strategic Studies and Professor of National Security Affairs for the Center for Strategic Leadership, http://www.strategicstudiesinstitute.army.mil/pdffiles/pub210.pdf, date accessed: 7/7/2010) AJK

Applying the same principle of enhanced visibility to other endeavors, the concept of global defense-in-depth can assist in defeating any number of threats. For example, by reading residual 7 effusions in the air, **laser** remote optical sensing **systems mounted on aircraft can determine whether chemical, biological, nuclear, and radiological weapons** (as well as narcotics) **are being produced** at any given location.25 **They can also track the movement of such weapons or illegal substances** by monitoring the effusions from a cargo container, a vehicle, or even an individual who has handled the weapons or substances. If arrayed in depth globally, such **airborne lasers could provide early warning of the preparation and approach of dangerous or illegal materials**, which military forces or appropriate law enforcement officials could then intercept. **We should not forget that terrorists need not transport chemicals, nuclear materials, and biological agents themselves, but could simply target any one of the 38,000 facilities within the United States that store hazardous materials**, or one of our more than 100 nuclear power plants.26 Indeed, some sources report that **such an attack is more likely than scenarios in which terrorists smuggle dangerous materials into the United States**.27 Such a capability could also augment our defense against cruise missiles, many of which might otherwise be launched from offshore container ships or similar types of land vehicles with little or no warning.

ABLs Good – US-ROK 2AC

**Continuing ABL programs key to US-ROK alliance**

**Klinger 8** (Bruce, Senior Research Fellow at the Heritage Foundation, http://www.heritage.org/Research/Reports/2008/06/Transforming-the-US-South-Korean-Alliance , date accessed: 7/6/2010) AJK

Washington will have to balance achieving U.S. security objectives with sensitivity to South Korean domestic political constraints. Although **the U.S. will need to push South Korea in order to achieve progress toward a strategic alliance**, it must not appear domineering. Washington risks triggering strong public reactions due to lingering South Korean animus from the perceived superior-subordinate relationship. The scope and vehemence of the protests triggered by South Korea's April 2008 decision to reopen its market to U.S. beef imports showed the extent of latent anti-Americanism. **Overstressing the newly improved relationship with excessive demands would be counterproductive.** Of course, the two allies' perceptions of what constitutes "excessive" will differ. The Bush-Lee Camp David summit, seen as wildly successful in the U.S., generated accusations in South Korea that Washington was taking advantage of Lee's desire to improve bilateral relations to levy excessive new demands. The U.S. asked for an increased Korean cost share for U.S. troop presencein South Korea and base relocation, as well as Seoul's involvement in the proliferation security initiative, missile defense, and deploying troops to Afghanistan. U.S. officials correctly pointed out that these have all been long-standing requests. The Korea Times warned President Lee not to let his "self-declared pragmatic diplomacy be taken hostage for the alliance with the U.S.&hellip; The Lee administration should not sacrifice South Korea's national interests under the name of alliance."[19]  Chosun Ilbo editorialized that "if the U.S. piles up its demands on Korea like overdue homework, it will end up frustrating our side and may result in growing skepticism about the alliance and give anti-American factions an excuse to raise their voices."[20]  What the U.S. and South Korea Should Do Washington must not abandon its vision for a more comprehensive alliance, but it should prioritize its alliance objectives and lower expectations to conform to local South Korean realities. **Both governments must ensure that Seoul's quest for a broader global footprint is not depicted as an attempt by the U.S. to offload its security needs onto a reluctant ally**. The Bush and Lee administrations must set a positive tone in bilateral consultations and address developing issues before they become contentious. To this end, **U.S. policymakers should:** Affirm the importance and benefits of the alliance even while modernizing and transforming it. Continue efforts for Seoul to assume a larger responsibility for its defense consistent with a continued U.S. military presence and commitment to the defense of South Korea. Affirm unequivocal commitment to defending South Korea by maintaining existing U.S. force levels and deterrent capabilities, including missile defense, attack helicopter, and ground combat units. Support joint efforts to sustain and improve C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) to enhance integrated command capabilities**. Maintain the development of high-altitude air defense, airborne laser, and Aegis ballistic missile defense to provide layered missile defense capability and deploy additional PAC-3 missiles to South Korea.**

**US-ROK alliance deters terrorism- Navy and NPT**

**Denmark 9** ( Abraham Denmark, Center for a New America Security, CNAS, http://www.cnas.org/files/documents/publications/US-ROK%2520Alliance%2520in%2520the%252021st%2520Century\_Denmark%2520and%2520Fontaine.pdf)

**One area** in which the **ROK** has already **demonstrated the alliance’s extra-peninsular context has been in the global war on terror.** **South Korea played** a significant **role in Iraq, providing the third-largest ground contingent, and in Afghanistan, where it provided logistics and medical support**. Yet, there are many other areas of potential growth; **Korea’s** proven record of **peacekeeping operations** in **places such as East Timor** and Lebanon show that **Seoul** can **play an increasingly prominent leadership role in other areas of domestic instability including Africa, the Middle East, and the Pacific island nations**. The ROK **Navy can perform important regional tasks to maintain freedom of navigation in Asian waters. Korea’s** emphasis on **nuclear power makes it** a major player in efforts to **move countries** such as **China away from carbon-based strategies to cleaner and more carbon-neutral energy** development. Additionally, Korea’s **record as** a **responsible** Non-Proliferation Treaty (**NPT**) member could **become even stronger in the future through the potential leadership role** that **Seoul** could **play** in d**ismantling a nuclear program** inherited from a collapsed Democratic People’s Republic of Korea (**DPRK**). Seoul is also seeking to enhance its global profile as a provider of development assistance, in particular by helping countries make the transition into modernity through assistance in information technology.

ABLs Good – Russia Civil War

**ABL key to solve Russia- Georgia war**

**Carafano 8** (James, Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies, http://www.heritage.org/Research/Reports/2008/08/Russia-Georgia-War-Highlights-Need-for-Directed-Energy-Defenses, date accessed: 7/6/2010) AJK

For the second time in recent years, the United States has witnessed another wake-up call for the importance of fielding directed-energy weapons capable of shooting-down mortar and artillery fire, as well as intercepting short-range rockets and missiles.The Pentagon, the Department of Homeland Security, and the Congress need to place more emphasis on fielding working prototypes of these systems as quickly as possible. People as Targets Terrorism continues to be the scourge of the 21st century, but the age of conventional wars is far from over. In recent years we have had plenty examples where both means of warfare have employed conventional weapons to target civilians. Specifically, indirect fire weapons from mortars to short-range missiles have been directly targeted against innocents or employed against military targets in urban areas, putting civilian populations at risk. Terrorists in North Africa attempted to shoot down a commercial airliner with a short-range surface-to-air missile. In Iraq, insurgent groups used mortars to fire on administrative buildings, as well as military facilities in Baghdad and other urban areas. Even more troubling, however, is the use of these conventional weapons in combat zones aimed at the heart of civilian populations. In the 2006 battles between Israel and Hezbollah in Lebanon, Hezbollah's Katyusha rocket attacks killed and wounded dozens of Israelis, destroyed property, and sent thousands to bomb shelters. The rain of rockets threatened to spark a larger regional conflict. Another Rage of Rockets **The Russian incursion into Georgia last week saw the use of rockets in urban areas by both sides.** According to reports in The New York Times, Georgia fired BM-21 rockets, a system similar to the Katyusha, at separatist military headquarters. Although the rockets appear to have been aimed at legitimate targets, the risk of damage to the surrounding civilian community from these inaccurate weapons may have been high. According to other press and eyewitness reports, during the massive Russian military offensive, **ground troops fired dozens of SS-21s, a short-range ballistic missile that can carry a high-explosive warhead.** It is not clear whether these weapons were fired at legitimate military targets. In addition, **the large SS 21 high-explosive warhead can carry either fragmentation bombs or mines making the risk of civilian causalities in urban areas very high**. The Promise of Directed Energy Despite repeated warning signs that both unconventional and conventional combatants have no problem using the weapons of war to target both military and civilian populations, **the United States has shown little sense of urgency in developing effective countermeasures for either equipping military forces or safeguarding civilian populations.** **Directed energy weapons**, such as the Tactical High-Energy Laser (THEL), **demonstrate tremendous potential against all kinds of mortar, artillery, rocket, aircraft, and missile threats. Directed energy can be used against short-range threats like the Katyusha rockets being fired at Israel and against ballistic missiles like the SS-21s fired at Georgia.** **Such systems could also be used for homeland security, such as protecting critical infrastructure, national security events** (such as the presidential nominating conventions) and commercial air traffic from terrorist attack. Concluding that the THEL was not sufficiently mobile and robust for battlefield use, the U.S. Army decided to forgo its full development. Meanwhile, though the Department of Homeland Security has experimented with some systems to defend commercial flights against surface-to-air missiles, it too has not deployed any operational systems. The Clock Is Ticking Rather than deploy the THEL, the national security community has turned to a new generation of lasers for developing suitable directed-energy protective systems. These lasers employ a solid-state technology, incorporating multiple industrial thin disk lasers into a single high-powered energy devise. The military is currently developing prototypes for a mobile version of this system. Congress should insist and the administration should press to field operational prototypes of these systems as quickly as possible for both defense and homeland security applications. Both land-based and air-based platforms (mounted on manned and unmanned aircraft) should be fielded as soon as possible. **Putting a system in the field now would provide** some limited operational capability and **invaluable operational experience on how to use these systems.**

**Civil war in Russia would go nuclear**

**David 99** (Steven, Professor of Poli Sci at John Hopkins University, “Saving America from the Coming Civil Wars, p 103-104, date accessed:7/7/2010) AJK

Only three countries, in fact, meet both criteria: Mexico, Saudi Arabia, and Russia. Civil conflict in Mexico would produce waves of disorder that would spill into the United States, endangering the lives of hundreds of thousands of Americans, destroying a valuable export market, and sending a torrent of refugees northward. A rebellion in Saudi Arabia could destroy its ability to export oil, the oil on which the industrialized world depends. **And internal war in Russia could devastate Europe and trigger the use of nuclear weapons. Of course, civil war in a cluster of other states could seriously harm American interests. These countries include** Indonesia, Venezuela, the Philippines, Egypt, Turkey, Israel, and China. In none, however, are the stakes as high or the threat of war as imminent.

Impact D – ABLs = Effective

ABL works – really well

Brinton 10 (Turner Space News June 18 http://www.spacenews.com/military/100618-airborne-laser-gears-for-next-shoot-down-test.html TBC 7/6/10)

Boeing Defense, Space & Security of St Louis is the ABL prime contractor; Northrop Grumman Aerospace Systems of Los Angeles developed the high-power chemical laser; and Lockheed Martin developed the beam control/fire control system. The modified Boeing 747-400 aircraft made its long-awaited debut in February. In one test flight, the ABL fired on and destroyed a boosting sounding rocket known as a MARTI. Eight days later, the aircraft succeeded in its first attempt to shoot down a threat-representative, liquid-fueled target missile. During the same flight test, it fired on a second liquid-fueled missile, but a problem caused the weapon system to shut itself down before the target was destroyed. The MDA will not reveal the aircraft’s distance from its target in any of those tests. The most important lessons from the ABL’s first intercept tests were that it actually worked, and it was more efficient and lethal than expected, said U.S. Air Force Col. Robert McMurry, the MDA’s ABL program manager. “What I think it’s proven is the beam control system and the atmospheric compensation and the power out of the laser are all working extraordinarily well to put power on target,” McMurry said in a June 16 interview.

**ABL is key to protect vulnerable infrastructure**

**Spencer and Carafano 4** (Jack and James, Research fellow and Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies http://www.heritage.org/Research/Reports/2004/08/The-Use-of-Directed-Energy-Weapons-to-Protect-Critical-Infrastructure, date accessed: 7/6/2010) AJK

**America's critical infrastructure--e.g., power plants, transportation hubs, and telecommunications facilities--is becoming increasingly vulnerable to precision missile attacks.** Guided missile technology and the missiles themselves have been available for years, but **the emergence of global terror networks, sophisticated smuggling techniques, and the post-September 11 security environment have made the threat of precision missile attacks even more serious**. While technology transfer legislation and international agree-ments may help to control the spread of some technologies, relying solely on these mechanisms is wholly insufficient, especially when proliferation has already occurred. Therefore**, it is essential that the United States actively defend its most vital nodes of critical infrastructure.** **1 To be effective against close-range missile attacks, such defenses must be cost efficient, safe, and swift.** Although **the United States** is not currently prepared to protect domestic targets against these threats, it **does have the technology to do so with directed-energy weapons** (DEWs), which include lasers, microwaves, electromagnetic pulses, and high intensity radio frequency waves. In 2000, for example, the Army used the Tactical High Energy Laser to shoot down a rocket carrying a live warhead--the first time a laser has destroyed a missile in flight. To ensure that these promising technologies are effectively fielded in a timely manner: Congress should fully fund directed-energy programs; The Department of Defense (DOD) and the Department of Homeland Security (DHS) should cooperate fully on their respective directed-energy efforts;1 DHS should conduct a national needs assessment of critical infrastructure; and The United States should facilitate the sharing of directed-energy technology with its allies.

Impact D – ABLs = Efficient

ABLs are cost efficient

Rayburn 10 (Maj. Gen. Bentley B., is the former commandant of the Air War College March 5 http://www.washingtontimes.com/news/2010/mar/05/killing-airborne-laser-jeopardizes-america/ TBC 7/6/10)

Airborne laser defenses are a model of cost-benefit success, costing less than $5 billion over 15 years. While it may be difficult to quantify the deterrent effects of missile defense, we know how terribly expensive a single terrorist strike or a barrage of missiles coming from terrorist safe havens can be. At the very least, the Pentagon should restore the Airborne Laser project to full funding, add money to explore additional applications of the technology and, once the system has proven through further testing that it is capable and reliable, make the single prototype aircraft available to the military during high-threat emergency situations.