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# 1NC 1/2

A- Uniqueness: Gates and Obama are at a stalemate over funding RRW

**Gerstein, 10** (Josh, 3/6/10, “Obama-Gates nuke war brewing?” POLITICO, Lexis)

President Barack Obama has been clear. He wants no new nukes. Pentagon chief Robert Gates has been equally direct, advocating in recent years for a new generation of warheads. And nearly 14 months into their bipartisan-tinged partnership, Obama and Gates haven’t publicly reconciled their views. Some anti-nuclear activists suspect the pair still don’t see completely eye-to-eye and that Gates has never fully abandoned his goal of refurbishing the American nuclear arsenal with new weapons. Now, the administration is on the verge of releasing a major nuclear policy review that could call attention to this disagreement between the Democratic president and his holdover Defense Secretary – just in time for a nuclear safety summit Obama is hosting for heads of state next month in Washington. “Quite clearly,” said Hans Kristensen of the Federation of American Scientists, “the secretary has been stating he sees a need for replacement warheads and new designs, and I’m not sure those are the words the president would want to use at this stage in the process.” The Obama administration is acutely aware of perceptions that the Nuclear Posture Review has divided senior officials—with Vice President Joe Biden viewed as heading up an arms-control focused camp, and Gates perceived as speaking for a military and nuclear establishment that favors more funding and new weapons programs.

**B- Obama has held of RRW by increasing the role conventional forces in deterrence—the plan reverses that trend**

**Grossman, 10** – Writer for global security newswire and foreign affairs reporter who has won 13 national journalism awards (Elaine M., March 19, 2010 http://www.globalsecuritynewswire.org/gsn/nw\_20100319\_6793.php)

A central review issue under debate behind the scenes has been whether and how to change the nation's nuclear "declaratory posture," potentially moving to a position in which Washington states that the "sole" or "primary" purpose of its atomic arsenal is to deter nuclear war. The intended implication would be that, going forward, U.S. conventional forces are sufficient to deter -- or use in response to -- virtually any non-nuclear attack against the nation or its allies. If embraced, a declaration about the "sole" purpose of nuclear weapons could be seen as a step toward the eventual global elimination of nuclear weapons that Obama [discussed](http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/) in Prague last year. The president might opt, though, for a more modest alternative, namely that countering enemy nuclear threats is the main -- but not only -- purpose of the U.S. atomic arsenal, according to executive branch insiders. Pending the posture review's release, Obama administration officials appear to be testing out the viability of an argument that conventional deterrence can assume a growing utility relative to nuclear deterrenc**e**. "While nuclear weapons have a clear role, our deterrent extends beyond nuclear weapons," Undersecretary of State Ellen Tauscher [said](http://www.state.gov/t/us/136797.htm) at a conference last month. "Our improving conventional capabilities make it possible to reduce our reliance on nuclear weapons for some targets and missions. As our conventional weapons have become more precise, we do not have to cling to nuclear weapons to accomplish our objectives." The idea of a military stance that increasingly favors conventional capabilities is nothing new. Over the past two decades, defense technologists have found that smaller amounts of firepower very accurately delivered can effectively substitute for big-but-dumb unguided munitions, to some extent limiting unintended casualties. **Similar logic is now being applied to** selected, time-urgent threats that might be regarded as **potential nuclear targets, such as al-Qaed**a leadership pinpointed **along the Afghanistan-Pakistan border or a North Korean nuclear missile** being readied on a launch pad. For such scenarios**, Obama officials theorize that tailored conventional strikes might be useful alternatives to Cold War-era strategic nuclear deterrence**. At the same time, remarks by Tauscher and others hint that the circumstances under which conventional arms could prove as useful as -- or perhaps more usable than -- nuclear weapons might expand in the coming years, as the atomic arsenal's role gradually fades. Gen. James Cartwright, Chilton's predecessor as head of U.S. Strategic Command, presaged the new thinking back in 2005, arguing that advanced conventional-weapon technologies could allow the nation to "drastically" reduce its nuclear arsenal. One military authority subsequently estimated that conventional munitions were capable of destroying up to 30 percent of targets in the nuclear combat plan (see [*GSN*](http://www.globalsecuritynewswire.org/gsn/GSN_20080528_9FACDF1D.php), May 28, 2008). Today, nuclear strategy expert Jeffrey Lewis goes even further. "The target set of things that we cannot hold at risk with conventional weapons is very small and maybe empty," Lewis, who heads the New America Foundation's Nuclear Strategy and Nonproliferation Initiative, told Global Security Newswire this week. "The unique value provided by nuclear weapons is largely psychological at this point and hardly one of military utility."

# 1NC 2/2

**C- Reducing the role of conventional forces requires a renewed emphasis on nuclear strategy through RRW modernization programs**

**IFPA, 9** – Institute for Foreign Policy Analysis (February, <http://www.ifpa.org/pdf/Updating_US_Deterrence_Concepts.pdf>)

Reducing the number of operational U.S. nuclear weapons and/or moving to a dyad posture implies as well a change in U.S. targeting strategy, absent nuclear modernization. Instead of relying on a counterforce construct in which U.S. nuclear weapons target enemy weapons and related industrial infrastructure, a small U.S. nuclear posture perforce would move the United States back to a counter-value or anti-cities targeting strategy due to the limited number of warheads available to assign to specific targets and in light of on-going questions about the reliability of aging warheads (which in some cases has resulted in the need to assign multiple warhead to strategic targets). This would take us back to the mutual assured destruction (MAD) mindset and undermine the deterrence-by-denial strategy that the Bush NPR tried to introduce. In our view, this is neither a viable construct for today’s nuclear threats nor a politically wise path to pursue, as it would diminish further the credibility of U.S. extended deterrence guarantees and broaden the vulnerability of the United States to nuclear blackmail and/or missile threats. Other factors being equal, the most responsible way to go to lower warhead numbers without changing today’s emphasis on low collateral damage and precision strikes would be for the United States to move ahead with modernization of its nuclear inventory. The Reliable Replacement Warhead (RRW) is, in our view, crucial to this objective, and Congressional efforts to tie a Comprehensive Test Ban Treaty (CTBT) to RRW modernization may be the only way to secure the necessary levels of political support for this aspect of U.S. nuclear modernization.7 If RRW modernization is considered critical to our ability to meet, contain, counter, and mitigate the effects of prospective threats and new challenges to U.S. security interests, then we need to set into place a construct for supporting nuclear modernization programs, based on a package of inducements that would appeal to skeptics and supporters alike. Elements of an RRW package conceivably should include a commitment to modernize the U.S. nuclear infrastructure (components of which are near collapse) and to provide precise evidence of how RRW development supports the objectives enshrined in the Moscow Treaty with respect to lowering the number of operationally-deployed nuclear warheads. 8 The essence of deterrence theory resides in the perceived credibility of a state’s ability to implement a nuclear threat. Credibility and will, in other words, are key to the way in which nations perceive U.S. power and to how they will respond to escalatory threats. Up to now, however, the United States has not had the necessary flexibility to tailor options for different circumstances. Going forward, the United States will need to adjust the way in which it thinks about the deterrent roles of nuclear weapons compared to those of non-nuclear offensive strike and defensive weapons, and how each of these three legs of the New Strategic Triad can best be leveraged to deter potential nuclear proliferators who may be inclined to facilitate terrorist or other non-state actor acquisition of nuclear weapons. This will require, in turn, a closer look at the command and control architectures, intelligence requirements, and strategic communications needs of America’s nuclear/strategic weapons posture, to ensure that the messages/intentions conveyed by specific U.S. deployments or other activities (i.e., signaling) are properly received and understood by those targeted. In this context, tailored deterrence, including extended deterrence, may need to be personalized down to the level of a handful of key adversarial decision-makers. The thinking behind the Bush NPR was that regional nuclear states, notably North Korea, and potential proliferators, such as Iran, could be deterred from taking military action against the United States itself because of the punitive threat of retaliation from U.S. conventional forces, backed up by the implicit threat of U.S. nuclear weapons use, if American conventional forces failed to deter or defeat enemy attacks against U.S. regional allies or coalition partners, American forces operating in regional settings, or against the United States itself. Such threats, however, especially after the first Gulf war, were neither perceived as credible nor capable of being implemented, based on the statements—including those of President George H.W. Bush—casting doubts about U.S. nuclear weapons use in such contingencies, andthe unwillingness of the U.S. Congress to **fund deterrence-related modernization programs.**9 From our perspective, the key to deterrence in the 21st century global security setting is to update U.S. nuclear forces to provide enhanced targeting flexibility and reduced collateral damage options, and to combine those attributes with conventional Global Strike capabilities, such as the Conventional Trident Modification (CTM), and with missile defenses to put into place capabilities for a deterrence framework that offers broader strategic and operational planning options for dissuasion, crisis prevention, and perception management. Going forward in this way would give the National Command Authority a means to influence and prevent crises from escalating and, in a worst-case contingency, the ability to control more effectively the escalation dynamics of a particular crisis scenario. The problem was, and still is, that the capacity to implement tailored and selective targeting strategies remains limited because of a subsequent failure to identify and fund programs to implement the new U.S. deterrence strategy after the NPR was released. Indeed, what has not happened since the Bush NPR’s enunciation is the implementation of both nuclear and non-nuclear programs to update America’s strategic weapons inventory—something that is necessary if we ever want to reduce responsibly the numbers of older and high-yield nuclear weapons in the U.S. stockpile. As the IFPA report on Iran points out, Iran’s efforts to acquire and/or develop an indigenous nuclear weapons capability have profound consequences for U.S. strategic and operational planning, crisis management, escalation dominance, and war termination policies. For that reason, and, again, to provide the National Command Authority with credible options in regional contingencies or in those in which vital U.S. national interests are not at stake, new capabilities are needed below the nuclear threshold that still would have a strategic impact. This goes to the heart of the “conventional deterrence” construct that was first raised as part of the NATO debate in the 1980s about the so-called Follow-on Forces Attack concept (FOFA)10 and the trade-offs between nuclear and non-nuclear deterrence considerations. Since FOFA days, the technologies for implementing global strikes using non-nuclear weapons that could hold at risk protected and/or buried targets have matured considerably, but their value for the deterrence construct has not been explained adequately, nor have ideas for their integration into strategic strike planning. With the articulation of the New Strategic Triad, and the enunciation of the Global Strike concept, the opportunity to do so existed, but was not realized, as the focus of attention quickly shifted to IW and post-9/11 contingency planning. Steps to correct this oversight remain a priority for U.S. deterrence planning, but we must also go beyond this to elaborate a new deterrence framework that can be tailored for specific contingencies and that can draw upon force posture options that offer a flexibility of means, to include coercive strike options, missile defenses, and consequence management capabilities.

**D- Funding RRW causes a Global Nuclear Arms Race**

**FCNL, 8 – the oldest registered ecumenical lobby in Washington, DC** (Friends Committee on National Legislation, April 2008, “Reliable Replacement Warhead *Another Uneeded Nuclear Weapon”* <http://www.fcnl.org/pdfs/nuclear/RRW_Fact_Sheet.pdf>)

**Researching and developing a new generation of “reliable” nuclear weapons could undermine arms control and nonproliferation objectives by setting off a nuclear arms race.** It sends the wrong message to other would-be nuclear powers around the world. It could prompt Russia and China to modernize their nuclear arsenals. The program could also lead to the resumption of U.S. nuclear testing and end the current international testing moratorium. Despite the “reliable” label of the proposed new program, the current U.S. arsenal is extremely reliable. The secretaries of Energy and Defense have certified to the president for the past 11 years that the present U.S. nuclear stockpile is safe, secure—and reliable. The keystone of the Energy Department’s argument for RRW has been the aging of plutonium pits, an essential element of new nuclear weapons. Department officials had estimated that some pits in existing weapons would become “unreliable” in less than a decade and needed to be replaced. Yet, a congressionally mandated report by a scientific panel found that pits will remain “reliable” for more than twice the time originally estimated, with most pits having lifetimes of over 100 years. The program would require new nuclear weapons plants that the Energy Department estimates will cost tens of billions of dollars. As a former White House budget official in the first Bush and Clinton administrations stated, “The weapons labs are more interested in job security than national security.”1 Some congressional leaders believe they can keep the RRW program within tight constraints, but the history of previous limits on the nuclear weapons program is not promising. RRW and the Nuclear Non-Proliferation Treaty Developing new nuclear weapons is at odds with the U.S. commitment to prevent the spread of nuclear weapons. It undermines the nuclear Non-Proliferation Treaty (NPT), an international agreement signed by 188 countries that has significantly limited the number of states that have nuclear weapons. In 1970 as part of the NPT, the United States agreed “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament” (Article VI). As the Vatican remarked at the United Nations in 2005, “In essence, the NPT promised a world in which nuclear weapons would be eliminated...” However, “it is evident that nuclear deterrence drives the development of ever newer nuclear arms, thus preventing genuine nuclear disarmament.”2 **The administration claims that new nuclear weapons are needed for some future “new threat.” However, such U.S. weapons programs make it easier for nuclear “hawks” in Moscow and Beijing to argue for new nuclear weapons for their own nuclear arsenals, undermining the process of disarmament**. Developing new nuclear weapons also undermines U.S. nonproliferation goals. As Rep. Ed Markey (MA), a leading congressional critic of new nuclear weapons, has stated, “America cannot credibly preach nuclear temperance from a barstool.” At a time when the United States is urging restraint in Iran and North Korea’s nuclear programs, the U.S. administration is intent on developing its own new nuclear weapons against an undefined, future threat. Rather than building new nuclear weapons, it is time to honor the NPT and work towards, in the words of President Reagan, the elimination of “all nuclear weapons.” As former Secretary of State Henry Kissinger and other senior statesmen recently affirmed, “Reassertion of the vision of a world free of nuclear weapons and practical measures toward achieving that goal would be, and would be perceived as, a bold initiative consistent with America's moral heritage.”3

**E- Impact Global Nuclear war**

**Cimbala, 2008**

[Stephen, Distinguished Prof. Pol. Sci. – Penn. State Brandywine, Comparative Strategy, “Anticipatory Attacks: Nuclear Crisis Stability in Future Asia”, 27, InformaWorld]

If the possibility existed of a mistaken preemption during and immediately after the Cold War, between the experienced nuclear forces and command systems of America and Russia, then it may be a matter of even more concern with regard to states with newer and more opaque forces and command systems. In addition, the Americans and Soviets (and then Russians) had a great deal of experience getting to know one another’s military operational proclivities and doctrinal idiosyncrasies, including those that might influence the decision for or against war. Another consideration, relative to nuclear stability in the present century, is that the Americans and their NATO allies shared with the Soviets and Russians a commonality of culture and historical experience. Future threats to American or Russian security from weapons of mass destruction may be presented by states or nonstate actors motivated by cultural and social predispositions not easily understood by those in the West nor subject to favorable manipulation during a crisis. The spread of nuclear weapons in Asia presents a complicated mosaic of possibilities in this regard. States with nuclear forces of variable force structure, operational experience, and command-control systems will be thrown into a matrix of complex political, social, and cultural crosscurrents contributory to the possibility of war. In addition to the existing nuclear powers in Asia, others may seek nuclear weapons if they feel threatened by regional rivals or hostile alliances. Containment of nuclear proliferation in Asia is a desirable political objective for all of the obvious reasons. Nevertheless, the present century is unlikely to see the nuclear hesitancy or risk aversion that marked the Cold War, in part, because the military and political discipline imposed by the Cold War superpowers no longer exists, but also because states in Asia have new aspirations for regional or global respect.12 The spread of ballistic missiles and other nuclear-capable delivery systems in Asia, or in the Middle East with reach into Asia, is especially dangerous because plausible adversaries live close together and are already engaged in ongoing disputes about territory or other issues.13 The Cold War Americans and Soviets required missiles and airborne delivery systems of intercontinental range to strike at one another’s vitals. But short-range ballistic missiles or fighter-bombers suffice for India and Pakistan to launch attacks at one another with potentially “strategic” effects. China shares borders with Russia, North Korea, India, and Pakistan; Russia, with China and NorthKorea; India, with Pakistan and China; Pakistan, with India and China; and so on. The short flight times of ballistic missiles between the cities or military forces of contiguous states means that very little time will be available for warning and attack assessment by the defender. Conventionally armed missiles could easily be mistaken for a tactical nuclear first use. Fighter-bombers appearing over the horizon could just as easily be carrying nuclear weapons as conventional ordnance. In addition to the challenges posed by shorter flight times and uncertain weapons loads, potential victims of nuclear attack in Asia may also have first strike–vulnerable forces and command-control systems that increase decision pressures for rapid, and possibly mistaken, retaliation. This potpourri of possibilities challenges conventional wisdom about nuclear deterrence and proliferation on the part of policymakers and academic theorists. For policymakers in the United States and NATO, spreading nuclear and other weapons of mass destruction in Asia could profoundly shift the geopolitics of mass destruction from a European center of gravity (in the twentieth century) to an Asian and/or Middle Eastern center of gravity (in the present century).14 This would profoundly shake up prognostications to the effect that wars of mass destruction are now passe, on account of the emergence of the “Revolution in Military Affairs” and its encouragement of information-based warfare.15 Together with this, there has emerged the argument that large-scale war between states or coalitions of states, as opposed to varieties of unconventional warfare and failed states, are exceptional and potentially obsolete.16 The spread of WMD and ballistic missiles in Asia could overturn these expectations for the obsolescence or marginalization of major interstate warfare

\*\*\*UNIQUENESS

# RRW On Brink 1/2

Uniqueness: The door is still open for Obama to implement RRW but has held back for now

Pincus, 10 – Staff Writer (Walter, “Pentagon points to loopholes in nuclear road map,” 4/10/10, Washington Post, <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/09/AR2010040905055.html>)

The latest Defense Department nuclear road map, released this week, reflects President Obama’s repeated declaration that the United States will not build new nuclear warheads or conduct underground nuclear tests. But Pentagon officials have since made clear that the policy contains loopholes. Using language hammered out to satisfy senior Defense Department officials who are looking ahead 30 years, the Nuclear Posture Review allows for new nuclear components to be deployed in older warheads if that is necessary to make them safer and more reliable and if the president and Congress approve, according to Marine Gen. James Cartwright, vice chairman of the Joint Chiefs of Staff. Defense Secretary Robert M. Gates told reporters that as options are reviewed for extending the life of nuclear warheads, “strong preference” would continue to be given to refurbishment (leaving a nuclear package alone and upgrading nonnuclear components) or reuse (switching out older nuclear packages for designs used in other deployed or retired systems). “Replacement of any nuclear components,” Gates said, would be chosen only “if absolutely necessary [and] would require specific presidential approval.” Expanding on Gates’s statement, Cartwright emphasized that any such replacement would utilize “designs not in the [present] stockpile but based on previously tested designs.” His description is very close to that applied to the George W. Bush administration’s planned Reliable Replacement Warhead program, which Congress killed in 2007 and which Gates had supported. Thomas D’Agostino, head of the National Nuclear Security Administration, which runs the nuclear weapons-building complex, said that until now, the long-standing life-extension program has used refurbishment to keep thousands of decades-old nuclear warheads certified as reliable. When Congress blocked the Reliable Replacement Warhead program, it imposed guidelines mandating “no new warheads for new military capabilities” and no testing. Cartwright, however, said the door is still open for the testing option. Asked about a statement Gates made some time ago, in which he said testing could eventually be needed, Cartwright said: “We don’t know what five years from now might bring. Nobody has ever removed from the commander or anyone else in that chain the ability to stand up and say, ‘I’m uncomfortable. I believe that we’re going to have to test, or I believe that we’re going to have to build something new.’ That’s not been removed here.” Stephen Young of the Union of Concerned Scientists said the Nuclear Posture Review’s stockpile-management section “leaves the door open to allow a future administration to extend the life of an existing warhead by essentially replacing it with a newly designed one.” However, Young said, “This administration will almost certainly not do so, but will instead refurbish existing warheads or reuse existing components.”

**Obama is willing to give RRW lobbyists bargaining chips for the deal in exchange for votes – this puts RRW on the brink**

**Butt, 10** - physicist in the High-Energy Astrophysics Division at the Harvard-Smithsonian Center for Astrophysics, previous fellow in the Committee on International Security and Arms Control at the National Academy of Sciences. He holds a PhD in nuclear physics. (Yousaf 4/9/10, Bulletin of the Atomic Scientists, “ Nuclear exchange: RRW for CTBT?”, <http://www.thebulletin.org/print/web-edition/op-eds/nuclear-exchange-rrw-ctbt>)

Reviving RRW seemingly would be impossible as Congress has twice zeroed out the program's funding, and the newly released Nuclear Posture Review PDF (NPR) promises that the "United States will not develop new nuclear warheads." But since the Obama administration wants to eventually submit the Comprehensive Test Ban Treaty (CTBT) to the Senate for ratification--a move that requires the cooperation of at least eight Senate Republicans--the pro-RRW lobby now has a significant bargaining chip in its effort to raise the program from the grave. Nor is the NPR's promise of not creating new warheads as stringent as it first appears. By definition, the NPR's term of validity is 5-10 years and the pro-RRW lobby can easily argue that it's planning for the future. Further, the NPR allows for three options in warhead modernization: refurbish, reuse, and replace. The latter option would be consistent with RRW since according to the NPR the replacement design needs only to be "based on previously tested designs." (The first RRW, WR1, is loosely based upon the two-stage, boosted SKUA-9 design that was tested several times in the 1970s.) Generally speaking, Democrats favor the CTBT and dislike RRW; conversely, most Republicans favor RRW and dislike the CTBT. So the grand bargain might be CTBT ratification for RRW funding. But any such quid pro quo would be dangerous both to the credibility of U.S. nuclear forces and Washington's nonproliferation efforts. Untested new weapons could hardly be considered a better deterrent than the tested weapons in the U.S. arsenal; on the other hand, were the new weapons to be tested, it would be harder to dissuade other countries from also testing. Therefore, the "RRW for CTBT" bargain should be strenuously resisted.

# RRW On Brink 2/2

**The 2010 Nuclear Posture Review indicates RRW is still a possibility**

**Grossman, 10** (Elaine M., “Nuclear Posture Review Adopts Varied Approach to Updating Warheads,” Global Security Newswire, <http://gsn.nti.org/gsn/nw_20100407_3870.php>)

In deciding its game plan for modernizing nuclear warheads, the Obama administration hewed fairly closely to guidelines for "Stockpile Management" that Congress spelled out in fiscal 2010 legislation. A defense authorization report issued last year said any updates must be limited to improving warheads' safety, security and reliability, without adding more explosive power or boosting a weapon's capability against targets. The challenge has been to find ways to establish confidence that nuclear weapons will continue to function, if necessary, in the absence of explosive testing. The United States has maintained a voluntary moratorium on underground tests since the early 1990s. Under the new Obama policy, "life-extension programs will use only nuclear components based on previously tested designs, and will not support new military missions or provide for new military capabilities," the posture review states. The particular approach to warhead overhauls will be determined on a case-by-case basis, as each weapon comes up for periodic overhaul in a "life-extension program," according to the Nuclear Posture Review. "The full range of LEP approaches will be considered: refurbishment of existing warheads, reuse of nuclear components from different warheads, and replacement of nuclear components," states the posture review report. Gen. James Cartwright, vice chairman of the Joint Chiefs of Staff, yesterday described refurbishment as the renovation of a warhead in such a way that it would not change its key nuclear components, sometimes called its "physics package." Under the second method of updating a warhead -- reuse -- engineers might reach into existing reserve stockpiles and cannibalize a component "from one warhead type, [and] match it with another in order to be able to preserve that weapon," said Cartwright, who formerly served as the top combatant commander for nuclear weapons. "That would allow us to take known, tested designs, keep them in the stockpile without having to retest or establish a test program, and allow us to keep the stockpile fresh." Briefing reporters on some of the review's conclusions, the general described the third option -- replacement -- as "utilizing [warhead] designs not in the stockpile but based on previously tested designs." This method would involve new production of existing blueprints, and -- as in the case of reuse -- could combine parts that were never explosively tested together in the same warhead. However, the replacement option will not be considered on equal footing, according to the posture review. "In any decision to proceed [on] warhead LEPs, the United States will give strong preference to options for refurbishment or reuse," the document states. "Replacement of nuclear components would be undertaken only if critical Stockpile Management Program goals could not otherwise be met, and if specifically authorized by the president and approved by Congress." Most lawmakers have taken a dim view of nuclear-warhead "replacement" options over the past several years, twice rejecting Bush administration requests to fund a "Reliable Replacement Warhead." Under that now-canceled effort, U.S. officials proposed swapping older weapons across the arsenal for new models that could be safer to maintain, pose less risk of unauthorized use and remain functional for the foreseeable future.

**Obama’s budget increased spending for nuclear weapons by 14% - this means RRW or a similar program to build new nuclear weapons is still possible**

**Gerstein, 10** (Josh, 3/6/10, “Obama-Gates nuke war brewing?” POLITICO, Lexis)

While the arms control community has generally been ecstatic about the repeated public calls from Obama and his administration to move towards a nuclear-free world, they are nervous that the large budget hike the White House proposed for nuclear programs pulls in the opposite direction, all but ensuring that the U.S. will have a large and growing nuclear weapons complex for the indefinite future. Obama is proposing spending $7.3 billion in nuclear weapons-related activities in fiscal 2011, up 14 percent from this year, according to Civiak. The total 2011 request is the largest ever, and 40 percent higher, adjusted for inflation, than during the Cold War. “Future administrations could use this new capacity to produce new nuclear weapons,” warned said Nickolas Roth of the Alliance for Nuclear Accountability. Administration officials are scrambling to wrap up the delayed nuclear posture review in advance of Obama’s nuclear safety summit in Washington and a Nuclear Non-proliferation Treaty review conference set to take place in May at the United Nations. Given Gates’s earlier statements in favor of new warheads, arms control advocates will be reading the U.S. strategy paper closely to see whether programs purportedly aimed at refurbishing the current nuclear arsenal could amount to new weapons programs in disguise. “That’s a very fair concern,” Cirincione said. “People will be taking a very close look at what the posture review says about the Life Extension Program for exactly this reason…..I think this is mostly on the up and up.”

# Gates Pushing

**Obama hasn’t made his mind up, but Gates is pushing – puts RRW on the brink**

**GSN, 9** – Global Security Newswire (9/24/09**, “**Gates Hints at call for new warhead designs in Nuclear Posture review,” http://www.globalsecuritynewswire.org/gsn/nw\_20090924\_1967.php)

A congressionally mandated review of U.S. nuclear strategy is likely to recommend developing "safer and more reliable" warhead designs as part of a broader effort to modernize and maintain the nation's nuclear deterrent, Defense Secretary Robert Gates said in remarks published last week by the Defense Department (see GSN, Sept. 18). "The Nuclear Posture Review is well under way, and I would say we're beginning to see what some of the likely conclusions are," Gates said at an Air Force Association event. "I would say that it is clear, at least to me, that it is important for us to continue to make investments, and I think larger investments, in modernizing our nuclear infrastructure, the labs and so on, the expertise in those places, to have the resources for life-extension programs, and in one or two cases probably new designs that will be safer and more reliable." Gates had been a supporter of the Bush administration's Reliable Replacement Warhead program, which was intended to produce new warhead designs aimed at providing increased safety and reliability for the nuclear arsenal. Congress provided no funding for the program in the last two budgets and Vice President Joseph Biden earlier this year sought to shut down one discussion of resuming a warhead replacement effort (see GSN, Aug. 18). Gates said there is no intention to produce nuclear weapons with new capabilities. "That's a red herring," he said. "This is about modernizing and keeping safe a capability that everyone acknowledges we will have to have for some considerable period into the future before achieving some of the objectives of significant arms reduction and eventually no nuclear weapons at all. All recognize that is a considerable distance in the future, and we have an obligation to keep this capability safe" (U.S. Defense Department release, Sept. 16). A top Obama administration arms control official, though, recently provided assurance that Washington would not seek to revive the controversial effort to design and build a next-generation nuclear warhead, the Albuquerque Journal reported. "There are a lot of people that still hope for the return of RRW and they are going to be sadly disappointed," Ellen Tauscher, undersecretary of state for arms control and international security, told Foreign Policy magazine. One analyst read the apparently conflicting statements as a sign that the administration is still formulating its position on nuclear arsenal modernization. "They have not yet decided what they're going to say," said Steven Young, an nuclear weapons expert at the Union of Concerned Scientists.

**Gates has gotten key appointees to help scheme for RRW funding**

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, http://gsn.nti.org/gsn/nw\_20090818\_1478.php)

Defense Secretary Robert Gates raised the idea of reinstating the controversial Reliable Replacement Warhead effort during a secret "Principals' Committee" meeting convened by the National Security Council, Global Security Newswire has learned. In pursuing the initiative, Gates appears to have won the backing of some pivotal Cabinet secretaries, including Secretary of State Hillary Clinton. One administration-watcher -- a critic of the replacement-warhead idea -- alleges that several key appointees at the Defense and State departments are now "scheming and maneuvering" to bring the program back to life.

# Obama/Gates Tension 1/3

**Obama and Gates disagree over RRW – and conventional troops deployed around the world is a key deterrent to reduce reliance on nuclear weapons**

**Ackerman, 10** (Spencer, “Gates’ 2008 Nuke Speech vs. 2010 Nuclear Posture Review,” The Washington Independent, <http://washingtonindependent.com/81466/gates-2008-nuke-speech-vs-2010-nuclear-posture-review>)

A good chunk of the speech is about the virtues of the Reliable Replacement Warhead, a program that others in the Obama administration view as skirting too close to building new nukes. Josh Rogin reports that the NPR [Nuclear Posture Review] will “thread the needle” on modernizing the nuclear stockpile (which is how Gates views the RRW) without committing to the program. It’s no secret that Gates is on the rightward edge of the nuclear strategy debate in the administration. But there are areas in Gates’ 2008 speech where disagreement with the 2010 NPR is really just a matter of emphasis. Gates’ defense of conventional forces from 2008, for instance, will be largely codified by today’s document: A conventional strike force means that more targets are vulnerable without our having to resort to nuclear weapons. And missile defenses reinforce deterrence and minimize the benefits of rogue nations investing heavily in ballistic missiles: They won’t know if their missiles will be effective, thus other nations will feel less threatened. And let’s not forget the deterrent value of other parts of our conventional military forces. Gates speaks at noon. It’ll be instructive to hear how he describes his current thinking on nuclear strategy, and whether he addresses his older comments about it.

**Even if Gates recognizes that RRW is dead, that doesn’t mean he’s stopped pushing for new nuclear weapons**

**Gerstein, 10** (Josh, 3/6/10, “Obama-Gates nuke war brewing?” POLITICO, Lexis)

Pentagon spokesman Geoff Morrell said the Obama administration’s overall approach is in line with Gates’ views. Gates “still believes in the fundamental goals of ensuring warhead safety, security, and reliability, and believes we need a modern infrastructure to support that. Those investments are in the budget,” the spokesman said. “The RRW [Reliable Replacement Warhead] program was killed by Congress, and isn't coming back. Sec. Gates recognizes that fact.” However, Morrell said it was too soon to say how modernization of nuclear warhead stocks would be carried out. The Pentagon is "not going to say now what the policy will be on this issue," the spokesman said. During the presidential campaign, Obama was unequivocal in his opposition to new designs. “I will not authorize the development of new nuclear weapons,” he told Arms Control Today in September 2008. About a month later, while still working for Bush, Gates delivered a speech calling for “urgent attention” to the Bush administration’s call for a new Reliable Replacement Warhead and warning of a “bleak” outlook for the U.S. nuclear arsenal if the new devices weren’t pursued. “Sensitive parts do not last forever. We can and do re-engineer our current stockpile to extend its lifespan,” Gates said. “With every adjustment we move farther away from the original design that was successfully tested when the weapon was first fielded…At a certain point it will become impossible to keep extending the life of our arsenal—especially in light of our testing moratorium.” Gates might have been expected to keep mum on the point after Obama was elected, at least in public. He didn’t. “It is clear, at least to me, that it is important for us to continue to make investments, and I think larger investments in modernizing our nuclear infrastructure, the labs and so on, the expertise in those places, to have the resources for life extension programs and in one or two cases probably new designs that will be safer or more reliable,” Gates said last September, fielding a question at an Air Force Association conference. So it was no accident that when Biden delivered a policy address last month about nuclear disarmament and the need to boost funding for America’s atomic labs, Gates introduced the vice president—who quickly downplayed any divisions. “This speech was a collaborative document,” Biden told the audience at the National Defense University, in an apparent ad lib. “Bob Gates could have delivered this speech.” Unsurprisingly, Obama’s categorical opposition to any new nuclear weapons appears to have carried the day—at least on the surface. When the administration’s 2011 budget plan emerged last month, there was no mention of any new atomic weapons programs. But the question of whether Gates is still pushing for new designs isn’t as clear-cut, despite Biden’s 22-minute speech and the public budget proposal. Analysts say squaring the previously stated positions of the president and the Pentagon chief depends on what the definition of the word ‘new’ is. And, as is so often the case with the federal government, the Obama budget’s proposal for a huge injection of cash should help smooth over any hard feelings at the Pentagon and the nuclear labs. “It comes down to what constitutes ‘new,’ ’’ Kristensen added. “Even very new concepts can be proposed that are not necessarily considered ‘new,’ but as modifications of existing types of warheads. It’s not a black and white thing.” “A big part of the nuclear review was to assure Secretary Gates and others that we would be investing in all the tools and programs necessary to keep the arsenal safe and effective for the indefinite future,” said one longtime arms control advocate, Joseph Cirincione of the Ploughshares Fund. “I believe the Secretary’s concerns have been met.”

# Obama/Gates Tension 2/3

**RRWs are the hot button in the Gates and Obama interactions**

**CSIS, 6/11** – Center for Strategic International Studies (6/11/2010, http://csis.org/blog/obama-vs-gates-rrw-showdown)

Mark Thompson published a piece in Time yesterday discussing the looming battle between Obama and Gates over the Reliable Replacement Warhead (RRW) program. While Gates has repeatedly called for the RRW and defended its merits throughout the fall, the White House website actualized an Obama pledege against new weapons by stating the United States, "will stop the development of new nuclear weapons." Period. Thompson summarizes the standoff by arguing, Obama would have a difficult time reversing course on what is now a stated policy of his Administration instead of simply a campaign promise. And any move to produce new nuclear weapons will be read by other nations as a U.S. push for nuclear supremacy, even as Washington urges the rest of the world - Tehran, are you listening? - to do without the weapons. Russia would very likely respond by upgrading its own arsenal. But Gates argues that building a new generation of more reliable nuclear warheads would give the U.S. the confidence to shrink its overall nuclear arsenal. After all, if you have only a 50% level of confidence that a nuclear weapon is going to perform as advertised, you'll need twice as many Given the lack of official press on either meetings between Gates and Obama on the issue or a compromise to the competing ideas the RRW issue could be an early hot button issue to set the tone for the interaction between Gates and Obama throughout the administration. Thompson ultimately concludes that loose nukes are the largest terrorist threat and so, "A new batch of nuclear weapons, unfortunately, isn't going to change that." While many people agree that nuclear terrorism may be the most likely short term risk, there are also large parts of the military and Washington that clearly think the United States will need to maintain a credible deterrence for an indefinite period of time and RRW could be one way to help ensure that.

**RRWs are the biggest showdown between Gates and Obama**

**Thompson, 9** (Mark, 1/26/09, Time Magazine, <http://www.time.com/time/nation/article/0,8599,1873887,00.html>)

The latest U.S. nuclear showdown doesn't involve a foreign enemy. Instead it pits President Barack Obama against his Defense Secretary, Robert Gates, and concerns the question of whether America needs a new generation of nuclear warheads. While serving under former President George W. Bush, Gates had repeatedly called for the Reliable Replacement Warhead (RRW) program to be put into operation, because the nation's current nukes — mostly produced in the 1970s and '80s — are growing so old that their destructive power may be in question. "The Reliable Replacement Warhead is not about new capabilities but about safety, reliability and security," Gates said in a speech in the week before last November's election. In an article in the current issue of Foreign Affairs, released in early December after Gates was tapped by Obama to stay on at the Pentagon, Gates repeated that refrain. "Even though the days of hair-trigger superpower confrontation are over, as long as other nations possess the bomb and the means to deliver it, the United States must maintain a credible strategic deterrent," he wrote. "Congress needs to do its part by funding the Reliable Replacement Warhead program — for safety, for security and for a more reliable deterrent." RRW basically trades explosive force for greater assurance that new warheads would work predictably in the absence of tests, which the U.S. has refrained from conducting for nearly two decades to help advance nonproliferation goals. (See a graphic of the global nuclear arms balance.) But Obama doesn't buy that logic. Shortly after taking the oath of office on Tuesday, he turned what had been a campaign promise into an official presidential commitment: the new Administration "will stop the development of new nuclear weapons," the White House declared flatly on its website, with no equivocation, asterisks or caveats. Obama and Gates are "at loggerheads on this," says Michael O'Hanlon, a military expert at the Brookings Institution who has specialized in nuclear issues. A senior Pentagon official says talk of a resolution is "premature" because he doesn't believe Gates and Obama have discussed the matter.

# Obama/Gates Tension 3/3

**Obama and Gates are fighting**

**Thompson, 9** (Mark Thompson 1/26/09 Obama’s showdown over nukes” <http://www.time.com/time/nation/article/0,8599,1873887,00.html>

The latest U.S. nuclear showdown doesn't involve a foreign enemy. Instead it pits [President Barack Obama](http://www.time.com/time/topics/barack-obama/0,30939,,00.html) against his [Defense Secretary, Robert Gates](http://www.time.com/time/specials/packages/article/0,28804,1863062_1863058_1863225,00.html), and concerns the question of whether America needs a new generation of nuclear warheads. While serving under former President George W. Bush, Gates had repeatedly called for the Reliable Replacement Warhead (RRW) program to be put into operation, because the nation's [current nukes](http://www.time.com/time/nation/article/0,8599,1812228,00.html) — mostly produced in the 1970s and '80s — are growing so old that their destructive power may be in question. "The Reliable Replacement Warhead is not about new capabilities but about safety, reliability and security," Gates said in a speech in the week before last November's election. In an article in the current issue of *Foreign Affairs,* released in early December after Gates was [tapped by Obama](http://www.time.com/time/specials/packages/article/0,28804,1863062_1863058_1863225,00.html) to stay on at the Pentagon, Gates repeated that refrain. "Even though the days of[hair-trigger superpower confrontation](http://www.time.com/time/magazine/article/0,9171,953408,00.html) are over, as long as other nations possess the bomb and the means to deliver it, the United States must maintain a credible strategic deterrent," he wrote. "Congress needs to do its part by funding the Reliable Replacement Warhead program — for safety, for security and for a more reliable deterrent." RRW basically trades explosive force for greater assurance that new warheads would work predictably in the absence of tests, which the U.S. has refrained from conducting for nearly two decades to help advance nonproliferation goals. ([See a graphic of the global nuclear arms balance.](http://www.time.com/time/covers/20050801/graphics/)) But Obama doesn't buy that logic. Shortly after taking the oath of office on Tuesday, he turned what had been a campaign promise into an official presidential commitment: the new Administration "will stop the development of new nuclear weapons," the White House declared flatly on its website, with no equivocation, asterisks or caveats. Obama and Gates are "at loggerheads on this," says Michael O'Hanlon, a military expert at the Brookings Institution who has specialized in nuclear issues. A senior Pentagon official says talk of a resolution is "premature" because he doesn't believe Gates and Obama have discussed the matter. The plutonium "pit" of a nuclear weapon — the heart of its extraordinary power — suffers radioactive decay, losing power and building up impurities, over time. There is concern that aging pits may fail to detonate properly, or perhaps at all. O'Hanlon and other nuclear thinkers have suggested retooling existing weapons to improve reliability as an option. But the Energy Department's National Nuclear Security Administration, which develops America's nuclear weapons, has said it cannot meet the goals set for RRW by modifying existing weapons. Obama's position has backing in Congress, which has repeatedly refused to fund the program. ([See who's who in Obama's White House.](http://www.time.com/time/specials/packages/article/0,28804,1863062_1863058,00.html)) Obama would have a difficult time reversing course on what is now a stated policy of his Administration instead of simply a campaign promise. And any move to produce new nuclear weapons will be read by other nations as a U.S. push for nuclear supremacy, even as Washington urges the rest of the world — Tehran, are you listening? — to do without the weapons. Russia would very likely respond by upgrading its own arsenal. But Gates argues that building a new generation of more reliable nuclear warheads would give the U.S. the confidence to shrink its overall nuclear arsenal. After all, if you have only a 50% level of confidence that a nuclear weapon is going to perform as advertised, you'll need twice as many. The U.S., under a self-imposed moratorium, has not conducted nuclear tests to assure the reliability and potency of its weapons since 1992. But it does spend more than $5 billion a year conducting analyses and computerized tests to monitor the health of the weapons. (RRW is estimated to cost at least $100 billion.)

**More fighting**

**Politico, 10** (“March 6, 2010 “Obama, Gates Not Always Eye-To-Eye on New Nukes” <http://www.seattlepi.com/politico/416304_politico34010.html>)

President Barack Obama has been clear. He wants no new nukes. Pentagon chief Robert Gates has been equally direct, advocating in recent years for a new generation of warheads. And nearly 14 months into their bipartisan-tinged partnership, Obama and Gates haven't publicly reconciled their views. Some anti-nuclear activists suspect the pair still don't see completely eye-to-eye and that Gates has never fully abandoned his goal of refurbishing the American nuclear arsenal with new weapons.

# RRW Alive

Supporters are looking for any excuse to get RRW funded

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, http://gsn.nti.org/gsn/nw\_20090818\_1478.php)

At the Pentagon, military officials are quietly looking to "fund RRW sometime late in the [fiscal 2011 budget-planning] process, either right after Thanksgiving or right after Christmas," said one former officer following the issue. "They don't understand that nuclear weapons are essentially political weapons and not to be used." "RRW is dead but RRW supporters are looking to revive this corpse," said Joseph Cirincione, president of the Ploughshares Fund. "They are scheming and maneuvering to use the Nuclear Posture Review as justification for a new warhead, to convince the White House that the only way to get the test-ban treaty ratified is to get a new warhead." Morrell, Gates' spokesman, confirmed that the issue remains in play. "The Nuclear Posture Review is still very much a work in progress," he said last week. "Nuclear modernization is certainly part of that review." An influential, bipartisan group of senators last month wrote to Obama to suggest that their support for the upcoming START follow-on treaty might hinge on his nuclear warhead modernization plans. When the president submits the new pact for Senate ratification, he "should also submit a plan," including multiyear budget figures, "to enhance the safety, security and reliability of the nuclear weapons stockpile," according to the July 23 letter, signed by six senators, including Armed Services Committee Chairman Carl Levin (D-Mich.) and ranking member John McCain (R-Ariz.); and Foreign Relations Committee Chairman John Kerry (D-Mass.) and ranking member Richard Lugar (R-Ind.) (see GSN, Aug. 4). "In whatever form it is, [RRW] is still alive," said one former official who asked not to be named. "I think the stalemate has disappeared and what emerges remains to be seen." Obama administration officials "haven't reconciled Prague's rhetoric with the stockpile's reality," said the senior Senate aide. "I think right now they're muddling, and very badly."

**RRW is back alive**

**Grossman 9** – Writer for global security newswire and foreign affairs reporter who has won 13 national journalism awards (Elaine M. Grossman, 8/18/09 “Inside Obama Administration, a Tug of War Over Nuclear Warheads” <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

At the Pentagon, military officials are quietly looking to "fund RRW sometime late in the [fiscal 2011 budget-planning] process, either right after Thanksgiving or right after Christmas," said one former officer following the issue. "They don't understand that nuclear weapons are essentially political weapons and not to be used." "RRW is dead but RRW supporters are looking to revive this corpse," said Joseph Cirincione, president of the Ploughshares Fund. "They are scheming and maneuvering to use the Nuclear Posture Review as justification for a new warhead, to convince the White House that the only way to get the test-ban treaty ratified is to get a new warhead." Morrell, Gates' spokesman, confirmed that the issue remains in play. "The Nuclear Posture Review is still very much a work in progress," he said last week. "Nuclear modernization is certainly part of that review." An influential, bipartisan group of senators last month wrote to Obama to suggest that their support for the upcoming START follow-on treaty might hinge on his nuclear warhead modernization plans. When the president submits the new pact for Senate ratification, he "should also submit a plan," including multiyear budget figures, "to enhance the safety, security and reliability of the nuclear weapons stockpile," according to the July 23 letter, signed by six senators, including Armed Services Committee Chairman Carl Levin (D-Mich.) and ranking member John McCain (R-Ariz.); and Foreign Relations Committee Chairman John Kerry (D-Mass.) and ranking member Richard Lugar (R-Ind.) (see [*GSN*](http://gsn.nti.org/gsn/nw_20090804_6459.php), Aug. 4). "In whatever form it is, [RRW] is still alive," said one former official who asked not to be named. "I think the stalemate has disappeared and what emerges remains to be seen."

# A2: Proliferation Fears

**Advocates support RRW regardless of proliferation fears and the test ban treaty**

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, http://gsn.nti.org/gsn/nw\_20090818\_1478.php)

Yet, some advocates of including the full array of modernization options have made clear they do not share Obama's vision of a nuclear weapons-free world. Those include Schlesinger, the commission's vice chairman, who said last month that "we will need a strong deterrent" into "perpetuity." In June, a senior administration official endorsed the commission's approach to nuclear modernization. "We can best manage risk if given the opportunity to apply a spectrum of options: warhead refurbishment, warhead component reuse and warhead replacement to our life extension strategy," Harvey, the former NNSA policy official, said at a Capitol Hill gathering. Now a Pentagon senior civilian working on nuclear, chemical and biological defense programs, Harvey said a modernization effort that includes warhead-replacement would be consistent with the test-ban treaty, because upgraded weapons would increase confidence in the stockpile in the absence of test explosions.

\*\*\*LINKS

# Conventional Military Reduction 1/3

**The NPR proves that reducing the importance of conventional forces increases the reliance on nuclear weapons**

**Ackerman, 10** (Spencer, “Administration to Signal Shift Away from Nuclear Future,” 4/6/10, The Washington Independent, <http://washingtonindependent.com/81306/administration-to-signal-shift-away-from-a-nuclear-future>)

Accordingly, the NPR will emphasize a reduced U.S. reliance on nuclear weapons and a greater one on conventional forces, a position officials believe to be a more credible deterrent of conflict, particularly toward rogue states like North Korea and Iran and stateless adversaries like al-Qaeda and its affiliates. Several officials said the “reduced-reliance” portions of the NPR are crafted to reassure allies that the U.S. deterrent umbrella extends beyond a nuclear attack on friendly forces. Similarly, the NPR will entrench the administration’s commitment to the Iran-focused missile defense the U.S. is constructing this decade in Eastern Europe. Adm. Mike Mullen, the chairman of the Joint Chiefs of Staff and an influential player in the NPR process, hinted at that approach last week during the unveiling of the “New START” arms reduction treaty with Russia. The treaty “protects our ability to develop a conventional global strike capability,” Mullen said, “should that be required.” The administration is also coalescing around a push in the Senate for ratification of the Comprehensive Test Ban Treaty, an international accord rejected by the Senate in the late 1990s to prevent nuclear testing. While the NPR will commit the administration to maintaining the nuclear stockpile — and to foreswear the construction of new nuclear weapons — it is expected to “talk about the effectiveness of the arsenal without testing it,” Cirincione said. “The treaty you want to get to is CTBT. That’s a legacy item.” In a February speech, Vice President Joe Biden appeared to offer a preview of how the NPR might reconcile stockpile maintenance with a rejection of testing: a renewed investment in the country’s national nuclear laboratories. “Our labs know more about our arsenal today than when we used to explode our weapons on a regular basis,” Biden said at the National Defense University. Administration officials for the past week have described the release of the NPR as effectively the opening bell in a flurry of diplomatic activity on nuclear weapons. On Thursday, Obama and Russian President Dmitri Medvedev will sign the New START treaty in Prague, the site of last year’s big speech by Obama about an eventual nuke-free world. The following week, Obama will host the leaders of 44 nations for a summit on nuclear security, with a focus on preventing nuclear material from falling into the hands of terrorists. Obama “wants to make sure that at his level, the head of state level, that there’s agreement on the threats, and on the concerns, on everyone’s commitments,” Ellen Tauscher, the undersecretary of state for arms control, told reporters Monday. That summit will cue up two other important arms control events: the adoption of a resolution by the United Nations Security Council placing economic sanctions on Iran for illicit uranium enrichment activity, and a May conference in New York on strengthening the Nuclear Nonproliferation Treaty. Officials want to see greater penalties for violating the treaty’s provisions or pulling out of it altogether, a step taken with minimal reprisal by North Korea in 2003. Daryl Kimball, the executive director of the Arms Control Association and a signatory of the Feb. 1 letter, said the NPR’s shift in emphasizing that the main nuclear danger to the U.S. comes from proliferation and not from nuclear war was an “extremely important premise” that “changes the logic considerably” of the role, mission and size of U.S. nuclear forces. He urged the Obama administration to adopt the full implication of that premise in the NPR. “What will be a transformative shift is to say that the purpose of U.S. nuclear forces is to deter nuclear use against us and our allies,” Kimball said. “That would implicitly eliminate from the roles and missions [any] potential use of nuclear weapons to fight a conflict that begins as conventional or to counter chemical or biological forces.”

**Decrease in US conventional military deployment fuels reliance on nuclear weapons**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

The Role of U.S. Nuclear Weapons Almost 15 years ago, President George H. W. Bush determined that the United States had no need to continue to design new nuclear weapons. This policy made it possible for the United States to push for an end to the development and testing of new nuclear weapons by all countries and to negotiate the CTBT. Although the Senate has not ratified the CTBT, the global moratorium on nuclear testing still stands and has prevented other countries, such as China, from advancing their own thermonuclear designs. A great danger, as Congress and other policymakers consider the merits of the RRW program, is that they may accept the false premise that the U.S. nuclear deterrent is already degrading. If this happens, there will be tremendous pressure for the United States to resume underground nuclear testing whether or not a more reliable warhead could technically be developed without testing. The debate over the RRW program also obscures a more fundamental and practical development: the utility of U.S. nuclear weapons is receding in importance with high-precision conventional weapons increasingly capable of accomplishing many missions that, until recently, would have required nuclear yields. Given that the United States has overwhelming superiority in conventional weaponry, U.S. military strength is undercut, not enhanced, by actions that ascribe greater importance to nuclear weapons. If the world’s greatest military power continues to rely on nuclear weapons, then why would countries that the United States considers to be a threat not see even greater reason to acquire nuclear weapons of their own?

# Conventional Military Reduction 2/3

**Lack of a conventional strategy would make the US amp up its nuclear strategy with RRW modernization programs**

**IFPA, 9** – Institute for Foreign Policy Analysis (February, <http://ifpa.org/pdf/Updating_US_Deterrence_Concepts.pdf>)

Reducing the number of operational U.S. nuclear weapons and/or moving to a dyad posture implies as well a change in U.S. targeting strategy, absent nuclear modernization. Instead of relying on a counterforce construct in which U.S. nuclear weapons target enemy weapons and related industrial infrastructure, a small U.S. nuclear posture perforce would move the United States back to a counter-value or anti-cities targeting strategy due to the limited number of warheads available to assign to specific targets and in light of on-going questions about the reliability of aging warheads (which in some cases has resulted in the need to assign multiple warhead to strategic targets). This would take us back to the mutual assured destruction (MAD) mindset and undermine the deterrence-by-denial strategy that the Bush NPR tried to introduce. In our view, this is neither a viable construct for today’s nuclear threats nor a politically wise path to pursue, as it would diminish further the credibility of U.S. extended deterrence guarantees and broaden the vulnerability of the United States to nuclear blackmail and/or missile threats. Other factors being equal, the most responsible way to go to lower warhead numbers without changing today’s emphasis on low collateral damage and precision strikes would be for the United States to move ahead with modernization of its nuclear inventory. The Reliable Replacement Warhead (RRW) is, in our view, crucial to this objective, and Congressional efforts to tie a Comprehensive Test Ban Treaty (CTBT) to RRW modernization may be the only way to secure the necessary levels of political support for this aspect of U.S. nuclear modernization.7 If RRW modernization is considered critical to our ability to meet, contain, counter, and mitigate the effects of prospective threats and new challenges to U.S. security interests, then we need to set into place a construct for supporting nuclear modernization programs, based on a package of inducements that would appeal to skeptics and supporters alike. Elements of an RRW package conceivably should include a commitment to modernize the U.S. nuclear infrastructure (components of which are near collapse) and to provide precise evidence of how RRW development supports the objectives enshrined in the Moscow Treaty with respect to lowering the number of operationally-deployed nuclear warheads. 8 The essence of deterrence theory resides in the perceived credibility of a state’s ability to implement a nuclear threat. Credibility and will, in other words, are key to the way in which nations perceive U.S. power and to how they will respond to escalatory threats. Up to now, however, the United States has not had the necessary flexibility to tailor options for different circumstances. Going forward, the United States will need to adjust the way in which it thinks about the deterrent roles of nuclear weapons compared to those of non-nuclear offensive strike and defensive weapons, and how each of these three legs of the New Strategic Triad can best be leveraged to deter potential nuclear proliferators who may be inclined to facilitate terrorist or other non-state actor acquisition of nuclear weapons. This will require, in turn, a closer look at the command and control architectures, intelligence requirements, and strategic communications needs of America’s nuclear/strategic weapons posture, to ensure that the messages/intentions conveyed by specific U.S. deployments or other activities (i.e., signaling) are properly received and understood by those targeted. In this context, tailored deterrence, including extended deterrence, may need to be personalized down to the level of a handful of key adversarial decision-makers. The thinking behind the Bush NPR was that regional nuclear states, notably North Korea, and potential proliferators, such as Iran, could be deterred from taking military action against the United States itself because of the punitive threat of retaliation from U.S. conventional forces, backed up by the implicit threat of U.S. nuclear weapons use, if American conventional forces failed to deter or defeat enemy attacks against U.S. regional allies or coalition partners, American forces operating in regional settings, or against the United States itself. Such threats, however, especially after the first Gulf war, were neither perceived as credible nor capable of being implemented, based on the statements—including those of President George H.W. Bush—casting doubts about U.S. nuclear weapons use in such contingencies, andthe unwillingness of the U.S. Congress to **fund deterrence-related modernization programs.**9 From our perspective, the key to deterrence in the 21st century global security setting is to update U.S. nuclear forces to provide enhanced targeting flexibility and reduced collateral damage options, and to combine those attributes with conventional Global Strike capabilities, such as the Conventional Trident Modification (CTM), and with missile defenses to put into place capabilities for a deterrence framework that offers broader strategic and operational planning options for dissuasion, crisis prevention, and perception management. Going forward in this way would give the National Command Authority a means to influence and prevent crises from escalating and, in a worst-case contingency, the ability to control more effectively the escalation dynamics of a particular crisis scenario. The problem was, and still is, that the capacity to implement tailored and selective targeting strategies remains limited because of a subsequent failure to identify and fund programs to implement the new U.S. deterrence strategy after the NPR was released. Indeed, what has not happened since the Bush NPR’s enunciation is the implementation of both nuclear and non-nuclear programs to update America’s strategic weapons inventory—something that is necessary if we ever want to reduce responsibly the numbers of older and high-yield nuclear weapons in the U.S. stockpile. As the IFPA report on Iran points out, Iran’s efforts to acquire and/or develop an indigenous nuclear weapons capability have profound consequences for U.S. strategic and operational planning, crisis management, escalation dominance, and war termination policies. For that reason, and, again, to provide the National Command Authority with credible options in regional contingencies or in those in which vital U.S. national interests are not at stake, new capabilities are needed below the nuclear threshold that still would have a strategic impact. This goes to the heart of the “conventional deterrence” construct that was first raised as part of the NATO debate in the 1980s about the so-called Follow-on Forces Attack concept (FOFA)10 and the trade-offs between nuclear and non-nuclear deterrence considerations. Since FOFA days, the technologies for implementing global strikes using non-nuclear weapons that could hold at risk protected and/or buried targets have matured considerably, but their value for the deterrence construct has not been explained adequately, nor have ideas for their integration into strategic strike planning. With the articulation of the New Strategic Triad, and the enunciation of the Global Strike concept, the opportunity to do so existed, but was not realized, as the focus of attention quickly shifted to IW and post-9/11 contingency planning. Steps to correct this oversight remain a priority for U.S. deterrence planning, but we must also go beyond this to elaborate a new deterrence framework that can be tailored for specific contingencies and that can draw upon force posture options that offer a flexibility of means, to include coercive strike options, missile defenses, and consequence management capabilities.

# Conventional Military Reduction 3/3

**Conventional military replaces nuclear threat**

**Montgomery, 10** – Ph.D Department of Politics UVA (Evan Braden Montgomery April 29, 2010 “The Logic and Limitations of the Nuclear Posture Review” http://www.defpro.com/news/details/14859/)

Four NPR decisions stand out. First, the NPR makes preventing nuclear proliferation and nuclear terrorism key objectives of US nuclear policy, in addition to the traditional aim of deterring major attacks against the United States, its allies, and its interests overseas. Second, the NPR reaffirms the administration’s commitment to decreasing the size of the US nuclear arsenal. According to the document, the reductions in nuclear warheads and delivery vehicles outlined in the New START Treaty signed with Russia are only a first step toward deeper cuts in the future. Third, the NPR alters long-standing declaratory policy by pledging that the United States will not retaliate with nuclear weapons against any nonnuclear weapons state that abides by its Non Proliferation Treaty (NPT) commitments, even if the attacker uses chemical or biological weapons. Instead, the United States will rely on the threat of conventional military retaliation and its growing ballistic missile defense capabilities to deter (or defend against) a chemical or biological attack. Finally, the NPR rejects developing new nuclear warheads to replace the existing arsenal. These four decisions are closely interrelated, and reflect a broader strategic calculation. Put simply, the NPR concludes that if the United States diminishes its reliance on nuclear weapons—by reducing the size of its arsenal, restricting the conditions under which it would use these weapons, and forgoing the construction of new warheads)—other nations are more likely to de-emphasize their own nuclear capabilities or abandon their nuclear ambitions. Should this happen, the dangers of nuclear proliferation and nuclear terrorism can be reduced substantially, and an important step toward the abolition of nuclear weapons will have been taken. Unfortunately, this perspective is based on a questionable analysis and flawed logic.

**The use of conventional military is reducing pressure to rely on the nuclear arsenal**

**Rozoff, 10** (Rick, April 10, 2010 “Prompt Global Strike: World Military Superiority Without Nuclear Weapons” <http://rickrozoff.wordpress.com/2010/04/10/prompt-global-strike-world-military-superiority-without-nuclear-weapons/>)

The dark nuclear cloud that has hung over humanity’s head for the past 65 years appears to be dissipating. However, the U.S. retains 1,550 deployed nuclear warheads and 2,200 (by some counts 3,500) more in storage and a triad of land, air and submarine delivery vehicles. More ominously, though, Washington is forging ahead with a replacement for the nuclear sword and shield – for blackmail and for deterrence – with a non-nuclear model that could upset the previous “balance of terror” arrangement that has been a criminal nightmare for six decades, but for sixty years without a massive missile war. The new sword, or spear, entails plans for conventional first strike weapon systems employing the same triad of land, air and sea components – with space added – and the shield is a worldwide network of interceptor missile deployments, also in all four areas. The Pentagon intends to be able to strike first and with impunity. The non-nuclear arsenal used for disabling and destroying the air defenses and strategic, potentially all major, military forces of other nations will consist of intercontinental ballistic missiles, adapted submarine-launched ballistic missiles, hypersonic cruise missiles and bombers, and super stealthy strategic bombers able to avoid detection by radar and thus evade ground- and air-based defenses. Any short-range, medium-range and intermediate-range missiles remaining in the targeted country will in theory be destroyed after launching by kinetic, “hit-to-kill” interceptor missiles. Should the missiles so neutralized contain nuclear warheads, the fallout will occur over the country that launches them or over an adjoining body of water or other nation of the U.S.’s choosing. A Russian commentary of three years ago described the interaction between first strike and interceptor missile systems as follows: “One can invest in the development of a really effective ABM [Anti-Ballistic Missile] system and first-strike weapons, for example, in conventional high-accuracy systems. The final goal is to create a capability for a disarming first strike (nuclear, non-nuclear or mixed) at the enemy’s strategic nuclear potential. ABM will finish off whatever survives the first blow.” [2] The long-delayed Nuclear Posture Review Report of earlier this month asserts the Pentagon’s plans for “maintaining a credible nuclear deterrent and reinforcing regional security architectures with missile defenses….” [3] It also confirms that the addition of “non-nuclear systems to U.S. regional deterrence and reassurance goals will be preserved by avoiding limitations on missile defenses and preserving options for using heavy bombers and long-range missile systems in conventional roles.” At an April 6 press conference on the Nuclear Posture Review with Secretary of Defense Robert Gates, Joint Chiefs of Staff Chairman Navy Admiral Michael Mullen, Secretary of State Hillary Clinton and Secretary of Energy Steven Chu, Gates said “we will maintain the nuclear triad of ICBMs [Intercontinental Ballistic Missiles], nuclear-capable aircraft and ballistic-missile submarines” and “we will continue to develop and improve non-nuclear capabilities, including regional missile defenses.” Mullen spoke of “defend[ing] the vital interests of the United States and those of our partners and allies with a more balanced mix of nuclear and non-nuclear means than we have at our disposal today.” [4] The Pentagon’s Ballistic Missile Defense Review Report of February 1 stated “The United States will pursue a phased adaptive approach to missile defense” and “develop capabilities that are mobile and relocatable.” Furthermore, “the Administration is committed to implementing the new European Phased Adaptive Approach within a NATO context. In East Asia, the United States is working to improve missile defenses through a series of bilateral relationships. The United States is also pursuing strengthened cooperation with a number of partners in the Middle East.” [5] The Quadrennial Defense Review Report of February spoke of similar plans. The Review “advances two clear objectives. First, to further rebalance the capabilities of America’s Armed Forces to prevail in today’s wars, while building the capabilities needed to deal with future threats.” It states “The United States remains the only nation able to project and sustain large-scale operations over extended distances” with “400,000 U.S. military personnel…forward-stationed or rotationally deployed around the world,” and which is “enabled by cyber and space capabilities and enhanced by U.S. capabilities to deny adversaries’ objectives through ballistic missile defense….” One of its key goals is to “Expand future long-range strike capabilities” and promote the “rapid growth in sea- and land-based ballistic missile defense capabilities.” [6] The U.S. is also intensifying space and cyber warfare programs with the potential to completely shut down other nations’ military surveillance and command, control, communications, computer and intelligence systems, rendering them defenseless on any but the most basic tactical level. The program under which Washington is developing its conventional weapons capacity to supplement its previous nuclear strategy is called Prompt Global Strike (PGS), alternately referred to as Conventional Prompt Global Strike (CPGS). Global Security Newswire recently wrote of the proposed START II that “Members of Russia’s political elite are worried about what the agreement says or does not say about U.S. ballistic missile defense and ‘prompt global strike’ systems….” [7] In fact the successor to START I says nothing about American interceptor missile or first strike conventional attack policies, and as such says everything about them. That is, the new treaty will not limit or affect them in any manner. After the signing ceremony in Prague on April 8 the U.S. State Department issued a fact sheet on Prompt Global Strike which stated: “Key Point: The New START Treaty does not contain any constraints on current or planned U.S. conventional prompt global strike capability.” By way of background information and to provide a framework for current U.S. military strategy it added: “The growth of unrivaled U.S. conventional military capabilities has contributed to our ability to reduce the role of nuclear weapons in deterring non-nuclear attacks….The Department of Defense (DoD) is currently exploring the full range of technologies and systems for a Conventional Prompt Global Strike (CPGS) capability that could provide the President more credible and technically suitable options for dealing with new and evolving threats.” [8]

# Link – Perception of Deterrence

**If we win the plan hurts our perception of a deterrent state, we win a link to RRW, regardless of uniqueness claims**

**Beljac, 9** – Ph.D. from Monash University(Marko, 8/20/09, http://scisec.net/?p=160)

How does that American saying go? If only I had a dime every time I've heard that RRW is dead. I've been pretty consistent on this. I've been blogging on RRW for more than a year and every time it has been declared by analysts that RRW is dead I have always come out and said; not so. Elaine Grossman, in a long, important and very impressive report, at the Global Security Newswire demonstrates that RRW is alive and well. Hell, it even has the support of the State Department now. Essentially Gates tried to get inter-agency support for RRW at a principals committee meeting held to discuss arms control with Moscow. **Gates, apparently, had RRW in the bag until the VP, Joe Biden, played spoiler by focusing on the implications for non-proliferation**. Notice that this is the case that you would expect Clinton, as State boss, to make but heck when did principal every bother a Clinton? The GSN report is long and dovetails with an article I am writing for this blog on the future of strategic nuclear arms control so I won't go into depth here. But I will make mention of what I think is the most important passage. Because I am a cynical bastard when it comes to these issues I believe it to be ...If Obama's drive to bring fresh thinking to complex policy issues prevails in this instance, these twin nuclear objectives might successfully be pursued hand-in-hand, according to some nuclear strategy experts. Nearly all agree it would take a great deal of focus and finesse. As the world's premier nuclear power, "you need to act like you care just enough to maintain just enough [U.S. weapons] for long enough for people to think that you're serious," the senior Senate aide said last week. "This is hard to do."... The twin objectives here are (1) maintaining a credible deterrent whilst (2) getting "enough people to think that you're serious" about "going to zero." That's what is going to happen, I reckon. Gee I've been saying that from the get go too. I also remember calling the RRW and CTBT tradeoff pretty early too. I have pointed out in the comments section at ArmsControlWonk how this, balancing (1) and (2) above, could be done. Here's how I think the play could work. Basically the administration could argue that the RRW concept is non-proliferation consistent because it will slash the reserve or hedge stockpile, because a key part of the RRW concept is a more responsive weapons complex. It could be argued that this will lead to "deep cuts." This slash to the hedge stockpile would hardly impact Strategic Command's nuclear war planning. There's you're (1) and (2).

# Horsetrade 1/3

**Obama will horse-trade RRW for a congressional majority**

**ANA, 9** – Alliance for Nuclear Accountability (9/4/09, “Labs Seek “Stockpile Modernization” Through Test Ban Ratification “Updating” of Treaty “Safeguards” to Protect Nuclear Weapons Budgets,” 9-4, <http://www.ananuclear.org/Issues/GlobalNuclearEnergyPartnership/Library/tabid/56/articleType/ArticleView/articleId/254/Default.aspx>)

Santa Fe, NM – Nuclear Watch New Mexico (NWNM) has discovered Los Alamos National Laboratory viewgraphs showing that the U.S. nuclear weapons labs want to leverage “stockpile modernization” through formal Safeguards attached to the Comprehensive Test Ban Treaty during Senate ratification. This modernization would include “large changes” made to existing nuclear weapons refurbished during existing Life Extension Programs, and/or complete “replacement designs” as early as 2015. Congress has rejected funding a new-design “Reliable Replacement Warhead” (RRW) for the last two years, but the labs have clearly not given up. Moreover, there is a danger that the Obama Administration might concede to some form of RRW in order to win the Congressional supermajority of 67 needed to ratify the CTBT. Further, Obama has just reappointed a formerly strong proponent of RRW to again head up the Department of Energy’s National Nuclear Security Administration.

**Will have to appease republicans with RRW to get agenda through-**

**Anton,** **10-** Writer for the weekly standard (Michael Anton, March 19, 2010 “Reliable Replacement Warhead Resurfaces in Air Force Budget” http://www.weeklystandard.com/blogs/reliable-replacement-warhead-resurfaces-air-force-budget

It’s rare that I can agree wholeheartedly with Hans Kristensen of the anti-nuclear Federation of American Scientists, but here he is ([quoted by Kyodo News](http://www.breitbart.com/article.php?id=D9EHDAGG1&show_article=1)) on the apparent mistake: “Whatever new or modified warheads they plan will not get the name RRW....  Rather, new or modified warhead will probably emerge as part of the life extension program," that is, the current programs in place for assessing the operability of existing warheads. Let’s hope he’s right.  I for one am optimistic that he is.  As I have written several times in this space, President Obama has virtually no chance of getting any of his nuclear agenda through the Senate unless he meets concerns, shared by all the Republicans plus Joe Lieberman, about the long-term reliability of the U.S. nuclear arsenal.  And they won’t rest satisfied simply with more support for the life extension program as currently practiced.

**Will horsetrade for support**

**Linden ‘9**, Contributing Editor for Daily Kos, (Page van der **Linden 8/23/09**. “The Return of the Reliable Replacement Warhead”  <http://www.dailykos.com/storyonly/2009/8/23/771359/-The-Return-of-the-Reliable-Replacement-Warhead>)

Honest to god, you wonder how a political party that's in control of the White House and Congress can be so stupid and uncoordinated. The jackass logo becomes self-explanatory. The Defense Department is trying to revive the Reliable Replacement Warhead - after multiple attempts by Congress to kill it - but the White House is blocking it. Now you might think that the rationale is because this administration is heavy on non-proliferation and wants to develop a sound nuclear weapons strategy.[But it's not.](http://www.globalsecuritynewswire.org/gsn/nw_20090818_1478.php) Clinton, also at the June meeting, joined in supporting Gates by noting that a U.S. nuclear modernization program that includes warhead replacement might be necessary for domestic political reasons, according to sources. Specifically, she argued it might be necessary for the Obama administration to embark on an ambitious warhead modernization effort if it is to win enough Republican support for Senate ratification of the START replacement pact, according to sources. A similar quid pro quo, according to conservative thinkers, might also be necessary next year for Senate approval of the Comprehensive Nuclear Test Ban Treaty, another objective Obama laid out in his Prague speech. "Then you can have your cake and eat it, too," one senior Senate aide said last week.

RRW is a key concession to incentivize Republicans to vote for Obama’s agenda

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

Clinton, also at the June meeting, joined in supporting Gates by noting that a U.S. nuclear modernization program that includes warhead replacement might be necessary for domestic political reasons, according to sources. Specifically, she argued it might be necessary for the Obama administration to embark on an ambitious warhead modernization effort if it is to win enough Republican support for Senate ratification of the START replacement pact, according to sources. A similar quid pro quo, according to conservative thinkers, might also be necessary next year for Senate approval of the Comprehensive Nuclear Test Ban Treaty, another objective Obama laid out in his Prague speech. "Then you can have your cake and eat it, too," one senior Senate aide said last week.

# Horsetrade 2/3

The issue of RRW is alive – Republicans are using it as bargaining chip for START support

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

However, the June meeting offered Gates an opportunity to revisit the issue, this time specifically linking a domestic warhead-modernization imperative to the ongoing START follow-on negotiations, according to sources. "Scheming and Maneuvering" At the Pentagon, military officials are quietly looking to "fund RRW sometime late in the [fiscal 2011 budget-planning] process, either right after Thanksgiving or right after Christmas," said one former officer following the issue. "They don't understand that nuclear weapons are essentially political weapons and not to be used." "RRW is dead but RRW supporters are looking to revive this corpse," said Joseph Cirincione, president of the Ploughshares Fund. "They are scheming and maneuvering to use the Nuclear Posture Review as justification for a new warhead, to convince the White House that the only way to get the test-ban treaty ratified is to get a new warhead." Morrell, Gates' spokesman, confirmed that the issue remains in play. "The Nuclear Posture Review is still very much a work in progress," he said last week. "Nuclear modernization is certainly part of that review." An influential, bipartisan group of senators last month wrote to Obama to suggest that their support for the upcoming START follow-on treaty might hinge on his nuclear warhead modernization plans. When the president submits the new pact for Senate ratification, he "should also submit a plan," including multiyear budget figures, "to enhance the safety, security and reliability of the nuclear weapons stockpile," according to the July 23 letter, signed by six senators, including Armed Services Committee Chairman Carl Levin (D-Mich.) and ranking member John McCain (R-Ariz.); and Foreign Relations Committee Chairman John Kerry (D-Mass.) and ranking member Richard Lugar (R-Ind.) (see GSN, Aug. 4). "In whatever form it is, [RRW] is still alive," said one former official who asked not to be named. "I think the stalemate has disappeared and what emerges remains to be seen." Obama administration officials "haven't reconciled Prague's rhetoric with the stockpile's reality," said the senior Senate aide. "I think right now they're muddling, and very badly."

# Horsetrade 3/3

**Incorrect summary means Obama can horsetrade RRW for votes**

**Anton ’10**- served in national security positions in the recent Bush administration (Michael, “False Start? Don’t Believe The Hype About the New Arms Treaty with Russia” Lexis)

In any event, it's certainly a gift to the Russians, who can barely afford to keep 800 missiles and bombers deployed as it is. Think of a minor league team negotiating a salary cap with the Yankees: It's in their interest to push the figure down as low as possible.The iron rule of international negotiation: Whoever wants the piece of paper more loses on substance. Last time around, it was the Russians. [President Bush](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE0009XP1%23&searchTerm=President%20Bush%20&indexType=P) had already decided to slash the deployed U.S. arsenal by thousands of warheads and was going to do so no matter what the Russians said or did. But at an East Room press conference in November 2001, he was sandbagged by Vladimir Putin, who made clear he wanted a signing ceremony with all the trappings. After making clear that he preferred no treaty, [President Bush](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE0009XP1%23&searchTerm=President%20Bush%20&indexType=P)graciously acquiesced: "If we need to write it down on a piece of paper, I'll be glad to do that."Thus the 2001 Bush Nuclear Posture Review became the basis for the Moscow Treaty. We gave away essentially nothing but our signature. We flattered Russia's great power pretensions to gain some cooperation in the war on terror. (Whether, in the end, we actually got any is another matter.)This time, things are different. [Obama](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE000A0BO%23&searchTerm=Obama%20&indexType=P)wanted the paper (and the attendant bragging rights and signing ceremony) much more than Medvedev. So what price did he pay for it? That low delivery vehicle threshold, for starters.Â The last major sticking points in the negotiations had to do with telemetryâ€”information from ballistic missile tests. We wanted data from the Russians on their advanced SS-27 ICBM; they wanted telemetry for our missile defense interceptors. Telemetry on ICBMs has been a staple of prior treaties; defensive interceptors have never been covered.Comments from Secretary of Defense Gates at the press briefing at the White House on March 26 suggest that we got the data on the Russian ICBM: "There still is a bilateral agreement to exchange telemetry information on up to five missile launches a year." But no specific mention was made of missile defense telemetry. Both Gates and the undersecretary of state for arms control insisted that the treaty does not "constrain" missile defense efforts on the U.S. side.Such careful wording, however, does not rule out providing defense interceptor telemetry to the Russians, who would of course use it to make their newest ICBM more able to defeat any American defense system. If we indeed made this concession, it's likely because this administration (like every administration since Ronald Reagan's) has not contemplated building a missile defense system capable of defeating a large onslaught of hostile ICBMs and SLBMs. Our efforts have been focused rather on intercepting a small number of missiles fired, presumably, by a "rogue state." Small comfort given Russia's close relationship with Iran.Formally linking missile defense to offensive strategic weapons would be a bad move on America's part. It would also undercut the logic of missile defense: If our system is only meant to deter the likes of Iran and North Korea, why make it part of a deal with Russia? Russia clearly sees its own interests furthered by increasing our headaches. Constraining us on missile defense helps with that goal. For us, it amounts to giving away a lot and getting littleâ€”a hallmark of U.S.-Russian relations under[Obama.](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE000A0BO%23&searchTerm=Obama.&indexType=P) But at this point all we really know is that an agreement has been reached. We don't know the details, and it's possible they still have not been hashed out. Sources indicate that the classified annexes remain to be finalized. One thing we do know, says a key Hill staffer, is that "If the Russians are happy, I'm not sure the Senate will be able to ratify."President [Obama](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE000A0BO%23&searchTerm=Obama%20&indexType=P)will play the deal up as big and welcome news for his disarmament agenda as he prepares to host a nuclear materials conference in Washington this month and to attend the Nonproliferation Treaty Conference in New York this May. But there was arguably bigger news last Friday: news which won't get much coverage and undercuts his nuclear agenda.Last November, JASONâ€”an advisory group of independent scientists first convened in 1960â€”finished a study of the U.S. nuclear arsenal. Their report is classified but the executive summary is not. The summary seemed to indicate that the Life Extension Program (LEP), the government's efforts to ensure the long-term reliability of our nuclear arsenal, was working just fine. The [Obama](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719354976&csi=154608&A=0.43443749588573644&sourceCSI=9369&indexTerm=%23PE000A0BO%23&searchTerm=Obama%20&indexType=P)administration and its allies on the left used this as evidence of there being no need to do anything that might be interpreted as building new warheads .But leaks undermining this narrative quickly appeared. People familiar with the full report indicated that it didn't quite support the executive summary's interpretation of the LEP. Now we know those leaks were correct. Ohio Republican representative Michael Turner asked the heads of the three national nuclear laboratories to give a frank assessment of the report. Their letters were released on Friday and in their view, Life Extension probably won't cut it over the long haul, and the classified report actually spells out many of the reasons. This is bad news for the president's disarmament agenda. He loses a valuable piece of high-level cover for his insistence that the United States not undertake any real modernization of our nuclear arsenal. It's very bad news for Vice President Biden, who is reported to be the biggest opponent in the administration of the Reliable Replacement Warhead (RRW) conceptâ€”a new long-lived warhead design that was defunded in 2008. It's good news for Secretary Gates, who supports RRW .But **even this may have a silver lining for the president.** The New START Treaty faces an uphill ratification battle. Its chances get dimmer the less seriously the administration treats Republican concerns about stockpile longevity. To have a shot at getting the treaty ratified this year, **the president is going to have to bend on warhead modernization.** This will anger the left. **But the scientific cover for ditching RRW that was yanked away** by the lab directors **can be spun as political cover** for moving ahead with modernization. **To get** the nine **extra Senate votes** he needs for his treaty, the president can now say, without dissembling, that a reliable arsenal requires doing more than LEP currently encompasses. Such an argument would help the president get his treaty, help America maintain a credible deterrent and have the additional advantage of being true.

# Iraq Withdrawal

**Gates wants Iraq presence**

**Gandelman, 8 –** Editor-in-Chief in Politics, The Moderate Voice (Joe, 11/26/08, http://themoderatevoice.com/24623/gates-as-obama-defense-chief-another-centrist-obama-administration-sign/)

The clearly leaked news that Bush administration Secretary of Defense Robert Gates will likely stay on in the same post in President Barack Obama’s administration is yet one more sign that the incoming Obama administration will be centrist and will put a high premium on bipartisan cooperation. Just as the soon-to-be-announced selection of Senator Hillary Clinton as Secretary of State sent a message, so does the selection of Gates, a longtime Washington veteran who served four Presidents of both political parties. In fact, it sends several messages: MESSAGE ONE: Obama will chart a centrist course and won’t be deterred by brickbats from the right or left. Rather than choose someone who is known for calling for a pullout from Iraq ASAP, he picked Gates who also cannot be confused with the man he replaced in that post, Donald Rumsfeld. Indeed, some press reports since Gates took over the Bush administration job have painted him at odds with some Bush administration policy tendencies behind-the-scenes. In picking Gates Obama (again) signaled that he has no problem taking positions that may not be popular with the Democratic party’s left wing but will try to do it in a way that brings his opponents on board. MESSAGE TWO: On policy issues, Obama is in an alliance now with several Republicans closely identified with the first President George Bush’s administration. Bush 41’s policy was formulated by so-called “realists,” who strongly believed in coalition building, the value of diplomacy and the traditional way of formulating foreign policy, which is looking at pluses and minuses, a host of scenarios and making judgments based on that rather than on more ideological or theoretical grounds. Some of them publicly broke with the present Bush administration. Gates is just one Bush 41 associate now linked to Obama’s present foreign policy deliberations. MESSAGE THREE: Even though Americans debate the wisdom of entering into Iraq, Gates’ presence symbolizes a continuity and deliberate wind-down in the Iraq war in a way to safeguard the “realists” calculations on what needs to be done and how it needs to be done in the U.S.’ national interest. MESSAGE FOUR: It’s a signal again of how Obama seems to seriously study an issue and reach a decision even if some clamor for a different outcome — reaching it in a way that suggests the weighing of pluses and minuses versus decisions made quickly or capriciously. MESSAGE FIVE: It suggests the Obama team is taking into consideration how cabinet picks can also help bolster support in Congress. By picking Gates, Obama will have some built-in GOP support and Gates is also highly respected among many Democrats.

**Gates opposes Obama’s Iraq withdrawal plan**

**Financial Times, 8** (11/18, http://us.ft.com/ftgateway/superpage.ft?news\_id=fto111820082132383002)

Mr Obama and Mr Gates have differed over Iraq. Mr Obama has pledged to remove US troops within 16 months, while Mr Gates has declined to endorse a timetable. However, the US and Iraq this week signed a security pact that requires US troops to leave by 2012.

**Gates supports Iraq presence**

**Butler et al 9** – Writers for Aviation week (Amy, John Doyle, and Michael Bruno, 1/2/09, <http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=awst&id=news/aw010509p2.xml>)

In-depth management of procurement programs at the Defense Dept. is new territory for Gates. Much of his time since entering office has been spent on Iraq and Afghanistan and urgent procurements related to supporting those war efforts. He gave a glimpse of what could be ahead when he halted a second attempt last fall for a competition between U.S. and European designs for the U.S. Air Force's KC-135 refueling tanker replacement. He demanded a "cooling off" period, after the Air Force's first attempt was found to be flawed.

# Afghanistan Withdrawal

**Gates opposes Afghanistan withdrawal**

**Tiron,** **9** – **Staff Writer** (Roxana, 12/1/09, “Gates opposes troop withdrawal deadline for Afghanistan,” The Hill, <http://thehill.com/homenews/senate/70165-gates-clinton-and-mullen-defend-afghan-plan>)

Defense Secretary Robert Gates said he opposed setting deadlines for U.S. troop withdrawal from Afghanistan as he defended President Barack Obama’s new war strategy. Gates, Secretary of State Hillary Rodham Clinton, and Chairman of the Joint Chiefs of Staff Adm. Mike Mullen on Wednesday made their first rounds on Capitol Hill to publicly sell Obama’s Afghanistan war plan to conflicted lawmakers still trying to digest the president’s announcement. Obama announced on Tuesday he will send an additional 30,000 U.S. troops to Afghanistan, some as early as the next few weeks. The president also announced his goal of beginning a U.S. troop withdrawal by the summer of 2011. Gates said he agrees with the president’s July 2011 timeline but he would not agree with any efforts to set a deadline for complete troop withdrawal. “I have adamantly opposed deadlines. I opposed them in Iraq, and I oppose deadlines in Afghanistan. But what the president has announced is the beginning of a process, not the end of a process. And it is clear that this will be a gradual process and, as he said last night, based on conditions on the ground. So there is no deadline for the withdrawal of American forces in Afghanistan,” Gates told the House Foreign Affairs Committee on Wednesday afternoon. “July 2011 is not a cliff.” Gates’s comments came after lawmakers, particularly Republicans, attacked Obama’s plan to begin thinning out U.S. forces in the South Asian country by July 2011. Earlier in the day, during a Senate Armed Services Committee hearing, Obama’s presidential rival, Sen. John McCain (R-Ariz.), lamented the “arbitrary” deadline, which is not based on conditions on the ground in Afghanistan. Gates, who found himself in front of Congress defending the second surge of his tenure, stressed that the United States will thin its forces in Afghanistan as it turns over more districts and more provinces to Afghans. The transition will first start in “uncontested areas” and will ensure that the Afghans are capable of taking care of their own security. “We are not going to throw these guys in the swimming pool and walk away,” Gates said. Gates told the Senate Armed Services Committee that the administration will thoroughly review the war’s progress in December 2010 and evaluate whether the objective of starting the transfer will be met.

**Gates supports Afghanistan presence**

**Butler et al, 9** – Writers for Aviation week (Amy, John Doyle, and Michael Bruno, 1/2/09, <http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=awst&id=news/aw010509p2.xml>)

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\*\*\*INTERNAL LINKS

# Concessions Over RRW

**A compromise between Obama and Gates would include RRWs**

**Butler et al 9** – Writers for Aviation week (Amy, John Doyle, and Michael Bruno, 1/2/09, <http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=awst&id=news/aw010509p2.xml>)

Likewise, Gates is forward-leaning on the Reliable Replacement Warhead (RRW), a new nuclear warhead he says is needed to improve the safety of today's aging systems. But Obama is concerned it could mar arms control efforts. Without the RRW, Gates and Obama must draw up a U.S. position on testing of existing weapons. Some experts say testing is needed to maintain the stockpile as it ages, though that raises many of the same issues internationally as does developing a new system. Obama and Gates are "diametrically opposed on these issues, but at the end of the day I think that they will find a compromise that all sides can be comfortable with," says Mackenzie Eaglen, an analyst at the Heritage Foundation, a conservative Washington think tank.

**Numerous political appointees would put concessions on anything for RRWs**

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, http://gsn.nti.org/gsn/nw\_20090818\_1478.php)

Cirincione, who spent years as a congressional committee staff aide, finds particularly galling his sense that many in Obama's own appointed national security team are selling the president short by pushing for a replacement warhead. These include a half-dozen or more political appointees at lower levels at the Pentagon, State Department and elsewhere known more for their sense of caution than an affinity for bold strokes. "Ironically, in their effort to look strong, they're displaying weakness," he said. "They're offering concessions up that should only come down to the last resort."

# Gates Influential Over Obama

**Gates is influential over Obama**

**Crowley, 9**- Senior Editor at The New Republic and a frequent political commentator of MSNBC (Michael Crowley, 11/18/09 “How His Ideological Journey Will Shape the War” [Lexis)](http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/)

What's also ironic is the extent of Gates's influence over [Obama's](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9719347161&returnToId=20_T9719385893&csi=154997&A=0.8830511178682665&sourceCSI=9369&indexTerm=%23PE000A0BO%23&searchTerm=Obama's%20&indexType=P) Afghanistan strategy deliberations. Perhaps no Cabinet member matches Gates's impact in the Situation Room as the White House reviews its war plan. It may be Washington's oddest partnership: a secretive white Republican intelligence insider in his sixties, and a charismatic young African American Democratic president who was barely 30 when the Soviet Union fell. Asked about the contrast, Gates flashes a wry smile: "I think about it all the time," he says.

# Obama/Gates Will Compromise

**Obama and Gates will compromise**

**Butler, Doyle, and Bruno, 9**- (Amy Butler, John M. Doyle and Michael Bruno, 1/2/09, “Many Issues Still Unaddressed by Gates” <http://www.aviationweek.com/aw/generic/story_generic.jspchannel=awst&id=news/aw010509p2.xml>)

Likewise, Gates is forward-leaning on the Reliable Replacement Warhead (RRW), a new nuclear warhead he says is needed to improve the safety of today's aging systems. But Obama is concerned it could mar arms control efforts. Without the RRW, Gates and Obama must draw up a U.S. position on testing of existing weapons. Some experts say testing is needed to maintain the stockpile as it ages, though that raises many of the same issues internationally as does developing a new system. Obama and Gates are "diametrically opposed on these issues, but at the end of the day I think that they will find a compromise that all sides can be comfortable with," says Mackenzie Eaglen, an analyst at the Heritage Foundation, a conservative Washington think tank. Moreover, despite differing views of the Pentagon and Democrats in Congress, Rep. Ellen Tauscher (D-Calif.), who chairs the House strategic forces subcommittee, praises Gates's approach on these matters. "He's always worked very fairly with me. I don't believe the decisions on missile defense were his," she says. "I believe they were ideological decisions made in the Bush administration - and happily, that's coming to an end."

# Obama Likely to Make Concessions

**Gates makes Obama more willing to make concessions and Gates is for Iraq presence**

**Gandelman, 8 –** Editor-in-Chief in Politics, The Moderate Voice (Joe, 11/26/08, http://themoderatevoice.com/24623/gates-as-obama-defense-chief-another-centrist-obama-administration-sign/)

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**Obama often appeases the pentagon with military funding**

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

Analysts say squaring the previously stated positions of the president and the Pentagon chief depends on what the definition of the word ‘new’ is. And, as is so often the case with the federal government, the Obama budget’s proposal for a huge injection of cash should help smooth over any hard feelings at the Pentagon and the nuclear labs.

# A2: Obama Opposes

**Sneaked through back door because it is not new weapons**

**Grossman 9**-writer for global security newswire and foreign affairs reporter who has won 13 national journalism awards (Elaine M. Grossman, August 27, 2009 <http://www.globalsecuritynewswire.org/gsn/nw_20090827_3782.php>)

The risk is that this is really RRW through the back door," Kristensen said. The Pentagon might build "gradual support for incremental enhancements to individual systems without confronting the Obama pledge [not to build new weapons] head-on," he said.

**Same game different name**

**Mathews ’10-** writer for defense news (William Mathews, 1/13/10 “2011 Budget to Fund Refurbishing of Nukes” <http://www.defensenews.com/story.php?i=4452183>)

A reliable replacement for the now-dead Reliable Replacement Warhead program will be funded in U.S. President Barack Obama's proposed 2011 budget, said the woman most responsible for killing the RRW in 2008. Ellen Tauscher, undersecretary of state for arms control and international security, said the budget Obama plans to send to Congress Feb. 2 includes "very crucial investment" in the Stockpile Management program. She declined to disclose specific dollar amounts. Stockpile Management will do what RRW was supposed to do, Tauscher told defense reporters on Jan. 13.

\*\*\*AFF ANSWERS

# N/U – RRW Dead

**RRW is cancelled**

**Fleck, 9** (John, Albuquerque Journal, “Labs’ Nuclear work in danger: Memo: Obama wants major weapons programs ended,” February 14, http://www.allbusiness.com/government/government-bodies-offices/12013740-1.html)

Defense Secretary Robert Gates, a holdover from the Bush administration, spoke out last fall in favor of the Reliable Replacement Warhead. During the campaign, Barack Obama had raised objections to the project, but in a way that left the door open to some modest research efforts. The memo suggests an effort under way now to close that door, going out of its way to ensure that both direct funding for the RRW program, as well as indirect funding in other research programs that would support RRW work, is zeroed out in the soon-to-be delivered Fiscal Year 2010 budget now being prepared. "The RRW program, both explicitly and implicitly, is canceled," the memo says.

**Obama killed RRW**

**Lobsenz ‘9**- editor for Energy Daily (George Lobsenz, 2/19/09 “Moves to Kill RRW, Beef up Nonproliferation” Lexis)

Consistent with President Obama's campaign promises to oppose development of new nuclear weapons, the passback document calls zeroing out all funding for the reliable replacement warhead (RRW) and cutting back other nuclear weapons programs aimed at expanding the nation's nuclear arsenal or production capacity. "The RRW program, both explicitly and implicitly, is canceled," said the passback document. "Funding in explicit accounts (science) should be zeroed. Funding in implicit accounts, such as in construction accounts that support the production rate increases associated with the RRW program, should be reduced to support modernization only."

# N/IL – Gates Doesn’t Want RRW 1/2

**Gates does not want RRW**

**Gerstein, 10** (Josh, 3/6/10, “Obama-Gates nuke war brewing?” POLITICO, Lexis)

Some say Gates, a veteran government official who served as CIA director under Bush’s father, also knows when he has to get on the team. “My guess is that Gates’s bureaucratic instincts are on autopilot,” said John Bolton, former U.S. Ambassador to the U.N. under the Bush administration. He said the Defense Secretary may be trying to adjust to the “overwhelmingly pro-arms control” Obama team. No matter how the Obama administration irons out its differences, Bolton contends that the U.S needs new nuclear weapons, like bunker-busters and low-yield nuclear weapons. “It would be better, cleaner, safer and more reliable simply to design what are clean, new designs intended for that purpose, which is very necessary given countries like Iran and North Korea are doing to bury hardened targets,” he said. If Gates were to publicly renounce his call for new warheads, he would be able to cite a new study released last fall in which scientists concluded the current arsenal could last for decades without all-new warheads. In his public comments, Gates has consistently said his sole concern was reliability and safety, not trying to seek a military advantage. “We have no desire for new capabilities. That's a red herring,” Gates said last September. “This is about modernizing and keeping safe a capability that everyone acknowledges we will have to have for some considerable period into the future.” While the arms control community has generally been ecstatic about the repeated public calls from Obama and his administration to move towards a nuclear-free world, they are nervous that the large budget hike the White House proposed for nuclear programs pulls in the opposite direction, all but ensuring that the U.S. will have a large and growing nuclear weapons complex for the indefinite future. Obama is proposing spending $7.3 billion in nuclear weapons-related activities in fiscal 2011, up 14 percent from this year, according to Civiak. The total 2011 request is the largest ever, and 40 percent higher, adjusted for inflation, than during the Cold War. “Future administrations could use this new capacity to produce new nuclear weapons,” warned said Nickolas Roth of the Alliance for Nuclear Accountability. Administration officials are scrambling to wrap up the delayed nuclear posture review in advance of Obama’s nuclear safety summit in Washington and a Nuclear Non-proliferation Treaty review conference set to take place in May at the United Nations. Given Gates’s earlier statements in favor of new warheads, arms control advocates will be reading the U.S. strategy paper closely to see whether programs purportedly aimed at refurbishing the current nuclear arsenal could amount to new weapons programs in disguise. “That’s a very fair concern,” Cirincione said. “People will be taking a very close look at what the posture review says about the Life Extension Program for exactly this reason…..I think this is mostly on the up and up.” Speaking to reporters earlier this year, Undersecretary of State for Arms Control Ellen Tauscher said she was keenly aware of suspicions that ramping up funding for the nuclear labs could be seen as undercutting disarmament efforts. She said the scientists have been given explicit instructions to avoid that. “You’re not going to do things that are going to cause people to think that we’re saying one thing and doing another. Because we don’t have enough time in the day to unwind that monster,” she said. Tauscher also insisted that Gates was fully on board with the administration’s approach—notwithstanding his past statements. “A lot of people have morphed to where we are right now,” she said.

# N/IL – Gates Doesn’t Want RRW 2/2

**Gates won’t hold out on RRW – he would rather compromise with Obama**

**Grossman, 10** (Elaine M., “Nuclear Posture Review Adopts Varied Approach to Updating Warheads,” Global Security Newswire, <http://gsn.nti.org/gsn/nw_20100407_3870.php>)

Obama has supported RRW cancellation, but his defense secretary, Robert Gates, championed the effort when he served under former President George W. Bush (see GSN, Oct. 29, 2008). The defense secretary yesterday expressed full support for the Nuclear Posture Review findings, saying warhead "replacement" would be conducted only if "absolutely necessary." "He still fundamentally believes that it is necessary to modernize our nuclear arsenal to ensure that we have a safe, secure and reliable deterrent," Geoff Morrell, Gates' spokesman, told Global Security Newswire in January. "Whether that's done under a program called RRW or whether that's done under the Stockpile Management Program I think is less of a concern to him than the fact that we need to modernize without developing new capabilities." The new review leaves open the option of nuclear component replacement, albeit as a last resort. That has rankled several on the president's left flank, who want to see replacement renounced altogether. "Efforts to pursue newly designed warheads are technically unnecessary and would undercut our efforts to convince other nations to forgo nuclear weapons or refrain from developing new and more advanced types of nuclear warheads," stated a February letter to Obama from 13 leading arms control and nonproliferation advocates. In November, a panel of top scientists told the U.S. government that traditional refurbishment methods have worked well to date and should be sufficient in the coming years (see GSN, Nov. 20, 2009). "Lifetimes of today's nuclear warheads could be extended for decades, with no anticipated loss of confidence, by using approaches similar to those employed" in maintaining the stockpile to date, according to JASON, a panel of senior scientific and technical experts frequently consulted by the U.S. government. This week, though, Obama is hearing criticism from the right, which is already frustrated by his decision to somewhat set aside the replacement option that they regard as a potentially crucial tool for maintaining a reliable stockpile. The political pushback comes shortly after the heads of all three nuclear weapon design laboratories disputed some of the JASON findings (see GSN, March 29). "We expect the administration will not take any option off the table to ensure the military and the directors of the national laboratories are able to maintain the safety, security and reliability of the current stockpile," Senators John McCain and Jon Kyl, both Arizona Republicans, said in a statement released yesterday. "We will evaluate this carefully in the coming weeks, including when we see the modernization plan required by law at the time the START follow-on treaty is submitted to the Senate." Even if policy or political differences over warhead-replacement options were set aside, new concerns appear to be cropping up over component "reuse," one of the other two potential approaches to modernization. Some leading scientists are concerned that combining components from different warheads that were never explosively tested with one another, prior to the moratorium, could lead to decreased confidence and malfunctions in U.S. nuclear arms. "You have to be careful mixing and matching tested components that were never tested together," said Roger Logan, who formerly led directed stockpile work at the Lawrence Livermore National Laboratory in California. He cited a nuclear physicist with decades of experience stating in 2004, when a version of component reuse was proposed in the RRW effort: "Whenever we've tried that, it's always been the thing we didn't think of that bit us." "The idea is not adding more risk to the arsenal," Thomas D'Agostino, head of the National Nuclear Security Administration, told GSN in a brief interview yesterday at the Pentagon. "The idea right now is to take advantage of components that we've already made, take advantage of components that we've already tested, and study whether or not they can be used to advance safety, security and reliability." His agency is a semiautonomous arm of the Energy Department that maintains the U.S. nuclear stockpile. In the past, the nuclear complex has also been responsible for designing and producing new warheads. While D'Agostino warned against "point blank" rejection of reuse options that suggest "you can't do it at all," Logan told GSN that he does not "know of any experts in the reliability community who would favor or even accept these mix-and-match 'reuse' warheads, or the way [the national laboratories] plan to 'certify their reliability.'" Asked how confidence could be established in reuse warheads without a resumption in explosive testing, D'Agostino said past testing data combined with new analyses should provide a strong foundation for certifying such repackaged weapon-component combinations. "We have a lot of testing that we have done already that has never been deployed in the stockpile," he said. "We're going to use ... modeling and simulation that we've done, we're going to do a lot of subcritical testing, and things like that." Logan took issue with the idea that validation of the stockpile could be accomplished in the absence of data from explosive tests that assessed components as they operated together in the same warhead, saying this newly proposed approach would not meet scientific standards. He supports refurbishment of existing designs as the only method of maintaining confidence in the arsenal into the future. "Refurbishment may be less 'sexy' and less 'profitable' for the nuclear labs, but many of the nuclear complex engineers, scientists and production people find it quite rewarding and a challenge to be met," Logan told GSN yesterday in an e-mailed response to questions. "For those who find the task boring, I suggest they find a fun hobby at their own expense, and one that does not turn our nuclear deterrent into 'junkyard RRWs.'" He used the term to describe an earlier-contemplated approach for building the Reliable Replacement Warhead, in which old parts from various warheads could be pieced together in new ways. Morrell said the defense secretary is in sync with the White House in developing an approach to modernization that could attract bipartisan support. "Gates is in no way holding out hopes of resuscitating RRW," Morrell said. "He is very much trying to work to figure out a way in which to maintain a safe, secure and reliable deterrent with the new administration."

# Plan Solves Deterrence

**Relying on nuclear deterrence is ineffective – preventing conventional war escalation is key – plan solves deterrence better.**

**Khan, 8** - former Director of Arms Control and Disarmament Affairs in the Strategic Plans Division secretariats of Pakistan’s National Command Authority (Feroz Hassan, “Reducing the Risk of Nuclear War in South Asia,” 9/15/08, The Nonproliferation Policy Education Center, <http://npec.xykon-llc.com/files/20090813-khan%20final.pdf>)

SECTION 5: KEY ARGUMENTS AND RECOMMENDATIONS A nuclear-armed subcontinent is now a reality. Creating a structure upon which the basic tenets of deterrence work will, if successful, arm proponents of nuclear weapons with evidence that they do, in fact, act as deterrence to conventional war. However, reliance on the nuclear umbrella “sheltering” South Asia seems to have given militaries on both sides of the border more strategic room with respect to perpetuating low intensity warfare and escalating conventional war fighting doctrines. Additionally, this paper has argued that the most probable cause of a nuclear exchange on the subcontinent will most likely be a result of conventional war escalation – either through accident in the fog of war or due to establish protocols – and less an accidental incident. Therefore, preventing a nuclear exchange in South Asia is less dependent on strategic weapons safeguards, although they remain a key to strategic stability, and more dependent on the prevention of conventional warfare escalation. Conventional, and therefore nuclear stability can start through unilateral steps taken by Pakistan, but more importantly India, which, as the regional hegemon, has significant responsibilities in preventing nuclear war and initiating antiescalation measures. Where real stability will be achieved, though, is through bi-lateral and multi-lateral strategic actions improving the safeguards and reducing the apparent threats to opponents, superimposed by coherent super-power policies and involvement.

**Resolving Indo-Pak tensions k2 Afghanistan and the War on Terror**

**Khan, 8** - former Director of Arms Control and Disarmament Affairs in the Strategic Plans Division secretariats of Pakistan’s National Command Authority (Feroz Hassan, “Reducing the Risk of Nuclear War in South Asia,” 9/15/08, The Nonproliferation Policy Education Center, <http://npec.xykon-llc.com/files/20090813-khan%20final.pdf>)

A structured peace and security regime between India and Pakistan is now a geo-political compulsion. A cooperative relationship between India and Pakistan is directly related to peace and stability in Afghanistan. Unless India and Pakistan stabilize their relationship and change the culture from confrontation and exploitation to cooperation and collective gain, success in the global war against Al Qaeda will remain elusive. The United States, in concert with major powers, can turn this grim and seemingly intractable security situation into a unique opportunity of security paradigm change from suspicion and rivalry to one of conflict resolution and stability. The stakes of preventing war and crises between India and Pakistan (and Pakistan and Afghanistan) is now an extremely important ingredient of the global war on terror and is not just simply a matter of moving toward a peace between two nuclear-armed countries. Nuclear neighbors with a long history of unsettled disputes, cognitive biases, crises and wars require years of crisis-free confidence and trust building to mature into détente, aided by a supportive international community. Conditions for instabilities will continue so long as the dangerous trend of seeking space for low-level conflicts continues and the feasibility to wage limited conventional war under the nuclear threshold is not taken off the table. Nevertheless, as has been shown in this paper, there are unilateral and bilateral steps India and Pakistan can take to reign in the risk of nuclear war on the subcontinent.

# Improving SSP > RRW

**Improving SSP is comparatively better than RRW**

**Slakey and Tannenbaum, 9 – Ph.D. physicists who now work on science and technology policy in Washington, D.C**.; Slakey is the Upjohn Professor of Science and Public Policy at Georgetown University and associate director of public affairs for the American Physical Society; Tannenbaum is the associate program director of the Center for Science, Technology and Security Policy at the American Association for the Advancement of Science (Francis and Benn, “What About the Nukes?,” IEEE Spectrum, <http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/>)

For all these reasons, we don’t favor switching to a completely new warhead. But there are elements of the RRW approach that may be worth considering and that could be incorporated into the existing program of stewardship. In particular, components that age rapidly could be replaced with newly designed parts that allow increased security and are easier to manufacture. For example, inserting wireless microsensors into or onto these new components would allow in situ monitoring and diagnostics and prevent having to disassemble systems for inspection. Instrumenting every active weapon in this way—rather than just inspecting a relative handful of each weapon type each year—would yield much more useful data about age-related problems. There are many other options for maintaining the existing arsenal that have yet to be fully explored. One strategy is to reuse more of the components taken from previously tested, disassembled weapons. Another approach is to make more substantial improvements in aging components than is currently done. Of course, any such changes would take time to implement, so it’s worthwhile to explore these options now. While the stockpile is undoubtedly aging, it doesn’t appear to be close to the end of its useful life. That means there is still time for a careful evaluation of technical options for maintaining the nuclear deterrent, without having to resort to building entirely new warheads.

**Increased workers in SSP labs solves any problem in detecting defects**

**Slakey and Tannenbaum, 9 – Ph.D. physicists who now work on science and technology policy in Washington, D.C**.; Slakey is the Upjohn Professor of Science and Public Policy at Georgetown University and associate director of public affairs for the American Physical Society; Tannenbaum is the associate program director of the Center for Science, Technology and Security Policy at the American Association for the Advancement of Science (Francis and Benn, “What About the Nukes?,” IEEE Spectrum, <http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/>)

Based on the SFI data, we can draw two hopeful conclusions and one somewhat ambiguous one: • The Stockpile Stewardship Program is successfully detecting defects. • The program is effectively addressing them. • As time goes on, it is taking longer to find a solution to a given defect. The first two points suggest that stockpile stewardship is doing what it was designed to do. In particular, the number of open SFIs at the end of 2006 was the lowest in 10 years. The third point, that it’s taking longer to close SFIs, has several possible explanations. We can’t know for sure which is correct, because the details of the SFIs are classified. It may be that the defects are presenting substantial and growing challenges. Or it may simply be that the labs don’t have enough workers, or workers with the right experience, to resolve the problems quickly. In any case, it is not the nature of the defects but the rate at which defects emerge that indicates where a system is on the Weibull curve.

\*\*\*RRW BAD

# RRW → Proliferation 1/3

Implementing RRW encourages other countries to proliferate. Furthermore, the program is unnecessary – its proponents admit that our stockpile wouldn’t degrade significantly until at least 20 years.

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

U.S. Vice President Joseph Biden in early June blocked a Defense Department bid to revive a defunct program aimed at fielding modern nuclear warheads across the strategic arsenal, according to those familiar with the episode (see GSN, June 24). Defense Secretary Robert Gates raised the idea of reinstating the controversial Reliable Replacement Warhead effort during a secret "Principals' Committee" meeting convened by the National Security Council, Global Security Newswire has learned. In pursuing the initiative, Gates appears to have won the backing of some pivotal Cabinet secretaries, including Secretary of State Hillary Clinton. One administration-watcher -- a critic of the replacement-warhead idea -- alleges that several key appointees at the Defense and State departments are now "scheming and maneuvering" to bring the program back to life. However, Biden has strongly opposed the move, based on the view that pursuing a new U.S. warhead program could undermine Washington's efforts to discourage nuclear weapons proliferation around the globe. The issue remains unresolved, according to a wide array of policy officials and experts. Under the RRW project, government officials said they intended to design new warheads that could make the aging nuclear arsenal more safe, secure and reliable -- without adding new military capabilities or resuming explosive testing. However, Congress eliminated funding for the Bush administration initiative for the past two fiscal years and, this year, President Barack Obama omitted the program from his fiscal 2010 budget request (see GSN, May 11). Lawmakers have charged that warhead replacement could damage U.S. counterproliferation objectives by making it appear that Washington was backtracking on its commitment under the Nuclear Nonproliferation Treaty to reduce and ultimately eliminate its own large arsenal. The proposed alternative is to continue the ongoing program to refurbish and reuse existing warheads through the National Nuclear Security Administration's Stockpile Stewardship effort. That approach involves extending the service lives of aging warheads rather than building new weapons to replace them. Nuclear weapons experts are engaged in an increasingly heated debate over whether stewardship will be enough to maintain confidence in the vintage warheads, particularly as a voluntary U.S. moratorium on explosive testing enters its third decade. The average warhead in the current arsenal is roughly 20 years old. Two years ago, a U.S. government advocate of nuclear warhead modernization said age-related failures in the arsenal are a serious concern, but one that would not likely manifest for 20 or more years. U.S. nuclear-design personnel have warned that successive refurbishments of existing weapons "may pose an unacceptable risk to maintaining the long-term reliability of the stockpile, absent nuclear testing," John Harvey, then head of NNSA policy planning, said in June 2007. However, he hastened to add, "[By saying] 'long term,' I'm not talking about two, three, four or five years. I'm talking about two [or] three decades." In denying funding for the RRW program last year, Congress said it might reconsider warhead replacement, but only after the administration shows how such an effort would fit into an overarching nuclear weapons strategy. The Pentagon is undertaking a broad assessment of strategy, forces and readiness called the Nuclear Posture Review, due for completion by the end of the year. Among the issues to be assessed is the "nuclear weapons stockpile that will be required for implementing the United States' national and military strategy, including any plans for replacing or modifying warheads," according to a Defense Department fact sheet.

**RRW causes nuclear testing and global proliferation**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

The Bush administration through the Department of Energy has proposed developing a new family of nuclear warheads to replace the aging weapons in the current U.S. nuclear stockpile. The Reliable Replacement Warhead (RRW) program is intended to improve the “reliability, security, and longevity” of the U.S. nuclear arsenal without requiring the United States to resume nuclear testing.[1] The Energy Department’s ambitious plans would reorient the primary post-Cold War mission of the U.S. nuclear weapons laboratories from stockpile maintenance to the development of new replacement warhead designs. At first glance, the RRW program seems a promising solution to the long-term maintenance of the U.S. nuclear stockpile. The stated goal is to develop new replacement warheads that will be easier and less costly to maintain than current weapons, will be more reliable and easier to certify, and will meet modern safety and environmental requirements. Moreover, the Energy Department contends that the program could help support future steep reductions in the total number of U.S. nuclear weapons by increasing confidence in the effectiveness of the remaining arsenal. On closer examination, however, the RRW program seems premature and inherently risky. As administration officials have repeatedly testified, the warheads in the current well-tested U.S. nuclear stockpile are already highly reliable, more so than the missiles that deliver them. Simple changes to existing procedures could increase war head “performance margins” even more . By contrast, even the modest design changes envisioned under the RRW program, ultimately intended to replace large parts of the U.S. nuclear deterrent with untested warheads, will inevitably lead to renewed demands that the United States resume underground nuclear explosive testing. This would encourage other countries, such as China, to resume their own nuclear testing programs and allow them to improve the capabilities of their own nuclear weapons.

# RRW → Proliferation 2/3

**RRW would resume nuclear testing—leads to global proliferation**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

Assumption 3: The RRW Program Will Mitigate, Not Increase, Political Pressure to Test. Finally, even if the nuclear weapons laboratories somehow manage to stay within the design parameter “space” of previously tested warheads and produce nuclear primaries with higher performance margins, there would be tremendous political pressure for the United States to conduct nuclear explosive tests before new warheads can enter the stockpile. After all, the Senate failed to ratify the Comprehensive Test Ban Treaty (CTBT) in 1999, in part because of skepticism that the laboratories could guarantee confidence in the existing well-tested stockpile without continued testing. The U.S. nuclear arsenal is based on 50 years of research and more than 1,000 underground nuclear tests. It is implausible that that the Pentagon or a future Congress would accept new war heads, ultimately replacing the entire U.S. nuclear arsenal, based on designs that have never been tested. As Sidney Drell, a physicist and longtime adviser to the government and the nuclear weapons labs, has said, “I can’t believe that an admiral or a general or a future president, who are putting the U.S. survival at stake, would accept an untested weapon if it didn’t have a test base.” A worldwide resumption of nuclear testing would decrease U.S. security. Were the United States to resume underground nuclear testing, it is highly likely that Russia, China, and other countries would resume their own test programs as well. Those countries could improve their own nuclear arsenals far more than could the United States if there was a return to testing. Resumed testing by China, for example, would help it to miniaturize its own warhead designs, allowing it to deploy multiple warheads placed on a single missile. Such a breakdown in the moratorium would also profoundly undermine efforts to limit nuclear proliferation.

**Pursuing RRW signals that global nuclear weapons are unreliable and that all countries must modernize**

**Shen, 7** – Director of the Center for American Studies at Fudan University in Shanghai (Dingli, “Upsetting a delicate Balance,” Bulletin of the Atomic Scientists, Volume 63, Number 4, Page 37, July/August)

Claims by the U.S. government that the warheads in its current nuclear arsenal aren’t reliable enough cast doubt on previous statements Washington has made. For instance, the United States launched the Stockpile Stewardship Program 14 years ago to supposedly maintain the reliability and proficiency of the U.S. nuclear arsenal and its associated human resources. The United States now claims Stockpile Stewardship is no longer sufficient, and it needs a better system to ensure the quality of its warheads. How then can we believe Washington’s promises that the reliable replacement warhead (RRW) won’t need to be tested or that RRW will allow the United States to condense its nuclear arsenal? Worse yet, RRW sends the wrong message to the other nuclear weapon states. If the United States is questioning the reliability of its arsenal, Russia, France, Britain, and China might also begin to ask similar questions about their warheads, providing the justification and impetus to “improve” their nuclear weapons. In particular, RRW could alter the way Beijing views its nuclear arsenal.

**RRW is key to ensure the US stockpile is reliable**  
**Broad, 5** – Staff Writer (“U.S. Redesigning Atomic Weapons, 2/7/05, The New York Times, <http://www.nytimes.com/2005/02/07/science/07bomb.html>)

But arms control advocates said the program was probably unneeded and dangerous. They said that it could start a new arms race if it revived underground testing and that its invigoration of the nuclear complex might aid the design of warheads with new military capabilities, possibly making them more tempting to use in a war. "The existing stockpile is safe and reliable by all standards," Daryl G. Kimball, executive director of the Arms Control Association in Washington, said in an interview. "So to design a new warhead that is even more robust is a redundant activity that could be a pretext for designing a weapon that has a new military mission."

# RRW → Proliferation 3/3

**RRW is unnecessary and would spark global prolif.**

**Matishak, 9** (Martin, 11/11/09, “Strategic Command Chief Predicts U.S. Will Need Nuclear Weapons for Next 40 Years,” Global Security Newswire, http://www.globalsecuritynewswire.org/gsn/nw\_20091111\_4409.php)

That Chilton did not mention weapon modernization -- such as the Bush administration's controversial Reliable Replacement Warhead effort -- marks a "growing recognition" that "technically speaking" the United States can maintain its arsenal through a refurbishment program with investments in nuclear infrastructure, according to Kimball. Any effort by the United States to design or test a new warhead would "clearly undermine our goal as a nation to reduce nuclear risks elsewhere,**"** he added. "It would give other countries a cynical excuse to pursue new nuclear capabilities themselves."

**RRW causes vertical and horizontal prolif—US stance uniquely key**

**Defense News, 7** (5/28)

We are now at the front end of what is likely to be a contentious domestic debate over replacing existing nuclear warheads with simpler designs that may never need to be tested. Advocates of the reliable replacement warhead (RRW) program worry that nuclear deterrence is too important to rest in an aging, Cold War arsenal. The RRW program matters greatly to the U.S. nuclear laboratories because it will give them a renewed sense of purpose and an opportunity to train a new generation of bomb makers. Critics of the RRW initiative believe that the United States needs to reduce reliance on nuclear weapons and that the nation invites proliferation by replacing old designs with new ones. We cannot sidestep this debate by arguing the U.S. decision will have no bearing on others. As a world leader, U.S. nuclear choices matter. Some countries that have the bomb will follow the U.S. lead, while others seeking the bomb will try to deflect international pressures by charging Washington with hypocrisy. As global concerns over proliferation grow, the United States remains the most important guardian of the world's nonproliferation system. So Washington's RRW decisions can either accentuate negative nuclear trend lines, or help reverse them.

**RRW will break the NPT and increase global proliferation.**

Civiak, 6 – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

Under the nuclear Non-Proliferation Treaty (NPT), more than 185 nations have foresworn development of nuclear weapons in return for a promise by the United States and the other recognized nuclear powers to “pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament.” That pledge was strengthened during the NPT Review Conference at the United Nations in April and May of 2000. All the nations participating, including the United States, agreed to a 13-point action plan that included, “An unequivocal undertaking by the nuclear weapons States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.” The Bush Administration has backed away from the commitment the United States made in 2000 and refused to use it as the starting point for discussions during the 2005 NPT Review Conference. The RRW program would move the United States further from its NPT commitments. The U.S. would open itself to heightened criticism from nations dissatisfied with the slow pace of nuclear weapons reductions. Many would see the RRW program as provocative and antithetical to cessation of the nuclear arms race. The 2005 NPT Review Conference ended without the participants agreeing on a final statement or a plan of action to strengthen the Treaty. The main sticking point was a rift between those nations, including the United States, whose highest priority was to strengthen non-proliferation aspects of the Treaty, and other nations, whose highest priority was to move the weapons states more rapidly toward disarmament. The U.S. refused to reaffirm its disarmament commitment or discuss any additional movement toward disarmament. That refusal undermined efforts to address the nuclear weapons development activities of North Korea, Iran, and others during the Conference. It also undermined efforts to address the continuing problem of trafficking in nuclear materials and technology. As former Deputy Secretary of Defense and Undersecretary of Energy, John Deutch, has noted: . . . the United States relies on the cooperation of many nations to achieve its non-proliferation objectives, and in this regard the U.S. nuclear posture has important consequences. An effective non-proliferation effort requires restricting the transfer of nuclear materials and technology, encouraging effective inspection by the International Atomic Energy Agency, and strengthening standards for the protection of nuclear materials and facilities. Cooperation is also essential for establishing an international norm that forbids the nuclear ambitions of non-nuclear states.22 Pursuit of an RRW program by the United States would further disrupt international cooperation in non-proliferation and could break the back of the NPT.

# RRW → Vertical Proliferation

**RRW causes fast global vertical prolif.** \*\*I also divided up parts of this card for the specific-country scenarios in the later part of this file

**Shen**, **7** – Director of the Center for American Studies at Fudan University in Shanghai (Dingli, “Upsetting a delicate Balance,” Bulletin of the Atomic Scientists, Volume 63, Number 4, Page 37, July/August)

Worse yet, RRW sends the wrong message to the other nuclear weapon states. If the United States is questioning the reliability of its arsenal, Russia, France, Britain, and China might also begin to ask similar questions about their warheads, providing the justification and impetus to “improve” their nuclear weapons. In particular, RRW could alter the way Beijing views its nuclear arsenal. Thanks in part to careful diplomacy by the leadership in both Beijing and Washington, U.S.-Chinese relations have remained stable in recent years—especially given the Taiwan situation, long a point of disagreement between the two countries. But some of the credit for this balanced relationship also belongs to the Chinese nuclear arsenal. Although much smaller than the U.S. arsenal— according to public reports, China retains around 200 warheads, while the United States possesses about 10,000—Beijing’s nuclear capability has served as an effective deterrent to any potential U.S. military aggression. RRW, along with other U.S. initiatives such as a renewed interest in the militarization of space, could force Beijing to reevaluate its security policies and nuclear posture, increasing pressure on China to either improve and/or enlarge its nuclear capability. And in Asia’s strategic landscape, an enhanced and/or expanded Chinese nuclear deterrent could have a ripple effect on India and Pakistan, China’s nuclear neighbors—an outcome the United States certainly doesn’t want. The message RRW sends to North Korea is similarly absurd. Pyongyang feels threatened by the United States, and Kim Jong Il sought nuclear weapons in response to this perceived threat. The decision to strong-arm its way to the negotiating table paid off, as Washington has moderated its stance toward Pyongyang since North Korea tested its nuclear capability. As part of the deal it struck with the United States, in mid-February, Pyongyang promised to close and seal its nuclear facilities at Yongbyon within 60 days. However, more than 60 days have passed, and North Korea still hasn’t fulfilled its promise. Pyongyang maintains that it needs more time to transfer $25 million the United States unfroze from a North Korean account at Banco Delta Asia as part of the agreement. But the delay also gives North Korea time to abandon some of its nuclear capability while keeping other parts in case Pyongyang needs to quickly achieve nuclear status in the future. After all, RRW teaches North Korea that strength matters and nuclear weapons are a useful tool. By encouraging and legitimizing such proliferation, RRW is actually counterproductive to U.S. security, as a world filled with more nuclear states possessing more sophisticated nuclear arsenals only endangers the United States. RRW also represents a missed opportunity. Instead of introducing new nuclear weapons programs and revamping its nuclear arsenal, the United States could lead the way to a nuclear-weapon-free world by devoting its energies to devaluing nuclear weapons and moving toward disarmament.

**RRW causes testing and vertical prolif.**

Sharp, 7 – Herbert Scoville Jr. Peace Fellow at the Center for Arms Control and Non-Proliferation, “The Folly of New Nukes,” 4/11, http://www.armscontrolcenter.org/policy/nuclearweapons/rrw/folly\_of\_new\_nukes/)

While pro-nuclear bureaucrats claim that new nuclear weapons will not require actual nuclear testing because of ongoing improvements in computer simulation technology, nuclear experts disagree. “I can’t believe that an admiral or a general or a future president, who is putting the U.S. survival at stake, would accept an untested weapon if it didn’t have a test base,” said Sidney Drell, a physicist and longtime adviser to the U.S. government and nuclear weapons labs. Physicist and nuclear weapons expert Robert Nelson echoed this sentiment: “The United States has never deployed a new nuclear warhead without conducting a nuclear explosive test.” If the U.S. did restart nuclear testing, something it hasn’t done since September 1992, other countries might follow suit and enhance their nuclear capabilities, possibly leading to a renewed 21st century arms race. For example, a U.S. test might cause China to feel that its rising superpower status was being threatened and it was losing its ability to reliably deter the U.S. in a confrontation over Taiwan. Since it is only a few short development phases away from acquiring a mobile Multiple Independently-Targeted Reentry Vehicle (MIRV) capability, a renewed nuclear testing environment—initiated by an American test of an RRW design—could provide China with a pretext to build on its successful January 2007 test of an anti-satellite weapon.

# RRW → Low-Yield Nuclear Weapons 1/2

RRW leads to new weapons designs regardless of the intent of the program

Civiak, 6 – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

In its 2001 Nuclear Posture Review, the Bush Administration expanded the role of nuclear weapons from deterrence only to include pre-empting development or use of chemical or biological weapons by other nations and other war-fighting missions. This Administration, or future Administrations, might use the RRW program to further this plan by adding a new low-yield, earth-penetrating warhead to the arsenal. Development of such a warhead would appear to violate limits that this Congress has placed on the RRW program. However, the labs might interpret the congressional language in ways to circumvent those limits or may lobby a future Congress to modify the limits once the RRW program begins to produce results. As discussed below, it is unlikely that NNSA could design a low-yield, earth-penetrating warhead that could defeat buried targets with little collateral damage. Nevertheless, even if it marginally reduced collateral damage, military commanders might more readily use a low-yield, earth-penetrating warhead than higher yield warheads. Our nation would be more secure without such a capability. A new low-yield, earth-penetrating warhead would be highly provocative and would provide further rationale for rogue nations to develop their own nuclear weapons. Furthermore, it would reduce the threshold for use of nuclear weapons and, thus, increase the chances of a broad nuclear exchange, which might kill millions of people. Congress has twice rejected Administration proposals to examine the feasibility of a Robust Nuclear Earth-Penetrating bomb. Congress also appears to oppose use of the RRW program to develop warheads for new missions. However, if Congress gives the labs an opportunity to design new warheads, supposedly for existing missions, they will be on a slippery slope toward enhancing performance and adding new capabilities. It is impossible for this Congress to prevent future Administrations from assigning those new warheads to new missions. Reopening the Pandora’s box of nuclear weapons design will almost certainly lead to new nuclear weapons with new missions in the future. NNSA Administrator Brooks wants the RRW program, because he believes the current stockpile is the wrong stockpile from a military perspective. His vision of the right stockpile would increase the likelihood that nuclear weapons will be used.

**RRW will be a Trojan horse for other nuclear weapons**

**Lenderman, 6** (Andy, The Santa Fe New Mexican (New Mexico), February 8, 2006, “Pit Program Shows Progress”, <http://www.lasg.org/PU_Media/PU_Vol_13_2006.pdf>)

Brooks also discussed the Reliable Replacement Warhead program, which has been described as a way to refurbish a nuclear weapon based upon basic weapon science that's been proven for decades. Critics say it's a new weapons program that will anger other countries. Today, Los Alamos and Lawrence Livermore national laboratories are in competition to design the replacement warhead. Brooks said it would have the same military characteristics, the same target and the same delivery system, or missile, to carry it. "It's component replacement, and the question of how many components do you replace before you say it's new is a little bit of a philosophic question," Brooks said. " ... There's no reasonable definition of a new weapon that would call this a new weapon. It's going to have a lot of new parts on it." But Coghlan says it is a new weapon. "With RRW, Brooks is pushing a 'nukes forever' program that will be a Trojan horse for new designs," Coghlan said by e-mail. "He himself has told Congress that U.S. nuclear weapons may no longer be useful because new and more usable low-yield and earth-penetrating weapons are needed." Brooks, while discussing pit production, explained where he's coming from. "I start from a prejudice," he said. "I believe that we are very unlikely in my lifetime to see the political conditions that will lead to the complete elimination of nuclear weapons. ... We are operating on the view that we are going to maintain the deterrent forever, and I think that's what all of the acknowledged and unacknowledged nuclear powers are doing too."

# RRW → Low-Yield Nuclear Weapons 2/2

**RRW funding results in low yield nuclear weapons**

**ANA, 7** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead Program,” http://www.ananuclear.org/Portals/0/documents/Fact%20Sheets/RRW%20FS%202007.pdf, Spring)

In 2004 the House Appropriations Committee rejected what it called the National Nuclear Security Administration’s (NNSA) “extreme nuclear weapons goals” of earth-penetrators and “mininukes.” It then redirected requested funding to create the Reliable Replacement Warhead (RRW) program “for improving the long-term safety, reliability, and security of the U.S. nuclear weapons stockpile.” The Committee substantially increased funding the next year, but cautioned, “Qualified endorsement of the RRW initiative is based on the assumption that a replacement weapon will be designed only as a reengineered and remanufactured warhead for an existing weapon system.” RRW was adopted in 2005 by Congress as a whole, with the stated aims of reducing any future need to resume nuclear weapons testing, facilitating deep cuts to the stockpile and enabling cost-saving, security- enhancing consolidation of the nuclear weapons complex. What Do NNSA and the Labs Want? NNSA and the nuclear weapons design laboratories at Los Alamos, Lawrence Livermore, and Sandia have seized upon the RRW program to advance their own agenda to produce more “usable” bombs for unspecified military requirements and protect their future funding.

# Low-Yield Nuclear Weapons Impacts

**Low yield weapons short circuits nuclear deterrence**

**Western States Legal Foundation, 1** (Nuclear Weapons in a Changed World: the Hidden Dangers of the Rush to War, Fall, <http://www.wslfweb.org/docs/nukesincontext.pdf>)

Despite decades of discussion in military doctrine of “limited” nuclear war and billions spent to develop nuclear weapons with carefully tailored effects, nuclear weapons remain weapons of terror. Their use carries such moral and historical weight that they will be employed only after a decision to fight terror with terror, to triumph through the infliction of overwhelming horror. Decisions of this kind, however, never are made in a rational context, but rather in climates suffused with the least rational human emotions: fear, rage, and xenophobia. Today, such choices will be made amidst a population saturated 24 hours a day with horrific images of the next round of atrocities, or the round after that, and of the incomprehensibly “different” people who are seen as responsible. And to those who believe that we can never reach the point where nuclear weapons could be used, where annihilation becomes part of the calculus of war, there is only one answer: it has happened before. Nuclear Catastrophe: the Ultimate Unanticipated Consequence The terrible events of September 2001, and the speed with which our world seems to be spinning out of control, should impel us to think again about nuclear weapons, and the paradoxical and destructive presence they represent in the hidden heart of the modern world. The nuclear arsenals of the eight countries that possess them add nothing to anyone’s security in the current crisis; instead they add immensely to its dangers. Their purported ability to “deter” seems utterly irrelevant to protecting ordinary people against further suicide attacks. Nuclear weapons are unlikely to influence those willing to die while killing for their beliefs, whose networks which support them are well integrated into our complex, urbanized societies. The very existence of nuclear weapons, their presence, along with the extraordinarily dangerous materials necessary to produce them at hundreds of places around the world, presents those who wish to wreak havoc with vulnerable targets, and even perhaps with opportunities to steal the weapons themselves. The heightening of tensions as the military forces of nuclear-armed states deploy rapidly across already war-torn regions increases the dangers of catastrophic miscalculation. Casting the crisis as a war against Islamic terrorism has provided an opportunity for armed elements both inside and outside nation-states to push their agendas. Intelligence and military factions in the United States and Israel demand that Iraq be next on the list for massive strikes. Insurgents in Kashmir launch new assaults, stirring an incendiary mix where factions inside and outside the Pakistani government sympathetic to the Taliban can further squeeze the current regime, simultaneously racheting up tensions with nuclear-armed India. Those in India who long have favored a military “solution” to the Kashmir conflict seize the chance to frame their fight as part of the war against terrorism. And all the while, the machinery of annihilation waits, the final stop on the road of “unanticipated” consequences.

**Low-yield weapons causes proliferation**

**Western States Legal Foundation, 2** (The Shape of Things to Come: The Nuclear Posture

Review, Missile Defense, and the Dangers of a New Arms Race, April, <http://www.wslfweb.org/docs/shape.pdf>)

These broad missions for nuclear weapons encourage the search for nuclear weapons that are useable in warfare, and further legitimate nuclear weapons as instruments of state power. As was pointed out by the National Academy of Sciences Committee on International Security and Arms Control five years ago, A policy of nuclear deterrence of CBW [Chemical and Biological Weapons] would provide incentives and an easy justification for nuclear proliferation, which is inimical to U.S. security. Many other countries face far more plausible and immediate CBW threats than the United States. If U.S. policy points to nuclear weapons as the ultimate answer to CBW, other states could have an increased motivation to acquire nuclear arsenals. Highlighting new or continuing missions for nuclear forces could damage the nuclear nonproliferation consensus throughout the world.47 In the current bellicose global atmosphere, factions that favor acquisition, retention, or expansion of nuclear arsenals in a number of countries may want to follow the U.S. example, arguing that they face adversaries that might possess weapons of mass destruction. India, Pakistan and Israel, even Russia and China, all have states right on their borders who they can claim are either potentially hostile and armed with WMD or are harboring “non-state actors” that might somehow acquire WMD. And there is an even larger number of countries lacking the resources to acquire nuclear weapons that have reason to see themselves as a possible target of military action by a nuclear power– and that may see chemical or biological weapons as the only feasible “equalizer” for modern high-tech weapons. Combined with the rejection of most arms control mechanisms by the world’s most powerful state, one that has military forces capable of inflicting devastation anywhere on earth, we have the ingredients for a new, unpredictable global arms race.

Prolif causes global nuclear war.

Samuel Totten, Associate Professor in the College of Education at the University of Arkansas, The Widening Circle of Genocide, 94, p. 289

There are numerous dangers inherent in the spread of nuclear weapons, including but not limited to the following: the possibility that a nation threatened by destruction in a conventional war may resort to the use of its nuclear weapons; the miscalculation of a threat of an attack and the subsequent use of nuclear weapons in order to stave off the suspected attack; a nuclear weapons accident due to carelessness or flawed technology (e.g., the accidental launching of a nuclear weapon); the use of such weapons by an unstable leader; the use of such weapons by renegade military personnel during a period of instability (personal, national or international); and, the theft (and/or development) and use of such weapons by terrorists. While it is unlikely (though not impossible) that terrorists would be able to design their own weapons, it is possible that they could do so with the assistance of a renegade government.

# Low Yield Bad – Chinese Modernization

**Low-yield nukes causes Chinese modernization**

**Bromley, et. al., 2** – British American Security Information Council (Mark, Bunker Busters: Washington’s Drive for New Nuclear Weapons, July, http://www.basicint.org/pubs/Research/2002BB.pdf)

The development of low yield nuclear weapons would appear to Chinese analysts and policymakers as further proof of US hostility. The NPR highlights “a military confrontation over the status of Taiwan” as a clear example of a potential nuclear flashpoint with China. At the same time, the NPR’s New Triad seems ideally designed to nullify Beijing’s nuclear deterrent and could allow the United States to call China’s bluff in a future confrontation over Taiwan. Consequently, China would be able to justify expanding its nuclear arsenal without eliciting strong international reaction. This stance may have serious impact on stability in South Asia as India and Pakistan seek to maintain the regional military balance.

**This risks accidental launch**

**Federation of American Scientists et al, 1** (Toward True Security: A US Nuclear Posture for the Next Decade, a joint report by the FAS, NRDC, and Union of Concerned Scientists, June,<http://www.ucsusa.org/index.html>)

Over the 20 years since China first deployed nuclear-armed missiles with a range that could reach the United States, it has been slowly modernizing its nuclear forces. China is apparently developing two solid-fueled road-mobile missiles: the DF-31, with a range of about 8,000 kilometers, and the DF-41, with a longer range capable of reaching the 48 contiguous United States. The DF-31 was fi rst fl ight tested in 1999 and could be deployed within a decade. It is likely to be targeted against Russia and Asia, but could reach Alaska. The DF-41 is in early development and could be deployed within two decades. Because China’s motive for deploying these mobile missiles is apparently to create a more survivable deterrent, these missiles are likely to be deployed with their warheads. This could increase the risk of an accidental or unauthorized attack, as could the more diffi cult command-and-control problems associated with mobile missiles. The risk of an unauthorized attack could also be increased if serious political turmoil in China were to lead to a loss or weakening of nuclear command and control.

# Low-Yield Bad – Indo-Pak

**Low-yield nuclear weapons undermines US nuclear diplomacy – risks war**

**Bromley, et. al., 2** – British American Security Information Council (Mark, Bunker Busters: Washington’s Drive for New Nuclear Weapons, July, http://www.basicint.org/pubs/Research/2002BB.pdf)

India and Pakistan During diplomatic attempts to ease the recent tensions on the Asian subcontinent Western leaders have been constantly stressing that nuclear weapons are a class apart and should not be considered as a usable battlefield tool. Indeed Defence Secretary Rumsfeld himself noted that nuclear warheads are “not just larger weapons, they are distinctively different weapons.”181 This is an important argument to make on the subcontinent, where atomic weapons have too often been viewed as symbols of national pride rather than tools of massive destruction. However, **the force of the message is undermined by the US interest in new and “usable” nuclear weapons.**

**Extinction**

**Washington Times, 1 (7/8, Lexis)**

The most dangerous place on the planet is Kashmir, a disputed territory convulsed and illegally occupied for more than 53 years and sandwiched between nuclear-capable India and Pakistan. It has ignited two wars between the estranged South Asian rivals in 1948 and 1965, and a third could trigger nuclear volleys and a nuclear winter threatening the entire globe. The United States would enjoy no sanctuary. This apocalyptic vision is no idiosyncratic view. The director of central intelligence, the Defense Department, and world experts generally place Kashmir at the peak of their nuclear worries. Both India and Pakistan are racing like thoroughbreds to bolster their nuclear arsenals and advanced delivery vehicles. Their defense budgets are climbing despite widespread misery amongst their populations. Neither country has initialed the Nuclear Non-Proliferation Treaty, the Comprehensive Test Ban Treaty, or indicated an inclination to ratify an impending Fissile Material/Cut-off Convention.

# RRW → Accidental Launch

**RRW adds plutonium to warheads—increases risk of accidental launch**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

Assumption 2: Design Changes Can Be Made Safely, Cheaply, and Without Nuclear Tests. Second, there are few design changes the laboratories could make to existing weapons without compromising safety or other military requirements and without requiring nuclear test explosions. When the United States still conducted nuclear tests, any new or modified warhead was required to undergo a series of nuclear explosive tests during the development and production phases before it could be certified to enter the stockpile. Indeed, a 1991 report to Congress estimated a minimum of three to four nuclear explosive tests would have to be conducted in order to certify a replacement warhead for the W88.[19] In contrast, the RRW program proposes to make changes to the nuclear explosive package itself, the core of the weapon containing the fissile and thermonuclear materials. Weapons designers could increase the predictability of the primary by adding additional plutonium and increasing the amount or altering the type of the chemical high explosive that initiates the explosion. Doing so, however, would have a ripple effect on other relevant design dimensions for warheads: their weight, size, shape, and safety. The Department of Defense requires that any new warhead not alter the aerodynamic characteristics of the re-entry vehicle that would carry it to its target. Current warheads were designed to minimize size and weight so that multiple warheads could fit on long-range ballistic missiles as well as to meet minimum safety requirements. Adding additional plutonium or high explosive to current designs would make warheads heavier or larger than existing weapons or alter their shape. If the warhead has a different shape or has its mass distributed differently than current designs, it might affect how the re-entry vehicle flies. The Defense Department would then be faced with the major expense of either recertifying that the re-entry vehicle achieves its military goals or designing and flight-testing a new re-entry vehicle to accommodate the new warhead. In fact, the Navy in 1993 considered and rejected the opportunity to upgrade the safety of the W88 warhead to use insensitive high explosive in large part because of the expected cost required—$3.8 billion in 1993 dollars—to retrofit the Trident third-stage rocket motor. Redesigning a new re-entry vehicle or even a new bus for the Trident missile could be far more expensive than developing a new warhead. A new design might also create new safety concerns. U.S. nuclear weapons are required to be “one point safe”—having a very small probability of generating a nuclear explosion if struck by a bullet or projectile, for example, or if exposed to a high temperature fire or a nearby chemical explosion. Yet, adding plutonium to in crease “reliability” would bring the primary fission device closer to its critical mass, making it easier to detonate at full yield. This would increase the primary performance margins, but it would also increase the probability that the warhead could detonate accidentally and hence be less “safe.” As a consequence, designers are limited to how much they can increase performance margins without undermining existing safety restrictions.

RRW decreases safety – plutonium core increases likelihood of an accident going nuclear and increased reliability trades off with safety

Civiak, 6 – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

It is also worth noting that new warheads resulting from the RRW program may well wind up being less safe than existing warheads. As designers attempt to make warheads more reliable, they are likely to add plutonium (and a concomitant amount of chemical explosive) to weapons’ primaries. Adding plutonium can improve designers’ confidence that a primary will meet its minimum yield requirement. However, adding plutonium could also increase the potential for significant nuclear yield if there is an accidental detonation of the high explosive. Since RRW proponents claim the new warheads will not have to undergo full-scale nuclear tests, there will be no guarantee that new warheads will meet the stringent one-point safety requirements of existing warheads. More generally, there is a tradeoff in reliability vs. safety. Many of the changes that might increase a warhead’s reliability might also increase the chances of accidental detonation. Since existing warheads are both reliable and safe, why take the chance the new designs might sacrifice one for the other?

**RRWs increase the probability of an accidental attack**

**Young, 7 – Washington Representative, Union of Concerned Scientists (Stephen, “New Nuclear Weapons: Reliable Replacement Warhead (RRW),” Union of Concerned Scientists,** <http://www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_weapons/technical_issues/new-nuclear-weapons-reliable.html>)

**We Need New Policies, Not New Weapons.** The RRW program would return the nuclear weapons laboratories to the Cold War cycle of nuclear weapon design, development and production. It would preserve and extend an irrational nuclear war-fighting posture left over from the Cold War that makes the United States less secure. Despite the end of the Soviet Union, the United States still maintains thousands of nuclear weapons on high alert, capable of being launched within minutes. This nuclear posture undermines U.S. nonproliferation goals and perpetuates the only current threat that could destroy the United States: a Russian nuclear attack—either accidental, unauthorized, or deliberate but based on false information. Congress should eliminate funding for the RRW program. It is unnecessary: our current nuclear arsenal is safe and reliable. What is needed is a new nuclear policy that would lead to the elimination of nuclear weapons. Congress should begin now to consider what such a policy would look like.

# Accidental Launch Impacts

**Accidental launch triggers a global nuclear war that kills billions.**

**PR Newswire, 98** (“NEJM Study Warns of Increasing Risk of Accidental Nuclear Attack; Over 6.8 Million Immediate U.S. Deaths Possible,” 4/29)

Despite the end of the Cold War, American and Russian nuclear arsenals remain on high-alert. That, when combined with significant deterioration in Russian control systems, produces a growing likelihood of an "accidental" nuclear attack, in which more than six million American[s] men, women, and children could die, according to a study published in the April 30 New England Journal of Medicine. The authors, physicians, public health professionals, and nuclear experts, will hold press conferences on April 29 in seven U.S. Cities, including Boston, beseeching the U.S. Government to seek a bilateral agreement with the Russians that would take all nuclear missiles off high-alert as an "urgent interim measure" toward the only permanent solution: the abolition of nuclear weapons worldwide. "It is politically and morally indefensible that American children are growing up with the threat of an accidental nuclear attack," says Lachlan Forrow, MD, principal author of the NEJM article, "'Accidental' Nuclear War: A Post-Cold War Assessment," and internist at Beth Israel Deaconess Medical Center. His study cites numerous instances of 'broken arrows' -- major nuclear accidents that could have killed millions and exposed millions of others to potentially lethal radiation from fallout if disaster had not been averted. "Nuclear weapons do not make us safer, their existence jeopardizes everything we cherish." Forrow adds, "We are calling upon the mayors and citizens of all U.S. and Russian cities to join us in appealing to Presidents Bill Clinton and Boris Yeltsin to end this threat by taking all weapons off high-alert status immediately." A strike on Boston would likely target Logan Airport, Commonwealth Pier, the Massachusetts Institute of Technology, and Harvard University, resulting in 609,000 immediate fatalities, according to the researchers. Depending on wind patterns, says Dr. Forrow, hundreds of thousands of other Boston-area residents could be exposed to potentially lethal fallout. Launching nuclear missiles on false warning is the most plausible contemporary 'accident' scenario, according to the authors. More than mere conjecture, this scenario almost played out to horrifying results in 1995 when a U.S. scientific rocket launched from Norway led to activation of the nuclear suitcases carried by the top Russian command -- the first time ever in Soviet- Russian history. It took eight minutes for the Russian leadership to determine the rocket launch was not part of a surprise nuclear strike by Western nuclear submarines -- just four minutes before they might have ordered a nuclear response based on standard launch-on-warning protocols. An 'accidental' nuclear attack would create a public health disaster of an unprecedented scale, according to more than 70 articles and speeches on the subject, cited by the authors and written by leading nuclear war experts, public health officials, international peace organizations, and legislators. Furthermore, retired General Lee Butler, Commander from 1991-1994 of all U.S. Strategic Forces under former Chairman of the Joint Chiefs of Staff, General Colin Powell, has warned that from his experience in many "war games" it is plausible that such an attack could provoke a nuclear counterattack that could trigger full-scale nuclear war with billions of casualties worldwide.

# 2NC Nuclear Weapons Labs 1/2

**RRW overwhelms the NNSA – kills nuke labs.**

**Mellos, 7**  - Director of the Los Alamos Study Group (Greg “The Reliable Replacement Warhead Program (RRW) Can’t Meet Congressional Objectives,” [www.lasg.org/RRW\_talking\_point\_summary.pdf](http://www.lasg.org/RRW_talking_point_summary.pdf))

18.“Support upgrading of Complex capabilities.” Design the proposed RRW in such a way as to require upgrading of warhead complex capabilities. 􀂃 A commitment to unnecessary warheads driving warhead complex expenditures and priorities describes a management fiasco, not an objective. 􀂃 Unnecessary upgrades are costs and burdens, not benefits. 􀂃 Making RRW and hence stockpile contingent upon successful complex reconstruction risks the U.S. nuclear deterrent. 􀂃 Warhead complex investments should instead focus on conservative, cost-effective, attainable consolidation and good management. 􀂃 RRW ambitions are unrealistic and risk dramatic warhead complex failures, continuing scandals in labs, plants, and NNSA, temporary or long-term losses in capability, and technical decline Conclusion: This objective invites a management fiasco. The RRW program is grandiose and risks the integrity of the U.S. nuclear deterrent. 19.“Exercise skills of the Complex.” Design the proposed RRW in such a way as to require utilization of as many skills in the warhead complex as possible. 􀂃 Preservation of skills requires at a minimum: 􀂃 a clear, focused mission (now absent); 􀂃 social acceptance of those limited missions (absent for expansive missions like RRW); 􀂃 good management, accountability, and good federal oversight (also absent, with some problems increasing); 􀂃 NNSA contractors currently have too many missions, people, facilities, and too much money and power relative to government to properly manage personnel or facilities. 􀂃 This congressional objective for RRW is a problem, not a solution, and expresses in itself a major reason for NNSA's current dysfunction. 􀂃 The solution lies in fewer missions well done, not more missions badly done. Conclusion: The RRW program is already contributing to personnel and management problems, distracting NNSA's attention, and lowering the ability of the warhead complex to retain appropriate skills in an adequate number of workers at a high level of competence.

**Strong nuclear weapons labs are key to US scientific leadership and preventing proliferation, nuclear and biological terrorism.**

**Perry and Schlesinger,9** - Former Secretary of Defense, Michael and Barbara Berberian Professor at Stanford University, senior fellow at FSI and serves as co-director of the Preventive Defense Project, and \*\*former Secretary of Defense, Secretary of Energy and Director of the Central Intelligence Agency, Counselor to the Center for Strategic and International Studies, lecturer @ SAIS, Johns Hopkins University, PhD International Relations @ UPenn. (2009, William J and James R, “America’s Strategic Posture,” Report of the Congressional Commission on the Strategic Posture of the United States, <http://media.usip.org/reports/strat_posture_report.pdf>)

The Commission’s second main concern about the nuclear weapons complex is that the intellectual infrastructure there is in serious trouble—perhaps more so than the physical complex itself. It strongly recommends that significant steps be taken to remedy the situation. It is important to understand the weapons laboratories are more than a complex of facilities and instruments. The foundation of their work in support of the national deterrent is a unique scientific and engineering capability. Although nuclear weapons have existed for over sixty years, weapons science was largely an empirical science for much of that period. Nuclear weapons are exceptionally complex, involving temperatures as high as the sun and times measured in nanoseconds. Understanding these weapons from first principles requires a broad, diverse and deep set of scientific skills, along with complex experimental tools and some of the fastest and most powerful computers in the world. The weapons laboratories also play an important role in maintaining U.S. scientific leadership, especially in nuclear and plasma physics and in material sciences, including shock physics. Academic research cannot operate on the scale comparable to the weapons laboratories and industry has largely abandoned basic research in the physical sciences. It is also important to note that the laboratories make important contributions to national security challenges other than weapons science. Their unique expertise and experimental and computational tools enable work on many other high national priorities, including nonproliferation, nuclear threat reduction, nuclear forensics, countering bioterrorism, ballistic missile defense, countering improvised explosive devices, nuclear energy and alternative energy sources, and assistance to the intelligence community with advanced technology and analysis of foreign programs. For decades, the laboratories were places that easily attracted the nation’s top talent and expertise in these disciplines. But retention and recruitment of such personnel has grown more difficult recently. With growing frequency, the best of the younger staff are seeking employment elsewhere, and some of the best of the older staff are taking early retirement. Morale and, with it, capability have declined and seem likely to drop further unless steps are taken to remedy the situation.

# 2NC Nuclear Weapons Labs 2/2

**Nuclear terrorism causes nuclear war and extinction.**

**Sid-Ahmed, 4** –Al-Ahram weekly political analyist (8/26/4, Mohamed, Al Ahram Weekly, no. 705, “Extinction!”, <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.

# Scientific Leadership k2 Heg

**Science and technology leadership is key to heg.**

**Segal, 4** - Maurice R. Greenberg Senior Fellow in China Studies @ CFR (Nov-Dec 2004, “Is American Losing It’s Edge” Foreign Affairs, Pg. 2 Vol. 83 No. 6, Access via Lexis)

The United States' global primacy depends in large part on its ability to develop new technologies and industries faster than anyone else. For the last five decades, U.S. scientific innovation and technological entrepreneurship have ensured the country's economic prosperity and military power. It was Americans who invented and commercialized the semiconductor, the personal computer, and the Internet; other countries merely followed the U.S. lead. Today, however, this technological edge-so long taken for granted-may be slipping, and the most serious challenge is coming from Asia. Through competitive tax policies, increased investment in research and development (R&D), and preferential policies for science and technology (S&T) personnel, Asian governments are improving the quality of their science and ensuring the exploitation of future innovations. The percentage of patents issued to and science journal articles published by scientists in China, Singapore, South Korea, and Taiwan is rising. Indian companies are quickly becoming the second-largest producers of application services in the world, developing, supplying, and managing database and other types of software for clients around the world. South Korea has rapidly eaten away at the U.S. advantage in the manufacture of computer chips and telecommunications software. And even China has made impressive gains in advanced technologies such as lasers, biotechnology, and advanced materials used in semiconductors, aerospace, and many other types of manufacturing. Although the United States' technical dominance remains solid, the globalization of research and development is exerting considerable pressures on the American system. Indeed, as the United States is learning, globalization cuts both ways: it is both a potent catalyst of U.S. technological innovation and a significant threat to it. The United States will never be able to prevent rivals from developing new technologies; it can remain dominant only by continuing to innovate faster than everyone else. But this won't be easy; to keep its privileged position in the world, the United States must get better at fostering technological entrepreneurship at home.

# Scientific Leadership k2 Econ

**Science leadership key to the economy and hegemony --- its high now but declining.**

**Bingaman, 5** – Democratic Senator from New Mexico, JD Stanford Law, chairman of the Energy and Natural Resources Committee (4/5/5, Jeff, Institute of Electrical and Electronics Engineers, “Engineering R&D Symposium, [www.ieeeusa.org/policy/features/Bingaman.pdf](http://www.ieeeusa.org/policy/features/Bingaman.pdf).)

It goes without saying one of the basic policies of our nation’s economic security must be to maintain a sustained investment in science and technology. There is no dispute that science, and the technology that flows from it, are duly recognized as the principal engine of our economic growth. Nor is there any contention of the fact that America’s present strength, prosperity, and global preeminence depend directly on fundamental research. The scientific record of the past half century constitutes overwhelming proof. At the present time, we lead the world in such areas as nanoscience, genomics and proteomics, and advanced scientific computing.But lately, I have become concerned that we are beginning to slip in our world leadership role in science.

**That collapses US leadership and causes nuclear war.**

**Friedberg and Schoenfeld, 8** – Prof. politics and \*\*IR at Princeton’s Woodrow Wilson School and Visiting Scolar at Witherspoon Institute (10/21, Aaron and Gabriel, Wall Street Journal, “The Dangers of a Diminished America”, <http://online.wsj.com/article/SB122455074012352571.html>)

Then there are the dolorous consequences of a potential collapse of the world's financial architecture. For decades now, Americans have enjoyed the advantages of being at the center of that system. The worldwide use of the dollar, and the stability of our economy, among other things, made it easier for us to run huge budget deficits, as we counted on foreigners to pick up the tab by buying dollar-denominated assets as a safe haven. Will this be possible in the future? Meanwhile, traditional foreign-policy challenges are multiplying. The threat from al Qaeda and Islamic terrorist affiliates has not been extinguished. Iran and North Korea are continuing on their bellicose paths, while Pakistan and Afghanistan are progressing smartly down the road to chaos. Russia's new militancy and China's seemingly relentless rise also give cause for concern. If America now tries to pull back from the world stage, it will leave a dangerous power vacuum. The stabilizing effects of our presence in Asia, our continuing commitment to Europe, and our position as defender of last resort for Middle East energy sources and supply lines could all be placed at risk. In such a scenario there are shades of the 1930s, when global trade and finance ground nearly to a halt, the peaceful democracies failed to cooperate, and aggressive powers led by the remorseless fanatics who rose up on the crest of economic disaster exploited their divisions. Today we run the risk that rogue states may choose to become ever more reckless with their nuclear toys, just at our moment of maximum vulnerability. The aftershocks of the financial crisis will almost certainly rock our principal strategic competitors even harder than they will rock us. The dramatic free fall of the Russian stock market has demonstrated the fragility of a state whose economic performance hinges on high oil prices, now driven down by the global slowdown. China is perhaps even more fragile, its economic growth depending heavily on foreign investment and access to foreign markets. Both will now be constricted, inflicting economic pain and perhaps even sparking unrest in a country where political legitimacy rests on progress in the long march to prosperity. None of this is good news if the authoritarian leaders of these countries seek to divert attention from internal travails with external adventures.

# RRW k2 Nuclear Weapons Labs 1/3

**Interesting work key to ensure funding and retention for weapons labs --- key to nuclear attribution and other technologies that are key to solve nuclear terrorism and proliferation**.

**Yeats, 8** - Research assistant for the CSIS International Security Program (ISP) and the program manager for the defense and national security team (Jessica, CSIS a collection of papers from the 2008 PONI Conference Series, “Technical Nuclear Forensics and the future of the Weapon Laboratories”, http://csis.org/images/stories/poni/090421\_collection\_of\_conference\_papers\_2008.pdf)

The symbiotic relationship between technical nuclear forensics and the U.S. nuclear weapons design, engineering and radiochemistry programs reveals the challenges created at the national laboratories by the policy objective to downsize the nuclear weapons complex while simultaneously strengthening U.S. nonproliferation and counter-nuclear terrorism capabilities. Congressional opposition to funding major warhead programs is stripping the labs of the human capital that verification, detection and attribution technologies are leveraged upon. But this paradox also holds enormous promise for the laboratory political fight for survival. Instead of relying on antiquated and politically divisive Cold War-era rationales for programs like the Reliable Replacement Warhead (RRW), policy leadership ought to exploit the crises facing non-weapons programs such as forensics in their campaign to appropriators to align the lab mission with 21st century national security priorities and demonstrate what is at stake if the precipitous decline in human infrastructure is not reversed. This shift in emphasis at the policy level may also help restore the strong sense of purpose and national service necessary to attract the “best and brightest” Ph.D.’s to replenish the retiring generation of scientists at the U.S. national security laboratories. I. What is at Stake? During the Cold War, the centrality of nuclear weapons to United States national security ensured broad political support for maintaining state of the art nuclear weapons design and associated analytic capabilities at the national laboratories. Post-detonation nuclear forensics, the technical means by which radiological debris is characterized and interpreted, was among the ancillary tools developed during this time. Drawing upon the expertise and equipment accumulated by the nuclear weapons program, laboratory scientists assessed the reliability of U.S. nuclear weapons and informed intelligence estimates of the Soviet program by developing radiochemistry techniques that coulddetermine weapons characteristics (such as yield, materials used, and design details) based on post-detonation radioactive debris. Within the international security paradigm that dominated Cold War-era nuclear policymaking, nuclear forensics was an important but not time-urgent national security requirement. The overwhelming political and technical mission was maintaining and strengthening the U.S. deterrent. It was precisely this emphasis, however, that laid the scientific foundation for modern attribution capabilities. Surplus curiosity and capability from the highly skilled workforce the that the core weapons mission was able to attract lent itself to a number of other state-of-the-art “work for others” programs. Today, the opposite dynamic is unfolding. The diminishing contributions and increasing threats from nuclear weapons to global security has shifted the political imperative away from sustaining appropriate U.S. nuclear weapons skills and towards policies designed to prevent nuclear proliferation and nuclear terrorism. While consistent with broader U.S. national security priorities, this realignment is paradoxically threatening the non-weapons capabilities it seeks to strengthen. The application of nuclear forensics to attribution (and thus deterrence) of state sponsorship of nuclear terrorism is a salient example. Post-detonation forensics is leveraged upon the scientific strength of a nuclear testing and design program that that today would be both strategically unnecessary and politically unthinkable. What was a convenient externality two decades ago is now the centerpiece of U.S. strategy to deter the “threat that rises above all others in urgency.”4 A reliable attribution capability underpins the U.S. declaratory policy designed to deter state transfer of fissile material and incentivize foreign security mechanisms against theft: The United States … reserves the right to respond with overwhelming force to the use of weapons of mass destruction… the United States will hold any state, terrorist group, or other non-state actor fully accountable for supporting or enabling terrorist effort. Should a catastrophe force the hand of the administration, political leadership operating under enormous pressure would rely on technical nuclear forensics, in conjunction with law enforcement and the intelligence agencies, to identify the source of the materials, design, and processes used in the production of the weapon. The ability to exclude possible origins is perhaps an even greater contribution of forensics given the potentially catastrophic consequences of mistaken attribution. Complexities and technical challenges are commensurate with the growing urgency of an effective and believable attribution process. In a world of multiple nuclear powers with weak control over their fissile material, the post 9-11 nuclear security environment is rapidly increasing the scientific demands on immediate and accurate forensics analysis. Meanwhile, the scientific base equipped to meet these challenges is evaporating. Nuclear forensics is only a snapshot, albeit an important one, of the capabilities at stake if atrophy across the nuclear weapons complex is unabated. Nearly all U.S. and international nonproliferation and counter-nuclear terrorism detection and verification capabilities are derived from expertise belonging to a dwindling cadre of nuclear weapons designers, engineers, and materials experts. Contrary to the claims of “anti-nuclear” constituencies, these residual capabilities cannot be revived by targeting them in isolation. Dr. Steven Aoki, the Deputy Undersecretary for Counterterrorism at the National Nuclear Security Administration (NNSA), explains: During the Cold War, we built specialized facilities, developed unique scientific techniques and assembled teams of scientists and engineers to support the design, production and testing of our own nuclear weapons. I think it's fair to say that all of the nation's technical nuclear forensics capability ultimately rests on that underlying science base… it will be vitally important to ensure that we maintain and strengthen this fundamental resource for the prevention of nuclear terrorism. Senior-level attention and bipartisan consensus on the salience of the nuclear terrorism threat has generated the requisite

**Continues…**

# RRW k2 Nuclear Weapons Labs 2/3

momentum for a number of policies committing laboratory resources to strengthening forensics capabilities.9 Despite these initiatives, U.S. facilities face a severe shortage of qualified personnel: the report of the joint working group of the American Physical Society and the American Association for the Advancement of Science concluded that the surge capacity required in the event of an emergency is two to three times the present number of available personnel. Even under routine conditions forensics scientists are badly stretched and laboratory facilities are underfunded and fall below the most effective standards prevailing in other countries.10 Only 35 to 50 scientists are engaged in forensics activities at the labs, 11 many of whom spend the majority of their time on the nuclear weapons program, and many of whom are already retired. The demographics are startling. Nearly one-half of the scientists currently working on the forensics program will be retired in the next 10 years13 and the majority of those working on forensics for more than 50% of their time are over 50.14 Among the thirty critical skills identified by the National Science and Technology Center that are expected to encounter the most severe retention challenges in the next five years are: nuclear physics, nuclear and radiochemistry, nuclear forensics, nuclear instrumentation, radiation effects and radiation damage.15 These are the skills that comprise the core of the technical nuclear forensics effort and skills that recruitment will be unable to replenish if status quo trends are unabated. The recruitment challenge is highlighted by the precipitous decline in radiochemistry programs, the academic pipeline that supplies the scientists capable of analyzing radioactive debris. Of the seven remaining graduate programs in radiochemistry, four have only one faculty member.16 Compounding the crisis is that much of the requisite radiochemistry knowledge cannot be acquired through formal education and must be passed-on by experienced personnel.17 The rate at which retirement is outpacing recruitment suggests that this window of opportunity on the overlapping learning curves is closing.

**High-quality personnel retention key to deterrence – interesting work key to prevent brain drain to civilian sector.**

**Spence, 8 -** PhD, program manager at the Directorate of Strategic Weapons UK Ministry of Defense (Malcom, CSIS a collection of papers from the 2008 PONI Conference, “Opportunities and Risks for Future Stockpile Decisions: The Technical Challenge,” <http://csis.org/images/stories/poni/090421_collection_of_conference_papers_2008.pdf>.)

Staffing our nuclear deterrent programs will increasingly become more important for a number of reasons. Firstly, the numbers of staff who actually were involved at the time of underground tests is rapidly diminishing. Their knowledge is irreplaceable, and therefore must be preserved. It has been quite often the case where the personal knowledge gained through practical experiences of production processes is of critical importance. Therefore, it is not just a case of archiving produced documentation. The hands-on, practical, knowledge must also be saved for future reference. US Secretary of Defence Robert Gates highlighted the problem in a speech delivered in October 2008. “Half of our nuclear lab scientists are over 50 years old and many of those under 50 have limited or no involvement in the design and development of a nuclear weapon.” Secondly, the challenge exists of recruiting the best and brightest into the nuclear deterrent in the face of a resurgent civil nuclear power generation program. Many opportunities are likely to arise in the near future, which may also be attractive to those currently employed in the deterrent program. Sufficiently interesting and rewarding work must be available to retain our existing skills base, whilst at the same time allowing the training of the next generation of weapon designers and engineers.

# RRW k2 Nuclear Weapons Labs 3/3

**Interesting work like testing and modernization are key to keep top scientists at labs and recruit the best talent --- this is necessary for nuclear forensics skills.**

**Yeats, 8**  - Research assistant for the CSIS International Security Program (ISP) and the program manager for the defense and national security team (Jessica, CSIS a collection of papers from the 2008 PONI Conference Series, “Technical Nuclear Forensics and the future of the Weapon Laboratories”, http://csis.org/images/stories/poni/090421\_collection\_of\_conference\_papers\_2008.pdf)

If the best and brightest nuclear physicists and nuclear chemists were driven by the same principles as construction workers, the “make work” allegation would be cause to oppose the initiative. They are not. Scientific communities are energized by curiosity and when the prospect of discovery is closed off, they dry up. If the complex is to sustain the requisite level of competence to meet President Obama’s commitment to maintain a safe, secure and reliable deterrent as long as nuclear weapons exist (a challenge that increases as the stockpile shrinks28) the labs must be a source of continuous scientific advancement. This dynamic inverts Washington’s assumption that lab requirements are commensurate with military requirements: the demands on future generations of scientists increase as the diminishing size and saliency of the arsenal makes careers at the weapons labs less interesting and less meaningful. As the National Research Council reports: Another threat to national security is the… decline in the number of U.S. physical science Ph.D.'s and the increasing competition from industry… there is a risk that talent will rapidly be lost… Historically, recruitment has been greatly enhanced by the strong basic science efforts… As the weapons program… funds dry up, so too does the conduit for drawing new talent into the laboratories.29 But this is not a ‘coherent and compelling’ rationale for modernization; it is mired in layers of complexity for which Congress has no appetite. When the pressing nuclear priorities are proliferation, nuclear terrorism and a resurgent Russia, abstract arguments about the requirements for producing PhDs are non-sequiturs. And with shrinking resources to manage an expanding set of time-sensitive, high-profile challenges, ‘making weapons design fun again’ is unlikely to gain political salience. Driven by the need to align NNSA funding requests with widely perceived national priorities, the June 2008 Laboratory Vision for the Future explicitly broadened the lab mission to “encompass a spectrum” of national security responsibilities.30 Unfortunately, this mission creep is often taken as a justification for programmatic investments in non-weapons programs (e.g., Graham Allison’s implicit proposal) while neglecting the core science efforts that sustain them. As the National Research Council reports, this approach accelerates atrophy across the full spectrum of lab capabilities: …activities that maintain the core competencies and provide much of the innovation appear to be in significant decline at Livermore, Los Alamos, and Sandia. This decline has been driven by rather dramatic changes in the way the laboratories are funded: Increasingly, support is directed narrowly to specific programmatic efforts... This has led to the closing of a number of smaller facilities that previously helped to provide the physical data needed for weapons design. It is a troubling trend given that basic science and physical data….allowed laboratory scientists to pursue new basic research directions and to identify new programmatic possibilities. To survive, the weapons labs must articulate a raison d’être that simultaneously satisfies two conditions: i. Fulfills a mission aligned with the most urgent U.S. national security priorities, and; ii. Provides a technical and political imperative to provide the appropriate level of laboratory resources for sustaining nuclear weapons skills “as long as nuclear weapons exist.” The technical nuclear forensics program, and its associated human infrastructure requirements, is an important example of a laboratory capability that satisfies both. In so far as these broadly supported, vital national assets (counterterrorism, nonproliferation, high performance computing, energy and medicinal research, etc) are technically leveraged on the weapons program, the weapons program could be politically leveraged upon the salience of the capabilities it hosts. III. Blame the Messenger Shifting the blame to Congress for neglecting the labs is misplaced and counterproductive. The Department of Energy and the Department of Defense have not effectively communicated what is at stake to the relevant appropriations committees. Instead, the arguments in favor of modernization have been inconsistent, disjointed, and permeated by antiquated, Cold-War rationales that lend legitimacy to the concerns voiced by the arms control community. For example, if RRW “provides no new military capability”32 why should the argument that “Russia and China continue to attach greater significance to their nuclear forces and their modernization” 33 be a relevant consideration? The 2008 “white paper” by the Secretary of Defense and the Secretary of Energy illustrates the campaign’s lack of coherence. The “essential and enduring”34 role of U.S.nuclear weapons reads like an oath, belied by the report’s portrayal of the emerging security environment. Likewise, despite repeated assertions about the importance placed by U.S. allies on “performance margins”35 there is no stated correlation between this feature of the RRW and the anticipated requirements of the future security environment. The executive summary defines the “primary national security challenge” as the “nexus of violent extremists and regional states of concern that have, or seek to attain, weapons of mass destruction.”36 A few pages later, the U.S. declaratory policy is reiterated to hold state sponsors “accountable for the actions of their proxies,”37 yet the report includes not a word on how accountability is determined. This omission is not only reckless, it does a disservice to the labs; technical nuclear forensics is the logical and scientific nexus between the first half of the report (emerging security environment) and the second half (modernization advocacy). The attribution capability required to dissuade the “primary” threat to national security calls upon the same “critical personnel with experience in design and testing”38 that DoE and DoD claim the RRW would replace. These dots must be connected. While competing allegiances form bitter, ideological divides in Washington, the nuclear weapons program and the nonproliferation programs derive their strength from the same body of scientists at the labs. If either set of capabilities are to survive, policy leadership on both sides of the divide must recognize their co-dependence and exploit the opportunities for non-zero-sum solutions. The arms control community has to recognize the hand that feeds it; the weapons community has to relax the grip of Cold War-thinking and end their nostalgia for a laboratory mission that no longer aligns with national priorities.

# Attribution Solves Terrorism

**Deterring even a few actors stops a nuclear terror attack --- attribution deters state sponsorship and encourages cleaning up loose nukes.**

**Miller, 7** – PhD, Assistant Professor Experimental Nuclear & Particle Physics at U Washington (March, Michael, Nonproliferation Review 14.1, “NUCLEAR ATTRIBUTION AS DETERRENCE,”, informaworld)

Among the many actors involved in a possible nuclear terrorist incident, only a few can probably be deterred. But deterring even a few actors may be enough to stop a nuclear attack, and so deterrence should clearly play a role in determining the future of the nuclear attribution program. We now come to the central question posed in this article, whether and to what extent attribution capabilities can play a role in deterring a future nuclear terrorist incident. Let us look at four places where deterrent logic might enter the mind of some of the actors. . Nuclear attribution might keep a rational government (or more specifically, a state leader) from clandestinely supplying nuclear material to terrorists in exchange for money or loyalty. . A state might hold its weapons more securely if leaders knew they would be held responsible for any material that leaked from their nuclear weapons complex. . A rogue actor within a state\*a scientist or general\*might be deterred from assisting a terrorist organization if it was known that the material could be traced back and that such an enterprise was unlikely to be profitable. . Finally, a terrorist group itself might be deterred from pursuing nuclear terrorism if it believed the chances of failure were high enough. The first three of these deterrence scenarios definitely rely on a post-explosion attribution capability and its effectiveness, and these will be considered for the rest of the paper. The fourth, deterrence by denial, requires a fairly effective interdiction capacity and the ability to trace the weapon once it has been interdicted. Such interdiction capability would also be useful in the other cases and is being vigorously pursued by the international community, though the technical challenge of detecting smuggled nuclear material is daunting.

**Attribution deters peripheral actors --- this prevents nuclear terrorism.**

**Miller, 7** – PhD, Assistant Professor Experimental Nuclear & Particle Physics at U Washington (March, Michael, Nonproliferation Review 14.1, “NUCLEAR ATTRIBUTION AS DETERRENCE,”, informaworld)

There is a fifth situation, not frequently a focus of the literature on deterring terrorists, in which peripheral actors who can help terrorists are deterred. Paul Davis and Brian Jenkins address this topic briefly, noting that one might attempt to catch the financiers of terrorism and deter them, and Doron Almog sees this as a subset of community punishment that can deter the roots of terrorism.43 Deterrence of third parties is not frequently addressed because most suicidal terrorism requires few third parties. Even the 9/11 plot only needed $500,000, a sum that can be easily laundered. But nuclear terrorism is different. In order to pair buyers and sellers, intermediaries would be required, a requirement that has helped catch nuclear smugglers over the past 15 years. More importantly, a purchased nuclear weapon would require a large amount of money, and assembling a nuclear weapon would require at least some expertise, ideally from a nuclear expert. These collaborators are the easiest to deter. Of the five possible scenarios, only two\*retribution against those close to the terrorists and punishment of the intermediate actors\*can be assisted by nuclear attribution, so I will analyze those situations. To deter a nuclear terrorist with retribution, the threat would have to be announced in advance. While Al Qaeda and other terrorist organizations know that terrorist acts will prompt retaliation against their group, at least after 9/11, there have been few cases of attack or punishment on the families of the perpetrators (indeed, in the days immediately following the 9/11 attacks, the Bush administration, for reasons it has never fully explained, worked with the government of Saudi Arabia to facilitate the evacuation from the United States of members of Osama bin Laden’s extended family). In addition, attribution would have to be much better established (or the group would have to claim credit) if terrorists are to expect the weapon to be traced back to the person or people who set it off. Existing attribution capabilities are designed to trace the weapon to the country and reactor of origin; they tell nothing about who was in possession of the weapon at the time of the explosion Other information such as the nature of the container where the explosion occurred might be available, but this would have to be paired with human or signals intelligence to pinpoint a specific. terrorist. And if the response from countries where these terrorists had resided was slow or unenthusiastic, the investigation would take long enough that broad retaliation would be perceived as killing or punishing innocent victims. Israel has this problem even for fast and well-justified retaliatory attacks, such as targeted assassinations and demolishing houses. Most importantly, however, the Israeli model of retaliation is described as ‘‘cumulative deterrence’’ for a reason.44 Individual attacks are only discouraged because influential people within the community know the consequences of each attack. Any act of nuclear terror would most likely be a singular event. Finally, Israeli deterrence has not yet proved its success over the long term, and any strategy to deter nuclear terrorism would hope for a better success rate than Israel has demonstrated. Deterring peripheral actors is much more plausible, but only with credible attribution and stringent standards of punishment. Widely publicizing fictional accounts such as Sum of All Fears or Last Best Chance might be effective as well, because all the collaborators in these movies get their throats slit by the terrorists. Credible attribution has the same standards discussed above, but even more capability in human intelligence would be required. Some of this may already exist in Russia through the Federal Service of Security (FSB), which has foiled numerous smuggling attempts and may serve as a formidable threat for any potential nuclear collaborator.45 Since U.S. capabilities for human intelligence pertaining to Al Qaeda have lately been found lacking, and since it is difficult to penetrate terrorist cells, this capability, or at least its appearance, must be improved to present a credible deterrent.

# Nuclear Terrorism Impacts

**Nuclear terrorism collapses the global economy and increases global poverty.**

**Allison, 8** – professor of Government at Harvard, Director at Belfer Center for Science and International Affairs at Kennedy School of Government, former Dean at Kennedy School of Government (Nov/Dec 2008, Graham, Technology Review, “Nuclear Deterrence in the Age of Nuclear Terrorism”http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/terrorism/PDFs/Allison,%20Graham.%20Nuclear%20Deterrence%20in%20the%20Age%20of%20Nuclear%20Terrorism..pdf)

Consider the consequences if just one nuclear bomb exploded in just one U.S. city. The immediate reaction would be to block all entry points to prevent another bomb from reaching its target, disrupting the global fl ow of raw materials and manufactured goods. Vital markets for international products would disappear, and financial markets would crash. Researchers at Rand, a think tank funded by the U.S. government, have estimated that a nuclear explosion at the Port of Long Beach, CA, would cause immediate indirect costs of more than $1 trillion worldwide and that shutting down U.S. ports would cut world trade by 7.5 percent. The total, long-term economic eff ects would be much worse, however, and would reverberate well beyond the developed world. As former U.N. secretary-general Kofi Annan has warned, a nuclear terrorist attack would not only “cause widespread death and destruction” but “thrust tens of millions of people into dire poverty.” This would, he observed, create “a second death toll throughout the developing world.”

# A2: Attribution Fails

**Attribution makes retaliation credible --- scientists are developing the tech now and it’s feasible.**

**Levi, 4** – physicist, science and technology policy fellow in foreign policy studies at the Brookings Institution (Spring 4, Michael, “Deterring Nuclear Terrorism: Contrary to Popular Belief, with a Little Technological Innovation, Deterrence Can Become a Useful Strategy against Terrorist Use of Nuclear Weapons,” Issues in Science and Technology Vol 20)

Finding a successful deterrence strategy requires that we make retaliatory action as certain as possible; there must be little room for the adversary to gamble that it might transfer nuclear weapons without suffering. Ideally, the United States would identify nuclear transfers when they occurred and punish the participants accordingly. However, the difficulty of intercepting nuclear transfers might embolden enemies to attempt to evade such a system. Moreover, enemies might believe that even if a transfer were detected, the United States would lack the resolve to punish them. Pyongyang, for example, with more than 10,000 artillery pieces poised for counterattack against Seoul, might conclude that the United States would not follow through on its retaliatory threats were it to intercept a North Korean bomb that had not yet been detonated. Focusing on actual attacks rather than on transfers would solve both of these problems. Few doubt the U.S. resolve to retaliate were a nuclear bomb to be detonated in a U.S. city. And unlike shadowy transfers of nuclear material, a nuclear attack would surely be noticed. The missing link, which scientists must provide, is the ability to attribute a nuclear weapon to its state source after an attack. On its face, this might appear impossible--during a nuclear detonation, the weapon's fissile core of plutonium or uranium would be vaporized and transmuted, flung outward with the force of 20,000 tons of TNT. And yet, surprisingly, such a cataclysmic event would still leave behind traces from which the original bomb's characteristics might be reconstructed. Already, scientists at the nation's three principal nuclear weapons laboratories are working on the problem. They have decades of experience to build on. Before 1963, when the world ceased testing nuclear weapons in the atmosphere, the United States developed techniques to infer details of Soviet bombs by examining their fallout, which they could detect from far away. By positing a range of possible bomb designs, technicians could infer details about the fissile materials-plutonium or uranium--used in the Soviet bombs, along with some of the weapons' design details. (Presumably, the Soviets did the same to spy on the United States; thus, the two countries might cooperate to further develop attribution abilities.) Some of that expertise is still maintained, particularly in the conjunction with the Nuclear Emergency Search Teams, whose task is to respond to nuclear terrorist incidents. Building on that foundation will require training a new generation of scientists in forensic techniques that were abandoned long ago. It will also require an effort by laboratory scientists to imagine weapon designs that terrorists or rogues might use. (Such designs could be simulated using the Department of Energy's Advanced Supercomputing Initiative and would not require nuclear testing to validate.) It would be wise to pursue much of this in a limited multilateral environment, thus helping reassure the world that our attributions are sound and unbiased. By itself, however, the ability to infer a bomb's composition will not be enough. To successfully attribute an attack, there must be a state fingerprint to match it to. Knowing any characteristics of enemy weapons will be useful, but it will be particularly helpful to know the finer details of others' plutonium and uranium. Those two elements come in various isotopes, and a given sample of either metal will combine several of those isotopes in hard-to-alter combinations. To some degree, one can infer those characteristics from the design details of the enemy's production facilities and from the operating histories of its plants. In other cases, such as in Korea in the 1990s, special access will make it possible to measure the composition of a country's uranium or plutonium. If the isotopic details of a weapon are known, attributing it will be much easier. It may be possible to go further by exploiting states' interest in not being wrongly identified as having originated a nuclear attack. In conjunction with strengthened International Atomic Energy Agency safeguards, states could be required to submit detailed isotopic data on the nuclear materials they produce and to submit to the data's verification. If such states had pure intentions, this would help exclude them from blame were a future terrorist attack to occur; were their motives more suspect, this would provide the world a hedge against their future breakout. So far, states have been loath to take such actions, as they could require compromising sensitive military and commercial data. But the tradeoffs in confronting terrorism--in particular, in the immediate aftermath of an attack--might prompt many to reconsider.

# RRW Undermines Nuclear Test Ban 1/2

**RRW undermines test ban treaties**

**Marsh, 9 – published physicist, former consultant to the DOD on strategic nuclear policy, former member of the US START delegation in Geneva** (Gerald E., “Weapons: existing stockpile can be safely maintained,” 11/12/09, Nature: International weekly journal of science)

You are correct to state that the Reliable Replacement Warhead (RRW) programme would do nothing to improve the reliability of the US nuclear arsenal (*Nature* 461, 11; 2009). It is possible that the “powerful figures within Obama’s own administration” are being advised by people associated with the weapons laboratories who may have an interest in derailing a ratification of the Comprehensive Test Ban Treaty. Existing nuclear weapons are already very reliable and their safety features are adequate, as a series of reports by R. E. Kidder of Lawrence Livermore National Laboratory affirmed. (For further details, see go.nature.com/yCmG4W.) As US weapons are comfortably tolerant of small variations that may occur in materials or the manufacturing process, they can be remanufactured without explosive proof-testing. Those in favour of the RRW claim that it would not need nuclear testing. This is because the RRW would be composed of an existing primary stage, which is where many of the uncertainties of nuclear weapons design reside, and probably also an existing secondary stage. However, very few people outside the weapons-design community would trust deployment of a weapon that has not been tested. As a result, the pressure to test any RRW could well derail the ratification of the test ban treaty. Failing to ratify this treaty (not to mention resuming nuclear testing) would do great harm to US national interests as well as those of the world at large. Others argue that the RRW programme is needed to maintain expertise in weapons physics. This can be done without the RRW. There is no need for it or any continued nuclear proof-testing.

**RRW undermines test ban treaties**

**Nature: International weekly journal of science, 9** (Editorial, “Dangerous nuclear whispers,” 9/3/09)

During the administration of President George W. Bush, however, some weapons scientists sought to move beyond this post-cold-war caretaker role, and pushed for the development of low-yield and earth-penetrating nuclear weapons that could be used against conventional military targets. Congress halted those projects for fear they would rekindle the arms race. So the scientists came up with a supposedly more benign warhead concept. Dubbed the Reliable Replacement Warhead, it would require less maintenance than existing weapons, and would last longer. One argument was that the plutonium in current-generation weapons was degrading because of its own radioactivity, and that this, over time, would make the devices too unreliable to use. Another, which Gates repeated in a speech last October, was that the new weapons would not require testing. Ultimately, he asserted, such devices would allow the United States to further lower its nuclear stockpile. Yet such arguments are spurious. Studies by the weapons labs themselves show that the nuclear material within existing devices will last for decades (see Nature 444, 660–661; 2006). Experienced nuclear-weapons scientists believe that it would be irresponsible to deploy a warhead without testing it first. And there is no reason that the stockpile could not be reduced without building a new nuclear warhead. Gates is now leading a major administration review of the entire nuclear-weapons complex, including the reliable-warhead proposal. That review comes at a crucial time for its non-proliferation agenda. Obama is currently pursuing Senate ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), an international prohibition of nuclear-weapons testing. Next year, his administration will also take part in an international review of the Non-Proliferation Treaty, the main international tool to limit the spread of nuclear weapons. For the United States to be developing a new warhead during this period would look to other nations like rank hypocrisy. Moreover, the replacement programme's very conceit, that existing warheads may not be reliable for much longer, will probably fuel conservative resistance to ratification of the CTBT. Hopefully, the nuclear review will decide against recommending any sort of replacement programme, 'reliable' or otherwise. But if it does not, then Obama should have the courage to reject the plan. The US nuclear stockpile is more than adequate to defend the nation's territory and that of its allies for decades to come. If Obama truly wishes to lead the world in nuclear disarmament, then he should do so with the warheads the nation already has.

**RRW undermines the NPT and causes testing.**

**ANA, 8** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead,” Spring, <http://www.ananuclear.org/Portals/0/documents/ANA%20RRW%20final.pdf>)

In contrast to Congress’s vision, the National Nuclear Security Administration (NNSA) sees RRW as an opportunity to create new designs for new military missions. From either perspective, RRW is a “nukes forever” program, which violates the mandate to disarm nuclear stockpiles under the Non-Proliferation Treaty (NPT). It may actually increase pressure to resume nuclear testing because of uncertainty over how new weapon designs will perform. In fact, the existing stockpile is already highly reliable.

# RRW Undermines Nuclear Test Ban 2/2

**RRW kills the NPT.**

**ANA, 8** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead,” Spring, <http://www.ananuclear.org/Portals/0/documents/ANA%20RRW%20final.pdf>)

NUCLEAR PROLIFERATION IMPACTS Complex Transformation signals to the rest of the world that the United States is rebuilding a Cold War-size production capability. The U.S. cannot expect to convince nations such as North Korea and Iran to give up their nuclear programs while it plans for the production of a new generation of weapons. This provocative policy would increase the global nuclear danger, making our communities less safe. NNSA’s Complex Transformation and the Reliable Replacement Warhead program are designed to indefinitely preserve nuclear weapons. This agenda is contrary to the Nuclear Nonproliferation Treaty (NPT), which requires signatories to negotiate in good faith the elimination of nuclear arsenals. The programs also undermine the vision of former Secretary of State Henry Kissinger, former Senator Sam Nunn, and others who have recently called for a world free of nuclear weapons under the framework of the NPT to increase national security.

**RRW violates the NPT**

**ANA, 7** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead Program,” http://www.ananuclear.org/Portals/0/documents/Fact%20Sheets/RRW%20FS%202007.pdf, Spring)

RRW Violates U.S. Obligations Under the Nuclear Non-Proliferation Treaty (NPT) A program designed to indefinitely preserve nuclear weapons is contrary to the NPT, which requires all signatories to negotiate in good faith the elimination of their nuclear arsenals. For the sake of national and global security, the NPT should be universally strengthened, not undermined. Former Secretary of State Henry Kissinger, former Senator Sam Nunn, and others have recently called for a world free of nuclear weapons under the framework of the NPT to increase national security.

**RRW will be used to redesign weapons and abandon the NPT**

**Snodgrass, 6** – LA Monitor Assistant Editor (Rodger)

The reasons for the scrutiny have to do with uncertainty and change, but also with concerns about just how new and how reliable the RRW will be. Its novelties may affect not only national security but also the fraying international arms control regime. At the same time RRW, featuring characteristics more tailored to current needs than the rapidly aging weapons now in the stockpile, has become a pivotal factor in restructuring the weapons complex. At a press conference this week in Washington, D.C, on the Department of Energy budget request, a reporter asked what would be happening with the Reliable Replacement Warhead. "Remember, this is research so we don't know that we can do all the things that we hope we can do, but if so, we think that it has a great deal of possibility of improving long-term safety, security, and reliability, and reducing the need for nuclear testing and helping to transform the infrastructure," said Ambassador Linton Brooks, head of the national nuclear weapons program. The first phase of RRW involves a nuclear weapon re-design competition between Los Alamos National Laboratory and Lawrence Livermore National Laboratory, with Sandia National Laboratories providing a supportive role to the designers. One objection raised by critics of the program, summed up in a recent Congressional Research Service report, has to do with fears that the goals of the Nuclear Nonproliferation Treaty may be abandoned. Article IV calls for all parties, including the US, to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament."

# RRW Stops Global Disarm

RRW makes disarm impossible threatening extinction.   
WSJ, 7. – The Wall Street Journal (“Let’s Not Play the Deadly Deterrent Game,” Lexis)

The only path to safety -- as former secretaries of state Henry Kissinger and George Shultz, former Sen. Sam Nunn, and former Secretary of Defense William Perry noted in the Journal last January -- is the path to disarmament, and an enduring stockpile won't get us there. Nothing else Mr. Brooks can say will overcome that simple fact, and his arguments in favor of the RRW even lack the virtue of being supported by facts. "Whole classes of U.S. weapons have been eliminated," he says. What he doesn't add is -- but only when they were deemed no longer useful or were replaced by alternative weapons. "The number of nuclear weapons dismantled this year will increase by 50% over last year," he says, neglecting to mention that we have a 15-year backlog of bombs awaiting dismantlement, and capacity issues at the Y12 Plant in Oak Ridge and safety concerns at Pantex limited the number of bombs dismantled in 2006. "We're reducing the deployed stockpile to 2,200 by 2012," he says, failing to point out this falls short of the commitments of the Moscow Treaty (1,700 is the low end of the treaty's goal) and the missiles being withdrawn from the field are not scheduled for dismantlement; they are merely being shelved in a strategic reserve. So, fellow readers, make no mistake. If Congress funds the RRW, it is funding the proliferation of weapons of mass destruction. Agree with Linton Brooks at your peril. Literally.

# RRW → Nuclear Testing 1/3

**RRW makes testing inevitable, sparking a new round of prolif.**

**Sharpe, 7** – Herbert Scoville Jr. Place Fellow at the Center for Arms Control and Non-Proliferation (Travis, “No More New Nukes, Please: U.S. Nuclear Supremacy Couldn’t Prevent 9/11,” <http://www.counterpunch.org/sharpe01052007.html>)

RRW could lead the United States to test a new nuclear weapon, something we haven't done since 1992. Although NWC officials claim that computer simulations will make testing unnecessary, it is unlikely that political and military leaders will pin the safety of hundreds of millions of Americans on an untested device. Resumed U.S. testing could lead other countries to buck the international testing ban and enhance their own nuclear capabilities, essentially opening Pandora's Box. The RRW program could also severely undermine global nonproliferation efforts. The 1968 Nuclear Nonproliferation Treaty requires countries to initiate disarmament "at an early date." If the United States builds new weapons and ignores its obligation to work towards disarmament, other states may take it as a sign of bad faith and try to acquire nuclear weapons too. New American weapons will do little to slow the emerging nuclear programs of Iran and North Korea. Both Iranian President Mahmoud Ahmadinejad and North Korean leader Kim Jong Il cite the overwhelming superiority of the American nuclear arsenal as a justification for their aggressive nuclear brinksmanship. If we start building even more powerful weapons, the two countries will feel as though they have no choice but to fully go nuclear. U.S. nuclear supremacy failed to prevent 9/11, and a new generation of weapons will not stop the next terrorist attack. Organizations like al Qaida are unlikely to stop their quest for nuclear devices just because the United States constructs fancier warheads. RRW will introduce many dangerous new possibilities, but will fail to solve any of our fundamental challenges. Our current stockpile of over 10,000 warheads-every one of which is capable of inflicting massive damage-more than exceeds our national security requirements. The burden of being the world's only superpower sometimes weighs heavily on all Americans, but building a new generation of nuclear weapons is not a logical response. Instead of carelessly spending hundreds of billions of dollars on warheads that actually would make America less safe, we should strengthen global nonproliferation standards and work with other countries to create an international environment where the possession of nuclear weapons is unnecessary.

RRW leads to widespread resumption of nuclear testing

Vartabedian, 6 (Ralph, “Rival U.S. Labs in Arms Race to Build Safer Nuclear Bomb,” 6/13, Los Angeles Times)

The new bomb would have to be built and deployed without testing. The U.S. last conducted an underground test in Nevada in 1992 and has since imposed a moratorium on new testing. But without a single test, doubts about the new bomb's reliability would eventually grow, said Sidney Drell, former director of Stanford University's Linear Accelerator Center and a longtime advisor to the Energy Department. "If anybody thinks we are going to be designing new warheads and not doing testing, I don't know what they are smoking," Drell said. "I don't know of a general, an admiral, a president or anybody in responsibility who would take an untested new weapon that is different from the ones in our stockpile and rely on it without resuming testing." If the U.S. breaks the moratorium on testing, then Russia, China, India and Pakistan, if not Britain and France, probably would conduct tests as well, said Philip Coyle, former assistant secretary of Defense and former deputy director of Livermore. Those countries would gain more information from testing than would the U.S., which has invested heavily in scientific research as an alternative to testing. Physicist Richard Garwin, who helped design the first hydrogen bomb in the early 1950s and remains a leading authority on nuclear weapons, opposes the new bomb and is worried it would lead to new testing. "We don't need it," he said. "No science will be able to keep these political doubts away."

# RRW → Nuclear Testing 2/3

RRW would lead to nuclear testing – their evidence is only a ploy to develop RRW

Civiak, 6 – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

Linton Brooks maintains that the initial goal of the RRW program is to investigate whether the laboratories can develop and certify an RRW, with the qualities they desire, without full-scale nuclear testing. Experts at the weapons labs apparently believe they can. Nevertheless, once an RRW is developed, it is likely that military planners in the DoD will require a nuclear test before they accept it into the stockpile. The NNSA Director of Policy and Planning, John Harvey, acknowledges that possibility. Harvey notes, ‘’Our goal is to carry out this program without the need for nuclear testing . . . But there’s no guarantees in this business, and I can’t prove to you that I can do that right now.’’23 Even more telling, former Deputy Secretary of Defense, John Hamre, who believes that new nuclear warheads will eventually be needed, has stated, “I do believe we should test the new weapons to demonstrate to the world that they are credible.”24 A Machiavellian might say that lab experts, who claim they can develop an RRW without testing, are attempting a bait and switch trick. In this view, the labs know they will likely have to test an RRW before it enters the stockpile, but they are claiming the program’s goal is to develop new weapons, without testing, as the bait before the switch. The labs have already been guilty of bait and switch with the Stockpile Stewardship program. Throughout the 1990s, the labs claimed Stockpile Stewardship was needed to maintain the stockpile, but could not be used to enhance or build new nuclear weapons. Since then, NNSA has enhanced the B-61 nuclear bomb to allow it to penetrate into the earth before detonating and now routinely enhances weapons capabilities under the Life Extension Program. The labs either stretched the truth when they said that Stockpile Stewardship would never allow them to design new warheads without nuclear testing or they are stretching the truth now when they say they can. If the U.S. were to conduct even a single nuclear weapons test, it would surely lead other nations to resume nuclear testing and could lead to resumption of a fullscale nuclear weapons arms race. If testing is resumed, the damage to the broader non-proliferation regime, and thus to U.S. security interests, would far exceed any conceivable advantage the U.S. could gain from new nuclear weapons.

**New weapons increase pressure for nuclear testing**

**Young, 7 – Washington Representative, Union of Concerned Scientists (Stephen, “New Nuclear Weapons: Reliable Replacement Warhead (RRW),” Union of Concerned Scientists,** <http://www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_weapons/technical_issues/new-nuclear-weapons-reliable.html>)

**New weapons will increase pressure for nuclear testing.** The DOE maintains that these new warheads can be deployed without conducting nuclear explosive tests. However, the United States has never certified and deployed a new nuclear warhead design without first conducting a series of full-scale nuclear explosive proof tests. Many weapons scientists are skeptical that a new warhead could be certified to be reliable and safe with the same level of confidence as our existing weapons without nuclear testing. In any case, there would be tremendous political and military pressure to test any new nuclear designs, if only to reassure future U.S. politicians, the military and our allies that the new warheads will work as designed.

**Manufacturing new pits through RRW would cause testing.**

**Medalia, 9** – Specialist in Nuclear Weapons Policy, Congressional Research Service (Jonathan, “The Reliable Replacement Warhead Program: Background and Current Developments,” 7/27/09, <http://www.fas.org/sgp/crs/nuke/RL32929.pdf>)

Advocates of LEP have high confidence in current warheads, and believe that this confidence is growing despite the absence of testing, as noted earlier. The JASON study on pit aging, in this view, delays by decades the time when pits would have to be manufactured for current warheads, thus delaying a potentially large risk factor that could lead to testing. In contrast, RRW missile warheads, such as WR1, would require the manufacture of new pits, and any new product runs the risk of design or manufacturing defects, which in this case could lead to testing.

# RRW → Nuclear Testing 3/3

**Even if it doesn’t require it, RRW inherently will lead to new testing**

**Garwin, 6** – IBM Fellow Emeritus, The Watson Research Center (Richard L., 4/25/06, “Reliable Replacement Warhead: Does the United States need a new breed of nuclear weapon?” Arms Control Association, <http://www.armscontrol.org/events/20060425_RRW_Transcript.asp>)

My principle fear is that all the technical people, including me, will, at some time, five years from now, agree that the RRW design is sufficiently conservative that it can be put into the stockpile with a high reliability of working when it is called upon to work**. But** after we have a stockpile with [reliable replacement warheads] replacing a lot of the old tested weapons, how many in Congress does it take, or in the military, to say, "nobody has ever tested this design of nuclear weapon and I will not be responsible for managing the stockpile and assuring that it will work during wartime without at least one test." So I worry not that it's necessary but that it's almost inevitable that a generation of replacement warheads that are not as identical as possible to the ones that we have in the inventory will sooner or later call forth a politically demanded nuclear test. And that will open the floodgates to the Russians testing and the Chinese testing. The Chinese can make real improvements in their nuclear weaponry with a few tests because they've had only 43 compared with our more than a thousand nuclear tests. Planning ahead, these folks (the Chinese and the Russians) are not going to wait, they will make the same calculation I do; they will prepare to test. We will see them preparing to test. We will not allow them to test first, and so we will have, for absolutely no good reason and much to our security detriment, an outbreak of nuclear testing that will then legitimize the acquisition of nuclear weapons by those people who don't have any**.**

**Even RRW advocates concede testing may be necessary.**

**Broad, 5** – Staff Writer (“U.S. Redesigning Atomic Weapons, 2/7/05, The New York Times, <http://www.nytimes.com/2005/02/07/science/07bomb.html>)

The current goal of the program, Dr. Harvey said, is to "relax some of the design constraints imposed on the cold war systems." He added that a possible area of investigation was using more uranium than plutonium, a finicky metal that is chemically reactive. He said the new designs would also stress easier manufacturing techniques and avoid hazardous and hard-to-find materials. "Our goal is to carry out this program without the need for nuclear testing," Dr. Harvey said. "But there's no guarantees in this business, and I can't prove to you that I can do that right now." Another official, speaking on the condition of anonymity because the topic is politically delicate, said that such testing would come only as a last resort and that the Bush administration's policy was to maintain the moratorium.

**Independent reviews confirm.**

**Lewis, 8** – Director of the Nuclear Strategy and Nonproliferation Initiative at the New America Foundation (Jeffrey, December, “After the Reliable Replacement Warhead: What’s Next for the U.S. Nuclear Arsenal” <http://www.armscontrol.org/act/2008_12/Lewis>)

This conception significantly exceeded the scope and purpose of the original congressional language.[3] In doing so, it introduced unappealing technical and political risks, as well as significant additional costs. Although the stated purpose of the program was to reduce the need for nuclear explosive testing, independent reviews could not assure that the NNSA would be able to certify WR1 without such tests. Furthermore, although administration officials claimed that a more reliable warhead would allow a significant reduction in stockpiled nuclear weapons, the perception that the United States was building a “new” nuclear weapon for the first time since the end of the Cold War overshadowed the administration’s announcement that it would reduce the stockpile to levels not seen since the Eisenhower administration. In response, Congress gave the RRW program a cold reception, culminating in the denial of funding for the program in each of the past two years.

**RRW changes political perceptions of the stockpile – guarantees testing even if it’s not necessary.**

**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

Almost 15 years ago, President George H. W. Bush determined that the United States had no need to continue to design new nuclear weapons. This policy made it possible for the United States to push for an end to the development and testing of new nuclear weapons by all countries and to negotiate the CTBT. Although the Senate has not ratified the CTBT, the global moratorium on nuclear testing still stands and has prevented other countries, such as China, from advancing their own thermonuclear designs. A great danger, as Congress and other policymakers consider the merits of the RRW program, is that they may accept the false premise that the U.S. nuclear deterrent is already degrading. If this happens, there will be tremendous pressure for the United States to resume underground nuclear testing whether or not a more reliable warhead could technically be developed without testing.

# Nuclear Testing Impacts – Generic

**Nuclear testing leads to extinction**

**Myers, 1** (Kevin, “Thrombosis Will Save Ayers Rock, 1/14/01, Sunday Telegraph, Lexis)

IT NOW seems likely that some 2,000 passengers die in Britain every year because of the medical consequences of long-haul flights. Proof, once again, that we have corporately chosen to ignore what we find inconvenient. Laymen would have been unaware of the death-rate due to deep vein thrombosis (DVT), but the aviation industry must have known something about it, even though death usually occurs after the victim has left the airport. Since confronting that problem would create other problems, an unspoken and actuarial consensus seems to have emerged that certain passengers should be allowed to die.  This refusal to see an obvious problem is so commonplace, individually and institutionally, that anger about it is not merely useless, it is hypocritical. Taking risks, and then denying the possible consequences of those risks, is a common human characteristic. We did it throughout the 20th century. Hundreds of thousands of people died on the roads because mankind surrendered the primacy of life to that of technology. **Atmospheric nuclear testing actually endanger**ed **the survival of human life on earth**. We turned cows into cannibals, and homosexuals' unprotected alimentary canals became playpens for perfect strangers.

# Nuclear Testing Impacts – Russia

**US testing causes Russian development of tactical nukes for Chechnya**

**Felgenhauer, 2** – Independent Defense Analyst (Pavel, “Bomb Makers’ Trade Union,” Moscow Times, 3/14/02, Lexis)

The deployment and possible use by the U.S. military of new battlefield nukes may drastically lower the nuclear threshold and trigger numerous local and regional nuclear wars in coming decades. One might think that Russia would strongly oppose such plans, since most of the potential targets are not far from its own borders. But in fact the Russian nuclear bomb makers have been for many years lobbying the Kremlin to deploy their own "surgical" battlefield nukes. In April 1999, the Security Council approved a concept for developing and using non-strategic low- and flexible-yield battlefield weapons. Nuclear Power Ministry plans speak, using exactly the same language as their U.S. counterparts, of making new low-yield bunker-busters and of surgical strikes by bombs with an explosive yield of "just" tens or hundreds of tons of TNT. Now the Nuclear Posture Review will give Russian bomb makers additional arguments to press ahead with testing and deployment. If the United States resumes real nuclear tests to make the new weapons, Russia will soon follow.  Informed sources say the Novaya Zemlya testing range in the Arctic is ready to resume testing whenever the authorities give the go-ahead.  If the United States actually uses its new surgical nukes in its war on terrorism, Russia may do the same in Chechnya or somewhere nearby. It seems bomb makers on both sides of the Atlantic are members of one trade union and are closely coordinating their moves. It's also clear they do not care much about the potential fallout.

**The impact is nuclear war**

**Hammond and Gutsche, 96** – Student in Russian and Soviet Studies Program at the University of Arizona; and Head of Departmnet of Russian and Slavic Languages (Sean and George, “Nuclear Conflict in the Urals?”, Russia Today, <http://w3.arizona.edu/~slavic/comment.html>

How do we account for the surprisingly moderate responses from Washington relating to this apparent violation of post-Soviet arms accords? One would have thought that the possibility of Moscow building an installation with nuclear offensive strike potential would have had a noticeable effect on a summit ostensibly focused on nuclear issues. But instead, virtually nothing happened (at least publicly) relating to the implications the existence of such a facility entails.  One hypothesis apparently not openly considered is that the facility has an extremely important military function in the post-Soviet era, and that the U.S. tacitly recognizes the legitimacy of this function. Briefly stated, this function relates to countering threats posed by the independence movement of Chechnya. It also entails considerations relating to ethnic tensions and anti-Russian movements in other areas of the country. Accordingly, the installation has several important purposes: 1. Countering the threat of nuclear attack by the Chechen rebels. The war with the Chechen rebels (which has already cost more than 30,000 lives and more than four billion dollars, and may cost Boris Yeltsin his reelection as president) could become even more ugly with the death of Dudayev and the ascendancy of Selimkhan Yandarbiyev, the new Chechen president and former literary scholar who has been characterized as a "hard liner" when it comes to dealing with Russia. That the rebels have nuclear capabilities can hardly be doubted. Indeed, the death of peace-worker Fred Cuny (New York Times Magazine, February 25) may be explained partially in terms of his discovery of a nuclear weapons storage facility in Chechnya. Moreover, Dudayev himself hinted in a Time Magazine interview that his forces had access to nuclear weapons. The Beloretsk facility clearly has the potential of pointing intermediate-range missiles at Chechen strongholds and storage sites. The capital Grozny is 900 miles from Yamantau Mountain.  2. Maintaining a secure outpost for military preparation and action. It is probably not even useful to distinguish between defensive and offensive when referring to Russia's internal ethnic enclaves and rivalries and the weaponry needed to deal with uprisings. The former Soviet countries surrounding Chechnya could not provide Russia with a nuclear launch site and Russia could not place a nuclear site anywhere directly north of Chechnya because the landscape is too flat and open. Any facility located here would be easily detectable and subject to terrorist attacks.  3. Providing a secure storage facility and experimental base for Russian nuclear arms design and production. Russia's continuing problems with storage and security are well known. And despite words in support of nuclear downsizing (and the paradox of Russia supplying nuclear materials to Islamic pro-Chechen countries), arms exports are an economic necessity. Russia did not bow to U.S. pressure on exports to Iran for a nuclear reactor, and will not in the future.  The Clinton administration is probably aware of all of these explanations. In fact, the "defensive" rationale neatly correlates with Pentagon arguments for installing theater missiles at sites outside the United States. We would be hypocrites to say that the Russians cannot have intermediate range weapons on their own territory while we can have them in other countries. The administration should, however, remain alert to the other issues, which represent enhancement of nuclear arsenals, not dismantlement. The Yeltsin administration, trying hard to satisfy nationalist sentiment and nostalgia for great-power status, will continue to insist that its security depends on the installation, although clearly there is more than security involved.  This is a very dangerous game. Even though the installation may be designed for an internal problem (and President Clinton's unfortunate analogy of the Chechen independence movement with our own Civil War gives credence to this view), a nuclear war with Chechnya could not fail to carry implications for non-Russian territories, apart from its horrible human and environmental costs in Russia. A Chechen attack launched on Moscow would require an immediate and massive Russian counterattack if Yeltsin is to have any hope of winning the election in June. Anything other than a decisive response would only underline how low Russia had fallen since its days as a world power. And it is the image of a strong and respected world power that Yeltsin has worked hard to create during the election campaign.

# Nuclear Testing Impacts – Arms Race

**One test triggers nuclear superpower arms races – outweighs any benefits of nuclear weapons.**

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

If the U.S. were to conduct even a single nuclear weapons test, it would surely lead other nations to resume nuclear testing and could lead to resumption of a full-scale nuclear weapons arms race. If testing is resumed, the damage to the broader non-proliferation regime, and thus to U.S. security interests, would far exceed any conceivable advantage the U.S. could gain from new nuclear weapons.

**RRW causes an arms race**

**ANA, 7** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead Program,” http://www.ananuclear.org/Portals/0/documents/Fact%20Sheets/RRW%20FS%202007.pdf, Spring)

Despite NNSA claims that the RRW program is needed to avoid future testing, new warhead designs may well increase internal pressures to resume full-scale nuclear tests before the military accepts them, with other countries likely following suit. Should RRW spawn a nuclear arms race, the costs would be incalculable.

# Nuclear Testing Impacts – Indo/Pak

**New testing causes Indo-Pak escalation**

**The Age, 2** (1/14/02, Melbourne, Australia, Lexis)

Finally, the world is close to a nuclear war on the Kashmir border. The US and USSR (except for Cuba in October, 1962) never clashed head-on in the Cold War. They always competed against each other in someone else's territory (such as Korea, Vietnam and Africa). But India and Pakistan have a common border. A flare-up over Kashmir that gets out of hand will automatically spill over into a retreat for one side on to its own territory, and in that moment of desperation there is a risk that nuclear weapons would be used. It is of little consolation to the next-of-kin to be told that their relatives were killed in an accidental use of nuclear weapons rather than in a deliberate attack. That sort of distinction has little importance for the dead. Meanwhile, if the US resumes nuclear testing, it has no credibility to tell the Indians and Pakistanis not to expand their own nuclear weapon stockpile. Nuclear testing debases the currency of diplomacy.

# 2NC Deterrence

**RRW kills nuclear deterrence.**

Mellos, 7 – Director of the Los Alamos Study Group (Greg, “The Reliable Replacement Warhead Program (RRW) Can’t Meet Congressional Objectives,” <http://www.lasg.org/RRW_talking_point_summary.pdf>)

“Support upgrading of Complex capabilities.” Design the proposed RRW in such a way as to require upgrading of warhead complex capabilities. A commitment to unnecessary warheads driving warhead complex expenditures and priorities describes a management fiasco, not an objective. Unnecessary upgrades are costs and burdens, not benefits. Making RRW and hence stockpile contingent upon successful complex reconstruction risks the U.S. nuclear deterrent. Warhead complex investments should instead focus on conservative, cost-effective, attainable consolidation and good management. RRW ambitions are unrealistic and risk dramatic warhead complex failures, continuing scandals in labs, plants, and NNSA, temporary or long-term losses in capability, and technical decline. Conclusion: This objective invites a management fiasco. The RRW program is grandiose and risks the integrity of the U.S. nuclear deterrent.

**Nuclear deterrence is key to global stability and preventing multiple threats of CBW and EMP use that kills hundreds of millions and collapse the US economy.**

**Schneider, 8** – Senior Analyst with the National Institute for Public Policy, Ph.D. in history at the University of Southern California and JD from George Washington University, former senior officer in the DoD in positions relating to arms control and nuclear weapons policy (Mark, July 2008, “The Future of the U.S. Nuclear Deterrent,” Comparative Strategy 27.4, Ebsco)

Today, the United States, the world's only superpower with global responsibilities, is the only nuclear weapons state that is seriously debating (admittedly largely inside the beltway) about whether the United States should retain a nuclear deterrent. By contrast, the British Labour Government has decided to retain and modernize its nuclear deterrent. In every other nuclear weapons state—Russia, China, France, India, Pakistan, and allegedly Israel—there is general acceptance of the need for a nuclear deterrent and its modernization. Amazingly, the United States is the only nuclear-armed nation that is not modernizing its nuclear deterrent. Distinguished former leaders such a George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, despite the manifest failure of arms control to constrain the weapons of mass destruction (WMD) threat, call for “A world free of Nuclear Weapons” because “… the United States can address almost all of its military objectives by non-nuclear means.”1 This view ignores the monumental verification problems involved and the military implication of different types of WMD—chemical and biological (CBW) attack, including the advanced agents now available to potential enemies of the United States and our allies. A U.S. nuclear deterrent is necessary to address existing threats to the very survival of the U.S., its allies, and its armed forces if they are subject to an attack using WMD. As former Secretary of Defense Harold Brown and former Deputy Secretary of Defense John Deutch wrote in The Wall Street Journal, “However, the goal, even the aspirational goal, of eliminating all nuclear weapons is counterproductive. It will not advance substantive progress on nonproliferation; and it risks compromising the value that nuclear weapons continue to contribute, through deterrence, to U.S. security and international stability.”2 Why can't the United States deter WMD (nuclear, chemical, biological) attack with conventional weapons? The short answer is that conventional weapons can't deter a WMD attack because of their minuscule destructiveness compared with WMD, which are thousands to millions of times as lethal as conventional weapons. Existing WMD can kill millions to hundreds of millions of people in an hour, and there are national leaders who would use them against us if all they had to fear was a conventional response. The threat of nuclear electromagnetic pulse (EMP) attack, as assessed by a Congressional Commission in 2004, is so severe that one or at most a handful of EMP attacks could demolish industrial civilization in the United States.3 The view that conventional weapons can replace nuclear weapons in deterrence or warfighting against a state using WMD is not technically supportable. Precision-guided conventional weapons are fine substitutes for non-precision weapons, but they do not remotely possess the lethality of WMD warheads. Moreover, their effectiveness in some cases can be seriously degraded by counter-measures and they clearly are not effective against most hard and deeply buried facilities that are associated with WMD threats and national leadership protection. If deterrence of WMD attack fails, conventional weapons are unlikely to terminate adversary WMD attacks upon us and our allies or to deter escalation. Are there actual existing threats to the survival of the United States? The answer is unquestionably “yes.” Both Russia and China have the nuclear potential to destroy the United States (and our allies) and are modernizing their forces with the objective of targeting the United States.4 China is also increasing the number of its nuclear weapons.5 Russia is moving away from democracy, and China remains a Communist dictatorship. A number of hostile dictatorships—North Korea, Iran, and possibly Syria—have or are developing longer-range missiles, as well as chemical, biological, and nuclear weapons.6 They already have the ability to launch devastating WMD attacks against our allies and our forward deployed forces, and in time may acquire capabilities against the United States. Iran will probably have nuclear weapons within approximately 2 to 5 years.7 The United States already faces a chemical and biological weapons threat despite arms control prohibitions. Due to arms control, we do not have an in-kind deterrent. Both Iranian and Syria acquisition of nuclear weapons could be affected by sales from North Korea, which have been reported in the press.8

# Ext – Hurts Deterrence

RRW crushes deterrence and causes prolif and nuclear war

Mellos, 7 – Director of the Los Alamos Study Group (Greg, “The Reliable Replacement Warhead Program (RRW) Can’t Meet Congressional Objectives,” <http://www.lasg.org/RRW_talking_point_summary.pdf>)

Already it is clear there is nothing "reliable" about the RRW program. It will be very costly, have high technical risk, incur higher safety risks and environmental hazards, and cause higher maintenance costs and risks. The RRW program lacks social and political support and is therefore likely to exacerbate, not fix, warhead complex personnel problems. The RRW program will not result in significantly safer, more secure, or easier-to-maintain warheads, even discounting the above dominating factors. For these reasons the RRW does not meet congressional objectives. In fact, through its grandiosity and attendant panoply of risks, the RRW program may compromise the U.S. nuclear deterrent. The RRW program will increase a variety of nuclear dangers by stimulating and enabling nuclear weapons programs in other countries and by undercutting support for nonproliferation efforts.

**RRW trades off with effective methods of warhead upkeep and more tested designs**

**Franceschini and Schaper**, **6 -** research associate at the Peace research Institute Frankfurt, Germany, and Annette; and the Senior Research Fellow at the Peace Research Institute Frankfurt (Giorgio and Annette, “Nuclear weapons research and modernization without nuclear testing,” PRIF Reports No. 77)

With the launch of the Science Based Stockpile Stewardship (SBSS) programs, the weapon labs of these countries started an ambitious ‘Big Science’ endeavor, which should make up for the loss of a testing option. These science programs are not uncontested: they are costly, ambivalent and foresee the cooperation between the weapon labs and the academic community in an unprecedented manner. The long-term goal of the SBSS programs is advancements in weapon science, whereas the more immediate purpose is the preservation of safe and reliable nuclear arsenals. For this latter purpose, extensive research is carried out on warhead ageing and its effect on weapon performance. The preliminary results of an U.S. study on ageing effects are quite encouraging: they indicate that most warheads currently stockpiled in the U.S. arsenal can be safely maintained for approximately a century. This fact would suggest that nuclear complexes will concentrate on life-extension programs (LEP) of their weaponry, and replace, remanufacture or refurbish ageing components at critical times in a weapon’s life-cycle. Yet, while pursuing LEP, leading weapon labs have also been considering new warheads: these so called Reliable Replacement Warheads (RRW) are new designs without any test pedigree, but allegedly incorporate improved safety and security features, and – as the name suggests – should be more reliable i.e. will withstand the effects of material ageing and other defects more effectively. At the moment, LEP and RRW programs are pursued in parallel by some nuclear weapon states (NWS), but they are basically competing concepts. Both programs claim to be able to maintain the nuclear complex in a sustainable and cost-efficient manner and, at the same time, to stay within the boundaries of the test ban treaty. However, this is questionable, at least for a complete stockpile transformation with RRWs, as envisioned by parts of the U.S. nuclear establishment. This transformation could replace current (and previously tested) warheads with untested RRWs within the next three decades. Such a campaign of arsenal transformation bears the considerable risk of returning to fully-fledged tests, as it is unlikely the military planners will accept a whole branch of untested strategic weaponry.

# 2NC Nuclear Umbrella

RRW risks allied prolif and the collapse of the nuclear umbrella.   
**Reif, 9** – Deputy Director of Nuclear Non-Proliferation at the Center for Arms Control and Non-Proliferation (Kingston, “Defense News Letter to the Editor,” 8/24/09, http://www.nukesofhazardblog.com/story/2009/8/24/11227/5042)

In the editorial in the Aug. 17 issue, “Build New Nukes,” the Editors argue that the U.S. must design and build new nuclear weapons in order to maintain the reliability and credibility of the U.S. nuclear arsenal. However, the evidence marshaled in support of this contention does not do the heavy lifting the Editors think it does. First, since the end of the Cold War, the U.S. has successfully maintained the reliability and credibility of its existing nuclear arsenal through a variety of programs under the rubric of “stockpile stewardship” and “life extension.” No other nuclear power believes that the U.S. is allowing its nuclear deterrent to remain stagnant, and for good reason: the U.S. nuclear stockpile of over 5,000 weapons and its supporting infrastructure remain the most sophisticated and modern on the planet. Due to stockpile stewardship, we know far more about our nuclear warheads now than we ever have. Thanks to this knowledge, our confidence in the current arsenal is high and likely to increase over time. Second, a recent GAO report on the W76 life extension program concluded that while maintaining and refurbishing U.S. nuclear weapons is a difficult task, the delays in this particular program had as much if not more to do with poor planning and mismanagement than with a lack of technical expertise. Finally, nearly all U.S. allies protected by the U.S. nuclear umbrella, including Japan, are also advocates for more robust U.S. leadership on nonproliferation and disarmament. The most important factor in an ally’s confidence in the credibility of the U.S. nuclear umbrella is its confidence in the strength of its political relationship with the United States. If political relations fray, then the credibility of the U.S. nuclear umbrella will be perceived to be weak, no matter how many new nuclear weapons the United States possesses.

**Nuclear war.**

**Feith and Shulsky, 9** – Former under secretary of defense for policy and senior fellow @ the Hudson Institute; and former Defense Department official who dealt with arms control issues, and senior fellow @ the Hudson Institute (Douglas J. and Abram N., 8/3/2009, “Why Revive the Cold War?” Wall Street Journal, http://online.wsj.com/article/SB10001424052970204313604574328430978849134.html)

There is an important connection between proliferation risks and modernization. But the Obama administration seems to have it backwards. If the U.S. fails to ensure the continuing safety and reliability of its arsenal, it could cause the collapse of the U.S. nuclear umbrella. Countries such as Japan, South Korea, Taiwan, Australia and others might decide that their security requires them to acquire their own nuclear arsenals, rather than rely indefinitely on the U.S. The world could reach a tipping point, with cascading nuclear proliferation, as the bipartisan Congressional Strategic Posture Commission warned in its May 2009 report. The Obama administration’s nuclear weapons policies—including its treaty talks with Russia—affect the way America’s friends and potential adversaries view the integrity of the U.S. deterrent. The wrong policies can endanger the U.S. directly. They can also cause other states to lose confidence in the American nuclear umbrella and to seek security in national nuclear capabilities. If that happens, the dangers of a nuclear war somewhere in the world would go up substantially. It would not be the first time a U.S. government helped bring about the opposite of its intended result—but it might be one of the costliest mistakes ever.

# RRW Undermines US Credibility 1/2

RRW undermines US international credibility

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

Energy Secretary Steven Chu, whose agency maintains the atomic stockpile via its semiautonomous National Nuclear Security Administration and took the lead in planning the RRW program, reportedly weighed in on the June discussion with a modest show of support, saying that replacement warheads might be needed. Though James Steinberg, Clinton's deputy, volunteered that Obama should be consulted before his administration changes course on warhead replacement, it was left to the vice president to express full-throated opposition, sources said. Biden raised the notion that an ambitious nuclear modernization effort that includes building replacement warheads could undercut the Obama administration's nonproliferation goals, according to these sources. Most importantly, Washington is attempting to build international consensus against Iran's suspected pursuit of nuclear weapons and North Korea's maintenance of its nascent arsenal. Biden reportedly argued that the international community would almost certainly cry foul on a replacement-warhead effort, particularly given Obama's pledge to work toward the long-term elimination of nuclear weapons around the world. This spring, Obama tapped Biden to lead the administration's nonproliferation initiatives (see GSN, April 8). As a presidential candidate during the Democratic primary campaign, Biden raised other pointed questions about the RRW effort. The former Delaware senator in 2007 alleged the warhead-replacement project had been "hijacked" by those seeking to maintain a bloated nuclear arms establishment, and should be jettisoned in favor of maintaining the existing stockpile. A First Test Few expect the Principals' Committee exchange to represent the final word on the warhead-replacement matter. Gates' behind-the-scenes attempt in June to resuscitate the idea, experts said, was a first real test of whether Obama as president would maintain his opposition to "rushing to produce a new generation of warheads," as he said during last year's campaign.

RRW undermines any credibility on arms control

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

One replacement-warhead critic said this approach would almost certainly dash Obama's hopes of seeing the test-ban treaty ratified by other nations and come into force, and could also encourage further proliferation of nuclear weapons. "One of the principle arguments in favor of the test ban has long been that it would prevent new types of weapons from coming on line," said Stephen Young, a senior analyst at the Union of Concerned Scientists. "An American decision to deploy new, untested warheads undermines that argument and could destroy any chance of the treaty becoming reality." Cirincione, who spent years as a congressional committee staff aide, finds particularly galling his sense that many in Obama's own appointed national security team are selling the president short by pushing for a replacement warhead. These include a half-dozen or more political appointees at lower levels at the Pentagon, State Department and elsewhere known more for their sense of caution than an affinity for bold strokes. "Ironically, in their effort to look strong, they're displaying weakness," he said. "They're offering concessions up that should only come down to the last resort." Several experts said Obama himself would likely have to issue a clear directive if his administration is to take a fresh approach to warhead modernization, one that reflects his vision of de-emphasizing the role of nuclear weapons on a path toward eliminating them. "The president has to have the guts to say no," said one RRW opponent who asked not to be named. "Almost everyone else is inclined to Clinton-vintage political triangulation." As a Democratic contender for the presidency, the former president's wife in 2007 staked out a position in opposition to a replacement warhead. "The Bush administration has dangerously put the cart before the horse, planning to rush ahead with new nuclear weapons without any considered assessment of what we need these weapons for or what the impact of building them would be on our effort to stop the spread of nuclear weapons around the world," said Hillary Clinton, then representing New York in the Senate. For his part, candidate Obama left himself some room to reverse course, saying he would not support "a premature decision to produce the RRW." Without clear direction from Obama, now president, "we essentially signal [to the world] that the president's nuclear elimination pledge is just another ultimate goal and not different from what any other president has uttered," Kristensen said. "The vision comes only from the president," he added. "Somebody has to make a decision and tell [the bureaucracy], 'Do it.'"

# RRW Undermines US Credibility 2/2

**RRW would increase proliferation at all levels – kills US non-proliferation leadership**

**Coyle, 7 –** Senior Advisor to the President of the World Security Institute and Center for Defense Information, and a recognized expert on US and worldwide military research, development, and testing (Center for Defense Information, 7/11/07, Lexis)

Considering such strong testimony from such highly regarded statesmen, the arms control implications of the proposed RRW program do not appear to have been thought through by the Defense Department**,** NNSA or the DOE laboratories. For example, if the tables were turned, and Russia and/or China had learned how to build new nuclear weapons without full-scale nuclear testing, and were building them, and if the United States had not figured that out and was not building them, the U.S. Congress and the administration would be calling for swift action. We’d hear ringing alarm bells like we haven’t heard since Sputnik. The U.S. effort to reduce the nuclear test readiness posture to 18 months and the U.S. proposal to build new nuclear weapons without nuclear testing could be viewed by other countries as provocative and overly aggressive policies that **undermine our moral authority** to argue that other nations should forgo nuclear weapons. In effect, with the proposed RRW, the United States would be saying to North Korea and Iran, “Do as I say, not as I do.” Surely that inconsistency would not be lost on anyone in the international community. Even if the arsenal really decreases the effect on International Perception will increase proliferation.

**RRW undermines US credibility on proliferation and spurs North Korean and Iranian prolif**

**IHT, 7** (International Herald Tribune, 1/16/07, Lexis)

The Bush administration is eager to start work on a new nuclear warhead with all sorts of admirable qualities: sturdy, reliable and secure from terrorists. To sweeten the deal, officials say that if they can replace the current arsenal with Reliable Replacement Warheads (what could sound more comforting?), they probably will not have to keep so many extra warheads to hedge against technical failure. If you're still not sold, the warhead comes with something of a guarantee — that scientists can build the new bombs without ever testing them. Let the buyer beware. While the program has gotten very little attention in the United States, it is a public- relations disaster in the making overseas. Suspicions that America is actually trying to build up its nuclear capabilities are undercutting U.S. arguments for restraining the nuclear appetites of Iran and North Korea. Then there's the tens of billions it is likely to cost. And the most important question: Nearly two decades after the United States stopped building nuclear weapons, does it really need a new one? The answer, emphatically, is no. This is a make- work program championed by the weapons laboratories and belatedly by the Pentagon, which has not been able to get Congress to pay for its other nuclear fantasies. The Rumsfeld team's first choice was for a nuclear "bunker buster" to go after deeply buried targets. The Pentagon got concerned about "aging" warheads only after it was clear that even the Republican-led Congress, or at least one intrepid House subcommittee chairman, considered the bunker buster too Strangelovian to finance. One crucial argument for the new program took a major hit in November when the Jason — a prestigious panel of scientists that advises the government on weapons — reported that most of the plutonium triggers in the current arsenal can be expected to last for 100 years. Since the oldest weapons are less than 50 years old, supporters of the new warhead have fallen back on warnings that other bomb components are also aging, and that the nuclear labs need the work to attract the best scientists. But the labs are already spending billions on preserving the current arsenal. Then there's that guarantee that there will be no need for testing — one of the few arms-control taboos President George W. Bush has not broken yet. America would be much safer if Bush focused on reducing the number of old nuclear weapons still deployed by the United States and the other nuclear powers. The new Congress should stop this program before any more dollars are wasted, or more damage is done to U.S. credibility.

# 2NC Hegemony

**RRW kills heg – undercuts military strength by relying on nuclear weapons**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

The Role of U.S. Nuclear Weapons Almost 15 years ago, President George H. W. Bush determined that the United States had no need to continue to design new nuclear weapons. This policy made it possible for the United States to push for an end to the development and testing of new nuclear weapons by all countries and to negotiate the CTBT. Although the Senate has not ratified the CTBT, the global moratorium on nuclear testing still stands and has prevented other countries, such as China, from advancing their own thermonuclear designs. A great danger, as Congress and other policymakers consider the merits of the RRW program, is that they may accept the false premise that the U.S. nuclear deterrent is already degrading. If this happens, there will be tremendous pressure for the United States to resume underground nuclear testing whether or not a more reliable warhead could technically be developed without testing. The debate over the RRW program also obscures a more fundamental and practical development: the utility of U.S. nuclear weapons is receding in importance with high-precision conventional weapons increasingly capable of accomplishing many missions that, until recently, would have required nuclear yields. Given that the United States has overwhelming superiority in conventional weaponry, U.S. military strength is undercut, not enhanced, by actions that ascribe greater importance to nuclear weapons. If the world’s greatest military power continues to rely on nuclear weapons, then why would countries that the United States considers to be a threat not see even greater reason to acquire nuclear weapons of their own?

**Hegemony stops global nuclear wars.**

**Lieber, 5** – Professor of Government and International Affairs @ Georgetown, (Robert, “The American Era: Power and Strategy for the 21st Century,” p. 53-54)

Withdrawal from foreign commitments might seem to be a means of evading hostility toward the United States, but the consequences would almost certainly be harmful both to regional stability and to U.S. national interests. Although Europe would almost certainly not see the return to competitive balancing among regional powers (i.e., competition and even military rivalry between France and Germany) of the kind that some realist scholars of international relations have predicted," elsewhere the dangers could increase. In Asia, Japan, South Korea, and Taiwan would have strong motivation to acquire nuclear weapons – which they have the technological capacity to do quite quickly. Instability and regional competition could also escalate, not only between India and Pakistan, but also in Southeast Asia involving Vietnam, Thailand, Indonesia, and possibly the Philippines. Risks in the Middle East would be likely to increase, with regional competition among the major countries of the Gulf region (Iran, Saudi Arabia, and Iraq) as well as Egypt, Syria, and Israel. **Major regional wars, eventually involving the use of** **w**eapons of **m**ass **d**estruction **plus** human suffering on a vast scale, **floods of refugees, economic disruption, and risks to oil supplies are all readily conceivable**. Based on past experience, the United States would almost certainly be drawn back into these areas, whether to defend friendly states, to cope with a humanitarian catastrophe, or to prevent a hostile power from dominating an entire region. Steven Peter Rosen has thus fit-tingly observed, "If the logic of American empire is unappealing, it is not at all clear that the alternatives are that much more attractive."2z Similarly, Niall Ferguson has added that those who dislike American predominance ought to bear in mind that the alternative may not be a world of competing great powers, but one with no hegemon at all. Ferguson's warning may be hyperbolic, but it hints at the perils that the absence of a dominant power, "apolarity," could bring "an anarchic new Dark Age of waning empires and religious fanaticism; of endemic plunder and pillage in the world's forgotten regions; of economic stagnation and civilization's retreat into a few fortified enclaves.

# RRW → Terrorism

**The fear that plutonium “pits” trigger nuclear weapons were becoming unstable has been proven false**

**Sharpe, 7** – Herbert Scoville Jr. Place Fellow at the Center for Arms Control and Non-Proliferation (Travis, “No More New Nukes, Please: U.S. Nuclear Supremacy Couldn’t Prevent 9/11,” http://www.counterpunch.org/sharpe01052007.html)

New American weapons will do little to slow the emerging nuclear programs of Iran and North Korea. Both Iranian President Mahmoud Ahmadinejad and North Korean leader Kim Jong Il cite the overwhelming superiority of the American nuclear arsenal as a justification for their aggressive nuclear brinksmanship. If we start building even more powerful weapons, the two countries will feel as though they have no choice but to fully go nuclear. U.S. nuclear supremacy failed to prevent 9/11, and a new generation of weapons will not stop the next terrorist attack. Organizations like al Qaida are unlikely to stop their quest for nuclear devices just because the United States constructs fancier warheads. RRW will introduce many dangerous new possibilities, but will fail to solve any of our fundamental challenges. Our current stockpile of over 10,000 warheads-every one of which is capable of inflicting massive damage-more than exceeds our national security requirements. The burden of being the world's only superpower sometimes weighs heavily on all Americans, but building a new generation of nuclear weapons is not a logical response. Instead of carelessly spending hundreds of billions of dollars on warheads that actually would make America less safe, we should strengthen global nonproliferation standards and work with other countries to create an international environment where the possession of nuclear weapons is unnecessary.

# RRW Alienates War on Terror Allies

RRW alienates allies, killing the war on terror.

Sharp, 7 (Travis, Herbert Scoville Peace Fellow, Center for Arms Control and Non-Proliferation, “The Folly of New Nukes”, 4-11, <http://www.armscontrolcenter.org/policy/nuclearweapons/rrw/folly_of_new_nukes/>)

The Bush administration should ditch its proposal for new nuclear weapons and join the growing consensus of both conservative and liberal foreign policy thinkers who consider building massive nuclear weapons stockpiles a reversion to Cold War paranoia. It is time to move beyond the nuclear-imposed balance of terror and deal with the real security challenges of the 21st century, challenges like non-state terrorist actors and failed states that require international cooperation and can’t be overcome if the U.S. alienates allies by defiantly sitting atop a brand new pile of RRW warheads.

# 2NC Russian Modernization

**RRW causes Russian modernization and risks nuclear war.**

**Pikayev, 7** – Director at the Institute of World Economy and IR (Alexander A., Director, Department for Disarmament and Conflict Resolution, Institute of World Economy and International Relations, Moscow, “Unfair Advantage,” Bulletin of the Atomic Scientist Vol 63 no 4, July/Aug)

More seriously, Russia increasingly perceives RRW not as a means of deterrence, but as a war-fighting tool. RRW could increase a warhead’s accuracy, and thus, reduce its yield. As a result, the warheads could more capably destroy hardened Russian strategic targets, while inflicting less collateral damage on civilian populations. The latter could increase the temptation to use nuclear weapons first, as the consequences of a first strike would be less disastrous than during the Cold War. This could also enhance intra-war deterrence: A disarming attack with a relatively small number of civilian casualties might deter the aggrieved nation from responding because doing so could trigger an allout, devastating retaliation. U.S. plans for an extensive missile defense system, including components that Washington intends to deploy near Russia’s borders, further embitter Moscow. At present, technical limitations prevent the U.S. missile defense from threatening Russia’s nuclear forces, and the deployment itself is relatively modest. But Moscow is concerned that the early deployment will allow the system to become more modern and sophisticated over time, eventually allowing it to intercept Russian strategic missiles.

**Extinction.**

**Wickersham, 8 –** Prof of Peace Studies at Missouri (Bill, U.S., Russia need to reverse arms race, <http://www.columbiamissourian.com/stories/2008/04/30/us-russia-need-reverse-arms-race/>)

The timeline reflects the continuing level of nuclear threat that exists between the U.S. and Russia. Many, if not most, Americans seem to have forgotten that we are still faced with a possibility of either purposeful or accidental nuclear war with the Russians. If that war occurs, it will result in instant extinction without representation. There will be no parliamentary or congressional deliberations and no declarations of war. Unfortunately, when George W. Bush assumed the presidency, he adopted the neoconservative strategy of indefinite reliance on nuclear weapons instead of measures to reverse the arms race as agreed to by the United States at the 2000 Non-proliferation Treaty Review Conference. Russia’s response to Bush’s policies, especially to his deployment of a ballistic missile defense system, has been the development and deployment of even more dangerous intercontinental missiles, some of which are based in silos, others that are mobile, and that constantly roam the forests of Russia. Additionally, the Russians are apparently reactivating some of their nuclear-weapons-capable submarines that had been effectively “mothballed,” so that the launch to landing time of their missiles may now also fall within the 10 minute time frame. Clearly this situation represents a mutual death wish of insane proportions.

# Ext – RRW → Modernization/War 1/2

**RRW causes Russian modernization**

**Bromley, et. al., 2** – British American Security Information Council (Mark, Bunker Busters: Washington’s Drive for New Nuclear Weapons, July, http://www.basicint.org/pubs/Research/2002BB.pdf)

As well as weakening global regimes, the Bush administration’s nuclear proposals will have considerable bilateral and regional consequences. In Russia, a move to develop new nuclear weapons would undoubtedly be portrayed as a failure for Putin’s pro-Western policy and confirmation that the United States, while talking friendship, is working against Russian interests. Any development of new nuclear weapons by the United States could increase the Russian military’s interest in maintaining and developing its own nuclear arsenal, despite Putin’s efforts in recent years to steer the Russian military away from such a path of nuclear reliance. With renewed emphasis on nuclear arsenals and technologies in both Russia and the United States, the possibility of meaningful reductions in tactical nuclear weapons will disappear rapidly.

**Good relations with Russia is key to avoid Russian modernization—RRW destroys this**

**BASIC, 8** (September 10, 2008, “SUBMISSION to the U.S. STRATEGIC POSTURE REVIEW COMMISSION” British American Security Information Council, http://www.basicint.org/nuclear/US\_Policy/BASIC-SPRC-10Sept2008.pdf)

4.1 A working negotiating relationship with the Russian Federation is essential to an active and effective global non-proliferation effort. We stand a greater chance of achieving cooperation with Russia if the United States initiates some of the measures outlined above. Current prospects appear bleak, but we must not lose heart. Russia’s dependence upon nuclear weapons for its strategic posture is now undeniably greater than that of the United States. Russia will be tempted to modernize its nuclear arsenal to deter the qualitative U.S. superiority in smart weapons exhibited so effectively in the latest conflicts involving U.S. forces. Moreover, Russia has been agitated by the Bush Administration’s pursuit of ground-based midcourse missile defense (GMD), with plans for a radar station in the Czech Republic and ten GMD interceptors plus Patriot defenses in Poland. Although the agreements still face ratification by the participating countries, and serious doubts about the functionality of GMD persist, the prospect of U.S. missile defense in those countries only heightens Russia’s inclination to modernize its nuclear arsenal.

**RRW spurs Russian aggression and risks nuclear war**

**Blank, 9 –** Strategic Studies Institute’s expert on the Soviet bloc and the post- Soviet world since 1989 (Stephen J., March 2009, “RUSSIA AND ARMS CONTROL: ARE THERE OPPORTUNITIES FOR THE OBAMA ADMINISTRATION?” Strategic Studies Institute, [www.strategicstudiesinstitute.army.mil/pdffiles/pub908.pdf](http://www.strategicstudiesinstitute.army.mil/pdffiles/pub908.pdf))

Indeed Moscow sees its nuclear arsenal as a kind of all-purpose deterrent that has deterred the United States and NATO from intervening in such conflicts as the Chechen wars. Nevertheless, its military and political leaders argue that threats to Russia are multiplying. Certainly Russian officials see the weaponization of space, the integration of space and terrestrial capabilities, missile defenses, the Reliable Replacement Weapons (RRW), and the U.S. global strike strategy as apart of a systematic, comprehensive strategy to threaten Russia. So in response Moscow must threaten Europe. The perpetuation of the Cold War’s mutual hostage relationship is, of course, exactly what the United States, at least under the George W. Bush administration, has striven mightily to leave behind. Russian analysts and officials believe in deterrence and the accompanying mutual hostage condition of both sides’ nuclear forces as the only way to stop what they see as America’s constant efforts to find ways in which nuclear weapons can be used for warfighting or to be free to use military force across the globe without being deterred by anyone. However, U.S. current weapon plans, the development of missile defenses, reluctance to negotiate verification protocols for a START treaty, NATO enlargement, and weapons in space, all suggest to Russia that there is “a growing gap between the military capabilities of the two countries. This gap challenges the condition of strategic parity that Russia still believes to be the underlying principle of its relationship with the United States. This enduring adversarial condition reflects a mutual failure on the part of both Washington and Moscow.

# Ext – RRW → Modernization/War 2/2

**RRW spurs Russian modernization.**

**Thompson, 9** (Mark, TIME, “Obama's Showdown Over Nukes,” http://www.time.com/time/nation/article/0,8599,1873887,00.html)

Obama would have a difficult time reversing course on what is now a stated policy of his Administration instead of simply a campaign promise. And any move to produce new nuclear weapons will be read by other nations as a U.S. push for nuclear supremacy, even as Washington urges the rest of the world — Tehran, are you listening? — to do without the weapons. Russia would very likely respond by upgrading its own arsenal.

**Russia perceives RRW as threatening – changes their calculations and causes modernization.**

**Lewis, 8** – Director of the Nuclear Strategy and Nonproliferation Initiative at the New America Foundation (Jeffrey, December, “After the Reliable Replacement Warhead: What’s Next for the U.S. Nuclear Arsenal” <http://www.armscontrol.org/act/2008_12/Lewis>)

In response, the administration chose a design for the RRW with the same yield for the weapon but that subsequently altered other aspects of the warhead. Perversely, in relaxing “Cold War design constraints,” the Department of Energy appears to have proposed a warhead that would be significantly more capable against hard targets such as Russian missile silos than the warhead it would replace. The administration ended up seeming to contradict not only congressional guidance but its own assertions that Russia is no longer an adversary and the United States does not target Russia as though it were a smaller version of the Soviet Union. Reducing yield requirements might allow designers to improve reliability, surety, and ease of manufacture. Moreover, sacrificing some yield might have allowed the U.S. Navy to reuse existing MK4 aeroshells, saving as much as several hundred million dollars. [6] Yet, there is no evidence that the NNSA seriously considered relaxing the yield requirement beyond a few percentage points or thought more broadly about the purpose of the weapons. Instead, by focusing on replicating the existing yield of the W76, the Bush administration opened the United States to criticism that it is improving the U.S. arsenal. Even if U.S. officials and lawmakers understand that a better hard-target kill capability was not the Bush administration’s intention, other countries can easily make calculations similar to those outlined here and reach more cynical conclusions about U.S. motives.

# 2NC Russi TNWs

**RRW precludes mutual arms reductions with Russia**

**PSR, 9** (July 23, 2009, “Kyl Amendment Seeks to “Modernize” U.S. Nuclear Weapons” Physicians for Social Respnsibility, <http://www.psr.org/nuclear-weapons/steps-to-zero/kyl-amendment-seeks-to.html>)

New Nuclear Weapons Disregarding the obvious unfeasibility of providing classified information on both the U.S. and Russian nuclear stockpiles to Congress, this amendment contains more than a few disturbing elements. Most importantly, the amendment calls on the much-repeated use of the term, “modernization.” To “modernize” our stockpile essentially means new nuclear weapons, not no nuclear weapons, and has been classically used to justify the U.S. Reliable Replacement Warhead (RRW). Though the RRW development program is essentially dead, the use of the term constitutes an ever-present danger. This amendment allocates a significant chunk of money not only in 2010, but in 2011, to “modernize and refurbish” the U.S. nuclear arsenal, a goal that will, no doubt, go far beyond stockpile stewardship. This fact is bolstered by the amendment’s focus on ballistic missile defense systems, kept separate from advanced conventional weapons “specifically designed not to carry a nuclear payload”. An Unacceptable Request In an attempt to both cripple the Strategic Arms Reduction Treaty (START) and bolster missile defense systems, the Kyl Amendment would constitute a major setback for nuclear disarmament and provide further obstacles to the successful implementation of any future nuclear reductions treaty between the U.S. and Russia.

**TNWs risk miscalculation and nuclear war—deterrence arguments don’t apply**

**Sokov, 97** (Nikolai, Center for Nonproliferation Studies at the Monterey Institute of International Studies, The Nonproliferation Review, Winter, <http://cns.miis.edu/pubs/npr/vol04/42/sokov42.pdf>)

By contrast, because TNW are deployed close to the potential front line, they are highly vulnerable and not as reliably controlled.45 To convince the other side of readiness and ability to use these weapons, the deterring side must deploy TNW in the field in a ready-for-combat mode (or, at least, to have a proven, demonstrated capability to deploy them with troops in a crisis period). It must also predelegate the authority to use TNW to field commanders. No matter how limited hostile action is, TNW have to be used quickly, or they might be lost to a first strike by the other side. Deployment of TNW, therefore, results in a hair-trigger posture, under which a mistake or an over-reaction by a local commander might start a nuclear war in a situation where a limited response or even diplomatic efforts could have saved the day. Even worse, the deployment of TNW to combat units in a time of crisis represents, by itself, a move that could be easily misread by the other side. Instead of deterring an attack, TNW could provoke it.

# 2NC US-Russian Relations 1/2

**New US nuclear modernization will destroy US-Russian relations**

**Bromley, et. al., 2** – British American Security Information Council (Mark, Bunker Busters: Washington’s Drive for New Nuclear Weapons, July, http://www.basicint.org/pubs/Research/2002BB.pdf)

A US move to develop new nuclear weapons would be portrayed as a failure for Putin’s pro-Western policy and confirmation that the United States, while talking friendship, was still working against Russian interests. Putin has already clearly warned against the dangers of miniature nuclear weapons: We hear statements and proposals for developing low-yield nuclear charges and their possible use in regional conflicts. This, to a very low bar, to a dangerous line, lowers the threshold of possible nuclear weapons use. The very approach to this problem may change, and then it will be possible to speak of a change of strategy. In this case nuclear weapons from weapons of nuclear deterrence go down to the level of weapons of operational use, and, in my opinion, this is very dangerous.96 To ignore such a warning would smack of contempt for the Russian President and could well undermine the burgeoning US-Russian relationship. A hardening of attitudes on the Russian side could easily result. Pushing the Russian Nuclear Agenda One possible detrimental consequence of the new US nuclear weapons would be the additional influence it would to give to pro-nuclear advocates in Russia. This group’s influence within the Russian military has had powerful consequences in the post-Cold War era. In an effort to make up for the qualitative and quantitative deficiencies of its conventional armed forces, Russia abandoned its no-first-use policy in 1993. Then, in 2000, the nuclear threshold seemed to be further lowered as the new Military Doctrine expounded how Moscow reserved the right to use nuclear weapons “in response to large-scale aggression utilising conventional weapons in situations critical to the national security of the Russian Federation.”97 While such doctrines are largely conceptual and have limited practical implications, the wording still suggests a worrying shift. However, over the last couple of years President Putin appears to have steered the Russian military away from such a path of nuclear reliance. This manifested itself in the manner in which he resolved the very public and long-running clash between chief of the general staff, General Anatoly Kvashnin and the defence minister, Igor Sergeyev, over the future of Russian nuclear forces. Kvashnin argued that funds should be shifted to ailing conventional forces while Sergeyev maintained that Russia’s nuclear forces were needed to preserve a global leadership role and must therefore receive funding priority. Putin supported Kvashnin’s arguments – at an August 2000 meeting of the Russian Security Council it was decided to shift funds from the Strategic Rocket Forces to conventional weapons procurement and in March 2001 Sergeyev was replaced as defence minister. Despite this new direction, large elements of the Russian military establishment are keen to return the emphasis to the nuclear arsenal. Indeed, there are reports that various Russian officials have, for some time now, been calling for the development of low-yield weapons to threaten underground targets.98 These ideas have no high-level sanction and remain unfunded. Nonetheless, any development of new nuclear weapons by the United States could change this situation and increase the Russian military’s interest in maintaining and developing its own nuclear arsenal. This would be disastrous to efforts to control and eventually eliminate Russian tactical weapons.

**Relations solve all impacts**

**Simes, 3** – President of the Nixon Center, (Dimitri, Federal News Service, 9/30, lexis)

As the Report of the Commission on American National Interests (2000) concluded, Russia ranks among the few countries whose actions powerfully affect American vital interests. Why? First, Russia is a very large country linking several strategically important regions. By virtue of its size and location, Russia is a key player in Europe as well as the Middle East and Central, South and East Asia. Accordingly, Moscow can substantially contribute to, or detract from, U.S. efforts to deal with such urgent challenges as North Korea and Iran, as well as important longer term problems like Iraq and Afghanistan. In addition, Russia shares the world's longest land border with China, an emerging great power that can have a major impact on both U.S. and Russian interests. The bottom line is that notwithstanding its significant loss of power after the end of the Cold War, Moscow's geopolitical weight still exceeds that of London or Paris. Second, as a result of its Soviet legacy, Russia has relationships with and information about countries that remain comparatively inaccessible to the American government, in the Middle East, Central Asia and elsewhere. Russian intelligence and/or leverage in these areas could significantly aid the United States in its efforts to deal with current, emerging and still unforeseen strategic challenges, including in the war on terrorism.

# 2NC US-Russian Relations 2/2

**Terminal impact is World War III**

**Gardner, 94** – Professor of political science at the American University of Paris, (Hall, Surviving the Millenium, p. 230)

Assuming Russia does not move into absolute isolation (or break up), it is also not inconceivable that Moscow and Washington could fight a war on the same side-if both regard a particular emerging power as challenging their mutual interests, and if joint action suits the interests of the ruling party or elite on both sides, so as to prove their alliance commitment. But if conflict does break out-whether between Russia and its neighbors, or among other significant states-it will be necessary to make certain these conflicts do not spread. As in the interwar period, divisive allied foreign policies and the failure to establish and sustain a larger concert of states may well mean-and in the not-so-distant future-having to choose between "supporting," "appeasing," “containing," and "rolling back" radically divergent, revisionist or revanchist powers. The right choice will prevent World War III.

# Ext – RRW Hurts US-Russian Relations

**Good relations with Russia is key to avoid Russian modernization—RRW destroys this**

**BASIC, 8** (September 10, 2008, “SUBMISSION to the U.S. STRATEGIC POSTURE REVIEW COMMISSION” British American Security Information Council, http://www.basicint.org/nuclear/US\_Policy/BASIC-SPRC-10Sept2008.pdf)

4.1 A working negotiating relationship with the Russian Federation is essential to an active and effective global non-proliferation effort. We stand a greater chance of achieving cooperation with Russia if the United States initiates some of the measures outlined above. Current prospects appear bleak, but we must not lose heart. Russia’s dependence upon nuclear weapons for its strategic posture is now undeniably greater than that of the United States. Russia will be tempted to modernize its nuclear arsenal to deter the qualitative U.S. superiority in smart weapons exhibited so effectively in the latest conflicts involving U.S. forces. Moreover, Russia has been agitated by the Bush Administration’s pursuit of ground-based midcourse missile defense (GMD), with plans for a radar station in the Czech Republic and ten GMD interceptors plus Patriot defenses in Poland. Although the agreements still face ratification by the participating countries, and serious doubts about the functionality of GMD persist, the prospect of U.S. missile defense in those countries only heightens Russia’s inclination to modernize its nuclear arsenal.

# 2NC Chinese Modernization

**RRW forces China to modernize its nuclear weapons – leads to unstable proliferation in Asia**

**Shen**, **7** – Director of the Center for American Studies at Fudan University in Shanghai (Dingli, “Upsetting a delicate Balance,” Bulletin of the Atomic Scientists, Volume 63, Number 4, Page 37, July/August)

Thanks in part to careful diplomacy by the leadership in both Beijing and Washington, U.S.- Chinese relations have remained stable in recent years—especially given the Taiwan situation, long a point of disagreement between the two countries. But some of the credit for this balanced relationship also belongs to the Chinese nuclear arsenal. Although much smaller than the U.S. arsenal—according to public reports, China retains around 200 warheads, while the United States possesses about 10,000—Beijing’s nuclear capability has served as an effective deterrent to any potential U.S. military aggression. RRW, along with other U.S. initiatives such as a renewed interest in the militarization of space, could force Beijing to reevaluate its security policies and nuclear posture, increasing pressure on China to either improve and/or enlarge its nuclear capability. And in Asia’s strategic landscape, an enhanced and/or expanded Chinese nuclear deterrent could have a ripple effect on India and Pakistan, China’s nuclear neighbors—an outcome the United States certainly doesn’t want.

That causes nuclear war.  
Fuerth, 1 (Shapiro Visiting Professor at the Elliott School of International Affairs at the George Washington University, Washington Quarterly, 24.4, http://www.bits.de/NRANEU/docs/fuerth.pdf)  
  
As for China, its resources may limit it only to modernization in forms it was already pursuing. In that case, China may deploy road-mobile ICBMs that are harder to target, and push forward until it has the technology to MIRV these, to maximize the chance of overwhelming a U.S. defensive shield. China is, however, a country whose gross domestic product (GDP) grows at about 8 percent a year and will not lack for means for much longer. Thus, one should not ignore the possibility of a major expansion of Chinese ballistic missile forces. Meanwhile, the United States will have built into the Chinese political system a deepening conviction that the United States is an implacable enemy. The United States will therefore be building momentum toward confrontation that could unleash the nuclear war it was fortunate enough to avoid with the Soviet Union.

# Ext – RRW → Chinese Modernization

**RRW scares China – forces quick modernization.**

Sharp, 7 (Travis, Herbert Scoville Peace Fellow, Center for Arms Control and Non-Proliferation, “The Folly of New Nukes”, 4-11, http://www.armscontrolcenter.org/policy/nuclearweapons/rrw/folly\_of\_new\_nukes/)

While pro-nuclear bureaucrats claim that new nuclear weapons will not require actual nuclear testing because of ongoing improvements in computer simulation technology, nuclear experts disagree. “I can’t believe that an admiral or a general or a future president, who is putting the U.S. survival at stake, would accept an untested weapon if it didn’t have a test base,” said Sidney Drell, a physicist and longtime adviser to the U.S. government and nuclear weapons labs. Physicist and nuclear weapons expert Robert Nelson echoed this sentiment: “The United States has never deployed a new nuclear warhead without conducting a nuclear explosive test.” If the U.S. did restart nuclear testing, something it hasn’t done since September 1992, other countries might follow suit and enhance their nuclear capabilities, possibly leading to a renewed 21st century arms race. For example, a U.S. test might cause China to feel that its rising superpower status was being threatened and it was losing its ability to reliably deter the U.S. in a confrontation over Taiwan. Since it is only a few short development phases away from acquiring a mobile Multiple Independently-Targeted Reentry Vehicle (MIRV) capability, a renewed nuclear testing environment—initiated by an American test of an RRW design—could provide China with a pretext to build on its successful January 2007 test of an anti-satellite weapon.

# Chinese Modernization → Indo-Pak Prolif

**RRW upsets China’s confidence in its ability to balance the US. Chinese proliferation triggers Indo-Pak proliferation.**

**Khan, 8** - former Director of Arms Control and Disarmament Affairs in the Strategic Plans Division secretariats of Pakistan’s National Command Authority (Feroz Hassan, “Reducing the Risk of Nuclear War in South Asia,” 9/15/08, The Nonproliferation Policy Education Center, <http://npec.xykon-llc.com/files/20090813-khan%20final.pdf>)

In addition to the objectives outlined above, Chinese actions carry some added weight. Whether or not China builds up its nuclear capability based on South Asian security concerns or outside influences, it upsets whatever balance India might feel it has regarding Asian power. The United States’ reliable replaceable warhead (RRW) program exemplifies this. Although China may feel its 200 nuclear warheads is an adequate balance to the 10,000 warheads in the US, the RRW threatens that balance and could cause escalatory ripples in South Asia via China.42 Although Chinese-Indian interaction has become increasingly positive and more frequent as of late, China’s internal force posturing, especially in the nuclear realm will invariably create waves in India and in turn Pakistan. Support for Pakistan has become less overt under the scrutiny of the U.S.’s military involvement in the area, but China also needs to keep in mind the indirect effect it has on the sub-continent when it starts altering the status quo of its forces.

**Extinction**

**Washington Times, 1 (7/8, Lexis)**

The most dangerous place on the planet is Kashmir, a disputed territory convulsed and illegally occupied for more than 53 years and sandwiched between nuclear-capable India and Pakistan. It has ignited two wars between the estranged South Asian rivals in 1948 and 1965, and a third could trigger nuclear volleys and a nuclear winter threatening the entire globe. The United States would enjoy no sanctuary. This apocalyptic vision is no idiosyncratic view. The director of central intelligence, the Defense Department, and world experts generally place Kashmir at the peak of their nuclear worries. Both India and Pakistan are racing like thoroughbreds to bolster their nuclear arsenals and advanced delivery vehicles. Their defense budgets are climbing despite widespread misery amongst their populations. Neither country has initialed the Nuclear Non-Proliferation Treaty, the Comprehensive Test Ban Treaty, or indicated an inclination to ratify an impending Fissile Material/Cut-off Convention.

# Chinese Modernization → Accidental Launch

**Chinese prolif risks accidental launch**

**Federation of American Scientists et al, 1** (Toward True Security: A US Nuclear Posture for the Next Decade, a joint report by the FAS, NRDC, and Union of Concerned Scientists, June,<http://www.ucsusa.org/index.html>)

Over the 20 years since China first deployed nuclear-armed missiles with a range that could reach the United States, it has been slowly modernizing its nuclear forces. China is apparently developing two solid-fueled road-mobile missiles: the DF-31, with a range of about 8,000 kilometers, and the DF-41, with a longer range capable of reaching the 48 contiguous United States. The DF-31 was fi rst fl ight tested in 1999 and could be deployed within a decade. It is likely to be targeted against Russia and Asia, but could reach Alaska. The DF-41 is in early development and could be deployed within two decades. Because China’s motive for deploying these mobile missiles is apparently to create a more survivable deterrent, these missiles are likely to be deployed with their warheads. This could increase the risk of an accidental or unauthorized attack, as could the more diffi cult command-and-control problems associated with mobile missiles. The risk of an unauthorized attack could also be increased if serious political turmoil in China were to lead to a loss or weakening of nuclear command and control.

**Accidental launch triggers a global nuclear war that kills billions.**

**PR Newswire, 98** (“NEJM Study Warns of Increasing Risk of Accidental Nuclear Attack; Over 6.8 Million Immediate U.S. Deaths Possible,” 4/29)

Despite the end of the Cold War, American and Russian nuclear arsenals remain on high-alert. That, when combined with significant deterioration in Russian control systems, produces a growing likelihood of an "accidental" nuclear attack, in which more than six million American[s] men, women, and children could die, according to a study published in the April 30 New England Journal of Medicine. The authors, physicians, public health professionals, and nuclear experts, will hold press conferences on April 29 in seven U.S. Cities, including Boston, beseeching the U.S. Government to seek a bilateral agreement with the Russians that would take all nuclear missiles off high-alert as an "urgent interim measure" toward the only permanent solution: the abolition of nuclear weapons worldwide. "It is politically and morally indefensible that American children are growing up with the threat of an accidental nuclear attack," says Lachlan Forrow, MD, principal author of the NEJM article, "'Accidental' Nuclear War: A Post-Cold War Assessment," and internist at Beth Israel Deaconess Medical Center. His study cites numerous instances of 'broken arrows' -- major nuclear accidents that could have killed millions and exposed millions of others to potentially lethal radiation from fallout if disaster had not been averted. "Nuclear weapons do not make us safer, their existence jeopardizes everything we cherish." Forrow adds, "We are calling upon the mayors and citizens of all U.S. and Russian cities to join us in appealing to Presidents Bill Clinton and Boris Yeltsin to end this threat by taking all weapons off high-alert status immediately." A strike on Boston would likely target Logan Airport, Commonwealth Pier, the Massachusetts Institute of Technology, and Harvard University, resulting in 609,000 immediate fatalities, according to the researchers. Depending on wind patterns, says Dr. Forrow, hundreds of thousands of other Boston-area residents could be exposed to potentially lethal fallout. Launching nuclear missiles on false warning is the most plausible contemporary 'accident' scenario, according to the authors. More than mere conjecture, this scenario almost played out to horrifying results in 1995 when a U.S. scientific rocket launched from Norway led to activation of the nuclear suitcases carried by the top Russian command -- the first time ever in Soviet- Russian history. It took eight minutes for the Russian leadership to determine the rocket launch was not part of a surprise nuclear strike by Western nuclear submarines -- just four minutes before they might have ordered a nuclear response based on standard launch-on-warning protocols. An 'accidental' nuclear attack would create a public health disaster of an unprecedented scale, according to more than 70 articles and speeches on the subject, cited by the authors and written by leading nuclear war experts, public health officials, international peace organizations, and legislators. Furthermore, retired General Lee Butler, Commander from 1991-1994 of all U.S. Strategic Forces under former Chairman of the Joint Chiefs of Staff, General Colin Powell, has warned that from his experience in many "war games" it is plausible that such an attack could provoke a nuclear counterattack that could trigger full-scale nuclear war with billions of casualties worldwide.

# RRW → Iran/North Korea Proliferation

**RRW encourages Iranian and North Korean prolif.**

**Congressional Press Releases, 7** (8/2/07, Lexis)

On July 25, the Administration published a three-page white paper in which it argued that the Reliable Replace-ment Warhead Program should be funded. Senator Feinstein opposes such funding, asserting that developing the Reli-able Replacement Warhead will, in effect, create a new-generation nuclear weapon. "This is a dangerous course. This will send precisely the wrong signal to states with nuclear aspirations - such as North Korea and Iran - and it will encourage the nuclear proliferation that we are trying to stop," Senator Feinstein said. "It is clear to me that the Bush Administration is trying to reopen the nuclear door by attempting to speed research into this new warhead. A thorough and detailed analysis of nuclear weapons policy and posture is needed before Con-gress can decide whether to move forward with this program."

"The Administration's white paper does not change the fact that in each of the past 11 years, the Secretaries of Energy and Defense have certified that America's nuclear stockpile is safe and reliable. Nor does it change the fact there is no new military requirement to replace existing, well-tested warheads - or the fact the National Laboratories found that plutonium pits have life spans of at least 85 years. The bottom line: This Administration is pushing too hard, too early for a program with too many red flags."

# RRW → Iran Proliferation

**New weapons cause Iranian prolif**

**Blix, 7** – Chairman of the Weapons of Mass Destruction Commission, former director general of the International Atomic Energy Agency, former executive chairman of the United Nations Monitoring, Verification and Inspection Commission (Boston Review, May/June, Lexis)

Preventing further proliferation is essential, but it is not a recipe for success to preach to the rest of the world that it must stay away from the very weapons that nuclear states claim are indispensable for their own security. Perhaps it would be a little less difficult to persuade Iran to suspend its uranium-enrichment program and accept far-reaching verification if the nuclear states negotiating with Iran were ready to do the same.

**This kills our ability to use diplomacy**

Utne Reader, 7 (7/5/07)

Programs like the RRW are taking the world "in the wrong direction," Hans Blix, former executive chairman of the United Nations Monitoring, Verification, and Inspection Commission, writes in the Boston Review. Developing new kinds of nuclear weapons in the United States could undermine international efforts to keep nuclear weapons away from countries like Iran. It would be easier to convince Iran to give up its nuclear program, according to Blix, if the United States and its allies "were ready to do the same."

**Iranian prolif causes global nuclear war and nuclear terrorism**

**Fingar, 8** – Chairman of the National Intelligence Council (Thomas, NIC Report, Global Trends, 2005, Lexis)

A number of states in the region are already thinking about developing or acquiring nuclear technology useful for development of nuclear weaponry.  Over the next 15-20 years, reactions to the decisions Iran makes about its nuclear program could cause a number of regional states to intensify these efforts and consider actively pursuing nuclear weapons.  This will add a new and more dangerous dimension to what is likely to be increasing competition for influence within the region, including via proxies—Shia in Iran's case and Sunnis for most of its neighbors—and a competition among outside powers anxious to preserve their access to energy supplies and to sell sophisticated conventional weaponry in exchange for greater political influence and energy agreements.   Not Inevitable…  Historically, many states have had nuclear weapons ambitions but have not gone the distance.  States may prefer to retain the technological ability to produce nuclear weapons rather than to develop actual weapons.  Technological impediments and a desire to avoid political isolation and seek greater integration into the global economy  could motivate Tehran to forego nuclear weaponization.  However, even an Iranian capacity to develop nuclear weapons might prompt regional responses that could be destabilizing.    If Iran does develop nuclear weapons, or is seen in the region as having acquired a latent nuclear weapons capability, other countries in the region may decide not to seek a corresponding capability.  It is more likely, however, that a few of Iran's neighbors will see Iran's development of nuclear weapons or a latent weapons capability as an existential threat or as resulting in an unacceptable, fundamental shift of power in the region, and therefore will seek offsetting capabilities.  Security guarantees from existing nuclear powers that regional states find credible may be regarded by them as a sufficient offset to an Iranian nuclear weapons capability, but it could be a tall order to expect such guarantees to satisfy all of those concerned about a nuclear Iran.   …But Potentially More Dangerous than the Cold War.  The prospect that nuclear weapons will embolden Iran, lead to greater instability, and trigger shifts in the balance of power in the Middle East appears to be the key concern of the Arab states in the region and may drive some to consider acquiring their own nuclear deterrent.  Iran's growing nuclear capabilities are already partly responsible for the surge of interest in nuclear energy in the Middle East, fueling concern about the potential for a nuclear arms race.  Turkey, United Arab Emirates, Bahrain, Saudi Arabia, Egypt, and Libya are or have expressed interest in building new nuclear power facilities.  Future Iranian demonstrations of its nuclear capabilities that reinforce perceptions of its intent and ability to develop nuclear weapons potentially would prompt additional states in the region to pursue their own nuclear weapons programs. "We see a unified Korea as likely by 2025— if not as a unitary state, than in some form of North-South confederation." It is not certain that the type of stable deterrent relationship that existed for most of the Cold War would emerge naturally in the Middle East with multiple nuclear-weapons capable states.  Rather than episodes of suppressing or shortening low-intensity conflicts and terrorism, the possession of nuclear weapons may be perceived as making it "safe" to engage in such activities, or even larger conventional attacks, provided that certain redlines are not crossed.  Each such incident between nuclear-armed states, however, would hold the potential for nuclear escalation. The continued spread of nuclear capabilities in the greater Middle East, where several states will be facing succession challenges over the next 20 years, also will raise new concerns over the capacity of weak states to maintain control over their nuclear technologies and arsenals.  If the number of nuclear-capable states increases, so will the number of countries potentially willing to provide nuclear assistance to other countries or to terrorists.  The potential for theft or diversion of nuclear weapons, materials, and technology—and the potential for unauthorized nuclear use—also would rise.  Finally, enough countries might decide to seek nuclear weapons capabilities in reaction to an Iranian capability that countries beyond the region would begin pursuing their own nuclear weapons programs.

# RRW → North Korean Proliferation

**RRW guarantees rapid North Korean proliferation**

**Shen**, **7** – Director of the Center for American Studies at Fudan University in Shanghai (Dingli, “Upsetting a delicate Balance,” Bulletin of the Atomic Scientists, Volume 63, Number 4, Page 37, July/August)

The message RRW sends to North Korea is similarly absurd. Pyongyang feels threatened by the United States, and Kim Jong Il sought nuclear weapons in response to this perceived threat. The decision to strong-arm its way to the negotiating table paid off, as Washington has moderated its stance toward Pyongyang since North Korea tested its nuclear capability. As part of the deal it struck with the United States, in mid-February, Pyongyang promised to close and seal its nuclear facilities at Yongbyon within 60 days. However, more than 60 days have passed, and North Korea still hasn’t fulfilled its promise. Pyongyang maintains that it needs more time to transfer $25 million the United States unfroze from a North Korean account at Banco Delta Asia as part of the agreement. But the delay also gives North Korea time to abandon some of its nuclear capability while keeping other parts in case Pyongyang needs to quickly achieve nuclear status in the future. After all, RRW teaches North Korea that strength matters and nuclear weapons are a useful tool. By encouraging and legitimizing such proliferation, RRW is actually counterproductive to U.S. security, as a world filled with more nuclear states possessing more sophisticated nuclear arsenals only endangers the United States. RRW also represents a missed opportunity. Instead of introducing new nuclear weapons programs and revamping its nuclear arsenal, the United States could lead the way to a nuclear-weapon-free world by devoting its energies to devaluing nuclear weapons and moving toward disarmament.

# RRW Expensive

**RRW would costs hundreds of billions of dollars**

**ANA, 7** (Alliance for Nuclear Accountability, “Nuclear Weapons Forever: The Reliable Replacement Warhead Program,” http://www.ananuclear.org/Portals/0/documents/Fact%20Sheets/RRW%20FS%202007.pdf, Spring)

Provocative and Expensive RRW will not be a single type of warhead. Instead, NNSA wants a “continuous design/deployment cycle that exercises design and production capabilities” for up to four RRWs. Changing weapon delivery systems to accommodate the RRW program could cost hundreds of billions of dollars.

# 2NC Conventional Global Strike Tradeoff 1/2

**RRW trades off with CGS.**

**Gormley, 7** – Professor of International Affairs @ University of Pittsburgh, Senior Fellow at the Monterey Institute's James Martin Center for Nonproliferation Studies (Dennis M.“SILENT RETREAT: The Future of U.S. Nuclear Weapons,” Nonproliferation Review, Vol. 14, No. 2, July 2007, 183 — 206, <http://www.isodarco.it/courses/andalo10/doc/Gormley_SilentRetreat.pdf>)

The future shape of the U.S. nuclear posture will also depend critically on corresponding improvements in U.S. advanced conventional programs. Arguably, the performance of U.S. conventional capabilities could be made even more effective sooner, were the opportunity costs associated with the nuclear establishment’s most ambitious future plans scuttled or greatly scaled back. Experts already foresee the distinct possibility that the RRW program will adversely affect conventional weapon funding.81 Conversely, cutting it back substantially could free up funds for important conventional programs. The New Triad’s notion of ‘‘prompt global strike’’ has suffered in media and expert circles, largely because of the 2001 NPR’s call for integrating nuclear and conventional means as if they were equally usable weapons of war. But the truth is that future plans for prompt global strike for the most part involve conventional weapons. (For more on this, see Hans Kristensen’s article, ‘‘U.S. Strategic War Planning after 9/11,’’ in this issue.) This may explain the concept’s surprising endorsement by Congress in late 2003, as well as the challenges ahead in producing viable strike options that truly merit the appellation ‘‘prompt.’’82 Most familiar are the near-term programs, including the navy’s conversion of four Trident ballistic-missile submarines into conventional cruise missile and special operations vessels and the navy’s controversial plans to outfit a small number of Trident D5 nuclear missiles on the remaining 14 submarines with conventional warheads. The latter program elicited a strong cautionary provision from both houses of Congress, requiring the administration to provide details on how to ensure that use of such a missile would not result in inadvertent or accidental retaliatory nuclear response before any funds are expended.83 The air force has plans for a new long-range bomber by 2018, but here too, should nuclear weapons figure into this plane’s future, they would constrain the plane’s design parameters to a manned rather than unmanned system. Yet taking the pilot out of the loop could make the future bomber much more survivable and maneuverable.

**Conventional strike is key to flexible deterrence against all threats.**

**Manzo, 8 –** Center for defense information research assistant (Vince, “An Examination of the Pentagon’s Prompt Global Strike Program: Rationale, Implementation, and Risks” <http://www.cdi.org/pdfs/PGSfactsheet.pdf>)

Consistent with this argument, a PGS capability has also been discussed as an integral component of “tailored deterrence.” Tailored deterrence envisions integrating nuclear, conventional and non-kinetic capabilities into a single menu of options from which decision-makers can draw from to formulate an appropriate strike plan for a given set of targets and objectives. The logic underlying tailored deterrence is that “deterrence threats based on the generally high nuclear yield of the Cold War arsenal may not appear credible”3 against threats that fall short of a large scale nuclear attack on the United States. Therefore, the United States must fashion tempered force options that are commensurate with the dangers facing it in the contemporary security environment. For instance, the 2006 Quadrennial Defense Review (QDR), one of the key documents defining “tailored deterrence,” lists advanced military competitors, regional WMD states, and non-state terrorist networks as threats that require “more tailored approaches” than the strategic nuclear deterrence that formed the cornerstone of U.S. security policy during the Cold War.4 The PGS mission would contribute to tailored deterrence, its advocates argue, by giving the United States the ability to wield conventional weapons that possess the target-impact speed and global reach of long-range nuclear ballistic missiles, thereby creating a more adaptable deterrent. As described by a DOD spokesman: “The goal of this new strategy is to produce a force capable of assuring allies, dissuading competitors, deterring adversaries, and if necessary defeating enemies…The conventional missile program will help achieve this goal by producing the capability to defeat threats on short notice without crossing the nuclear threshold.”5 Cartwright elaborated on this point, stating that “trying to bring all those pieces together to what will become deterrence, those things that will keep our adversaries at bay whether they are nation states, like the former Soviet Union was, or whether they are as simple as a terrorist, and trying to keep a terrorist to coming to our soil, that is what Global Strike and Space is at the heart of.”

# 2NC Conventional Global Strike Tradeoff 2/2

**The mere existence of conventional global strike deters WMD use**

**Sills, 1** – Lieutenant Colonel @ US Air Force (Larry G., “Space-Based Global Strike: Understanding Strategic and Military Implications,” Occasional Paper No. 24, Center for Strategy and Technology, Air War College, August 2001] http://www.au.af.mil/au/awc/awcgate/cst/csat24.pdf)

Deter Weapons of Mass Destruction. Air Force doctrine emphasizes the deterrent capability of combat airpower that has a global reach. Air and space forces can deter an adversary from taking actions that threaten U.S. interests, especially if the United States could project military power anywhere on the earth within hours. Deterrence would rest on the knowledge that air and space intelligence, surveillance, and reconnaissance systems are watching their activities; that long-range bomber and air mobility forces are ready to respond over intercontinental ranges with a large variety of capabilities; and that land-based fighter and attack aircraft could sweep the skies of enemy aircraft and prevent the movement of ground forces. All of these considerations are likely to cause the adversarys leadership to reconsider their objectives and plan of action.75 While Air Force doctrine stresses the role of aircraft for global strikes, the ability to strike an aggressor through space directly from the United States within 90 minutes with conventional weapons would clearly add a new dimension to deterrence. The existence of this capability would force U.S. adversaries to re-evaluate their political and military strategies.

# CGS Good – Conflict Escalation

**CGS solves terrorism and rogue states.**

Carnesale, 7 - Chair, Committee on Conventional Prompt Global Strike Capability (Albert, National Research Council, “Conventional Prompt Global Strike Capability: Letter Report,” 5-11, http://books.nap.edu/catalog.php?record\_id=11951#toc)

The committee was provided several briefings and references that cited either directly or inferentially the *Washington Post* editorial by former Defense Secretaries James Schlesinger and Harold Brown describing a compelling scenario in which the need for CPGS is evident: the United States has learned of a terrorist group’s plan to transport a nuclear weapon, and the opportunity to intercept the shipment is both urgent and fleeting. In this scenario, there are no U.S. military forces close to the expected shipping point and one weapon type in the U.S. arsenal can reach the point in time – a nuclear-armed ballistic missile. Clearly, the nation would benefit from having a conventional option in this case. Another scenario involves a rogue state preparing to launch a ballistic missile with a nuclear warhead from a location that current conventional forces could not reach with sufficient speed. And yet another oft-cited and plausible scenario is one in which the United States has learned that a top terrorist leader will be at a certain place at a given time and again the nation has no conventional forces capable of striking that place at the right time. As Congress has noted, the C4ISR architecture must be capable of supporting a CPGS weapon. In each of the above very limited strike scenarios, it is possible that detailed attack and targeting preparations will have been made – such as georegistration (determining the latitude, longitude, and elevation of the target), planning for minimization of collateral damage, assessment of the vulnerability of the target to the warhead-type, and the triple checking of intelligence. In these cases, it is plausible that it would be important to be able to strike very quickly so that – while decisionmaking and preparations would always take some time – when the triggering event or opportunity arose, execution of the strike would be as rapid as technology could support. Moreover, there might be instances, even with such targets, where pre-planning could be such that flight time would become the critical element in the ability to respond quickly enough. It is also quite possible – perhaps more probable – that preparations would not have been made ahead of time, in which case the need for rapid georegistration would be as great as the need for rapid weapon delivery. Achieving sufficiently accurate and reliable georegistration within minutes is a daunting challenge. Similarly, rapid decisionmaking (presumably by the President) would require expedited abilities to assess the risk of collateral damage and other risks peculiar to the use of a CPGS weapon. The committee has not yet had adequate opportunity to understand fully the DOD’s or the White House’s capabilities in this regard. Given the pace of terrorism’s spread and the consequent uncertainty about where terrorist operations will occur, coupled with the proliferation of weapons of mass destruction, a truly global capability may soon be required, if it is not required today.

\*\*\*A2: RRW GOOD

# Current Nukes Reliable 1/3

Current arsenal is reliable – nine years of examination and previous testing prove

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

Along with certifying the safety of U.S. nuclear weapons, the Secretaries of Energy and Defense have also certified in each of the past nine years that the warheads in the existing stockpile are reliable. Those assessments were all based on the collective judgments of the three Directors of the National Weapons Laboratories and the Commander of the U.S. Strategic Command (STRATCOM). It is relatively straightforward to determine the reliability of the non-nuclear components of a nuclear weapon. The non-nuclear components can be tested as many times as necessary, both individually and as complete systems, to estimate their reliability to any desired level of statistical accuracy. The weapons laboratories and factories conducted such testing during the initial development and fabrication of each warhead in the stockpile. To certify warhead reliability, the labs had to demonstrated at least a 98 percent probability that all of the non-nuclear components of a warhead would function as intended.32 There is no need to improve upon that reliability level. NNSA need only assure that the reliability of the non-nuclear components does not degrade as they age. (see below) The nuclear components are also highly reliable. In fact, in all formal reliability reports, through at least the year 2000, evaluators have judged the nuclear components of U.S. weapons to be 100 percent reliable.33 Since there is a substantial degree of judgment in those assessments, the real question is, how confident are the experts in the reliability of nuclear components. Even when full-scale nuclear weapons tests were allowed, it was too impractical and expensive to test sufficient numbers of production line weapons to assess their reliability to a high degree of statistical accuracy. Thus, the ultimate performance of nuclear weapons has always included a degree of judgment. The best aid to that judgment is a weapon’s performance in actual full-scale nuclear tests. Each nuclear weapon design in the current stockpile underwent several tests during development and production. The testing programs included tests of degraded warheads and tests under a variety of adverse conditions, such as extremes of temperature. Designers used highly sophisticated computer models and the results of those tests to predict the performance of the warheads under additional off-normal circumstances, including imperfections that may have been introduced during production. No warhead entered the stockpile until the designers had a high degree of confidence that it would function as intended and they were able to convince an independent team of experts to join in their assessment. Scores of experts at the weapons laboratories have repeatedly retested and reconfirmed those initial judgments. Over slightly more than a decade, the NNSA has spent $60 billion on the Stockpile Stewardship program. Under Stockpile Stewardship, NNSA uses sophisticated equipment to test simulated nuclear weapons. NNSA has vastly improved its computer codes to analyze the results of those tests and to predict the performance of existing nuclear weapons under every conceivable circumstance. The result, as noted above, has been recertification each year that every design in the nuclear weapons stockpile is safe and reliable.

Extensive testing of current arsenal means no enemy will doubt the reliability of US nukes

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

RRW proponents point to the small performance margins of existing weapons, which were designed to minimize their size and weight and to maximize their explosive yield. Performance margins may be small, but that does not negate the numerous tests and years of analysis that has resulted in a high confidence in the reliability of the existing stockpile. As Hoover Institution Fellow Dr. Sidney Drell and Ambassador James Goodby have stated, “It takes an extraordinary flight of imagination to postulate a modern new arsenal composed of [untested] designs that would be more reliable, safe, and effective than the current U.S. arsenal based on more than 1,000 tests since 1945.”34 How potential adversaries view the likely performance of U.S. nuclear weapons is even more important than their actual physical reliability. Deterrence is based on an adversary’s belief that if he takes certain hostile actions, the U.S. response will be certain and effective. It is conceivable that an adversary could question how the United States might react to certain provocations, but it is ludicrous to suggest that any adversary could be emboldened by the belief that U.S. nuclear weapons would not work if employed against them.

# Current Nukes Reliable 2/3

**RRW unnecessary and leads to proliferation**

**Grossman, 10** (Elaine M., “Nuclear Posture Review Adopts Varied Approach to Updating Warheads,” Global Security Newswire, <http://gsn.nti.org/gsn/nw_20100407_3870.php>)

The new review leaves open the option of nuclear component replacement, albeit as a last resort. That has rankled several on the president's left flank, who want to see replacement renounced altogether. "Efforts to pursue newly designed warheads are technically unnecessary and would undercut our efforts to convince other nations to forgo nuclear weapons or refrain from developing new and more advanced types of nuclear warheads," stated a February letter to Obama from 13 leading arms control and nonproliferation advocates. In November, a panel of top scientists told the U.S. government that traditional refurbishment methods have worked well to date and should be sufficient in the coming years (see GSN, Nov. 20, 2009). "Lifetimes of today's nuclear warheads could be extended for decades, with no anticipated loss of confidence, by using approaches similar to those employed" in maintaining the stockpile to date, according to JASON, a panel of senior scientific and technical experts frequently consulted by the U.S. government.

**Warheads not old or defective, even the oldest systems that have exceeded their predicted lifetimes**

**Slakey and Tannenbaum, 9 – Ph.D. physicists who now work on science and technology policy in Washington, D.C**.; Slakey is the Upjohn Professor of Science and Public Policy at Georgetown University and associate director of public affairs for the American Physical Society; Tannenbaum is the associate program director of the Center for Science, Technology and Security Policy at the American Association for the Advancement of Science (Francis and Benn, “What About the Nukes?,” IEEE Spectrum, <http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/>)

So is the existing stockpile now reaching the end of its Weibull curve? It doesn’t look that way to us. Assuming that nuclear weapons age just like any other manufactured system, then as the weapons enter the end-of-life phase you’d expect to see a significant uptick in SFIs. But the data clearly indicate that no such rise is occurring—even in the oldest systems that have already exceeded their design lifetimes. Although there is a spike in the number of SFIs at the 20-year mark, no system older than that has exhibited a trend of increasing SFIs. Indeed, among the five nuclear weapon types in the active stockpile that were at least 25 years old in 2006—the B61-3, B61-4, W76, W78, and W80-1—only one age-related defect in nuclear components was detected. Further, other stockpile data show that SFIs are infrequent even for systems that are more than 30 years old. Suppose, though, for argument’s sake, that the active stockpile is going to reach the end of its Weibull curve in the near future. Even then, that doesn’t mean switching to a new warhead is the way to go. For one thing, any new system would also be subject to the Weibull curve; that is, it would experience a significant number of defects during its early years. Proponents of RRW argue that the new designs would be easier to fix and simpler to maintain and pose fewer technical challenges than the warheads they would replace. At this point, there’s no way of knowing if those claims are true. Proceeding with a new nuclear weapon would also likely reduce funds for stockpile stewardship, especially in the current economic climate. Diverting resources from stewardship to the development of a new warhead could lead to a backlog in surveillance, and it could also prolong the time it takes to close SFIs. The result would be diminished confidence in the existing systems.

# Current Nukes Reliable 3/3

**Our existing stockpile of 10,000 warheads will remain reliable for decades**

**Young, 7 – Washington Representative, Union of Concerned Scientists (Stephen, “New Nuclear Weapons: Reliable Replacement Warhead (RRW),” Union of Concerned Scientists,** <http://www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_weapons/technical_issues/new-nuclear-weapons-reliable.html>)

**New nuclear weapons are technically unjustified.** All the evidence indicates that the existing U.S. stockpile of nearly 10,000 nuclear warheads is highly reliable and that it will remain so for many decades. Based on an extensive testing and monitoring program at the three nuclear weapons laboratories, the Secretaries of Energy and Defense have certified to the President, each year since 1997, that all warhead types in the U.S. nuclear stockpile are safe, secure and reliable. In late 2006 the JASONs (an independent panel of scientists and engineers that has long advised the U.S. government on nuclear weapons issues) assessed data from plutonium "accelerated aging" experiments conducted at the nuclear weapons laboratories. The report concluded that the plutonium components in U.S. nuclear warheads have lifetimes of at least 85 years, and possibly much longer. Since the oldest warheads were built in the 1970s, the core nuclear components of current warheads will remain vital for at least another fifty years. The initial design of the first new warhead, designated RRW-1, was recently approved, and a First Production Unit is planned to be built by 2012. It would replace the 100-kiloton W76 warhead deployed on U.S. Trident II submarine-launched ballistic missiles. Yet the W76 does not need to be replaced. A refurbishment program on the W76 is just beginning that will extend its lifetime for 30 years. For the first time since the end of the Cold War, the DOE would task the nuclear weapons laboratories to design a new nuclear core (the Nuclear Explosive Package or NEP) containing the fission primary—with its plutonium "pit"—and the thermonuclear secondary device. A nuclear weapon consists of several thousand components, of which the NEP is considered to be the most reliable. The NEP has few moving parts and is inherently robust: in formal reporting, it has traditionally been described as 100% reliable. In contrast, the least reliable component of the weapon is the delivery system—the missiles or bombers that carry the warheads to their targets. Results from missile flight tests indicate that approximately 15% of the time, some type of delivery system failure would prevent the warhead from reaching its target. The RRW could be "misunderstood by our allies, exploited by our adversaries, complicate our work to prevent the spread of nuclear weapons, and make resolution of the Iran and North Korea challenges all the more difficult." ~ Sam Nunn, Congressional Testimony, March 29, 2007

**RRW isn’t necessary – our weapons can last 50 more years**

**O'Hanlon, 8** –brookings institute: Director of Research and Senior Fellow, Foreign Policy. Director of Research, 21st Century Defense Initiative, The Sydney Stein, Jr. Chair, enior author of the Iraq, Afghanistan, and Pakistan Index projects. , before the Brookings institute O’Hanlon worked as a national security analyst at the Congressional Budget Office (12/25/08, Michael, Washington Post, “ A New Old Nuclear Arsenal”, acess via Lexis)

Delaying pursuit of this remanufacturing program would not present a problem. We have little reason to think that today's nuclear arsenal is unreliable. Already, a $5 billion annual program to ensure good stockpile stewardship and reliability is monitoring weapons and remanufacturing parts that show signs of age. Bomb designers are more concerned about the arsenal 25 or 50 years from now; if we delay a few years in building more conservative designs, deterrence will not suffer.

# A2: Plutonium Unstable

**The fear that plutonium “pits” trigger nuclear weapons were becoming unstable has been proven false**

**Sharpe, 7** – Herbert Scoville Jr. Place Fellow at the Center for Arms Control and Non-Proliferation (Travis, “No More New Nukes, Please: U.S. Nuclear Supremacy Couldn’t Prevent 9/11,” http://www.counterpunch.org/sharpe01052007.html)

The Nuclear Weapons Council (NWC), a group of senior officials from the Pentagon and the Department of Energy's National Nuclear Security Administration, has announced that it is moving forward with the Reliable Replacement Warhead (RRW) program, a proposal that aims to build the next generation of U.S. nuclear weapons. The council didn't even seem to notice that one of its major justifications for the RRW program-a fear that the plutonium "pits" that trigger nuclear weapons were becoming unstable-was completely rejected two days earlier by JASON, a prestigious scientific advisory group. On November 29, JASON released a report stating that the pits remain dependable for at least 100 years. The previous estimate of pit life expectancy was only 45 years, and the oldest pit in the current U.S. nuclear stockpile is 30 years old. If we have 70 years until plutonium warheads become undependable, why are we in such a hurry to build new ones? After all, the current stockpile is based on 50 years of research with more than 1,000 underground nuclear tests and is regularly deemed "safe and reliable" by nuclear experts. Rep. David Hobson (R-Ohio), father of the RRW program, responded to the JASON report by advising the council to "take a breath because -- Congress is not going to be as robust about this." With a $150 billion price tag, it's not hard to see why, especially considering the Department of Energy's terrible record on project management. High-tech nuclear weaponry also does nothing to help American efforts in Iraq, a low-tech counterinsurgency operation that just lost Republicans a majority in both houses of Congress.

# A2: Deterioration Over Time 1/2

Surveillance and courtship of weapons means they can be maintain indefinitely

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

The NNSA can maintain the high level of reliability and safety in today’s stockpile indefinitely. Over time, some components might cease to function properly as they age. Several components, such as power sources, neutron generators, and tritium supplies, have well known limited-lifetimes. NNSA always anticipated it would replace those components on a regular schedule and it now does so. NNSA guards against the failure of other components by conducting extensive surveillance programs to identify potential problems, before they develop. The NNSA takes apart eleven warheads of each design every year and examines and tests their components to determine how they are working. There is a high probability that NNSA’s surveillance programs will anticipate any potential problem and fix it well before a failure threatens the reliability of any warhead. RRW proponents profess concern that over time an accumulation of small changes in warheads will lead to uncertainty. As the stockpile has aged, NNSA has *chosen* to replace numerous components with modified versions. The vast majority of changes that NNSA made were to enhance warhead performance rather than to maintain safety or reliability. Many of the changes have been made under the so-called Life Extension Program (LEP). Life Extension Program is an insidious misnomer for nearly complete rebuild and upgrade of a warhead system that is nowhere near the end of its life. As part of an LEP, NNSA, with assistance from the Department of Defense, reexamines the performance features for a weapon (called military requirements) and reevaluates the design of every component in the weapon against the revised military requirements. Typically, NNSA replaces dozens of components with newly designed versions. Few, if any, of the replacements are required to extend the life of aging components. Rather, NNSA has chosen to make weapons lighter, more rugged, more tamper proof, and more resistant to radiation. In addition, NNSA installed new components that improved design margins, added arming and fuzing options, improved targeting flexibility and effectiveness, and it has put in advanced tritium delivery systems. Thus, the labs themselves are responsible for most changes to nuclear weapons. If the NNSA is concerned about changes to weapons, it should stop making them. NNSA should adopt a “Curatorship” approach to maintaining the nuclear weapons stockpile. Under the Curatorship approach, NNSA would expand its surveillance activities to be even more certain it can identify problems with components before they cease to function properly. NNSA would then replace any suspect components with identical or nearly identical components that could be thoroughly tested and certified. In rare instances, a vital material or part that must be replaced may no longer be available or able to be fabricated by the laboratories. Only in those rare instances, or in even rarer instances where the surveillance program identifies a significant flaw in a components design, should NNSA replace the component with a modified design. The vast majority of such components can be thoroughly tested and proven to work, before being installed. Only a small fraction of components—those that might affect the nuclear performance of the warhead— cannot be thoroughly tested. Those components should not be altered.

Radioactive decay is minimal – the minimum life of plutonium pits is at least 45 years

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

As warheads age and their nuclear materials undergo radioactive decay, the properties of those materials could ultimately change sufficiently to degrade the warheads’ performance. The major isotope of concern is plutonium-239, the key Pu isotope used in nuclear weapons. Its half-life is about 25,000 years. This means that about one in 50,000 Pu-239 atoms will undergo radioactive decay each year. NNSA has spent hundreds of millions of dollars examining this issue. Thus far, the labs have observed only minor age-induced changes in the physical properties of the oldest plutonium available and there is no direct evidence that these affect pit performance or reliability. 35 Some lab experts believe there is a theoretical basis for assuming that changes could develop rapidly after an unknown threshold period. In such a worst case analysis, assuming the threshold is just beyond the 42 years of the oldest plutonium studied through 2003, NNSA determined the minimum lifetime of plutonium pits to be 45 years. There is, however, no basis for assuming that the threshold is just beyond existing experience. Using less pessimistic, but still conservative extrapolations from the data available through 2003, NNSA determined that pits could remain reliable for at least 60 years. NNSA has not yet identified any upper bound for pit lifetimes. Research continues. It is possible that as NNSA gains more data from aged plutonium, it will extend its conservative estimates of pit lifetimes to 100 or even 200 years. Whether existing pits will have to be replaced in two decades or two centuries, they too could be replaced with nearly exact duplicates of the original designs.

# A2: Deterioration Over Time 2/2

Age has only increased reliability of weapons – bugs are worked out of the system

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

Proponents of the RRW program grossly overstate the overall problem of aging. Modern nuclear weapons are hermetically sealed and filled with inert gases that dramatically reduce, if not eliminate, changes in materials or corrosion over time. Corrosion of some materials was a problem in warheads of the 1940s and 1950s, but problems were identified and solved years ago. In general, the lab’s confidence in the reliability of U.S. nuclear weapons has increased as they aged, since lab experts corrected potential problems or otherwise resolved them. After reviewing a classified “Stockpile Life Study” performed by Sandia National Laboratory, one expert concluded: The thirty years of experience summarized in this study revealed that there is not known to be any upper limit on weapon life, given appropriate maintenance and renewal of perishable materials and parts (e.g. tritium). No U.S. weapon has ever been retired due primarily to aging problems, even though some weapons have, in the past, been in the active stockpile for more than 30 years before being superseded by new designs. Aggregate data show that the rate of required modifications and repairs of stockpile weapons decreases as the years go by, reflecting continually increased reliability as the ‘bugs’ are gradually worked out of weapons systems.36 With proper maintenance, under a Curatorship approach, NNSA can maintain the reliability, safety, longevity, and certifiability of existing weapons indefinitely with greater confidence and for less money than it currently spends under the Stockpile Stewardship approach. It is hard to grasp how the same people who are concerned about certifying the occasional small changes to well-tested nuclear weapons, which may be necessary under the Curatorship approach, are confident they can certify an entirely new and untested RRW design.

# A2: RRW k2 Reliable Weapons – SSP Solves 1/2

**RRW unnecessary—our nuclear stockpiles are already reliable thanks to the Stockpile Stewardship Program—proponents are simply trying to furtively develop new nuclear weapons**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

The United States has not deployed a new nuclear warhead since 1989. The last U.S. underground nuclear explosive test occurred in September 1992. Later that year, President George H. W. Bush halted further design work on new nuclear weapons and signed legislation initiating a moratorium on nuclear testing. As a result, the U.S. nuclear weapons laboratories underwent a fundamental change in mission, from an earlier focus on developing and testing new warhead designs to their current focus on maintaining the U.S. nuclear stockpile without nuclear testing. As of January, the United States possessed nearly 10,000 nuclear warheads. Approximately 5,700 warheads based on nine design types are currently deployed on missiles, bombs, and other operational weapons or otherwise maintained in ready-to-use status. The United States also maintains a reserve stockpile of approximately 4,200 inactive warheads.[[2](http://www.armscontrol.org/act/2006_04/reliablefeature#note02)] Although it greatly reduced the number of its deployed nuclear weapons at the end of the Cold War, the United States chose to keep a stockpile “hedge,” arguing that additional weapons might be needed if a serious performance problem were ever discovered in an entire class of deployed warheads or if it faced a renewed strategic threat, such as a nuclear buildup by a resurgent Russia, and needed to deploy a larger arsenal rapidly. Whether the United States could maintain its nuclear deterrent without conducting nuclear explosive tests was hotly debated during the 1990s, but a key endorsement came from the JASON committee, a prestigious group of academic and industrial scientists that has advised the U.S. government for decades. The JASON committee determined that, under a ban on nuclear explosive testing, the United States could “have high confidence in the safety, reliability, and performance margins of the nuclear weapons that are designated to remain in the enduring stockpile.” In reaching this conclusion, the group explicitly assumed that the United States would not need to develop new nuclear weapon designs. They also warned that the laboratories should not try to make changes to existing weapons: “greatest care in the form of self-discipline will be required to avoid system modifications, even if aimed at ‘improvements,’ which may compromise reliability.”[[3](http://www.armscontrol.org/act/2006_04/reliablefeature#note03)]

The Energy Department currently maintains U.S. nuclear warheads through the Stockpile Stewardship Program, a $6.4 billion per year research, engineering, and monitoring program designed during the Clinton administration to maintain the long-term safety, reliability, and security of the U.S. nuclear arsenal without nuclear explosive testing. Each year, 11 sample weapons of each of the nine warhead types are subjected to an extensive series of tests to ensure they will perform as designed and that no age-related problems have developed. In some cases, nuclear warheads have been rebuilt as part of the stockpile Life Extension Program: engineers refurbish existing nuclear warheads by fixing or replacing the non-nuclear components before aging-related changes jeopardize warhead safety or reliability. Weapons are rebuilt as closely as possible to original specifications, minimizing design changes that could reduce confidence in the reliability of these weapons. As a result of this approach, since 1997 the secretaries of defense and energy each year have been able to formally certify to the president that the U.S. nuclear stockpile continues to be safe and reliable. As Linton Brooks, administrator of the National Nuclear Security Administration, said recently, “[The] Stockpile Stewardship [Program] is working. We are absolutely convinced today’s stockpile is safe and reliable.”[[4](http://www.armscontrol.org/act/2006_04/reliablefeature#note04)] Despite the acknowledged success of the Stockpile Stewardship Program, however, some officials at the Energy Department and at the nuclear weapons laboratories have never been happy with restrictions that prevent them from working on new and more exotic warhead designs. Over the last several years, the Energy Department has sought authorization and funding from Congress—sometimes successfully, sometimes not—to begin design work on new low-yield nuclear weapons (mini-nukes),[[5](http://www.armscontrol.org/act/2006_04/reliablefeature#note05)] a Robust Nuclear Earth Penetrator for destroying deeply buried and hardened targets, [[6](http://www.armscontrol.org/act/2006_04/reliablefeature#note06)] a Modern Pit Facility capable of rapidly producing the plutonium cores of new warheads,[[7](http://www.armscontrol.org/act/2006_04/reliablefeature#note07)] and a reduction in the time needed to prepare and conduct an underground nuclear test.

# A2: RRW k2 Reliable Weapons – SSP Solves 2/2

**RRW unnecessary—our nuclear stockpiles are already reliable**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

Faulty Assumptions The Energy Department claims that the weapons labs could certify any new RRW design as long as it remains well within the parameters of previously tested designs. At a March 1 hearing of the House Armed Services Committee, Brooks testified that weapons designers are “confident that their designs will meet our requirements and be certifiable without nuclear testing.” But the Energy Department’s plans for the RRW program are based on a set of misleading and faulty assumptions that, if acted on, are likely to worsen rather than improve U.S. national security. Assumption 1: Stockpile Reliability is Degrading. First, the very name, “Reliable Replacement Warhead program,” wrongly suggests that existing U.S. weapons may be unreliable and need to be replaced. Indeed, the weapons laboratories have reinforced this perception with vague and speculative assertions: “Over the longer term, we may face concerns about whether accumulated changes in age-affected weapons components, whose replacements might have to be manufactured by changed processes, could lead to inadequate performance margins and reduced confidence in the stockpile.” In fact, there is nothing unreliable with the nuclear weapons the United States already maintains. As a result of the Stockpile Stewardship Program’s basic research efforts, weapons scientists understand the performance and reliability of U.S.nuclear warheads better today than they did when full-scale nuclear weapons tests were allowed. Further, the Energy Department has offered no public evidence to suggest the Stockpile Stewardship and the Life Extension Programs have been anything but remarkably successful. To the contrary, Seymour Sack, one of the nation’s most prolific weapon scientists who designed most of the nuclear primaries in the current nuclear arsenal, asserts, “We’ve got a reliable stockpile. We have a test base for it. We have now in the last 10 or 15 years far more sophisticated computational abilities than we had doing these designs originally, so things are extremely well understood in terms of the performance.… I don’t see any reason you should change those designs.”[17] Indeed, the critical nuclear components appear to be lasting longer than originally expected. Earlier concerns that the plutonium pits would be damaged by self-irradiation as they age have not yet been realized. The Energy Department is scheduled to release the results of these “accelerated aging” experiments later this year, but administration officials have already hinted that minimum pit lifetimes are likely to be much longer, and initial reports have suggested lifetimes in excess of 90 years.[18] Moreover, the JASON committee suggested as early as 1995 a simple way to improve the warhead “primary performance margins” simply by changing the composition of the tritium boost gas or by replacing it more frequently.

**SSP successfully detects and addresses defects in the current stockpile**

**Slakey and Tannenbaum, 9 – Ph.D. physicists who now work on science and technology policy in Washington, D.C**.; Slakey is the Upjohn Professor of Science and Public Policy at Georgetown University and associate director of public affairs for the American Physical Society; Tannenbaum is the associate program director of the Center for Science, Technology and Security Policy at the American Association for the Advancement of Science (Francis and Benn, “What About the Nukes?,” IEEE Spectrum, <http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/>)

With a decision still pending, it is worth asking: Is a new nuclear weapon necessary? We think the answer is no. To understand why, first consider how defects accumulate in a complex system. Most such systems, including nuclear warheads, follow a Weibull curve, also known as a bathtub curve, that characterizes the rate of defects it will suffer over time [see graph, [”In the Tub”](http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/0)]. The curve has three distinct parts: 1) a high rate of ”birth defects,” which gradually decrease over the early period of the system’s life; 2) a quiescent, relatively trouble-free period as the system matures; and 3) an ”end-of-life” wear-out period marked by a rise in defects, requiring parts to be fixed or replaced frequently. When a system is in its end-of-life phase, the amount of maintenance and repair required to keep it operational becomes burdensome. In nuclear weapons circles, these defects are referred to as findings, with more serious defects called significant findings, or SFIs. Under Stockpile Stewardship, SFIs are closely monitored. When an SFI is first identified, it is referred to as open; the SFI is considered closed when a solution has been determined, although not necessarily implemented. In general, most findings are due to aging in the nonnuclear part of the warhead and are relatively easily fixed. Some, though, require more involved intervention, including the design and manufacture of replacement components. The best way to track the aging of warheads is to chart the SFIs over time. The weapons labs do this, of course, and their data show that for the arsenal as a whole, the failure rate is still low. For example, the graph “Old but Okay” shows that only a few age-related SFIs have been reported in nuclear components over time, even in the oldest systems. Other data for 2005 and 2006, the most recent years for which data are publicly available, indicate that the number of new SFIs had declined to the lowest level since the start of the stewardship program. But it’s also taking longer to resolve open SFIs; in 2006, it took an average of 70 months to close an SFI, compared to 40 months in 2005. Based on the SFI data, we can draw two hopeful conclusions and one somewhat ambiguous one: • The Stockpile Stewardship Program is successfully detecting defects. • The program is effectively addressing them. • As time goes on, it is taking longer to find a solution to a given defect.

# A2: RRW k2 Reliable Weapons – Prefer Physics

**Prefer arguments about the quality of our nuclear warheads that are grounded in physics – an exact science with more rigorous evidence standards**

**Slakey and Tannenbaum, 9 – Ph.D. physicists who now work on science and technology policy in Washington, D.C**.; Slakey is the Upjohn Professor of Science and Public Policy at Georgetown University and associate director of public affairs for the American Physical Society; Tannenbaum is the associate program director of the Center for Science, Technology and Security Policy at the American Association for the Advancement of Science (Francis and Benn, “What About the Nukes?,” IEEE Spectrum, <http://spectrum.ieee.org/aerospace/military/what-about-the-nukes/>)

But over the past several years, some high-placed U.S. officials, including Defense Secretary Robert Gates, have come around to a different view—that even with diligent inspection and maintenance, the current arsenal will soon become unreliable and will no longer have much deterrent value. The only solution, they say, is to design and build new warheads. These new weapons would be produced using state-of-the-art industrial methods that would vastly simplify manufacturing and maintenance and also drive down costs. Such arguments for new warheads are compelling—but also controversial. Critics note that under the Treaty on the Non-Proliferation of Nuclear Weapons, or NPT, the United States and other nuclear nations are obligated to work toward eliminating their nuclear arsenals. Some even argue that U.S. modernization efforts, though confined so far to paper studies, have encouraged North Korea, Iran, and other countries to redouble their efforts to produce nuclear arsenals of their own. Proponents of building new warheads counter that these systems would simply be replacing antiquated weapons and that over time the total arsenal would continue to shrink. Geopolitics is an inexact science, to put it mildly. But physics is not, and as physicists who’ve been involved in science and national security policy for many years, we believe that science and technology can, in this case at least, tell us all we need to know to decide this issue. Based on the available data, we are confident that the current program of stockpile stewardship, with some modifications, can preserve the U.S. arsenal for the foreseeable future and that it isn’t necessary—and may even be counterproductive—to pursue new warheads. What we’re *not* saying is that extending the life span of the arsenal is going to be easy. To understand why, you’re going to need a quick refresher in nuclear history and technology.

# A2: New Weapons Safe

**RRW combines warhead parts that were never previously tested together – that’s unsafe and kills the credibility of the safety of our arsenals**

**Grossman, 10** (Elaine M., “Nuclear Posture Review Adopts Varied Approach to Updating Warheads,” Global Security Newswire, <http://gsn.nti.org/gsn/nw_20100407_3870.php>)

Even if policy or political differences over warhead-replacement options were set aside, new concerns appear to be cropping up over component "reuse," one of the other two potential approaches to modernization. Some leading scientists are concerned that combining components from different warheads that were never explosively tested with one another, prior to the moratorium, could lead to decreased confidence and malfunctions in U.S. nuclear arms. "You have to be careful mixing and matching tested components that were never tested together," said Roger Logan, who formerly led directed stockpile work at the Lawrence Livermore National Laboratory in California. He cited a nuclear physicist with decades of experience stating in 2004, when a version of component reuse was proposed in the RRW effort: "Whenever we've tried that, it's always been the thing we didn't think of that bit us." "The idea is not adding more risk to the arsenal," Thomas D'Agostino, head of the National Nuclear Security Administration, told GSN in a brief interview yesterday at the Pentagon. "The idea right now is to take advantage of components that we've already made, take advantage of components that we've already tested, and study whether or not they can be used to advance safety, security and reliability." His agency is a semiautonomous arm of the Energy Department that maintains the U.S. nuclear stockpile. In the past, the nuclear complex has also been responsible for designing and producing new warheads. While D'Agostino warned against "point blank" rejection of reuse options that suggest "you can't do it at all," Logan told GSN that he does not "know of any experts in the reliability community who would favor or even accept these mix-and-match 'reuse' warheads, or the way [the national laboratories] plan to 'certify their reliability.'" Asked how confidence could be established in reuse warheads without a resumption in explosive testing, D'Agostino said past testing data combined with new analyses should provide a strong foundation for certifying such repackaged weapon-component combinations. "We have a lot of testing that we have done already that has never been deployed in the stockpile," he said. "We're going to use ... modeling and simulation that we've done, we're going to do a lot of subcritical testing, and things like that." Logan took issue with the idea that validation of the stockpile could be accomplished in the absence of data from explosive tests that assessed components as they operated together in the same warhead, saying this newly proposed approach would not meet scientific standards. He supports refurbishment of existing designs as the only method of maintaining confidence in the arsenal into the future. "Refurbishment may be less 'sexy' and less 'profitable' for the nuclear labs, but many of the nuclear complex engineers, scientists and production people find it quite rewarding and a challenge to be met," Logan told GSN yesterday in an e-mailed response to questions. "For those who find the task boring, I suggest they find a fun hobby at their own expense, and one that does not turn our nuclear deterrent into 'junkyard RRWs.'" He used the term to describe an earlier-contemplated approach for building the Reliable Replacement Warhead, in which old parts from various warheads could be pieced together in new ways.

# A2: New Weapons → Nuclear Reductions

**Creating new weapons may reduce our number of nuclear weapons over decades – that’s not worth the tradeoff of alarming other states**

**Young, 7 – Washington Representative, Union of Concerned Scientists (Stephen, “New Nuclear Weapons: Reliable Replacement Warhead (RRW),” Union of Concerned Scientists,** <http://www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_weapons/technical_issues/new-nuclear-weapons-reliable.html>)

**New weapons program will not yield nuclear reductions for decades.** Proponents of RRW maintain that the program will lead to reductions in the U.S. nuclear stockpile, particularly in the reserve, or "hedge," forces. By 2012, the United States plans to maintain some 6,000 nuclear warheads, including 2,200 operationally-deployed strategic weapons. The DOE has made clear that reductions below this level would await creation of a "responsive infrastructure" that could quickly build additional weapons, including new types, if judged necessary. According to DOE, creating this capability would require developing and producing several new types of RRW warheads, which would take two decades or more. Moreover, a U.S. infrastructure that could quickly produce a large number of warheads would raise concerns among other nuclear weapon states and be a barrier to deep reductions in nuclear arsenals worldwide. 

# A2: RRW k2 Low-Yield Capability

Current arsenal has low yield capability

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

*“current explosive yields are too high”*—In fact, military commanders have a variety of low-yield options available. They can select yields as low as 5 kilotons from warheads on cruise missiles and as low as 0.3 kilotons from some bombs. That is considerably less than the 15 kilotons of the bomb dropped on Hiroshima. Furthermore, any warhead in the stockpile can easily be modified to prevent its secondary from producing yield. That would give commanders options for yields of 15–30 kilotons from existing ballistic missile warheads.

# A2: RRW k2 Deterrence 1/2

**Relying on nuclear deterrence is ineffective – preventing conventional war escalation is key.**

**Khan, 8** - former Director of Arms Control and Disarmament Affairs in the Strategic Plans Division secretariats of Pakistan’s National Command Authority (Feroz Hassan, “Reducing the Risk of Nuclear War in South Asia,” 9/15/08, The Nonproliferation Policy Education Center, <http://npec.xykon-llc.com/files/20090813-khan%20final.pdf>)

SECTION 5: KEY ARGUMENTS AND RECOMMENDATIONS A nuclear-armed subcontinent is now a reality. Creating a structure upon which the basic tenets of deterrence work will, if successful, arm proponents of nuclear weapons with evidence that they do, in fact, act as deterrence to conventional war. However, reliance on the nuclear umbrella “sheltering” South Asia seems to have given militaries on both sides of the border more strategic room with respect to perpetuating low intensity warfare and escalating conventional war fighting doctrines. Additionally, this paper has argued that the most probable cause of a nuclear exchange on the subcontinent will most likely be a result of conventional war escalation – either through accident in the fog of war or due to establish protocols – and less an accidental incident. Therefore, preventing a nuclear exchange in South Asia is less dependent on strategic weapons safeguards, although they remain a key to strategic stability, and more dependent on the prevention of conventional warfare escalation. Conventional, and therefore nuclear stability can start through unilateral steps taken by Pakistan, but more importantly India, which, as the regional hegemon, has significant responsibilities in preventing nuclear war and initiating antiescalation measures. Where real stability will be achieved, though, is through bi-lateral and multi-lateral strategic actions improving the safeguards and reducing the apparent threats to opponents, superimposed by coherent super-power policies and involvement.

RRW not needed for deterrence – current arsenal is sufficient

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

The United States has been designing and building nuclear weapons for 60 years. About 90 different designs have been developed into prototypes and 65 of those have entered the stockpile. Each of those was tested extensively. The United States has conducted over 1,000 nuclear explosive tests in the atmosphere and underground. More than 70,000 nuclear weapons have been built and deployed in the United States. The U.S. nuclear weapons stockpile peaked at 32,000 warheads in 1966 and stands at about 10,000 today. According to the 2002 Treaty of Moscow, the U.S. is supposed to cut back to 1,700–2,200 operationally deployed strategic warheads by the end of 2012. Including non-strategic warheads and spares, however, the United States plans to retain a 6,000-warhead stockpile of seven basic designs through at least 2012. There is a tremendous variety of capabilities and substantial redundancy in the stockpile. Including variants to the basic designs, the enduring stockpile will contain twelve different models of nuclear weapons. The total includes at least two models that are optimized for each of four delivery vehicles—land-based ballistic missiles, submarine-based ballistic missiles, aircraft, and cruise missiles. The explosive yields for at least seven of the twelve warhead models can be selected in the field before delivery from among four or more different levels varying from 0.3 kilotons to 1,200 kilotons. The atomic bomb dropped on Hiroshima had a yield of about 15 kilotons. There is little room for improvement in key performance characteristics of nuclear weapons. U.S. weapons are near the theoretical maximum in their yield to weight ratio. Ballistic missiles can deliver nuclear weapons to within tens of meters of their targets after traveling for thousands of miles. Cruise missiles can deliver their payloads even more accurately. U.S. nuclear warheads can be set to explode at various heights above the ground, on impact with the ground, or with a delay after ground impact. In addition, the B61-11 bomb can penetrate a few meters into the ground before exploding. Thus, planners have a vast number of yield and delivery options from which to choose. The seven different enduring designs also gives planners a range of options for mating to new delivery vehicles in the future. Furthermore, the Bush Administration plans to keep the disassembled plutonium primaries and high-yield fission/fusion secondaries from several additional decommissioned warhead designs in storage indefinitely.

# A2: RRW k2 Deterrence 2/2

**RRW’s aren’t necessary to maintain credible nuclear deterrence – the mere threat of our weapons being successful is enough**

**Butt 8** - physicist in the High-Energy Astrophysics Division at the Harvard-Smithsonian Center for Astrophysics, previos fellow in the Committee on International Security and Arms Control at the National Academy of Sciences. He holds a PhD in nuclear physics (12/2/8,Yousaf, Bulletin of the Atomic Scientists, “ Redefining deterrence: Is RRW detrimental to U.S. security calculus? “, <http://www.thebulletin.org/web-edition/reports/redefining-deterrence/redefining-deterrence-is-rrw-detrimental-to-us-security-ca>)

Arguably, though, the most egregious conceptual mistake in Energy and Defense thinking is conflating technical warhead reliability with its deterrent value. Because of the massive destruction potential of a nuclear weapon, an adversary's deterrence calculus could hardly be different for, say, a 96-percent reliable nuclear weapon versus a 99-percent reliable weapon. In fact, it's questionable whether it would even be different for a 25-percent reliable weapon versus a 99-percent reliable weapon. Switching perspective to the receiving end of a possible massive nuclear retaliatory attack makes the argument more acute: If a country is facing the prospect of several 300-kiloton U.S. warheads destroying its 25 most populous cities, it hardly matters that perhaps one of the weapons will have a suboptimal yield and doesn't completely annihilate the twenty-fifth city. This deterrent logic is especially pertinent to the RRW debate considering that nuclear targeting practice places more than one weapon on any high-value target, making the probability of annihilation essentially 100 percent whether a single warhead has a 96-percent or 99-percent reliability.7 Ultimately, deterrence is an exercise in psychology, and small differences in the numerical reliability of overwhelmingly destructive nuclear weapons don't have a measurable influence on any adversary's deterrence calculus. Unlike almost any other type of modern tool, machine, or weapon system, nuclear weapons are purposefully designed not to be used. Therefore, their reliability isn't relevant in the same sense as for a car or computer. As clearly stated in the December 2006 "Deterrence Operations--Joint Operating Concept" document DOC, " The end state for all deterrence operations is decisive influence over the adversary's decision calculus in order to deter aggression and coercion against U.S. vital interests." So even the Pentagon considers the reliability of its nuclear warheads in the context of the perceived deterrent value in an adversary's eyes. Another way to think about it: Consider Chinese or Russian nuclear weapons. Do we know their technical reliability numbers? No. Yet, we still take them very seriously. Perhaps warhead reliability would be an issue worthy of serious discussion if the current warheads were found to be critically flawed. But from 1958 to 1996, the Stockpile Evaluation Program sampled nearly 14,000 weapons; of these, only about 1.3 percent were found to have failures that would have prevented them from operating as intended.8 Therefore, the metric for the "usefulness" of nuclear weapons shouldn't be reliability, but rather perceived deterrent value. Of course, perceived deterrent value is a psychological metric--incorporating the numerical warhead reliability (if known by the adversary) folded in with the consequences of a nuclear holocaust--but it's worthy of further examination in the context of RRW. The new Energy/Defense nuclear strategy paper states, "[T]o maintain a credible deterrent at these lower levels, the United States requires nuclear forces that can adapt to changing needs, and a responsive industrial infrastructure that can maintain existing capabilities and manufacture new or replacement components as needed." But since the proposed new weapons will be untested, they will be a marginally less credible deterrent in the eyes of an adversary. Even if the actual numerical reliability of RRWs is higher, the perceived deterrent value of these untested weapons cannot be more than that of empirically tested weapons. Remember, in matters of deterrence, what adversaries believe is more important than what some weapons experts may assert. This raises another interesting point: What would be the required reliability level of the proposed new warheads? It could only be different from the current weapons by no more than 2 percent, as the current weapons are 98 percent reliable--assuming, of course, that the new warheads are really more reliable than the current warheads. Can a 2-percent difference in reliability really alter an adversary's thinking? And, more importantly, in the absence of testing, how are we to determine the baseline reliability of RRWs? As for the military utility of reliability, does a supposed few percentage point increase in reliability matter when considering the overall destructive power of nuclear weapons? No, especially since the overall reliability of the weapon system is dominated by the intercontinental ballistic missile delivery system--of 2,160 test launches, approximately 15 percent resulted in some type of delivery system failure that would have prevented the warhead from reaching its target.

**Our nuclear stockpile is already an effective deterrent and will remain so for the next 50 years**

**Butt 8** - physicist in the High-Energy Astrophysics Division at the Harvard-Smithsonian Center for Astrophysics, previos fellow in the Committee on International Security and Arms Control at the National Academy of Sciences. He holds a PhD in nuclear physics (12/2/8,Yousaf, Bulletin of the Atomic Scientists, “ Redefining deterrence: Is RRW detrimental to U.S. security calculus? “, <http://www.thebulletin.org/web-edition/reports/redefining-deterrence/redefining-deterrence-is-rrw-detrimental-to-us-security-ca>)

Since experts have agreed that the current U.S. stockpile is likely to remain reliable for at least the next 50 years, there's no reason for Energy and Defense to further discuss any potential problems in unclassified documents that may semaphore any alleged weaknesses in the country's nuclear weapons systems to potential adversaries. The current stockpile is a highly credible and effective deterrent in the eyes of any potential adversary for the foreseeable future. To keep it that way, future discussions of warhead reliability should be classified with strict oversight from truly independent experts with appropriate security clearances--i.e., the JASON group.

# A2: RRW k2 CBW Retaliation

Using RRW against CBWs would release radioactive fallout and toxins into the environment and increase probability of nuclear war by expanding the role of nuclear weapons

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

“they are unsuited for defeat of biological and chemical munitions”—Here Brooks is again referring to a low-yield, earth-penetrating warhead, which proponents claim could burrow into a buried biological or chemical facility and detoxify the munitions with intense heat and low collateral damage. However, in addition to producing radioactive fallout, an attack against such munitions would release biological or chemical toxins to the environment, without detoxifying them, unless the warhead penetrates completely into the buried facility.27 Furthermore, the suggestion that the United States would use nuclear weapons against biological or chemical munitions is a dangerous expansion of the role for nuclear weapons.

# A2: RRW Solves Prolif

**RRW overshadows any gains the plan makes in non-prolif.**

**Lewis, 8** – Director of the Nuclear Strategy and Nonproliferation Initiative at the New America Foundation (Jeffrey, December, “After the Reliable Replacement Warhead: What’s Next for the U.S. Nuclear Arsenal” <http://www.armscontrol.org/act/2008_12/Lewis>)

This conception significantly exceeded the scope and purpose of the original congressional language. [3] In doing so, it introduced unappealing technical and political risks, as well as significant additional costs. Although the stated purpose of the program was to reduce the need for nuclear explosive testing, independent reviews could not assure that the NNSA would be able to certify WR1 without such tests. Furthermore, although administration officials claimed that a more reliable warhead would allow a significant reduction in stockpiled nuclear weapons, the perception that the United States was building a “new” nuclear weapon for the first time since the end of the Cold War overshadowed the administration’s announcement that it would reduce the stockpile to levels not seen since the Eisenhower administration. In response, Congress gave the RRW program a cold reception, culminating in the denial of funding for the program in each of the past two years.

# A2: RRW k2 Attack Power/Hard Targets

Current arsenal has as much penetrating power as RRW without collateral damage

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

“our systems are not capable against hard and deeply buried targets”—Here Brooks is referring to a capability to burrow into the earth before exploding to deliver more explosive force against hard and deeply buried targets. In 1997, NNSA modified 35 B61 bombs to provide a capability to burrow 10-20 feet into the earth before detonating to attack hard and deeply buried targets. This capability was sufficient to allow the new B61-11 bomb, with a maximum yield of about 400 kilotons, to replace the 9-megaton B53 bomb, which DoD previously retained in the stockpile specifically for that mission. The Bush Administration would like to design a new improved earth-penetrating warhead called the Robust Nuclear Earth Penetrator (RNEP). Proponents of the RNEP claim it could burrow deeper than the B61-11 and defeat harder and more deeply buried targets, with a lower yield and less collateral damage. However, independent studies have shown there would be substantial collateral damage from any earth-penetrating warhead with a capability to attack buried targets.26 Furthermore, to the extent that a new earth-penetrating warhead could attack more deeply buried targets, potential adversaries could bury their valued assets even deeper or place them inside of mountains. Thus, there is nothing to be gained by making systems more capable against hard and deeply buried targets and no need for an RNEP. For the past two years, Congress has rejected Administration proposals to examine the feasibility of an RNEP warhead.

# A2: RRW k2 Reduce Collateral Damage

Military planners have low yield options and reducing collateral damage only lowers the nuclear threshold

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

“they do not lend themselves to reduced collateral damage”—As discussed above, military planners have numerous low-yield options at their disposal and the goal of designing a new warhead that could attack buried targets with reduced collateral damage appears unachievable. Even if possible, it is a dubious goal. A new reduced collateral damage warhead would be provocative and would reduce the threshold for using nuclear weapons.

# A2: RRW Improves Precision

Current nuclear arsenals are accurate enough – there would be no mission requiring more accurate nukes

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

“The designs of the past do not make full use of new precision guidance technologies”— Nuclear weapons in the current stockpile are highly accurate. ICBMs are designed to deliver their warheads to within 50 yards of their targets and cruise missiles can deliver nuclear warheads to within a few meters of a target. Precision guidance systems have greatly improved the effectiveness of conventional explosives, allowing them to attack targets that may previously have been vulnerable only to nuclear weapons. There are few missions imaginable in which nuclear weapons would need to “make full use of new precision guidance technologies.” Brooks appears, yet again, to be referring to his perceived need for a low-yield RNEP.

# A2: No Small Scale Strikes

Current bombs have enough small scale capability – further decrease in yield only risks nuclear war due to lowered threshold for use

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

(Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

*“*nor are they geared for small-scale strikes”—That is a good thing. Improving the capability to use nuclear weapons for small-scale strikes would be a dangerous lowering of the threshold for the use of nuclear weapons. In any event, the stockpile already includes bombs with yields as low at 0.3 kilotons, which is 1/50 the size of the Hiroshima bomb.

# A2: RRW Improves Flexability

Current arsenal is flexible – RRW would not make significant improvement

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

“nor are they geared for . . . flexibility in command, control, and delivery”—It is not clear what Brooks is referring to here. U.S. nuclear weapons are highly flexible. As discussed above, they can be delivered by land-based and submarine-based ballistic missiles, by several different aircraft, and by cruise missiles launched from aircraft or naval vessels. They have numerous available yields and targeting and fuzing options. Brooks may be referring to the ability to destroy a warhead after launch, which some designers have proposed. However, it is better to rely on stringent systems of launch control than to count on destroying a warhead after it has been sent. In sum, a low-yield, earth-penetrating warhead is the only potential new capability that Ambassador Brooks, or anyone else, has identified for U.S. nuclear weapons. Congress has already rejected that idea twice.

# A2: Obama Won’t Test Nukes

**Even if Obama doesn’t test, France proves future Presidents will.**

**Butt, 8** – Staff Scientists in the High-Energy Astrophysics Division at the Harvard-Smithsonian Center for Astrophysics, Ph.D. in experimental nuclear astrophysics (Yousaf, “Redefining Deterrence: Is RRW Detrimental to U.S. Security Calculus?” <http://www.thebulletin.org/web-edition/reports/redefining-deterrence/redefining-deterrence-is-rrw-detrimental-to-us-security-ca>)

But from the perspective of deterrence calculus, there's no plausible argument that would support such renewed testing of empirically certified warhead designs. Says Richard Garwin, a member of the JASON group who is intimately familiar with the RRW Program, "With the passage of time and the improvement in computing tools, I believe that confidence in the reliability of the existing legacy weapons will increase rather than diminish." And Robert Peurifoy, the former vice president of technical support at Sandia National Laboratories has stated PDF, "The present nuclear weapon stockpile contains eight or so nuclear weapon types. That population has enjoyed perhaps 100 successful yield tests. These weapons have benefited from a test base of perhaps 1,000 yield tests conducted during the 40 or so years when nuclear testing was allowed. Is [Defense] really willing to replace tested devices with untested devices?" This raises another issue ignored by the new Energy/Defense nuclear strategy report: Although the proposed RRW warheads may be certifiable by the weapons laboratories without testing, will all future presidents and generals at the Pentagon also accept an untested weapon in their operational command?11 A similar scenario already occurred in France. Under President Francois Mitterrand, the French accepted untested new nuclear warheads into their submarine-based stockpile based on the results of sophisticated computer simulations. But when Jacques Chirac became the country's president, France conducted a handful of nuclear explosions to make sure that the weapons actually worked. The same thing will likely happen with RRW--at least no one in the U.S. government is offering any guarantees that it won't.

# A2: CTBT Solves New Weapons

**CTBT doesn’t prohibit the next generation of weapons**

**LCNP, 99 –** The Lawyer's Committee on Nuclear Policy, Inc. (Nuclear Disarmament and Non-Proliferation: Comprehensive Test Ban Treaty, COMPREHENSIVE TEST BAN TREATY: LEGAL ASPECTS, <http://lcnp.org/disarmament/ctbt.htm>)

The NWS have stated that the treaty bars explosions involving a self-sustaining chain reaction. Accordingly, they claim, "subcritical" tests are permitted though they involve the production of neutrons by fissile materials. However, such tests involve a nuclear "explosion" though a chain reaction does not occur. For example, it remains to be determined whether the CTBT bars tests of possible "fourth-generation" weapons in which fissile material is "burned", without a chain reaction, at a rapid rate resulting in yields of tens or 100s of tons. Another area of concern is devices that would cause "pure fusion" explosions that destroy the initiating device. Research into such devices, for example using chemical explosive driven pulsed power, is underway, including in joint US-Russian experiments. Especially since such devices could have large yields and are potentially compact enough to be "weaponizable", there is already expert opinion that CTBT parties should determine their testing to be banned. Still another area of concern is large laser facilities like the US National Ignition Facility and the French Megajoule Laser that are designed to produce, on a repeated basis in containment vessels, sizable fusion explosions (on the order of 100 pounds of yield, enough to partially destroy a building). The NWS, as well as such advanced non-nuclear weapon states as Germany, **contend that such explosions are not banned by the CTBT.** They cite the CTBT negotiating record, as well as an asserted understanding under the NPT that such explosions conducted for civilian purposes by non-nuclear weapon states are permissible. However, the CTBT on its face bars any "nuclear explosion", whether "civilian" or military. Further, such experiments conducted by NWS in support of nuclear weapons maintenance and development seem to violate both the letter and the intent of the CTBT. Thus whether the prohibition applies in this area also remains open to determination by all CTBT parties.

# A2: We’re Anti-Nuclear

**Other anti-nuclear acts won’t re-assure allies**

**Defense News, 7** (5/28, Lexis)

The Bush administration implicitly acknowledges that this extensive and expensive swap of old warheads for newer, more reliable designs would harm U.S. global nonproliferation objectives. It therefore seeks to soften the dam-age by saying that the swap would be accompanied by unspecified reductions in the U.S. nuclear stockpile and in de-ployed nuclear forces. Moreover, the administration emphasizes that the new designs should not need to be tested, and that there would be no new roles or missions for the replacement warheads. These statements are unlikely to reassure America's friends and allies that seek to shore up the troubled interna-tional system to prevent proliferation. Most of the globe will view the RRW initiative as contrary to U.S. commitments under the Nuclear Nonproliferation Treaty (NPT) because foreign capitals will not be looking at the RRW program in isolation. Instead, outsiders will view this initiative in the context of the Bush administration's refusal to join 138 other na-tions that have ratified a treaty banning nuclear tests, its resistance to a treaty formalizing deeper cuts with Mos-cow, and its apparent willingness to allow intrusive verification measures governing deep, bilateral cuts to lapse when the Strategic Arms Reduction Treaty expires in 2009.

**Reductions would not solve international perceptions of US Modernization**

**Young, 7 – Washington Representative, Union of Concerned Scientists (Stephen, “New Nuclear Weapons: Reliable Replacement Warhead (RRW),” Union of Concerned Scientists,** <http://www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_weapons/technical_issues/new-nuclear-weapons-reliable.html>

Proponents of RRW maintain that the program will lead to reductions in the U.S. nuclear stockpile, particularly in the reserve, or “hedge,” forces.worldwide.By 2012, the United States plans to maintain some 6,000 nuclear warheads, including 2,200 operationally-deployed strategic weapons. The DOE has made clear that reductions below this level would await creation of a “responsive infrastructure” that could quickly build additional weapons, including new types, if judged necessary. According to DOE, creating this capability would require developing and producing several new types of RRW warheads, which would take two decades or more. Moreover, a U.S. infrastructure that could quickly produce a large number of warheads would raise concerns among other nuclear weapon states and be a barrier to deep reductions in nuclear arsenals.

# A2: RRW Will Be Limited

**DOE scientists support will go far beyond stockpile stewardship—the labs are eager to redesign weapons even if it forces testing and an end to international cooperation—the DOE will ignore Congressional checks on the RRW program.**

**Kelley, 6 –** Executive Director, Tri-Valley CAREs (Marylia, New Study Finds Nation Poised on “Slippery Slope” to New Nuclear Weapons, "Reliable Replacement Warhead" Program Could Cost Billions, Diminish U.S. Security, Result in New Nuclear Weapons Designs Less Safe and Reliable Than the Current Arsenal)

The United States is embarking on a major program that could launch the nation down a "slippery slope" to developing new nuclear weapons, according to a new study released today. The report, "The Reliable Replacement Warhead Program: A Slippery Slope to New Nuclear Weapons," provides the first comprehensive review of an emerging Department of Energy (DOE) initiative that could "significantly harm our national security, disrupt international cooperation in non-proliferation and diminish pressure on North Korea and Iran to forego their nuclear programs," according to Dr. Robert Civiak, the study's author. Dr. Civiak finds the RRW program may, ultimately, lead to a resumption of full-scale nuclear weapons testing. Dr. Civiak is a physicist who served for more than a decade in the White House Office of Management and Budget as Program Examiner for DOE national security programs, including Stockpile Stewardship. He also served as a Visiting Scientist at the Lawrence Livermore National Laboratory. Joining Dr. Civiak in a teleconference to release the report was Marylia Kelley, Executive Director of Tri-Valley CAREs, the Livermore, California-based DOE "watchdog" group that sponsored the study. Congress initiated the RRW program in fiscal year 2005 with $9 million and gave direction in the form of a single sentence stating the lawmakers' intent to limit the program to "improving the reliability, longevity, and certifiability of existing weapons and their components." For fiscal year 2006, Congress appropriated $25 million for the RRW program. "There is a wide chasm between the RRW program Congress believes it is funding and the more aggressive program that the DOE's National Nuclear Security Administration and weapons labs are planning," charged Dr. Civiak. "The weapons labs' goal is a multi-billion dollar enterprise to redesign and replace every nuclear weapon in the U.S. arsenal."

**It is true that Congress has placed limits on weapons programs, BUT the DOE labs will use RRW as an excuse design new weapons.**

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

The United States is poised to embark on a major program that could launch the nation on a “slippery slope” toward developing new nuclear weapons. Promoted by the U.S. Department of Energy and its nuclear weapon design laboratories with an innocuous sounding title, the “Reliable Replacement Warhead” program would actually damage national security. It would also cost billions of taxpayer dollars and could result in the production of new warheads less safe and reliable than those in the current arsenal. Late in 2004, Congress established the Reliable Replacement Warhead (RRW) program to “improve the reliability, longevity, and certifiability of existing weapons and their components”1 Exactly what changes Congress envisions for nuclear weapons under the RRW program remains vague. However, in each of the past two years, Congress has rejected Bush Administration proposals to design new nuclear weapons in favor of improving existing weapons in the stockpile. In contrast, the nuclear weapons laboratories want to build new warheads. They see the RRW program as an opportunity to expand their mission “from a program of warhead refurbishment to one of warhead replacement.”One recent report calls for the labs to develop a new Reliable Replacement Warhead every five years. Thus, while Congress may see the RRW program as a limited effort to improve existing nuclear weapons, to others it is the holy grail of the weapons labs—a guarantee of jobs designing new nuclear weapons in perpetuity.

# A2: Congressional Oversight Solves

**There is Congressional oversight now but it is plagued with conflicting or vague instructions, allowing labs to do what they like.**

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

More than a year after establishing the program, Congress still has a diversity of views regarding what it should be. They range from a belief that the RRW should be, at most, a program to maintain existing weapons with minor upgrades, to sharing Linton Brooks’ vision of the need to transform the nuclear weapons stockpile with new warheads to meet new requirements. Reflecting the diversity of views, the language in congressional reports authorizing the program and appropriating funds for it is vague or ambiguous. The House Subcommittee on Energy and Water Appropriations crafted the language hat initiated the RRW program last year. Since then, Subcommittee Chair David Hobson (R-Ohio) has stated that the program might someday lead to “refurbishing” weapons to make them “more robust,” but “without developing a new weapon that would require underground testing to verify the design”12 That apparently leaves room for developing new weapons, as long as they do not require underground testing (if that is possible). The House Appropriations Committee Report for 2006 stated: The Committee’s qualified endorsement of the RRW initiative is based on the assumption that a replacement weapon will be designed only as a re-engineered and remanufactured warhead for an existing weapon system in the stockpile. The Committee does not endorse the RRW concept as the beginning of a new production program intended to produce new warhead designs for any military mission beyond the current deterrent requirements. The Committee’s support of the RRW concept is contingent on the intent of the program being solely to meet the current military characteristics and requirements of the existing stockpile.13 The Senate Appropriations Committee Report for 2006 was even more ambiguous. Mirroring last year’s language, the Committee: . . . recommends $25,351,000 for RRW to accelerate the planning, development, and design for a comprehensive RRW strategy that improves the reliability, longevity, and certifiability of existing weapons and their components. That Committee appears to eschew new warhead designs and distance itself from the SEAB Task Force by stating, “the RRW program is not a new weapon, and this fact should be clear to the study panel members.” Elsewhere, however, the Senate Committee Report provided $4 million to study the Robust Nuclear Earth Penetrator (RNEP)—a new warhead that could burrow underground to attack Hardened bunkers.... That language is subject to a wide range of interpretations. Under existing procedures, a new military requirement must be issued before any new warhead is designed. The requirements put limits on dozens of performance parameters. A strict interpretation of the above language would prohibit any variation from the detailed military requirements of an existing weapon and would indeed limit the options for new RRW designs. Similarly, under a strict interpretation, any new weapon design would, by necessity, have design parameters that have not been validated by past nuclear tests. On the other hand, since the military requirements and the details of past nuclear tests are all classified and highly technical, it will most likely be left to the labs themselves to interpret the above language. The labs can be counted on to interpret the language as loosely as possible.

# A2: Congress Won’t Fund RRW

**Congress will support RRW if its part of a larger package decreasing nuclear reliance.**

**Medalia, 9** – Specialist in Nuclear Weapons Policy, Congressional Research Service (Jonathan, “The Reliable Replacement Warhead Program: Background and Current Developments,” 7/27/09, <http://www.fas.org/sgp/crs/nuke/RL32929.pdf>)

The House Appropriations Committee “supports the RRW, but only if it is part of a larger package of more comprehensive weapons complex reforms.”84 It criticized NNSA’s Complex 2030 plan as basically modernization in place, and favored a plan by a DOE task force.85 It recommended $52.7 million for RRW, an increase of $25.0 million, but fenced the latter amount until DOE provides the committee with a “comprehensive complex transformation plan.”86 It directed NNSA to engage the JASON Defense Advisory Group to “evaluate the competing RRW designs” and to analyze “the feasibility of the fundamental premise of the RRW initiative that a new nuclear warhead can be designed and produced and certified for use and deployed as an operationally-deployed nuclear weapon without undergoing an underground nuclear test.”87 The report is due March 31, 2007. Professor Roy Schwitters, Chair of the JASON Steering Committee, met with House Appropriations Committee staff and NNSA officials to set a schedule for the JASON study; the schedule calls for a preliminary report to be submitted to NNSA by March 1, 2007, an executive summary of the final report by August 1, 2007, and the final report by October 1, 2007.88 (As noted, the executive summary was transmitted on September 28 and the final report by October 1.) The House passed the bill, 404-20, on May 24, 2006, with no amendments to RRW provisions. The Senate Appropriations Committee recommended $62.7 million for RRW. The Committee ... recognizes the need to protect against unforeseen challenges and urges the NNSA to accelerate the transition to a responsive infrastructure and to proceed expeditiously with the RRW design. The Committee also realizes that a dual track strategy of supporting eight legacy systems and a RRW program is not sustainable and therefore has taken steps in this legislation to reduce the number of legacy systems and begin the replacement with RRW designs. The Committee has also initiated a second design competition for another RRW design....89

# A2: Obama Checks

**Labs will be rogue – no chance of Obama controlling them.**

Civiak**, 6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

If NNSA completes the development of such a warhead and ten years from now DoD says it needs that warhead to replace existing SLBM warheads, which have by then become suspect from neglect, would Congress stand in the way if DoD says it needs one or two confirmatory underground nuclear tests to be sure that this key warhead will function? **Once Congress opens the door to any new warhead development, it will be difficult, if not impossible, to enforce limits on their design.** Allowing the weapons labs to begin designing warheads for existing missions is particularly risky given Ambassador Brooks’ and the weapons labs’ stated desire to transform the nuclear weapons stockpile to meet new requirements.

# A2: Fusion → Nuke Power

**Fusion research is irrelevant to commercial power—research on other technologies will solve first**

**Makhijani and Zerriffi, 98** – IEER(Arjun and Hisham, Dangerous Thermonuclear Quest: The Potential of Explosive Fusion Research for the Development of Pure Fusion Weapons, July, <http://www.ieer.org/reports/fusion/fusn-toc.html>)

ICF researchers claim that their research could also lead to commercial power production from fuels that are widely available and plentiful. However, the energy applications of any explosive fusion research should be justified on their own merits and in comparison to other energy projects. Many environmentally sound energy technologies are much further ahead than ECF and yet receive far fewer resources. Further, ECF approaches will take decades to develop into economical energy sources, if they prove feasible at all. The fact that large resources have been spent over decades on fusion power research without even establishing scientific feasibility needs to be more carefully considered, given the urgency of reducing greenhouse gas emissions. Military rationalizations and the relatively great pull of nuclear bureaucracies on governmental energy programs seem to be the forces driving ECF programs rather than serious evaluations of the world's energy and environment needs.

# A2: Fusion → Safety

**Fusion research is totally irrelevant to safety of warheads**

**Makhijani and Zerriffi, 98** – IEER(Arjun and Hisham, Dangerous Thermonuclear Quest: The Potential of Explosive Fusion Research for the Development of Pure Fusion Weapons, July, <http://www.ieer.org/reports/fusion/fusn-toc.html>)

A detailed examination of the safety and reliability justification for SBSS, based upon DOE's historical data concerning problems found with warheads in the arsenal, can be found in Zerriffi and Makhijani 1996. In the context of the present discussion, it suffices to note that fusion facilities such as NIF play no role in maintaining the safety of aging weapons. Nuclear weapons safety is an issue which affects the primary of the warhead (specifically, preventing accidental detonation of the primary). Fusion reactions (whether they be D-T fusion in the boosted primary or in the secondary) do not occur until after the fission detonation has already occurred. Safety is, at that stage, a moot point.

# A2: We’ll Have Nukes for a Long Time

**It’s unnecessary to plan so far into the future based on inaccurate, low-probability predictions – denuclearizing the world now is more important.**

**Matishak, 9** (Martin, 11/11/09, “Strategic Command Chief Predicts U.S. Will Need Nuclear Weapons for Next 40 Years,” Global Security Newswire, http://www.globalsecuritynewswire.org/gsn/nw\_20091111\_4409.php)

"When looking into the future a basic question is ... will we still need nuclear weapons 40 years from now? I believe the answer to that question is yes," Air Force Gen. Kevin Chilton, head of U.S. Strategic Command, said at a breakfast event on Capitol Hill. The general's comments came just a month before the Obama administration is expected to release its eagerly anticipated Nuclear Posture Review. The Defense Department-led evaluation is expected to establish policies and strategies for the U.S. nuclear deterrent over the next five to 10 years. In his widely noted April speech in Prague, U.S. President Barack Obama called for the elimination of all nuclear weapons but pledged the United States would maintain a sufficient strategic deterrent until that day arrived. Chilton said his prediction was not inconsistent with the president's vision of a nuclear-free world. "The president himself has said such a world will not be reached quickly and perhaps not in his lifetime and I agree with that," he told the audience. The general later said the idea of a world without nuclear weapons "includes a vision of a different world order than what we have today." "That's why most people who talk about that vision caveat it with 'I don't think it will happen in my lifetime. question. "The question is would it be a safer world if we did?" He said his command must focus on "the president's confirmation that as long as nuclear weapons exist the United States will maintain a safe, secure and effective arsenal to deter any adversary and to guarantee that defense to our allies." Chilton's statements come at a time when there are increased concerns about nuclear programs in North Korea, Iran and other nations. The United States has long extended what many have dubbed a "nuclear umbrella" to protect allies from potential nuclear attacks. The 40-year time frame is "reasonable," said Heritage Foundation research fellow Baker Spring, who attended yesterday's event. However, another analyst at the breakfast disagreed with the STRATCOM chief's prediction. "It is very hard to plan for 40 years ahead in the arsenal now -- ' It's not because we couldn't physically cut up every weapon in the world in 40 years. We could," Chilton said in response to a and there's no need to plan for 40 years ahead. It's excessive," Stephen Young, a senior analyst at the Union of Concerned Scientists, said in a message. "In fact, while caution is appropriate, concentrating on that goal can easily undermine the president's parallel goal of reducing the role of nuclear weapons on the way toward a world free of these weapons."

# A2: Vacuum Tubes Used in Nuclear Weapons

Lewis and Reif, 9 – Director of the Nuclear Strategy and Nonproliferation Initiative at the New American Foundation, expert on nuclear policy and China’s nuclear arsenal; and Deputy Director of Nuclear Nonproliferation at the Center for Arms Control and Non-Proliferation (Jeffrey and Kingston, “The RRW’s vacuum tube myth,” April 22, <http://www.thebulletin.org/web-edition/op-eds/the-rrws-vacuum-tube-myth>)

U.S. nuclear weapons are marvels of engineering and design. Within each warhead, scientists have packed an intricate web of plastics, explosives, electronics, and fissile material that contains the bomb's destructive force. Since implementing a moratorium on nuclear testing in 1992, the United States has opted to extend the life of existing warheads while minimizing deviations from the original specifications. Exact replication isn't always possible; suppliers go out of business, manufacturing techniques change, and so on. Worried about the eventual accumulation of small changes over decades, the Bush administration proposed the RRW Program to introduce new, untested--but hopefully more reliable--nuclear weapons into the U.S. stockpile. Enter the vacuum tube: the perfect symbol of technological obsolescence. Despite Chilton's dramatic flair, however, vacuum tubes are among the least consequential parts of current weapons and have nothing to do with the RRW debate. Firstly, vacuum tubes are not used in the physics package of a single nuclear weapon design. Vacuum tubes are used only in the radar-fuse, which tells the firing system when the bomb is at the correct altitude for detonation, in some modifications (mods) of one warhead design, the B61 gravity bomb. In total, the B61 bombs that have vacuum tubes in their radar-fuses account for only about one in ten operationally deployed warheads. (Vacuum tubes are used in the radars of three B61 mods: 3, 4, and 7. Mods 10 and 11 have newer radars that use solid-state electronics.) The fuses in these weapons are old, but perfectly functional. To reiterate, vacuum tubes are not in use in any other warhead design, including the W76 warhead, a portion of which would be replaced by the first RRW warhead, the WR1, if it ever were funded and developed. Secondly, the Energy Department has routinely replaced radars without nuclear testing or redesigning the physics package. In fact, during the 1990s, Sandia National Laboratories scientists developed the MC4033 common radar, which uses solid-state electronics, for planned refurbishments of the B61 and B83 gravity bombs. All B83 bombs now use the common radar, though similar plans to fit a new radar on all B61s have been repeatedly deferred. Most recently, in 2006, Sandia planned to replace the remaining B61 vacuum tube radars as part of ALT 364/365/366. The National Nuclear Security Administration, which oversees the nuclear weapons complex, canceled these latest ALTs, which would have resulted in the removal of the last vacuum tubes from the U.S. nuclear stockpile, because the U.S. Air Force preferred replacement to life extension. Due to this absurd twist, one could say that vacuum tubes remain in the U.S. nuclear arsenal in part because of the RRW, contrary to Chilton's insistence that the RRW is needed to get rid of them. The bottom line is that vacuum tubes are used only sparingly in the U.S. nuclear arsenal and can be replaced on short notice if the need arises, independent of whether Congress funds the RRW Program. Of the many reasons that Defense and Energy officials have put forth to justify the RRW Program, the need to replace vacuum tubes is the worst and has no place in the debate about the RRW or modernizing the nuclear stockpile.

Making ridiculous claims about vacuum tubes makes it harder to justify nuclear weapons and undermines deterrence

Reif, 9 – Deputy Director of Nuclear Nonproliferation at the Center for Arms Control and Non-Proliferation (Kingston, deputy director of nuclear nonproliferation at the center for Arms Control and Non-Proliferation, “Vacuum Tubes,” May 1, <http://nukesofhazardblog.com/story/2009/5/1/165418/4434>)

While we focused our fire on Gen. Chilton in our piece, he is by no means the only culprit in this little charade. NNSA Administrator Tom D’Agostino told a similar story to Congress at a hearing of the Senate Energy and Water Development Subcommittee in April 2007. In making the case for the so-called RRW2 to replace the B61, D’Agostino alluded to vacuum tubes as a key example of the “several aging problems associated with the B-61.” General Robert Smolen (USAF, Ret.), former Deputy Administrator, Defense Programs, NNSA, has been even more explicit in pointing to vacuum tubes as evidence of the need for the RRW. At a hearing of the House Strategic Forces Subcommittee in March 2008, Smolen argued: “…we have a B-61 built in the 1960s. We’re in the process of trying to refurbish that….We still have a lot of non-nuclear components that are *tubes* that we’re concerned about….[A]s the stockpile continues to age, if we are faced with continually doing life extension programs, and if some of the materials we need to do that are unavailable and we have to remanufacture new ones, then we continue to build on the uncertainty which may sometime in the future have the lab directors question whether or not, in light of all the changes, they would be able to certify those weapons.” (*emphasis mine*). Of course, the *Wall Street Journal* could care less that they’ve been played for fools. Chilton’s story fits squarely within their long-standing editorial position: the U.S. nuclear arsenal is on the verge of collapse. Congress, however, is not likely to be so forgiving. If Gen. Chilton and other nuclear weapon hawks hope to convince Congress, the American public, and the rest of the world of the merits of their cause, they’d be wise not to make arguments that have absolutely nothing to do with the modernization debate. Harping on about an obscure nonnuclear component that is not contained in the physics package of any of our nuclear weapons and continues to function reliably will make it more, not less, difficult for NNSA to rebuild its broken bond with Congress and make its case for strengthening the U.S. nuclear infrastructure.

# Criteria for Reliability Exaggerated

**Requirements for nuclear weapon reliability are exaggerated**  
**Nelson, 6 – Senior Scientist of the Union of Concerned Scientists** (Robert W., April, “If it Ain’t Broke: The Already Reliable U.S. Nuclear Arsenal,” Arms Control Today, <http://www.armscontrol.org/act/2006_04/reliablefeature.asp>)

A Look at Targeting Warhead reliability ultimately enters the Pentagon’s nuclear war-fighting calculations in predicting the mathematical likelihood that a planned nuclear strike will destroy its intended target. Although specific numbers are classified, a U.S. nuclear warhead is thought to be required to detonate with an energy within 10 percent of their design yield, under worst-case battlefield conditions. Yet, the target “damage expectancy” depends on more than just the precise size of the explosion. It depends far more, in fact, on the performance of the non-nuclear components of the weapon, particularly the accuracy of the final re-entry vehicle in reaching its target. An improvement in accuracy by a factor of two, for example, decreases the required explosive yield by a factor of eight. It hardly matters, for example, if the W76 warhead detonates with a yield of 100 kilotons or 90 kilotons, when a 15-kiloton explosion will do. The reliability of these non-nuclear components is high, but their uncertainty still greatly exceeds any uncertainty in the reliability of the core nuclear package. In order to increase the damage expectancy significantly, the Pentagon would have to redesign and improve the reliability of all of these components at very great expense. Rather than doing that, the Pentagon builds in a great deal of redundancy as it selects weapons and modes for any particular targeting scenario. It may increase the yield or the number of weapons targeting a particular site to hedge against any uncertainty. So, ultimately the size of the U.S. nuclear arsenal and the need to maintain a large hedge of inactive warheads derives not from small uncertainties in the precise yield of our stockpiled weapons, but in the belief that the United States needs to maintain the ability to put at risk the thousands of sites on its current target list. Before initiating a major rebuild of the U.S. nuclear stockpile, Congress and other policymakers should re-examine the implications and logic of the U.S. nuclear targeting posture.

# Their Evidence is Biased 1/3

Reject evidence based on scientists – labs present false information to increase funding and ensure employment – history of false claims prove

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

Over the years, the weaponeers’ arguments for expanding nuclear weapons work have shifted several times. After its origin with the Manhattan Project, the justification for the huge buildup in the U.S. nuclear weapons program was the need to counter the Soviet Union. One of the chief arguments for the massive buildup was a purported missile gap, which was later proven non-existent. Indeed, the demise of the Soviet Union has laid bare the overall weakness in this adversary, and a corresponding weakness in the justification for massive spending on nuclear weapons during the Cold War. By the 1980s, as Cold-War tensions waned, long time pleas from arms control advocates for an end to testing of nuclear weapons were beginning to be heard. The potential end of nuclear weapons testing was an overwhelming threat to lab employment. Fighting to maintain their existence, the labs argued that even if the U.S. ceased development of new nuclear weapons, the labs needed to continue nuclear testing to maintain the safety and reliability of the stockpile. A typical example of lab hyperbole on this issue was, “without testing and with the inevitable age-related changes that occur in nuclear weapons, the situation may well arise in which one might believe that no weapons of a given type will work.”42 Nevertheless, in 1992, the United States joined the Soviet Union in declaring a moratorium on the testing of nuclear weapons.43 Since then, the safety and reliability of the stockpile has not deteriorated as the labs claimed it would. The weaponeers’ false claim that they needed to continue nuclear weapons tests was the first instance of a trumped up program justification based on maintaining safety and reliability. Maintaining safety and reliability has remained the labs primary justification for increasing nuclear weapons R & D, but they keep inventing new programs, which they claim they need to do it. Once it became apparent that Congress and the Clinton Administration would not quickly resume testing, the labs switched gears and began saying they could maintain the safety and reliability of the stockpile, without testing, through an approach called Stockpile Stewardship. The premise behind Stockpile Stewardship was that the labs needed to significantly enhance their understanding of nuclear weapons behavior to maintain the stockpile. This in turn required increased funding for a massive effort to improve the modeling and simulation of exploding nuclear weapons. To replace testing, the labs began building huge, expensive experimental facilities to mimic the conditions in exploding nuclear weapons. New, multi-billion dollar facilities included the Dual Axis Radiographic Hydrodynamic Test (DARHT) facility at Los Alamos National Lab and the National Ignition Facility (NIF) at Lawrence Livermore National Lab. The laboratories also requested, and Congress funded, acquisition of the world’s fasted computers. Since 1995, NNSA has spent nearly $6 billion on computer hardware and software and has increased the speed of its fastest computers by a factor of 100,000. Stockpile Stewardship has been a fraud since its inception. NNSA never needed a massive R&D program if it truly wanted only to maintain the existing stockpile. As already noted, a Curatorship approach would have been a less expensive and more certain way to maintain the stockpile. From a funding and employment perspective, Stockpile Stewardship has been a huge success for the labs. The first two years after the testing moratorium began, funding for weapons R & D and employment at the labs declined. Both soon recovered and grew rapidly once Stockpile Stewardship became the organizing principal for the U.S. stockpile. It would takes a brave Member of Congress to vote against funds that the lab experts say are needed to maintain a safe and reliable nuclear deterrent. In addition to falsely claiming that Stockpile Stewardship was necessary to maintain the existing stockpile, the labs also claimed that the advances in nuclear weapons science and technology they sought through Stockpile Stewardship would not be sufficient to develop new nuclear weapons or to significantly modify existing weapons. The labs’ assurances that they could not use Stockpile Stewardship to develop new or enhanced nuclear weapons were key to Congress’ initial acceptance of the program. That claim was true for only a brief time at best. As the Stockpile Stewardship program progressed, the labs gained confidence in their ability to modify existing nuclear weapons and realized they could enhance employment levels even more if they expanded their work to include weapons modifications. In 2000, NNSA expanded its mission statement from “maintain a safe, secure, and reliable nuclear weapons stockpile” 44 to “maintain **and enhance** [emphasis added] the safety, reliability and performance of the U.S. nuclear weapons stockpile.”45

# Their Evidence is Biased 2/3

Reject RRW good evidence – current programs allow for enough innovation and labs are using RRW to increase funding and retain jobs

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

In truth, NNSA had been modifying nuclear weapons under the Stockpile Stewardship program for some time. However, in its 2001 budget request, NNSA proposed accelerating enhancements to existing nuclear weapons by expanding the Life Extension Program.46 NNSA continues to claim that it keeps changes to a minimum under the LEP. However, an independent Weapon Assessment Team, which the Nuclear Weapons Council commissioned in 2000 to review plans for the W76 LEP, determined that the preferred option represented “a viable design that enhanced reliability over the extended lifetime and afforded nuclear safety and significant use control enhancements to the present baseline W76 design.”47 This demonstrates that NNSA is using the LEP not only to extend warhead lifetimes, but also to enhance capabilities. Several years ago, the labs began claiming that new capabilities—an Earth penetrating warhead and more vague “advanced concepts”—were needed to address post Cold-War threats. Congress emphatically rejected those programs by denying Administration funding requests for 2005 for the Robust Nuclear Earth Penetrator (RNEP) and for the Advanced Concepts Initiative and by denying a subsequent 2006 request for RNEP. The House Appropriations Committee recognized those new weapons development efforts as dangerous jobs programs stating: The Committee recognizes the dilemma that NNSA’s nuclear weapon design laboratories find themselves in after the Cold War. In the absence of a Cold War between nuclear-armed superpowers, the importance of nuclear weapons to the war fighters in the Pentagon has steadily diminished. The pressure on the nuclear weapon design laboratories to maintain the canonical role for their weapons in order to justify increasing budgets becomes very difficult. By contrast, the Committee’s priorities are maintaining our Nation’s nuclear deterrent in a safe and secure condition and maintaining our Nation’s integrity in the international effort to halt the proliferation of weapons of mass destruction. The Department’s obsession with launching a new round of nuclear weapons development runs counter to those priorities.48Faced with this defeat, the labs have returned to their trusted and true, but bogus, rationale for more spending -- maintaining the safety and reliability of the existing stockpile. The Reliable Replacement Warhead program is the new horse that the labs hope to ride to greener pastures of increased funding. The laboratories clearly intend to ride the RRW program as far as they can to increase funding and create more jobs.

**All their ev is biased because the DOE wants more money, RRW isn’t actually a useful program.**

**Cirincione, 9** – President of the Ploughshares Fund, former senior vice president for national security and international policy at the Center for American Progress and former director for nonproliferation at the Carnegie Endowment for International Peace (“The Nuclear Postuer Landmine: An Interview With Joe Cirincione,” 8/16/09, <http://www.dailykos.com/storyonly/2009/8/16/767100/-The-Nuclear-Posture-Landmine-:-An-Interview-With-Joe-Cirincione>)

**I was looking at the background sheet that the Pentagon released to you at the NPR meeting. It says "a safe, secure, effective, and** reliable **nuclear deterrent". So it sounds like the Reliable Replacement Warhead [RRW] will be back. What do you think?** I think the Reliable Replacement Warhead is dead, but there very well could be a Son of RRW. We shouldn't kid ourselves, that this is somehow about national security or about the reliability of our nuclear weapons. Every scientific study done has shown that our nuclear weapons are basically immortal, that with careful care they can last forever. This is about money. This is about assuring a flow of contracts and jobs to the nuclear laboratories. It really is not about the military services, it's not about our ability to destroy cities half a planet away, or to take out discrete military targets, it's about assuring the laboratories that they have a future. Right now, the key figure is Secretary Gates. If he believes that the nuclear weapons complex will be taken care of, he will back off his view that he could not support a comprehensive test ban without building a new warhead. After you go through the tenth argument with people, about whether or not we actually need [the RRW], you realize that this is about putting in place a system that will ensure that money, contracts, prestigious jobs will continue to flow to the nuclear laboratories, whose livelihood depends on the continued design and production of nuclear weapons. We built these beautiful machines [the national laboratories] 60 years ago to give us the building blocks of our nuclear empire, and they worked perfectly, they worked beautifully. And now we're having trouble turning them off. That is really what this is about. Those are the pressures that are being felt within the Pentagon over this - and Congress - over our nuclear policy. It is basic constituent lobbying, **not a genuine debate about the safety and reliability of our nuclear weapons.**

# Their Evidence is Biased 3/3

**Their evidence is biased—the DOE continuously invents new rationales for better jobs and more funding.**

Civiak, **6** – Ph.D. in physics from the University of Pittsburgh, former Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service, Former Program and Budget Examiner with the Office of Management and Budget including oversight of the DOE (Dr. Robert, “The Reliable Replacement Warhead Program,” Tri-Valley CAREs, <http://www.trivalleycares.org/TVC_RRW_FNL.pdf>)

The RRW is merely the latest proposal to fulfill the top priority of the weapons labs—preservation of funding and jobs. The end of the Cold War has led to fewer nuclear weapons and less development of new weapons. Nevertheless, spending on nuclear weapons work has increased dramatically. In 2006, the NNSA plans to spend $6.4 billion on nuclear weapons. Even after adjusting for inflation, that is one and one-half times the average annual spending on nuclear weapons during the Cold War. The weaponeers have achieved this impressive growth by continually inventing new rationales for increased funding. Over the past twenty years, the rationale has shifted from the Cold War competition against the Soviet Union, to the need for expensive underground weapons tests to maintain the stockpile, to a massive aboveground testing and simulation program called Stockpile Stewardship, and now to the Reliable Replacement Warhead program.

Prefer our evidence – labs will push for RRW whether it’s a good idea or not.

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

"The concern that NNSA and the labs have expressed about drifting away from tested designs through repeated [life-extension programs] is overblown because LEPs only happen every 20 to 30 years," said the weapons analyst who asked not to be identified. "Today's NNSA and [the Los Alamos and Livermore national laboratories] have shown us that they can't resist ... pushing new, untested toys" such as replacement warheads, said Roger Logan, who formerly led Directed Stockpile Work at Lawrence Livermore National Laboratory. "They just can't stop, whether it's the right thing or not," Logan wrote in a recent essay on warhead-certification issues.

# Civiak Prodict

**Civiak is extremely qualified**

**Kelley, 6 –** Executive director, Tri-Valley CAREs(The Reliable Replacement Warhead Program A Slippery Slope to New Nuclear Weapons: A Report from Tri-Valley CAREs, January 2006 <http://www.trivalleycares.org/prjan06.asp>)

Bob Civiak has been doing research and analysis in nuclear weapons policy and related areas for more than 25 years. He received a Ph.D. in physics from the University of Pittsburgh in 1974. From 1978 through 1988 he was a Specialist in Energy Technology and Section Head in the Science Policy Research Division of the Congressional Research Service (CRS) at the Library of Congress. During the spring and summer of 1988 he was a Visiting Scientist at Lawrence Livermore National Laboratory. From November 1988 through August 1999 he was a Program and Budget Examiner with the Office of Management and Budget (OMB) in the Executive Office of the President. At OMB his primary responsibilities included oversight of the national security activities of the Department of Energy, including the Stockpile Stewardship Program. He currently resides in Lebanon, New Hampshire, where he continues to do research and policy analysis on nuclear weapons and arms control issues as an independent consultant.

\*\*\*RRW GOOD

# 2AC Terrorism

**Terrorists likely to capture and explode US warheads in place**

**Brooks ‘5 –** Administrator National Nuclear Security Administration; Statement Before The Senate Armed Services Committee Subcommittee on Strategic Forces (Linton F., ; http://www.globalsecurity.org/wmd/library/congress/2005\_h/050404-brooks.pdf)

Finally, today’s stockpile is the wrong stockpile from a *physical security* standpoint. During the Cold War the main security threat to our nuclear forces was from spies trying to steal our secrets. Today, the threat to classified material remains, but to it has been added a post-9/11 terrorist threat that is difficult and costly to counter. We now must consider the distinct possibility of well-armed and competent terrorist suicide teams seeking to gain access to a warhead in order to detonate it in place. This has driven our site security posture from one of “containment and recovery” of stolen warheads to one of “denial of any access” to warheads. This change has dramatically increased security costs for “gates, guns, guards” at our nuclear weapons sites. If we were designing the stockpile today, we would apply new technologies and approaches to warhead-level use control as a means to reduce physical security costs.

**RRW key to stop**

**Garwin ‘7** (Richard L. Garwin 2007 (IBM Fellow Emeritus; Congressional Testimony Marcg 29,http://www.ucsusa.org/assets/documents/global\_security/Garwin-RRW-Testimony.pdf)

Surety is another matter. This is the resistance of a nuclear weapon to being fired with full or very substantial nuclear yield, without proper authorization. Bombs and other tactical weapons have Permissive Action Links and every U.S. nuclear weapon must require its explosive system to be initiated at two or more points, else it would not be one-pointsafe. A concern is that a nuclear weapon might be stolen or otherwise obtained byterrorists or some other group, and over the course of hours, days, or months, might be disassembled in an effort to defeat the PAL or other surety mechanisms that are built into the weapon. A new design such as the RRW gives the opportunity of surety features that were not or could not have been incorporated into the legacy weapons. On this topic I cannot say more. However, this question of preventing adverse use of our own weapons is important. "Nirvana for me is if the wrong person gets a hold of it, it's a paperweight, "General James Cartwright has said."That's where we need to be."

**Causes mass death and collapses the global economy**

**Perry ‘7** – Former Sec. of Defense USA (William J., 7/18, Testimony House Armed Services Committee Strategic Forces Subcommittee; <http://armedservices.house.gov/pdfs/Strat071807/Perry_Testimony071807.pdf>)

But the greatest danger today is that a terror group will detonate a nuclear bomb in one of our cities. Graham Allison, in his book, “Nuclear Terrorism”, states that the likelihood of a nuclear bomb being detonated in one of our cities this decade is fifty percent. He makes a compelling argument that Al Qaeda and other terror groups are trying to get nuclear weapons. He also argues that if they get one, they will use it, with devastating results. Of course, a nuclear detonation in one of our cities would not be equivalent to a nuclear exchange during the Cold War, which could have led to the extinction of civilization. But it still would be the worst catastrophe of our time. Just one primitive nuclear bomb based on the design of the Hiroshima bomb could result in more than a hundred thousand deaths, and there could be more than one bomb. The direct economic losses from the detonation would be hundreds of billions of dollars, but the indirect economic impact would be even greater, as worldwide financial markets collapsed in a way that would make the market setback after 9-11 seem mild. And the social and political effects are incalculable, especially if the nuclear bomb were to be detonated in Washington, disabling a significant part of our government.

# Environment – Prevents Nuclear Waste

**RRW prevents nuclear waste**

**Medalia ‘9**- Specialist in nuclear weapons policy (Jonathan Medalia 7/27/09 “The Reliable Replacement Warhead Program: Background and Current Developments <http://www.fas.org/sgp/crs/nuke/RL32929.pdf>)

During the Cold War, the urgency of production and limited knowledge of the ES&H effects of materials used or created in the nuclear weapons enterprise led to the use of hazardous materials, dumping contaminants onto the ground or into rivers, exposing citizens to radioactive fallout from nuclear tests, and the like. Now, ES&H concerns have grown within the Complex, reflecting their rise in civil society at large, leading to a strong interest in minimizing the use of hazardous materials in warheads and their production. RRW advocates note that reduction of hazardous materials is a design goal of RRW. A less stringent yield-to-weight requirement permits substitution of safer materials, even if they are somewhat heavier, for some hazardous materials. Manufacturing processes are simpler, reducing hazardous waste and increasing safety. Substitution of insensitive high explosive for conventional high explosive, it is argued, would increase worker safety. LEP supporters argue that the ability to defer pit manufacture for decades improves ES&H, and that existing manufacturing processes are well understood and have incorporated proper safety precautions.

**RRW design avoids hazardous nuclear waste**

**Medalia ‘9**- Specialist in nuclear weapons policy (Jonathan Medalia 7/27/09 “The Reliable Replacement Warhead Program: Background and Current Developments <http://www.fas.org/sgp/crs/nuke/RL32929.pdf>)

8. Reduce the environmental burden imposed by warhead production. [3, 4, 7] This goal seeks to reduce waste streams and potential harm to the environment, and to improve worker safety. But it is much more than “just green.” It contributes to other goals, such as making manufacturing easier and reducing cost. For example, some current warheads use beryllium, which is toxic and difficult to machine; neither RRW design uses beryllium. Both teams claim that new RRW manufacturing processes will potentially reduce radioactive waste, and expect that RRW nuclear explosive packages will reduce hazardous material usage. In contrast, NEP components in LEPs must replicate, insofar as possible, original specifications, including use of hazardous materials.

# RRW Solves Bioweapons

**RRW allows us to get rid of bioweapons**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

Ambassador Brooks maintains that the current stockpile may be wrong from a military perspective. He argues that yields are too high, there is potential for too much collateral damage, we lack the capability to destroy buried facilities or facilities containing chemical or biological weapons, warheads could be more accurate, and they are not geared for small-scale strikes. He has said, “we must preserve the ability to produce weapons with new or modified military capabilities if this is required in the future.” He views RRW as the “enabler” for transforming the stockpile.58 Examples of warheads that might benefit from modifications to the nuclear explosive package to tailor radiation outputs include those to create electromagnetic pulse to destroy electronic equipment, and those to destroy chemical or biological agents.

# RRW k2 Conventional Military

**Rrw replaces conventional military – turns overstretch advantage**

**Scott, 5** – Ph.D. Wisconsin MA Wake Forest (William B. Scott November 7, 2005, Nuclear Weapons; Pg. 82, Lexis)

THE RRW CONCEPT ensures evolving military requirements will be met, as well, "but in a way that can make the whole enterprise more efficient, more effective and more responsive. Then there'll be an opportunity to reduce the number of reserve warheads the military keeps, because we'll be able to respond more quickly [to shifting requirements]," adds Michael R. Ana- stasio, director of Lawrence Livermore National Laboratory (LLNL). "It's a potential way to have a more-sustainable future [with] a reduced number of weapons, [at] a concomitant reduction of cost." The University of California's proposal to operate and manage LANL names Anastasio as its director candidate. The RRW strategy has substantial ramifications for the entire nuclear weapons complex. The prospect for a much smaller stockpile raises myriad questions: does the nation need two competing design labs, Los Alamos and Livermore? How many weapons-production plants are necessary, and where should they be located? Such infrastructure decisions put policy-makers at the center of volatile political, personnel and technical minefields. A congressionally-requested Nuclear Weapons Complex Infrastructure Task Force (NWCITF) has examined these questions, and its final report was submitted to the Energy Secretary's advisory board in October. A draft released in July proposed a consolidated weapons production center, and weighed the merits of combining the Los Alamos and Livermore design labs. Ideas about what needs to be done with the nuclear weapons complex spans the spectrum of possibilities, colored by rampant worries and suspicions about the motivations of government officials and political factions. A rash of highly publicized security and safety incidents, compounded by poor management responses, has left Los Alamos vulnerable, the lab's employees believe. Consequently, they see the imminent management/operations-contractor selection as a make-or-break decision. However, neither Robinson nor Anastasio, both LANL-director candidates, would comment on those issues, preferring to discuss their visions for a viable next-generation weapons complex. "We really need to focus on defining what stockpile the nation needs to best-preserve a military capability for the next 30 years--without nuclear testing," Robinson says. "To make this [RRW] work, you have to integrate and take a systems-view of the whole complex. How would we reconfigure both the design and production parts, [bringing] them closer together to do the best job of building the highest-quality [weapons] at the lowest cost?"

**RRW is used to meet military requirements**

**Hardin, 5** (Angela Y., October 10, 2005, Inside Energy with Federal Lands LABORATORIES; Pg. 9, Lexis)

While the board Tuesday accepted the thrust of the a report "Recommendations for the Nuclear Weapons Complex of the Future" and agreed to send it to Energy Secretary [Samuel Bodman,](http://www.lexisnexis.com/us/lnacademic/search/XMLCrossLinkSearch.do?bct=A&risb=21_T9657908211&returnToId=20_T9657922997&csi=7989&A=0.8729975414467969&sourceCSI=9369&indexTerm=%23PE0009XOK%23&searchTerm=Samuel%20Bodman,%20&indexType=P)  the panel did not take a position on the report's recommendation for the immediate design of a "reliable replacement warhead" and indicated it expects that Bodman and the administration will consider the matter further. The report said RRW would lead to a modernization of the country's weapons by replacing the current Cold War stockpile with a sustainable arsenal, **allowing the United States to "meet military requirements** while incorporating state-of-the-art surety requirements."

**RRW replaces military missions**

**Kammerer, 5 –** B.A. Journalism Writer for South China Morning Post  (Peter Kammerer, South China Morning Post April 20, 2005, NEWS; Pg. 13, 453 words, Lexis)

A letter released yesterday by Japan's Kyodo news agency from Energy Secretary Samuel Bodman to influential Democratic Party senator Dianne Feinstein seemed to confirm their worries. "If, in the future, the DOD Department of Defense identifies requirements for new or different military capabilities, it is conceivable that certain concepts identified in the RRW program could be applied in the development of warheads to meet these new requirements," Mr Bodman wrote in the letter dated March 4.

# Proliferation – RRW k2 Prevent 1/2

**RRW allows us to reduce our stockpiled warheads**

**Medalia ‘9**- Specialist in nuclear weapons policy (Jonathan Medalia 7/27/09 “The Reliable Replacement Warhead Program: Background and Current Developments <http://www.fas.org/sgp/crs/nuke/RL32929.pdf>)

Reduce the number of nondeployed warheads. [2, 4, 5, 6] The President approves the number of U.S. warheads annually in the Nuclear Weapons Stockpile Memorandum. The number of deployed warheads depends on perceived military and political needs. DOD also retains many nondeployed warheads to hedge against technical and geopolitical risk. The former arises from the prospect that an existing warhead type might develop a defect that NNSA would have difficulty remedying. Geopolitical risk arises from the prospect that the Complex could not manufacture new warheads fast enough to respond to such threats as a major expansion of an adversary’s nuclear forces. RRW’s supporters claim that RRW would permit a reduction in nondeployed warheads for several reasons: RRWs would be less likely to develop defects because of increased margins; defects could be corrected more easily because RRWs would be designed for ease of surveillance and disassembly; a modified Complex could produce RRWs in time to respond to threats because they would be designed for ease of manufacture, and fewer types of warheads would be needed as backups. Regarding the latter point, at least two warhead types are currently available for each delivery system. This approach hedges against the prospect that a failure of one warhead type would render an entire delivery system unusable until the problem was fixed, impairing the U.S. deterrent. Each warhead, however, is designed for use on only one type of delivery vehicle. In contrast, RRWs designed for one delivery system could be used on another. While the first RRW is designed for use on SLBMs, RRW supporters point out that it is designed so it could fit into ICBM

**RRW solves prolif, deterrence, and accidents**

**NISA ‘7**- National Nuclear Security Administratino“Divergent positions: Reliable Replacement Warhead”8/31/07 http://www.aip.org/fyi/2007/091.html

To address these issues of sustainability, safety, security and reliability, and to achieve a smaller yet credible nuclear deterrent force, the United States needs to invest in the Reliable Replacement Warhead (RRW) program. Pursuit of this program is critical to sustaining long-term confidence in our deterrent capability – especially as the U.S. reduces its nuclear forces, the total number of weapons in the stockpile, and the size of the nuclear weapons infrastructure. RRW is a replacement warhead – it will help reduce the size of the nuclear stockpile and will not provide new military capabilities. Instead, RRW will make U.S. nuclear weapons safer and more secure against unauthorized use by incorporating state-of-the-art security features that cannot be retro-fitted to older weapons. RRW designs will provide more favorable reliability and performance margins than those currently in the stockpile, and will be less sensitive to incremental aging effects or manufacturing variances. Thus, RRW will allow the United States to manage the risks and challenges of the 21st Century while reducing the likelihood of returning to nuclear testing to certify reliability. Over time, RRW will enable the United States to transition to a smaller, more responsive nuclear infrastructure that will enable future administrations to adjust the U.S. nuclear stockpile as geo-political conditions warrant. RRW is key to sustaining our security commitment to allies, and is fully consistent with U.S. obligations under the Nuclear Nonproliferation Treaty–including Article VI.

**Rrw solves prolif**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

RRW’s supporters counter that RRW will increase confidence in the reliability of weapons and in the ability to certify them over the long term. As a result, RRW will reduce the probability that the United States will resume nuclear testing and will permit a substantial reduction in the U.S. nuclear stockpile, both of which could have a positive effect on nonproliferation. In addition, some may take the view that an RRW program that facilitated the development of nuclear weapons with new military missions could help dampen proliferation by strengthening deterrence.

# Proliferation – RRW k2 Prevent 2/2

**Solves testing that prevents prolif**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

Might LEP or RRW Lead to Nuclear Testing? Almost all participants in the RRW debate prefer to avoid nuclear testing. P.L. 109-163, the FY2006 National Defense Authorization Act, declares (Section 3111) that an objective of RRW is “To further reduce the likelihood of the resumption of underground nuclear weapons testing.” (Nuclear testing in the atmosphere, in space, and under water is banned by the Nuclear Test Ban Treaty of 1963.) The Administration has continued the nuclear test moratorium, though it has asserted it would test if required.79 That has not been needed because DOD has no requirement for nuclear weapons with new or modified capabilities, and because the Secretaries of Defense and Energy have been able to certify the stockpile without testing.80 Because the Bush Administration does not support the Comprehensive Test Ban Treaty,81 it has not spelled out arguments against testing. It could be, however, that because testing could cause massive protests domestically and internationally, part of the rationale for avoiding testing is political. Further, most nations would likely view resumed U.S. testing as a clear breach of U.S. obligations on behalf of nuclear disarmament and could lead to the unraveling of the nuclear nonproliferation regime and to testing by others. NNSA argues that RRW would reduce the need for testing. Ambassador Brooks has said, “not only is the reliable replacement warhead program not designed to foster a return to nuclear testing, it is probably our best hedge against the need sometime in the future to be faced with the question of a return.”82 Components could be designed to be less sensitive to minor changes in materials and processes and to permit looser tolerances. As a result, uncertainties that might prompt a nuclear test on current weapons might be acceptable with RRW components.

**RRW is awesome – stops a global arms race**

**Tauscher, 7** – Ellen, November 2007, the Nonproliferation Review, The Monterey Institute of International Studies, James Martin Center for Nonproliferation Studies, http://cns.miis.edu/npr/pdfs/143tauscher.pdf

The overall goal of our nuclear program must be to strike this critical balance between deterrence and nonproliferation. The goal of the RRW program can be similarly characterized and aimed at providing U.S. armed forces with a weapons design that is highly reliable while providing our nuclear weapons laboratories and facilities with a stockpile that is safer and easier to manufacture and monitor than our oldest Cold War weapons.3 While it is far from assured, if the RRW program can deliver on this promise, then it should bring the added benefit of allowing the labs to make these safety and security improvements to the weapons stockpile without the dangerous consequences of nuclear testing, which could include resumption **of a global nuclear arms race.** If it proves feasible, RRW should also allow the weapons production complex to begin using more environmentally friendly materials and processes and allow the labs to adopt a common set of core design components and safety requirements that could be adapted to different sizes of weapons, streamlining the production process. Further, the RRW would provide an opportunity to further improve the safety and security features of U.S. nuclear weapons, including devices rendering them even more unusable should they fall into the hands of terrorists or rogue nations.

# RRW k2 Reliable Weapons

**RRW is key to ensure the US stockpile is reliable**  
**Broad, 5** – Staff Writer (“U.S. Redesigning Atomic Weapons, 2/7/05, The New York Times, <http://www.nytimes.com/2005/02/07/science/07bomb.html>)

For decades, the bomb makers sought to use the latest technologies and most innovative methods. The resulting warheads were lightweight, very powerful and in some cases so small that a dozen could fit atop a slender missile. The American style was distinctive. Most other nuclear powers, years behind the atomic curve and often lacking top skills and materials, settled for less. Their nuclear arms tended to be ponderous if dependable, more like Chevys than racecars. Now, American designers are studying how to reverse course and make arms that are more robust, in some ways emulating their rivals in an effort to avoid the uncertainties and deteriorations of nuclear old age. Federal experts worry that critical parts of the arsenal, if ever needed, may fail. Originally, the roughly 10,000 warheads in the American arsenal had an expected lifetime of about 15 years, officials say. The average age is now about 20 years, and some are much older. Experts say a costly federal program to assess and maintain their health cannot ultimately confirm their reliability because a global test ban forbids underground test detonations. In late November, Congress approved a small, largely unnoticed budget item that started the new design effort, known as the Reliable Replacement Warhead program. Federal officials say the designs could eventually help recast the nuclear arsenal with warheads that are more rugged and have much longer lifetimes. "It's important," said John R. Harvey, director of policy planning at the National Nuclear Security Administration, which oversees the arsenal. In an interview, he said the goal of the new program was to create arms that are not only "inherently reliable" but also easier to make and certify as potent. "Our labs have been thinking about this problem off and on for 20 years," Dr. Harvey said. "The goal is to see if we can make smarter, cheaper and more easily manufactured designs that we can readily certify as safe and reliable for the indefinite future - and do so without nuclear testing." Representative David L. Hobson, an Ohio Republican and chairman of the House Appropriations Subcommittee on Energy and Water Development, praised the program in a speech on Thursday and said it could lead to an opportunity for drastic cuts in the nation's nuclear arsenal. "A more robust replacement warhead, from a reliability standpoint," Mr. Hobson said, "will provide a hedge that is currently provided by retaining thousands of unnecessary warheads."

# RRW k2 Safer Weapons

**RRW is key to ensure the US stockpile is reliable**  
**Broad, 5** – Staff Writer (“U.S. Redesigning Atomic Weapons, 2/7/05, The New York Times, <http://www.nytimes.com/2005/02/07/science/07bomb.html>)

The new program [RRW] involves fewer than 100 full- and part-time designers and other experts and support staff, said Dr. Harvey, of the National Nuclear Security Administration. "There's not a lot of hardware," he added. "It's mostly concept and feasibility studies that don't require much fieldwork." Dr. Harvey emphasized that the effort centered on research and not arms production. But he said the culminating stages of the program would include "the full-scale engineering development" of new prototype warheads. Both Congress and a future administration would have to approve the costly, advanced work, and an official said no decision had been made to seek such approval. The current goal of the program, Dr. Harvey said, is to "relax some of the design constraints imposed on the cold war systems." He added that a possible area of investigation was using more uranium than plutonium, a finicky metal that is chemically reactive. He said the new designs would also stress easier manufacturing techniques and avoid hazardous and hard-to-find materials. "Our goal is to carry out this program without the need for nuclear testing," Dr. Harvey said. "But there's no guarantees in this business, and I can't prove to you that I can do that right now." Another official, speaking on the condition of anonymity because the topic is politically delicate, said that such testing would come only as a last resort and that the Bush administration's policy was to maintain the moratorium. The program, Dr. Harvey said, should produce a wide variety of designs. The Defense Department, which is participating in the effort, will help decide which weapons will be replaced, he said. "What we're looking at now is a long-term vision," Dr. Harvey said. "We're trying to flesh this out and understand the path we need to be on, and to work with Congress to get a consensus.

# RRW Prevents Unauthorized Use of Nuclear Weapons

**RRW k2 prevent unauthorized use of nukes and to increase deterrence**

**DoD, 7** – The Department of Defense if Washington D.C., July, http://www.stormingmedia.us/14/1431/A143174.html

A principal national security goal of the United States is to deter aggression against ourselves and our allies. Every American administration since President Truman has formulated a U.S. national security policy that makes clear the essential role that nuclear weapons play in maintaining deterrence. It is the policy of this Administration to achieve an effective strategic deterrent at the lowest level of nuclear weapons consistent with our national security and our commitments to allies. In 2001, President Bush directed that the United States reduce the number of operationally deployed strategic nuclear weapons from about 6,000 to 1,700-2,200 by 2012 -- a two-thirds reduction. Corresponding reductions in the nuclear stockpile will result in the lowest level since the Eisenhower Administration. However, these reductions in the stockpile are only achievable with a responsive nuclear infrastructure. Successive efforts at extending the service life of the current inventory of weapons risks incorporating technical changes that could, over time, inadvertently undermine their reliability and performance. As the United States continues to observe a moratorium on underground nuclear testing, it becomes increasingly difficult to certify the existing stockpile of weapons. Moreover, it is difficult to incorporate modern safety and security features into Cold War-era weapon designs. To address these issues of sustainability, safety, security, and reliability, and to achieve a smaller yet credible nuclear deterrent force, the United States needs to invest in the Reliable Replacement Warhead (RRW) program. RRW will make U.S. nuclear weapons safer and more secure against unauthorized use by incorporating state-of-the-art security features that cannot be retro-fitted to older weapons. RRW designs will provide more favorable reliability and performance margins than those currently in the stockpile, and will be less sensitive to incremental aging effects or manufacturing variances.

# RRW k2 Deterrence 1/4

RRW allows the US to maintain a strong deterrent

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

Link to Arms Control In Gates' view, as the stockpile ages, the risk grows that a defect might be discovered that could render a whole class of warheads unusable. Once arms control reductions are taken and the arsenal shrinks, the relative effect of such a discovery could magnify. If a sizable portion of a smaller arsenal becomes unusable, the U.S. deterrent posture could be significantly weakened, according to this perspective. The antidote, from Gates' standpoint, would be to ensure that -- after taking arms control reductions -- newer and more reliable warheads populate the remaining stockpile. The Reliable Replacement Warhead's new design was envisioned as replacing outdated materials with modern technologies, and lowering the risk of theft or accidental detonation. The Pentagon leader -- a Bush administration holdover who has largely embraced the new president's policies on Iraq, Afghanistan and defense acquisition reform -- last year publicly laid down the gauntlet on nuclear modernization. He said an ambitious effort must be undertaken to assure that the arsenal remains safe, secure and reliable. The RRW program, Gates told a Washington audience in October, "could potentially allow us to reduce aging stockpiles by balancing the risk between a smaller number of warheads and an industrial complex that could produce new weapons if the need arose." Warhead replacement, the defense secretary said, "is about the future credibility of our strategic deterrent. And it deserves urgent attention" (see GSN, Oct. 29, 2008). "His view of the necessity of a safe, secure, and reliable nuclear arsenal has not changed since that speech," Geoff Morrell, Gates' spokesman, told GSN on Friday. With the change in administration, the urgency Gates saw last fall was overtaken by more pressing issues, including the global economic meltdown and increasing violence in Afghanistan and Pakistan.

**Weapon modernization is key to maintaining nuclear deterrence**

**Senator Kyl, 9**  - Senate Republican Whip and serves on the Senate Finance and Judiciary committees. (7/27/9, Jon, The National Ledger, “Jon Kyl: Defense Authorization Bill”, <http://www.nationalledger.com/cgi-bin/artman/exec/view.cgi?archive=39&num=27131>)

The two presidents agreed that both nations should reduce the number of nuclear weapons in their stockpiles. While I don’t believe that lower levels of nuclear forces in our deterrent makes the U.S. or our allies safer, my chief concern is that the weapons that remain are aging and increasingly difficult to maintain. That’s why I offered an amendment that requires the President to deliver a plan to modernize our nuclear deterrent. My amendment, as well as a letter to the President signed by Senators Byrd, Levin, McCain, Kerry, Lugar and me, makes clear that modernization of the nuclear deterrent must accompany START ratification. Additionally, my amendment makes clear that the Senate believes that during the negotiations with the Russians, the U.S. should not impose limits on its missile defenses, space capabilities or advanced global strike capability development. Our missile defenses keep us safe from ballistic missile threats, such as those from Iran and North Korea, and have nothing to do with nuclear weapons reductions. They have no business being limited in this treaty with Russia.

**Effective nuclear deterrence would rely on the creation of reliable, safe, and secure weapons**

**Lobsenz, 9** - executive editor of The Energy Daily, reporter at UPI , B.A. in history from University of Michigan, recipient of many prestigious awards, including a newsletter journalism award for Best Exclusive Story at the 33rd Annual NPC Journalism Awards in 2006. (2/19/09, George, Defense Daily “ Obama Moves To Kill RRW, Beef Up DoE Nonproliferation”, Lexis)

The Obama administration has signaled plans to kill the Energy Department's reliable replacement warhead program "both explicitly and implicitly" while proposing to sharply increase funding for the department's nuclear nonproliferation initiatives. At the same time, they said the RRW would be easier and cheaper to manufacture, maintain and secure than current warheads and NNSA could eliminate the use of many toxic materials, such as beryllium. Further, it said the RRW would provide more reliability--thus eliminating any possible need to return to underground testing--and that the new bomb would allow NNSA to shrink the size of the weapons complex more aggressively. However, Congress never endorsed production of the RRW, with some Democrats saying U.S. production of a new nuclear warhead would undermine its arms control and nonproliferation agenda. Lawmakers last year ordered DoE and the Pentagon to provide a more detailed analysis of the strategic rationale and justification for the RRW. However, a blue-ribbon panel with several prominent Democrats and led by William Perry, former defense secretary in the Clinton administration, in December released an interim report to the Hill that noted that life extension of existing warheads was getting "more difficult to execute" and that the Bush administration had proposed the RRW to deal with that problem. The Congressional Commission on the Strategic Posture of the United States also said in the report that while the nation should continue efforts to reduce reliance on nuclear weapons for its defense, "as long as the U.S. depends on nuclear deterrence, national policies must ensure that this deterrence is reliable, safe and secure." Other NNSA programs targeted for possible reductions by the passback document include "readiness in technical base and facilities (RTBF)," which generally encompasses maintenance and operation of weapons production buildings.

# RRW k2 Deterrence 2/4

**We won’t be able to be a credible deterrent without weapon modernization**

**O'Hanlon, 8** –brookings institute: Director of Research and Senior Fellow, Foreign Policy. Director of Research, 21st Century Defense Initiative, The Sydney Stein, Jr. Chair, enior author of the Iraq, Afghanistan, and Pakistan Index projects. , before the Brookings institute O’Hanlon worked as a national security analyst at the Congressional Budget Office (12/25/08, Michael, Washington Post, “ A New Old Nuclear Arsenal”, Lexis)

The reliable replacement warhead, known as the RRW, which Congress has refused to fund despite repeated requests from the Bush administration, would not require nuclear testing -- in contrast to today's high-performance designs with their low margins for error. It would use more plutonium or enriched uranium, and deliver a lower explosive yield for a warhead of a given size and weight. Gates declared his support for the RRW in October, saying that "there is absolutely no way we can maintain a credible deterrent and reduce the number of weapons in our stockpile without either resorting to testing our stockpile or pursuing a modernization program." Obama, however, has been emphatic that the country would not build new nuclear warheads on his watch. He wants to reinvigorate U.S. arms control and nonproliferation efforts.

**RRW k2 deterrence**

**Willcox and Kyl, 5** – Staff Director and Chairman of the Republic Policy Committee (6/16, http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policies/Jun16NuclearMG.pdf)

The RRW program helps maintain nuclear deterrence. For deterrence to be credible, the weapons used must be reliable. The RRW program uses the knowledge gained by DoE on nuclear weapon component aging to develop safe, reliable replacement components that can employ technological advances in materials and design not available during the Cold War.

**The NNSA and US Strategic command agree – RRW’s are key to deterrence, reduce nuclear warheads, and reduce testing.**

**Tauscher, 7** – Ellen, November 2007, the Nonproliferation Review, The Monterey Institute of International Studies, James Martin Center for Nonproliferation Studies, http://cns.miis.edu/npr/pdfs/143tauscher.pdf

One option for retaining a deterrent while establishing a nonproliferation agenda may be the Reliable Replacement Warhead (RRW) program. RRW is a design concept for replacing some existing U.S. nuclear weapons with new ones that are simpler to manufacture and easier to maintain. In so doing, the RRW would ostensibly ensure a more reliable future nuclear arsenal for the United States. **Indeed, the National Nuclear Security Administration (NNSA) and U.S. Strategic Command have presented RRW as the best means of reducing uncertainty in the future performance of our nuclear arsenal, and thereby reducing or eliminating any technical reason to conduct nuclear tests.**

# RRW k2 Deterrence 3/4

**RRWs would be used for maintaining nuclear deterrence**

**Noonan 10**  - policy adviser with the Foreign Policy Initiative (6/7/10, John, The Weekly Standard Vol. 15, No. 36, “ New Nukes! On nuclear modernization GOP senators should swing for the fences.”, <http://www.weeklystandard.com/articles/new-nukes?page=2>)

The need for modernization is pressing. Though most of the details about America’s warhead stockpiles are highly classified, there are a few key points well known to close observers. Most of our nuclear warheads are 20-30 years old. The last weapon was constructed in 1991 and the last test detonation of a bomb occurred in 1992. The average age of an operational bomb is slightly over 30 years old, meaning many of our deployed warheads were built before President Reagan took office. Scientists who specialize in warhead construction and sustainment are aging and retiring at an alarming rate. By 2008, over half the nuclear specialists at our national laboratories were over the age of 50, and very few of those under 50 have the technical know-how to produce and sustain functional weapons. Secretary of Defense Robert Gates estimated that within a few years, roughly three-fourths of our nuclear technicians will be at retirement age. The National Nuclear Security Administration, a Department of Energy subagency responsible for the security and health of our stockpile, has lost over a quarter of its workforce since the end of the Cold War. Components in our warheads are aging just as fast. We no longer possess the capacity or ability to construct certain parts required in our bomb designs. Nuclear weapons are different from conventional munitions, which can sometimes detonate decades after they roll off the assembly lines. Nukes have a limited shelf life, and are constructed using parts that decay and corrode. Warheads must be constantly maintained and serviced to be considered credible. But along with the exodus of critical lab technicians, so went the industry that supported our national laboratories with key bomb-making components. Older weapons are now cannibalized to service the active force. Our nuclear delivery systems, which fortunately do not expire as readily as their payloads, are nonetheless in a state of decay. The B-52, the backbone of our strategic bomber force, is so old that the last airframe rolled off the assembly line during the Cuban Missile Crisis. Our Minuteman III ICBMs are products of the Nixon administration, and the Ohio-class ballistic-missile submarine was designed and initially constructed during the same period. And while Obama’s new Nuclear Posture Review​—​a Defense Department crafted contextual framework for America’s nuclear strategy—called for the preservation of our nuclear triad of subs, bombers, and missiles, it only committed to a replacement for the Ohio-class submarine. Nuclear deterrence is predicated on two main assumptions. The first is that any given nation’s atomic forces are capable. That means bombs go off when they are supposed to—and don’t go off when they’re not supposed to—that fuses detonate the weapons at the proper altitude, that missiles hit their aim points with reliable accuracy, that the command and control infrastructure that authorizes nuclear launch is robust and survivable, and so on. The second is that nuclear forces are perceived by our adversaries as **credible.** If we test ten ICBMs and all ten fail, our fragile deterrence equation deteriorates, shaken by the suspicion that our missiles don’t work. America’s nuclear infrastructure, weapons, and command-and-control functions operate with high reliability and effectiveness. But recent satisfactory performance does not mean the future of our strategic arsenal is guaranteed. The United States, as it happens, is the only major nuclear power (a list that includes both Russia and China) not currently modernizing its nuclear capabilities. In fairness to the Obama administration, some progress on modernization has been made. The administration has bumped up funding of the National Laboratories by 10 percent to support the so-called life extension programs (LEP), which is one of the ways our nuclear weapons are kept operationally certified. Each LEP “option” is designed to modify a warhead in such a way that it overcomes natural decay, thus extending its viability. Weapons are modified by the national labs, one of the reasons properly funding intellectual hubs like Sandia and Los Alamos is so important. Unfortunately, simply throwing money at the labs and calling it modernization is insufficient. President Obama has made it clear that he will not authorize a new nuclear warhead design, thus condemning the stockpile to endless LEP options, which some in the White House believe to be a silver bullet solution to the degrading arsenal. Though life extension does theoretically increase a nuclear weapon’s lifespan, each LEP modification distances a warhead from its original design. Original bomb designs are unique, in that they were properly tested in an underground detonation of the device. Without nuclear testing, there’s no way to determine—with absolute certitude—that a modified warhead will work. Unfortunately, President Obama has also made it clear that there will be no resumption of nuclear tests during his tenure. There is a middle ground here. A few years back, President Bush authorized development of the Reliable Replacement Warhead, a new bomb design that was simple, cheap to maintain, and—most important—did not depend on nuclear testing to verify dependability. That’s not a pie-in-the-sky concept. The first actual detonation of a uranium gun-barrel atomic device was over Hiroshima. Manhattan Project scientists were so confident in the weapon, colloquially known as “Little Boy,” that they didn’t bother testing it. The same confidence reposes in the Reliable Replacement Warhead, which is a far simpler design than our current nuclear inventory. In fact, not only is the design uncomplicated, it’s also weaker. Fortunately, 100 kilotons deters as well as 500 kilotons. Simpler also means easier to maintain, which translates to drastically reduced sustainment costs. The lifespan of nuclear weapons, even relatively simple ones, cannot be extended indefinitely. Despite the gnashing of teeth from the Oval Office, a new nuclear weapon will have to be designed and ultimately fielded in the near future. If testing is off the table​—as both Republican and Democratic lawmakers have insisted—then the Reliable Replacement Warhead is the best technical solution for ensuring nuclear weapon viability. It is, admittedly, not the best political solution. Disarmament advocates like the Federation of American Scientists and the Ploughshares Fund came out swinging when the Reliable Replacement Warhead was introduced in 2005. Fears of a second Cold War echoed down Washington’s long political corridors, and Congress ultimately killed funding of the warhead before it could be implemented. Lawmakers should have taken a closer look—Russia and China are already up to their necks in nuclear research and development, building new delivery systems as well as toying with new warhead designs. Washington’s right to experiment with new nuclear designs is not proscribed by treaty; objections to nuclear modernization are domestic.

# RRW k2 Deterrence 4/4

**RRW is key to our nuclear deterrence – Gates**

**Miles, 8**  - American forces press services (10/28/08, Donna, American Forces Press services, “ Gates: Oversight, Modernization Critical to U.S. Nuclear Deterrent”, <http://www.globalsecurity.org/wmd/library/news/usa/2008/usa-081028-afps01.htm>)

WASHINGTON, Oct. 28, 2008 – Calling nuclear weapons one of the world’s “messy realities,” Defense Secretary Robert M. Gates said today that as long as others who could potentially threaten the United States possess or seek them, it’s critical that the United States does as well, and that they be kept safe, secure and reliable. “As long as others have nuclear weapons, we must maintain some level of these weapons ourselves,” Gates noted in a speech to the Carnegie Endowment for International Peace. This, he said, “will deter potential adversaries while reassuring over two dozen allies and partners who rely on the U.S. strategic umbrella for their own security.” The United States soon will have 75 percent fewer nuclear weapons than at the end of the Cold War, he said. But while endorsing more non-nuclear deterrence and response options, Gates said modern-day threats require the country to preserve what former President Clinton called a “lead and hedge strategy.” “We’ll lead the way in reducing our arsenal, but we must always hedge against the dangerous and unpredictable world,” he said. “The power of nuclear weapons and their strategic impact is a genie that cannot be put back in the bottle, at least for a very long time,” he said. “While we have a long-term goal of abolishing nuclear weapons once and for all, given the world in which we live, we have to be realistic about that proposition.” The secretary cited threats posed by rising and resurgent powers, rouge nations pursuing nuclear weapons, proliferation and international terrorism. “There is no way to ignore efforts by rogue states such as North Korea and Iran to develop and deploy nuclear weapons, or Russian and Chinese strategic modernization programs,” he said. “As long as other nations have or seek nuclear weapons – and can potentially threaten us, our allies and friends – then we must have a deterrent capacity that makes it clear that challenging the United States in the nuclear arena, or with weapons of mass destruction, could result in an overwhelming, catastrophic response.” The United States continues to keep the number of nuclear states as limited as possible, Gates said, citing “real successes” during the past 45 years through nonproliferation and arms-control efforts. He noted that many countries have opted not to seek nuclear weapons, recognizing that the U.S. nuclear capability protects them. “Our nuclear umbrella – our extended deterrent – underpins our alliances in Europe and the Pacific and enables our friends, especially those worried about Tehran and Pyongyang, to continue to rely on our nuclear deterrent rather than to develop their own,” he said. But possessing nuclear weapons means accepting the responsibilities involved, Gates said, citing problems that arose last year over the Air Force’s handling of nuclear weapons and related material. He cited remedies being put into place: -- A new office within the Air Staff will focus exclusively on nuclear policy and oversight and report directly to the Air Force chief of staff. -- The Air Force’s proposed Global Strike Command would bring all nuclear weapons and material supporting U.S. Strategic Command under one entity. -- The Nuclear Weapons Center at Kirtland Air Force Base, N.M., has been revitalized and expanded, with clearly understood chains of command to prevent repeats of pass problems. -- The Air Force is undergoing a full review to provide better control of nuclear-related components, and placing them under the Nuclear Weapons Center’s control. -- A new, centralized process within the Air Force will ensure proper handling of nuclear material and provide expanded training for those charged with securing it. Gates conceded the effort will be “a long-term process,” but said he is confident the Air Force “is now moving in the right direction.” He expressed thanks to the airmen working to return the Air Force’s nuclear mission “to the standards of excellence for which it was known throughout the Cold War.” Meanwhile, Gates said, he looks forward to recommendations from a task force he formed to review nuclear enterprise oversight. Gates confirmed that U.S. nuclear weapons are safe, secure and reliable, but said failure to look ahead to the future leaves a “bleak” long-term prognosis. No one has designed a new nuclear weapon in the United States since the 1980s, and veterannuclear weapons designers and technicians are steadily moving into retirement, with no one following behind. “The United States is the only declared nuclear power that is neither modernizing its nuclear arsenal nor has the capability to produce a new nuclear warhead,” Gates said. He also expressed concern that the country is not replacing its existing stockpile. Congress’s refusal to fund a joint Defense Department and Energy Department program to field a safer, more secure warhead leaves the United States lacking, he said. “The program we propose is not about new capabilities,” he said. “It is about safety, security and reliability. It is about the future credibility of our nuclear deterrent, and it deserves urgent attention.”

# RRW k2 Weapons Reduction

**RRW k2 nuclear reduction**

**Willcox and Kyl, 5** – Staff Director and Chairman of the Republic Policy Committee (6/16, http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policies/Jun16NuclearMG.pdf)

The RRW program allows for a further reduction in the size of the nuclear stockpile. If the United States can ensure the reliability of its nuclear weapons, the need for very large numbers of weapons as a hedge against a failure in one portion of the stockpile is no longer necessary.

**Allows us to reduce our arsenal**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

In the view of DOD and NNSA, RRW would permit a reduction in warhead numbers. Current warheads could be replaced with fewer warheads designed, under RRW, to provide higher confidence in long-term sustainability. RRW would also be linked to a production complex that could manufacture at least small numbers of warheads to respond to new military requirements, permitting a further reduction in stockpiled warheads. RRW supporters believe that RRW creates an additional path, beyond that offered by LEP, for increasing confidence in warheads. They state that, under LEP’s approach of minimizing changes to the nuclear explosive package, problems can only be resolved by attempting to reduce uncertainties through technical analyses, while RRW also provides the option of increasing margins by redesigning components to compensate for uncertainties.63

# RRW k2 Scientific Leadership

**RRW key to the US science leadership and deterrence**

**Tauscher, 7** – Ellen, November 2007, the Nonproliferation Review, The Monterey Institute of International Studies, James Martin Center for Nonproliferation Studies, http://cns.miis.edu/npr/pdfs/143tauscher.pdf

The RRW may also provide an important means of maintaining existing nuclear weapons expertise so that the developers and engineers retain and exercise the skills required to ensure the continued safety and reliability of our stockpile. The Stockpile Stewardship Program, created in the mid-1990s, has brought world-class scientific tools to the labs, including the National Ignition Facility at Lawrence Livermore National Laboratory, the Dual Axis Radiographic Hydrodynamic Test facility at Los Alamos National Laboratory, and the Z Accelerator at Sandia National Laboratories in Albuquerque. These tools have not only facilitated the annual certification of nuclear weapons without testing, they have helped the labs retain and recruit **the best scientists in the world**\*perhaps the most crucial element of our deterrent. RRW would lead to the exercise of different scientific and engineering skills, however, and could thus play an important role in the maintenance of the labs’ human capital. The development of this human capital\*which translates into the ability to adapt to the evolving needs of the war fighter rather than rely on an outdated stockpile being metaphorically stored on blocks in a garage\*is one of the reasons I believe further examination of the RRW program is warranted.

**\*\*\*Look for scientific leadership internal links and impacts in the RRW Bad section**

\*\*\*A2: RRW BAD

# A2: RRW → Proliferation

**RRWs does not lower thresholds for nuclear use – other countries are also modernizing their weapons**

**Davis, 9** (Jay, “Weapons: the need to replace ageing and deteriorating stock,” 11/12/09, nature: international weekly journal of science)

The proposed Reliable Replacement Warhead (RRW) was designed using nuclear systems that were more robust and had higher margins against failure, thus relaxing the stress on new non-nuclear systems intended for replacement and future production. As a bonus, the safety and surety features of the weapon were improved. It is not a stalking horse for nuclear testing but would increase military and congressional confidence in weapons performance; this assurance is vital as falling numbers render each weapon more important for deterrence. Unlike the unlamented Robust Nuclear Earth Penetrator, which failed tests of both utility and credibility, the RRW does not represent a lowering of thresholds against nuclear use, nor an opening to worrying policies of pre-emption. You should not chide the United States for desiring to do what the British, French, Russian and Chinese governments are also doing or planning to do — namely, modernizing their stockpiles with new weapons systems.

# A2: RRW → Proliferation – Iran/North Korea

**No link**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

Possible Questions to Opponents. Link between RRW and proliferators: An opponent of RRW argues that “U.S. pursuit of an RRW would disrupt international cooperation in nonproliferation. That would diminish pressure on Iran and North Korea to forego their nuclear weapons programs and would disrupt efforts to eliminate clandestine trafficking in nuclear materials and equipment.”78 Given that Iran and North Korea have been pursuing their nuclear programs for decades, how can opponents be sure that there is a direct link between RRW and the nuclear programs of these nations? What grounds are there for believing that a halt to RRW would influence these nations to halt their nuclear programs? Many nations have an interest in halting nuclear proliferation; how would RRW lead them to take a less aggressive stance toward eliminating “clandestine trafficking in nuclear materials and equipment”?

# A2: RRW Violates NPT

RRW would not violate the NPT

Grossman, 9 (Elaine M., “Inside Obama Administration, A Tug of War over Nuclear Warheads,” NTI, August 18, <http://gsn.nti.org/gsn/nw_20090818_1478.php>)

In June, a senior administration official endorsed the commission's approach to nuclear modernization. "We can best manage risk if given the opportunity to apply a spectrum of options: warhead refurbishment, warhead component reuse and warhead replacement to our life extension strategy," Harvey, the former NNSA policy official, said at a Capitol Hill gathering. Now a Pentagon senior civilian working on nuclear, chemical and biological defense programs, Harvey said a modernization effort that includes warhead-replacement would be consistent with the test-ban treaty, because upgraded weapons would increase confidence in the stockpile in the absence of test explosions. He also said such an effort would bolster the Nuclear Nonproliferation Treaty because a "credible" U.S. deterrent would reduce incentives for allies to acquire their own atomic arms. "If you're living in a world with other nuclear powers, are you going to play in the ballgame?" said a former senior Bush administration official, who asked not to be identified. "There's nothing in history to suggest that leading by example works in the nuclear world."

# A2: Accidents

**RRW prevents nuclear accidents**

**Medalia ‘7**- Specialist in nuclear weapons policy (Jonathan Medalia 12/3/7 “Nuclear Warheads: The Reliable Replacement Warhead Program and the Life Extension Program” http://www.fas.org/sgp/crs/nuke/RL33748.pdf )

5. Increase the ability of warheads to prevent unintended nuclear detonation. [2, 3, 4, 5, 7] While all stockpile weapons meet the safety requirements specified by DOD, nuclear detonation safety cannot be assured in an abnormal environment in which the nuclear safety design configuration is breached (the weapon is broken open), the nuclear explosive package remains operable, and energy capable of initiating a nuclear detonation is present. Warheads in the current stockpile that do not have design features to guarantee that they will survive this socalled “Trinity condition” without producing a nuclear yield must have a “Trinity exception,” meaning that DOD accepts them into the stockpile with a specific exception for that condition. Both RRW designs have certain features so that they do not require a Trinity exception. One way the NM design meets the Trinity condition is to use optical isolation, discussed under Goal 9.

# A2: Nuclear Testing

**RRW avoids nuclear testing**

**Medalia ‘7**- Specialist in nuclear weapons policy (Jonathan Medalia 12/3/7 “Nuclear Warheads: The Reliable Replacement Warhead Program and the Life Extension Program” http://www.fas.org/sgp/crs/nuke/RL33748.pdf)

Yet NNSA and its labs have expressed concerns that, over the long term, minor changes to current warheads through repeated LEPs and maintenance will decrease confidence in the warheads, possibly requiring a return to nuclear testing. Critics counter that careful attention to minimizing changes, and advances in understanding of the relevant science, should keep existing warheads reliable for many years. Because of its desire to avoid testing, Congress has stated that a goal for RRW is to minimize the need to return to testing. NNSA claims that the RRW program will meet this goal because of steps, discussed below, to increase confidence. LEP’s proponents respond that the lack of a nuclear test “pedigree” reduces confidence in RRWs. Others maintain that certification using SSP has been a political assessment rather than a technical one. Since SSP emerged *after* the moratorium on testing began, this position holds that its tools were never validated with nuclear tests done for that purpose, so they could lead to false conclusions. Accordingly, in this view, NNSA will not know for sure if SSP, and thus RRW or LEP, work until it conducts nuclear tests.33 As former LANL Director Siegfried Hecker stated in 1997, Of course, if nuclear testing were allowed, we would gain greater confidence in the new tools. We could validate these tools more readily, as well as validate some of the new remanufacturing techniques. One to two tests per year would serve such a function quite well. Yields of 10 kt would be sufficient in most cases. Yields of 1 kt would be of substantial help.34 1. Maintain high warhead reliability. [1, 2, 4, 6, 7]35 A Sandia report defines reliability for a nuclear warhead as “[t]he probability of achieving the specified yield, at the target, across the Stockpile-To-Target Sequence of environments, throughout the weapon’s lifetime, assuming proper inputs.”36 In this definition, the specified yield is generally understood to mean within ten percent; the Stockpile-To-Target Sequence of environments is the range of conditions the warhead is expected to experience in its service life in storage, transit, or use, such as temperature extremes, radiation from any nuclear-armed missile defense interceptors, and acceleration; lifetime is the “original lifetime objective as specified at the time of design”; and proper inputs are arming, fuzing, and firing signals. The designers of the first RRW, WR1, have sought to obtain high reliability by maximizing margins (building in more performance than is needed; see next section). The design teams argue that they could do so because the designs were unconstrained by technologies and design choices made decades ago. With wide margins, they claim, material deterioration or design or manufacturing defects are less likely to degrade warhead performance below the minimum required. Further, diagnostic systems that could be incorporated in the designs would help detect deterioration at an early stage. In contrast, RRW advocates project increasing difficulty in maintaining the reliability of existing warheads. Sandia stated, “As systems age and [warhead] lives are extended, changes due to aging or repair creep into the system that make it more difficult to predict performance, and repair itself becomes more challenging as we move further away from the design era.”37

**RRW stops nuclear testing**

**Willcox and Kyl, 5** – Staff Director and Chairman of the Republic Policy Committee (6/16, http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policies/Jun16NuclearMG.pdf)

The RRW program reduces the likelihood that the U.S. will need to resume testing of nuclear weapons to ensure the safety, security, and reliability of the stockpile. Warheads built during the Cold War were built with very tight performance margins – they were extremely complex designs for specific missions. The work of the Stockpile Stewardship Program has yielded a greater understanding of how the materials within nuclear weapons built to these tight constraints interact and change over time. New warheads could replace aging designs with more reliable materials and less complicated designs – decreasing the need to conduct nuclear tests to ensure weapons in the stockpile are safe and reliable.

# A2: New Weapons

**RRW will not be any new weapons, just are more reliable and match old ones**

**Medalia ‘7**- Specialist in nuclear weapons policy (Jonathan Medalia 12/3/7 “Nuclear Warheads: The Reliable Replacement Warhead Program and the Life Extension Program” http://www.fas.org/sgp/crs/nuke/RL33748.pdf)

Avoid requirements for new missions or new weapons. [5, 6, 8] WR1 would replace existing warheads with new-design warheads that can perform current missions using existing aeroshells and missiles. At the same time, it is not tailored for new missions that have concerned some in Congress. It does not rely on new physical principles for the nuclear explosion, and is not designed to produce new nuclear effects such as electromagnetic pulse. The design goal for WR1 is to match the yield of the W76, which it replaces. WR1 will not be a low-yield “mini-nuke.” Nor will it be a “bunker buster,” or earth penetrator, and the competing designs did not have the ruggedness needed for that purpose.

# A2: Impact Turns – Modernization Inevitable

**Some form of modernization is inevitable, causing their impacts**

**O'Hanlon, '8** (Senior fellow at the Brookings Institution, Dec 25, <http://www.washingtonpost.com/wp-dyn/content/article/2008/12/24/AR2008122402032.html>)

Thankfully, there is another option. The right strategy has two elements: redefine the RRW program as a remanufacture of an older design, and delay that program to allow Obama to create momentum for arms control. Redefining the RRW might seem like semantics but is, in fact, a reasonable move. The United States developed more conservative weapons designs in the early years of the nuclear era that might be usable. Even if they had to be modified, the designs would remain more "old" than "new." Moreover, building such warheads would not create new capabilities for American war planners but would deprive them of some targeting options they possess today, while emphasizing safety and reliability. Delaying pursuit of this remanufacturing program would not present a problem. We have little reason to think that today's nuclear arsenal is unreliable. Already, a $5 billion annual program to ensure good stockpile stewardship and reliability is monitoring weapons and remanufacturing parts that show signs of age. Bomb designers are more concerned about the arsenal 25 or 50 years from now; if we delay a few years in building more conservative designs, deterrence will not suffer. Obama's budget request should not include money for the reliable replacement warhead, but his administration's first nuclear review should commit the United States to building more conservative and less deadly bombs by about 2015. With any luck, Gates will consider this a reasonable compromise, and with his support the United States will ratify the long-delayed comprehensive test ban treaty during Obama's first year in office.

**Focus on nuclear deterrence makes weapon modernization inevitable**

**Lobsenz, 9** - executive editor of The Energy Daily, reporter at UPI , B.A. in history from University of Michigan, recipient of many prestigious awards, including a newsletter journalism award for Best Exclusive Story at the 33rd Annual NPC Journalism Awards in 2006. (5/8/09, George, Defense Daily “ Commission Urges Warhead 'Modernization;' NNSA Revamp”, Lexis)

A congressionally chartered commission Wednesday backed the Obama administration's emphasis on nuclear nonproliferation as increasingly critical to national security, but said the president also had to bolster U.S. nuclear weapons capability by proceeding with selected "modernization" of warheads and by restructuring and broadening the mission of the Energy Department's National Nuclear Security Administration (NNSA) and its nuclear weapons labs. The Congressional Commission on the Strategic Posture of the United States largely endorsed President Obama's view that greater U.S. leadership on nonproliferation was vital because the world was approaching a dangerous "tipping point" on nuclear terrorism threats and weapons development by North Korea, Iran and other hostile nations. In particular, the panel--which was chaired by William Perry, defense secretary under President Clinton--said the United States had to work with other countries to ensure that the expansion of nuclear power does not lead to a "cascade of proliferation." It specifically endorsed international efforts to guarantee nuclear fuel supply and disposal services to emerging nuclear countries to prevent them from establishing uranium enrichment or spent fuel reprocessing capabilities. But while highlighting the importance of nonproliferation, the commission said Congress and the nation could not lose sight of the continuing need to maintain the U.S. nuclear arsenal to deter any geopolitical challenges by other countries and, in particular, to bolster central European nations that feel vulnerable to Russia's substantial tactical nuclear forces. In a report that is expected to influence the Obama administration's ongoing review of the nation's nuclear weapons, arms control and nonproliferation policies, the commission said that although the need for nuclear deterrence was not as big as during the Cold War, "an awareness of its critical role needs to be restored in the United States and this, too, must be emphasized by our national leaders." In that regard, the commission said there was a clear need to modernize the nation's Cold War-era nuclear weapons arsenal and to overhaul and rejuvenate the weapons labs and decades-old warhead production facilities managed by the NNSA, the semi-autonomous weapons agency within DoE. Among the many specific recommendations in the commission's highly detailed and comprehensive report, Capitol Hill and the Obama administration are likely to closely scrutinize the commission's views on warhead modernization, which was pursued by NNSA under the Bush administration through its "reliable replacement warhead" (RRW) initiative. The RRW was shot down by Congress because of concerns by lawmakers that development of a new warhead by the United States would be destabilizing and undermine U.S. nonproliferation policy; they also said the Bush administration failed to make the strategic case for a new warhead. The Obama administration formally canceled the program in March. However, the commission suggested the RRW fell victim to "confusion" about whether it constituted a new weapon--and to misunderstandings about the purpose of the RRW. "In some senses, it would have been new," the commission said of the RRW. "It would have incorporated some new design features to enhance safety and security and to increase performance margins." But in a key distinction, the commission added that the RRW "would not have been new insofar as it would not have provided any new military capabilities." The commission expressed concern about the "continuing confusion" about the nature of the RRW--"confusion that seems to be a barrier to making the next choices about how to proceed to ensure that the nuclear stockpile is safe, secure and reliable." Noting that other countries already were modernizing their warheads, the commission recommended Congress allow NNSA to carry out modernization on a warhead-by-warhead basis while also making clear that the agency was not to incorporate any new military capabilities. "So long as modernization proceeds within the framework of existing U.S. policy, it should encounter minimum political difficulty," the commission said.

# A2: RRW Expensive

**RRW saves a ton of money**

**Medalia ‘6**- Specialist in nuclear weapons policy (Jonathan Medalia 3/9/06 Nuclear Weapons: The Reliable Replacement Warhead Program

Will RRW Save Money? Supporters claim that RRW would save money for the following reasons. Using fewer hazardous materials in components and production processes would reduce the cost of handling, worker and environmental protection, and waste disposal. Components designed for ease of production could be produced with less equipment, in less time, and on less floor space. Components less sensitive to minor variations in dimensions and materials would have fewer production units rejected, reducing the waste stream and effectively increasing capacity. Use of more advanced warhead use-control features would permit a reduction in the cost of physical security. Increasing warhead safety would reduce the risk of plutonium dispersal in a fire, and the resulting cost. Reducing stockpile size would lower security and maintenance expenses.

**RRW eases nuclear costs**

**Willcox and Kyl 6/16/05** – Lawrence and Jon, Staff Director and Chairman of the Republican policy Committee

http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policies/Jun16NuclearMG.pdf

The RRW program will help reduce the increasing costs associated with certification of aging nuclear weapons. While the Stockpile Stewardship Program has been able to manage the aging stockpile thus far, it has become increasingly costly and technically challenging to do so. If research from the RRW demonstrates that it is possible within a decade to replace existing warheads, it will be possible to cease costly warhead lifeextension programs.

# A2: RRW Hurts Environment

**The RRW would stop hazardous materials from hurting the environment**

**Pike, 8 –** one of the world's leading experts on defense, space and intelligence policy, is Director of GlobalSecurity.org, worked for nearly two decades with the Federation of American Scientists, where he directed the Space Policy, Cyberstrategy, Military Analysis, Nuclear Resource and Intelligence Resource projects (John, http://www.globalsecurity.org/wmd/systems/rrw.htm)

The Reliable Replacement Warhead (RRW) is a replacement warhead that would allow NNSA to improve the security features on its warheads to prevent their accidental or unauthorized use. Modernization and improved manufacturing techniques would significantly increase the weapon’s quality and production efficiency. The use of fewer hazardous materials would be safer for the weapon handlers, weapon facility operations, and the environment. The RRW would have the same military capabilities as the warhead it replaces.

# JASON Indicts

**JASON findings have been disputed**

**Grossman, 10** (Elaine M., “Nuclear Posture Review Adopts Varied Approach to Updating Warheads,” Global Security Newswire, <http://gsn.nti.org/gsn/nw_20100407_3870.php>)

In November, a panel of top scientists told the U.S. government that traditional refurbishment methods have worked well to date and should be sufficient in the coming years (see GSN, Nov. 20, 2009). "Lifetimes of today's nuclear warheads could be extended for decades, with no anticipated loss of confidence, by using approaches similar to those employed" in maintaining the stockpile to date, according to JASON, a panel of senior scientific and technical experts frequently consulted by the U.S. government. This week, though, Obama is hearing criticism from the right, which is already frustrated by his decision to somewhat set aside the replacement option that they regard as a potentially crucial tool for maintaining a reliable stockpile. The political pushback comes shortly after the heads of all three nuclear weapon design laboratories disputed some of the JASON findings (see GSN, March 29). "We expect the administration will not take any option off the table to ensure the military and the directors of the national laboratories are able to maintain the safety, security and reliability of the current stockpile," Senators John McCain and Jon Kyl, both Arizona Republicans, said in a statement released yesterday. "We will evaluate this carefully in the coming weeks, including when we see the modernization plan required by law at the time the START follow-on treaty is submitted to the Senate."

# A2: Biased Evidence

**Their indicts are wrong – congress took care of that already**

**Tauscher, 7** – Ellen, November 2007, the Nonproliferation Review, The Monterey Institute of International Studies, James Martin Center for Nonproliferation Studies, http://cns.miis.edu/npr/pdfs/143tauscher.pdf

Some opponents of RRW still believe that RRW is less about making U.S. weapons safer and more reliable, and more of a veiled attempt to design new weapons for our arsenal while maintaining jobs at the weapons laboratories**. Congress has taken steps to ensure that this is not the case.** In providing funds for fiscal 2006, the Appropriations Committee specified that ‘‘any weapon design work done under the RRW program must stay within the military requirements of the existing deployed stockpile and any new weapon design must stay within the design parameters validated by past nuclear tests.’’4