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Unanswered Questions: Modernizing the US Nuclear Arsenal and Forces?

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Unanswered Questions: Modernizing the US Nuclear Arsenal and Forces?

Cover Page Footnote

ABSTRACT The United State strategic nuclear triad, consisting of land-based heavy bombers, intercontinental ballistic missiles (ICBMs), and submarine-launched ballistic missiles (SLBMs) has been the ultimate provider of security for the US and its allies since the end of World War II. But with decades of neglect it is time for the US government to decide what it wants too do with the triad where recent problems have put the nuclear arsenal in a national light. These new revelations and challenges the US faces for its nuclear forces will be analyzed. **INTRODUCTION** As long as nuclear weapons exist within the United State (US) nuclear posture, and other powers in the world have these weapons, they must be safe, secure, and effective to provide for the general defense and deterrence for the US and our allies. This is done for strategic effectiveness, and to reassure the world community of the US commitment to global security. Further, when the weaponry is brought up to date not only can future threats be hedged against, but also there is not as significant a need for a large non-deployed stockpile. The US Nuclear Posture Review Report (NPR) from April 2010 calls for much needed infrastructure improvement that will possibly take decades to implement, spanning multiple administrations, and sessions of Congress. In April 2010 Former Secretary of Defense, Robert Gates, transferred nearly \$5 billion from the Department of Defense to the Department of Energy for modernization. This investment represented the beginning of credible improvements to the nuclear arsenal, sustained deterrence effectiveness, and building a nuclear infrastructure for the 21st century. This paper will examine the reasons for modernization of the US nuclear arsenal, and why updating the weapons and delivery system will give US forces the expanded capacity that may be a desirable factor, as opposed to the inordinate amount the US spends on maintaining obsolete weapon systems, and facilities. This paper will bring up more questions than answers as recent problems for the arsenal have come to light, and will be highlighted in this document. The cost associated with upgrading and modernizing our arsenal is not a zero-sum game because if we are going to spend a significant amount of money there should be a payoff. According to a 1998 Brookings Institution Report, the US in the last half of the 20th century spent nearly \$8 trillion dollars on nuclear weapons, which represented nearly a third of our total military spending during the Cold War. It is time for the US to begin completely overhauling our nuclear complex, which is what current Secretary of Defense Chuck Hagel announced on November 15, 2014, in an effort to improve management and infrastructure security of the nation's nuclear stockpile while beginning the modernization process. **HAGEL BEGINS REVAMPING ALL PHASES OF NUCLEAR WEAPONRY** Making nuclear weapons capable, and an effective deterrent, is not the sole reason for modernization; there is also the issue of improving management at all levels of our stockpile, and revitalizing the forces quality of life for those who maintain them. Although no longer in practice, until 1992 the US nuclear stockpile was maintained through warhead replacement, which came from design to test, then deployment for use and deterrence until retirement of the warhead until a successor came on line. Since 1992, the US has stopped testing nuclear weapons, and has no longer maintained and certified the warheads as safe and reliable. There has been a Department of Defense program, Stockpile Stewardship Program, which is a Congressional mandate, and in theory will extend the life of refurbished warheads back to original specifications. This low-maintenance approach, in addition to low troop morale and personnel challenges within top ranks of the nuclear command structure, are reasons changes were begun under Gates and why Hagel has taken on the task of what to do with our nuclear complex with continued deterioration happening at all levels. Hagel has concluded the problems in the nation's nuclear forces are rooted in a lack of investment, inattention by high-level leaders, and sagging morale, which forced him to order top-to-bottom changes. He has vowed to invest billions of dollars to fix management and modernization of the world's most deadly weapons. Hagel ordered two lengthy reviews the summer of 2014 after a series of stories by the Associated Press revealed numerous problems in management, morale, security, and safety – this led to several firings, demotions, and other disciplinary actions against a range of Air Force personnel from

Generals to Airmen. Hagel's reviews concluded the structure of US nuclear forces is so incoherent that it cannot be properly managed in its current form, and these problems explain why top-level officials are often unaware of trouble. Hagel's reviews found combinations of fundamental flaws in all areas of the arsenal, but also issues that cannot be easily fixed by bureaucratic shuffling or more money. Reviews ordered by the Pentagon, "found evidence of systematic problems that if not addressed could undermine the safety, security, and effectiveness of elements of the force in the future." Hagel's findings also showed, "a consistent lack of investment and support for our nuclear forces over far too many years has left us with too little margin to cope with mounting stresses." Hagel, with Pentagon backing, found our nuclear forces are meeting demands that are broad in scope, but are becoming harder to cope with the mission of deterrence, safety of American military personnel, and protecting the American people. But a lack of funding has not been the biggest issue. In President Obama's first year in office, his Administration negotiated the New Start Treaty (START 3) with the Russian Federation that slated for the arsenal to be reduced to 1,500 weapons, along with a corresponding reduction of the size of the Russian arsenal. In a political move to assist ratifying the treaty, President Obama agreed to provide the Pentagon an extra \$185 billion over ten years for nuclear weapons. Nonetheless, Hagel commented to reporters on November 14, 2014, "The root cause of nuclear decline has been a lack of sustained focus, attention and resources resulting in a pervasive sense that a career in the nuclear enterprise offers too few opportunities for growth and advancement." The degree of decay is becoming unprecedented for the United States. Pentagon reviews found undeniable decay in the Intercontinental Ballistic Missile (ICBM) force. Maintenance crews had access to only one tool set required to tighten bolts on the Minuteman 3 missile warhead. A single tool was being used by maintenance crews at all three US ICBM bases, and these bases had to share the tool via Federal Express delivery, Pentagon officials stated in Hagel's reports. Given these types of issues, American taxpayers should be asking the President, Secretary of Defense, and Congress where the \$185 billion dollars has been allocated? Why do three bases that house the most deadly weapons in the history of mankind share tools through overnight delivery? Hagel has begun making significant moves to address problems, but will it be enough? Secretary Hagel has authorized the Air Force, which controls the US nuclear arsenal, to put a 4-star General in command of the nuclear forces. Currently the top Air Force nuclear commander in charge of the 450 Minuteman ICBMs and the nuclear bomber forces is a 3-star Lieutenant General Stephen Wilson. After reviewing Pentagon reports, Hagel ordered a 4-star General to have an office at Air Force headquarters in the Pentagon. An admirable addition, but still no one can account for the \$185 billion dollars appropriated over ten years that were intended to solve these problems. Hagel in November 2014 spoke at the Reagan Library that despite tight Pentagon budget due to sequestration, billions more will be needed over the next five years to upgrade equipment. He's proposed: 1) Replace Vietnam-era UH-1 Huey helicopter fleet that is part of security personnel at ICBM bases. The Air Force has concluded they are out of date, but has never addressed the issue of why other issues had higher budget priority. 2) An additional investment of \$1 to \$10 billion for improvement. Hagel, Defense officials, the President, or Congress hasn't determined an exact number. 3) Authorization for the Navy to hire more civilians to assist Navy personnel to maintain nuclear submarines and the Air Force to add 1,100 troops and civilians to its nuclear command structure to fill gaps in manpower and competence levels. This authorization comes in light of scandals tarring the nuclear forces, which will be discussed later in this paper that occurred at land-based missile centers maintained by Air Force crews. Hagel has begun asking why these problems have occurred, or are these problems related to sequestration? When our enemies and allies read that we have these problems after tens of billions have been set aside; allies could wonder what is happening to the US, and our enemies could ponder how they could capitalize upon our mistakes. WHY HAS THIS HAPPENED? The post 9/11 focus on counterterrorism, and the breakup of the former Soviet Union has seemingly made the days of needing nuclear weapons an anachronism. Armed nuclear weapons with the potential to end humanity, and a strategy of deterrence, known as Mutually Assured Destruction (MAD), should have faded into history. Is this perceived need for catastrophic weaponry still necessary, or has the need ever gone away? Seemingly the demand still exists, and fortunately the world has not seen a large conventional war, the

scale of World War I or II since the advent of nuclear deterrence. For the sake of humanity's peaceful cohesion it is why the US and our allies should be concerned about the eroding US nuclear standards. There have been concerns about slipping standards of the nuclear forces since the end of the Cold War, and in 2008, Secretary Gates ordered a review similar to reviews Hagel concluded this past summer. When asked why at a Pentagon briefing the week of November 10th, Hagel blamed the problem of nuclear force deterioration on the military being focused on two large ground wars in Iraq and Afghanistan where we took "our eye off the ball," when it came to the nuclear triad. This has supposedly forced the US to become complacent when it came to the role of nuclear weapons, but still doesn't answer the question of where did \$185 billion go when allocated to fix these above mentioned problems. Nowhere in the START 3 negotiations was it mentioned the problems with our nuclear weapons were the wars in Iraq and Afghanistan, or that the President pulled out of Iraq in 2012 where it was considered a complete success according to him. Why then did Hagel blame wars that are either completed (Iraq) or nearing completion (Afghanistan)? These questions also do not answer the question of why our nuclear forces are in disarray. Hagel also added, "If we don't pay attention to this, if we don't fix this eventually, there will get to the point where there will be questions about our security." Arms control advocates argue morale problems are inevitable when crews sense their mission is obsolete, and that it is time to scale back the costly arsenal. Hagel believes the opposite when he said, "the nuclear weapons forces, which cost more than \$15 billion annually, would need a 10% increase in funding each year over the next five years. That would be more than \$7.5 billion over the period." On November 14, 2014, Hagel visited Minot Air Force Base in North Dakota where he sought to assure troops to the commitment of revitalizing the forces and implementing job improvement and working conditions. He further sought to reassure the troops of the deterrence factor these troops bring to the US and our allies. But can money solve the problem when the Pentagon has already begun spending millions to improve conditions at Minot, which is the only base to house nuclear bombers and missiles? These millions are going towards cleaning the launch and control centers built in the 1960s. Millions are being spent at Hagel's request without ever mentioning various wars or billions the President allocated toward the START 3 treaty approval. Can it be concluded there are bigger issues than larger budgets? Outside defense analysts believe that is the case. While many defense analysts believe Hagel's reviews were long overdue; they also believe this could renew US nuclear weaponry focus after years of neglect. Still others are skeptical because spending more money on Cold War era nuclear weapons for deterrence while sloppy accounting takes place could send the wrong message that money is the issue. Throw more money at the problem, and the issues will be solved while not addressing the limited role these weapons have in US security policy – particularly under President Obama who has called for complete nuclear disarmament. The total number of ICBMs is being reduced under START 3 where the US will have 400 deployed ICBMs while keeping 450 silos. Maintaining this infrastructure of the nuclear triad faces renewed criticism in today's budget environment, but large amounts of unaccounted for monies while budgets are being cut are decisions that should be justified by the White House. Critics believe there is not a decent, understandable or plausible reason how these weapons will ever be fired. Then questions remain for why the US maintains them? Is it truly for deterrence where the US doesn't have a choice? Jeffrey Lewis, Director of the East Asia Nonproliferation Program at the Monterey Institute of International Studies states the problem with our nuclear weaponry infrastructure and design is, "There is no mission and more money can't invent one." Mr. Lewis has counted six or seven reports since 2006 that have reached the same conclusions that Mr. Hagel has begun acting upon. Each report states the problems, yet nothing seems to change, since nonproliferation and elimination of all nuclear weapons is part of the NPR. Mr. Lewis' comments about the obsolete nature of these weapons are important to understand how the US should begin asking what is going to happen to these weapons moving forward? Another expert in the field of disarmament and a critic of nuclear weapons as deterrence, Kingston Reif, Director of Disarmament and Threat Reduction Policy at the Arms Control Association believes high-level Pentagon attention is immediately required for the problems Hagel has outlined, but he states: "It's unlikely that these problems can be solved by more money, more stars, more organizational changes, reducing burdens on airmen, or recommitting to the importance of

nuclear deterrence without addressing the underlying problem. The reality is that nuclear weapons play an increasingly limited role in US national security policy, but our arsenal is still configured and sized for a Cold War world that no longer exists." These questions and statements about nuclear validation have truth concerning what the US wants to do about nuclear weapons, but none of these experts seem to address what the US accomplishes by disarmament, including the President, when the Chinese, Russians, and even the Iranians deem these weapons vitally important. Others believe the ICBMs are in decline because of policy disagreements between the Republicans in Congress and the White House, which is believed to only intensify when the new Republican-controlled Congress takes control. Still money is important, and according to American Enterprise Institute fellow MacKenzie Eaglen: "While more money is needed as part of the solution, this is much easier said than done, and there is a reason the triad has basically stalled out in any maintenance, testing or investment in future capabilities over the past six years, because Congress and the President are at irreconcilable odds over nuclear disarmament and strategic nuclear deterrence policies." To secure more funding for modernization to the military's nuclear forces would have required Hagel first to win policy battles with the White House, and no one knows what Hagel's replacement will want to accomplish with the triad's modernization. Secretary Gates attempted some reforms when he fired civilian and military leaders of the Air Force in 2008 after nuclear triggers were shipped to Taiwan without proper authorization, and a B-52 bomber crew unknowingly flew six nuclear warheads across US airspace. These failures have been a theme since 2006, but these are only the tip of the iceberg for what has taken place recently with our nuclear arsenal.

DISTURBING INCIDENTS AND WHY SOMETHING HAS TO BE DONE

This cascade of incompetence, and embarrassing stories show the nuclear arsenal having problems of decay within the force. An AP report shows personnel burnout, misconduct throughout the Air Force at all levels, and missile security on outdated weaponry and infrastructure that was considered secure is severely lacking. Thirteen problems have been identified:

- 1) Four ICBM launch officers were disciplined for violating security rules when they opened a blast door to their underground command post while one crew member was asleep on the job,
- 2) The week of November 2, 2014 the Air Force fired two nuclear commanders and disciplined another over leadership lapses as top Air Force officials are attempting to bring order to the ICBM force,
- 3) The same week, Colonel Carl Jones, Vice Commander of the 90th Missile Wing at F.E. Warren Air Force base in Wyoming was relieved of duty for incompetence,
- 4) In February 2014 the Air Force announced it was investigating cheating on exams at one ICBM base not named, and another investigation into drug use by missile crew members,
- 5) In April 2013, nineteen nuclear launch officers of the 91st Missile Wing at Minot Air Force Base in North Dakota were taken off duty when they were found unfit to serve and needing basic remedial training since their performance was considered sub-par,
- 6) The 341st Missile Wing at Malmstrom Air Force Base in Montana failed safety-and-security inspections, and nine days later the officer in charge of base security was fired for poor job performance,
- 7) An internal Air Force report documenting the Malmstrom inspection issues obtained by AP under the Freedom of Information Act revealed the security forces at the base did not respond properly to a simulated, hostile takeover of a nuclear silo housing live weapons. The Air Force has since implemented measures to improve security forces training, but it is still not known if the changes are adequate enough,
- 8) Two other separate incidents (not named) from point one involving Air Force officers being punished for improperly opening blast doors to their underground launch control center took place in clear violation of Air Force rules while again officers were caught asleep on watch,
- 9) A Rand Corporation study obtained by AP reported missile corps members feeling everything from "burnout to exhausting, unrewarding, and stressful work," and the Rand study cited high levels of misconduct that included spousal abuse,
- 10) In October 2013 the Air Force relieved Major General Michael Carey from command of the 201st Air Force, responsible for the entire Minuteman 3 missile force for drunken actions and behavior while on official duties in Russia,
- 11) In another case of cheating – this time at Malmstrom Air Force Base, dozens of launch officers were stripped of nuclear certification when it was found widespread cheating had taken place on exams that the Air Force called, "the largest breach of integrity in the nuclear force." The cheating involved questions on how to operate nuclear missiles, and ICBM officers also uncovered another drug-use scandal among their ranks at

Malmstrom, 12) In March 2014 the Air Force fired nine mid-level commanders, supervisors, and allowed a senior commander to resign while disciplining dozens of junior officers in response to exam-cheating at Malmstrom, 13) On November 3, 2014 the Air Force fired a missile squadron commander at Minot, and reassigned the Vice Commander of the 90th Missile Wing at F.E. Warren Air Force base to a non-command staff position. Also a colonel in charge of all three-missile squadrons at Minot was given administrative punishment, but not relieved of command for reasons not given. The thirteen mentioned actions, which are only some of the most serious ones, spurred Hagel on November 14, 2014 to order changes from top to bottom of how the US nuclear triad, and infrastructure is managed and operated. The Pentagon under Hagel's leadership released its own findings. PENTAGON REVIEW FINDINGS After concluding serious problems existed within the Air Force, and overall nuclear security was lacking it was found there are problems in the areas of operation and oversight in addition for needed modernization of the arsenal. The Pentagon ordered an external review headed by retired senior Air Force and Naval officer to augment the Pentagon review. The initial findings of the Pentagon report for public consumption noted, "challenges resulting from being understaffed, under-resourced and reliant on an aging and fragile supporting infrastructure in an over-inspected and overly risk averse environment." Additionally, "both reports identified serious issues with potential real world consequences if not addressed – some of which require long-term and permanent cultural and structural changes." The Pentagon report described these problems as, 1) Lines being blurred between accountability and a level of perfection never being achieved, 2) Inadequate facilities and equipment, 3) An aging civilian workforce in Naval shipyard (the report did not mention which shipyards have an aging workforce), 4) A lack of promotion opportunities for nuclear force personnel since officers and enlisted personnel are specialized when they are on a nuclear military path – constraints have been identified as not enhancing military careers for these forces, 5) Submarine crew stress created by shipyard shortfalls (which shipyards these affect were not mentioned), 6) The burden created on nuclear forces by risk-averse implementation of personnel reliability programs. It was not explained what this means for nuclear forces. Hans Kristensen, a nuclear expert with the Federation of American Scientists told the Associated Press in a recurring theme that money wouldn't fix these issues. Mr. Kristensen stated, "Throwing money after problems may fix some technical issues, but it is unlikely to resolve the dissolution that must come from sitting in a silo hole in the Midwest with missiles on high alert to respond to a nuclear attack that is unlikely to ever come." While this expert analysis is important, none of these experts have answers of what to do with a Cold-War acting Russia, and what takes the place of nuclear deterrence? Those answers never seem to be addressed, and the Pentagon report does not address the limitations of the START 3 treaty with Russia, which according to Forbes contributor, James Conca, limits the US ability to develop and modernize nuclear weapons. The issues of nuclear overhaul with START 3 limitations have to be considered when the Pentagon, Hagel, and the new incoming Defense Secretary are putting together policy actions for the President. PENTAGON RECOMMENDATIONS After Hagel directed the Defense Department's internal reviews there was identified one hundred recommendations to improve the nuclear forces. This section will highlight the most glaring improvements needed. First is nuclear oversight and understanding the deterrent leadership structure while reducing administrative burdens (these were not identified) imposed on forces. Second is investing in increased resources to improve and sustain current equipment. Third is changing "the culture of micromanagement,"page one boosting morale, and improving the manner in which training and inspections are conducted. Fourth is improving security and sustaining security forces at bases while ensuring modernization of the triad remains on track. Fifth the President's FY16 budget submission will provide detailed analysis of the spending and time horizons for various nuclear programs. This section never mentions what happened to the previous \$185 billion allocated. Nor does it mention any Presidential action related to arsenal and command structure problems – and how this will affect the President's budget. Sixth, Hagel established the Nuclear Deterrent Enterprise Review Group (NDERG) to establish senior leadership accountability for the triad and bring all command structure elements of the nuclear force into a coherent enterprise. This group will consist of senior leaders responsible for "training, funding, and implementing the nuclear mission."page one Seventh, Hagel has directed his office and the

Cost Assessment and Program Evaluation (CAPE) to lead an effort to track and assess each of the 100 recommendations from the internal and external reviews. Admiral Cecil D. Haney, Commander of the US Strategic Command will begin, "conducting quarterly nuclear force readiness reviews focused on critical resources required for the mission."page two Admiral Haney has refined his reporting to include nuclear infrastructure sustainability (in the Pentagon fact sheet the world 'sustainability wasn't defined as environmental, military or a combination), while adding nuclear command, control, and communications to his force readiness report. The report was confusing in this area because it mentions "this approach broadens readiness taking into account a more holistic view of the health of the force,"page two but it never explains how holistic views and nuclear readiness correlate together. Eighth the Navy has consolidated oversight of the nuclear mission under the Director of Strategic Systems Programs, and the Air Force has received Hagel's orders to elevate the rank of Global Strike Command to a "4-star billet and HQ USAF Strategic Deterrence and Nuclear Integration (AF/A-10) to a 3-star billet in order to ensure their rank is commensurate with the importance of the mission."page two This part of the report never answers the questions for why this part of the military's nuclear command structure was overseen by lesser ranks? Why did the President, Secretary of Defense, and Joint Chiefs fail to ever raise this issue? The internal and external reviews never address these questions. Ninth an Air Force Improvement Program through the US Air Force Global Strike Command established a Force Improvement Program reallocating \$161 million to ICBM support in FY14 - \$150 million of the funds are being used to address urgent shortfalls to equipment, facilities, and personnel. Tenth over summer 2014 the Defense Department conducted a Nuclear Enterprise Review (NER) Strategic Portfolio Review to inform the President's FY16 budget. A Program Review Team assessed unfunded mandates across the entire US nuclear spectrum, and presented them to the Deputy Secretary of Defense for consideration. It was never mentioned in the report what were the unfunded requirements and mandates. The Navy also put together a new program called Reduce Administrative Distractions (RAD) to receive input from sailors serving on nuclear fleets, and how to streamline or eliminate administrative burdens, instructions and training while proposing solutions to fix these distractions on the forces of fleet-based nuclear weaponry. This section seems to allocate money at problems without identifying the roots of what caused the issues or if this will improve nuclear readiness and deterrence. New bureaucracies and additional layers of Pentagon management are created, but it isn't known whether problems will be solved by these new initiatives. Eleventh the Navy has begun hiring at Naval shipyards to match workforce capability and work currently taking place. The Air Force has alleviated 4,000 nuclear force airmen from manpower reductions while retooling nuclear force training, evaluations, and management. The Navy has been authorized to hire approximately 2,450 civilian shipyards and refit facility workers, and another 100 personnel consisting of civilian and military for the Strategic Weapons Facility and TRIDENT Training Facility for improvement to the overall training environment of the ballistic missile submarine force. Twelfth the Air Force has incentivized pay for ICBM field operations and nuclear force specialties to add allure for personnel on the nuclear force career track. Once Congress approves FY15 as further incentive budget personnel will receive back pay and additional bonuses for being on the nuclear career track. Thirteenth the Air Force has revised proficiency test scoring for missileers to pass/fail from previous expectations where crewmembers had to score 100% on every test to advance in their chosen nuclear career path. Fourteenth the Pentagon's Personnel Reliability Program will be under new guidelines. Pentagon inspectors will have to take the professional judgment of medical professionals and no longer be allowed to penalize nuclear force personnel because of medical or psychological problems. Fifteenth the Navy will work towards infrastructure recapitalization at public nuclear shipyards and Strategic Nuclear Weapon Facilities. The Pentagon's report doesn't explain specific infrastructure revitalization programs. Sixteenth, Naval nuclear reactors will replace two training platforms (report doesn't specify what is a platform compared to a live nuclear reactor) that have reached the end of their maintenance capability while refueling a third training platform. These enhancements are designed to incorporate simulation technology for nuclear training while augmenting training capacity for all nuclear forces. Seventeenth, the Joint Chiefs staff will begin to provide training that is standardized across all levels of the nuclear forces for Pentagon inspectors to

certify service members on the Personnel Reliability Program. This is being implemented to do away with repetitive procedures that tax existing personnel across the nuclear enterprise. Eighteenth, Hagel has ordered the Air Force to make organizational changes to ICBM operation groups, consistent crew training, and scheduling hands-on-training for crew commanders who are now empowered for the responsibility and proficiency of their nuclear crews. This order is to integrate Air Force human capital while managing talent with the goal of delivering correct personnel to the proper place and time utilizing specific skills and procedures. This point was so broad it was hard to define exactly what this means. CURRENT STATE OF THE WORLD The section will examine Russia, China and Iran, as all three nations are potential national security threats to the United States. Wary of a more muscular posture by all three nations, but in particular, Russia and China, Hagel said on November 22, 2014, "The Pentagon will make a new push for fresh thinking about how the US can keep and extend its military superiority despite tighter budgets and the wear and tear of thirteen years of war." Hagel also announced a "defense innovation initiative," to assist offsetting military advantages of US adversaries. Hagel likened these challenges to threats the US faced during the Cold War. A "game-changing strategy," is how Hagel described America's military edge deficit in the face of sequestration, but he didn't mention his recent attempts to overhaul the nuclear triad. In a recent memo obtained by AP to Pentagon leaders, Hagel outlined how the US must not lose its commanding leadership in military technology, stating that: "Our potential adversaries have been modernizing their militaries, developing and proliferating disruptive capabilities across the spectrum of conflict. This represents a clear and growing challenge to our military power, and America and its allies prevailed over a determined Soviet adversary by coming together as a nation – over decades and across party line – to make long-term, strategic investments in innovation and reform of our nation's military." Joint Chiefs of Staff, Admiral James Winnefeld echoed sentiments recently about Russia and China

Unanswered Questions: Modernizing the US Nuclear Arsenal and Forces?

Todd Royal

Abstract

The US strategic nuclear triad, consisting of land-based heavy bombers, intercontinental ballistic missiles, and submarine-launched ballistic missiles, has been the ultimate provider of security for the US and its allies since the end of World War II. But with decades of neglect, it is time for the US government to decide what it wants to do with the triad where recent problems have put the nuclear arsenal in a national light. This paper will analyze these new revelations and challenges the US faces for its nuclear forces.

Introduction

As long as nuclear weapons exist within the US nuclear posture, and other powers in the world have these weapons, they must be safe, secure, and effective to provide for the general defense and deterrence for the US and our allies. This is done for strategic effectiveness, and to reassure the world community of the US commitment to global security.¹ Further, when the weaponry is brought up to date, not only can future threats be hedged against, but there is also not as significant a need for a large non-deployed stockpile.² The US Nuclear Posture Review Report (NPR) from April 2010 calls for much needed infrastructure improvement that will possibly take decades to implement, spanning multiple administrations, and sessions of Congress. In April 2010, former Secretary of Defense Robert Gates transferred nearly \$5 billion from the Department of Defense to the Department of Energy for modernization. This investment represented the beginning of credible improvements to the nuclear arsenal, sustained deterrence effectiveness, and building a nuclear infrastructure for the twenty first century.³

This paper will examine the reasons for modernization of the US nuclear arsenal, and why updating the weapons and delivery system will give US forces the expanded capacity that may be a desirable factor, as opposed to the inordinate amount the US spends on maintaining obsolete weapon systems and facilities. This paper will bring up more questions than answers, as recent problems for the arsenal have come to light, and will be highlighted in this document. The cost associated with upgrading and modernizing its arsenal is not a zero-sum game, because if the US is going to spend a significant amount of money, there should be a significant benefit. According to a 1998 Brookings Institution Report, in the last half of the twentieth century the US spent nearly \$8 trillion dollars on nuclear weapons, which represented nearly a third of its total military spending during the Cold War.⁴ It is time for the US to begin completely overhauling its nuclear complex, which is what Secretary of Defense Chuck Hagel announced on November 15, 2014, in an effort to improve management and

¹ Department of Defense. Nuclear Posture Review Report. April 2010. Page i.

² Department of Defense. Ibid. April 2010. Page i.

³ Department of Defense. Ibid. April 2010. Page i.

⁴ Silverberg, David, "\$5.5 trillion well spent," Brookings, July 8, 1998.
<http://www.brookings.edu/about/project/archive/nucweapons/silverberg>

infrastructure security of the nation's nuclear stockpile while beginning the modernization process.⁵

Hagel Begins Revamping All Phases Of Nuclear Weaponry

Making nuclear weapons a capable and effective deterrent is not the only reason for modernization. There is also the issue of improving management at all levels of our stockpile and revitalizing the forces quality of life for those who maintain them.⁶ Although no longer in practice, until 1992 the US nuclear stockpile was maintained through warhead replacement, which came from design to test, then deployment for use and deterrence until retirement of the warhead when a successor came on-line.⁷ Since 1992, the US has stopped testing nuclear weapons, and has no longer maintained and certified the warheads as safe and reliable.⁸ There has been a Department of Defense program, *Stockpile Stewardship Program*, which is a Congressional mandate, and in theory will extend the life of refurbished warheads back to original specifications.⁹ This low-maintenance approach, in addition to low troop morale and personnel challenges within top ranks of the nuclear command structure, are reasons changes were begun under Gates and why Hagel has taken on the task of what to do with our nuclear complex with continued deterioration happening at all levels.

Hagel has concluded the problems in the nation's nuclear forces are rooted in a lack of investment, inattention by high-level leaders, and sagging morale. This forced him to order top-to-bottom changes. He has vowed to invest billions of dollars to fix management and modernization of the world's most deadly weapons. Hagel ordered two lengthy reviews the summer of 2014 after a series of stories by the Associated Press revealed numerous problems in management, morale, security, and safety, which led to several firings, demotions, and other disciplinary actions against a range of Air Force personnel from Generals to Airmen.¹⁰ Hagel's reviews concluded the structure of US nuclear forces is so incoherent that it cannot be properly managed in its current form, and these problems explain why top-level officials are often unaware of trouble.¹¹ Hagel's reviews found combinations of fundamental flaws in all areas of the arsenal, but also issues that cannot be easily fixed by bureaucratic shuffling or more money. Reviews ordered by the Pentagon, "found evidence of systematic problems that if not addressed could undermine the safety, security, and effectiveness of elements of the force in the future."¹² Hagel's findings also showed "a consistent lack of investment and support for our nuclear forces over far too many years has left us with too little margin to cope with mounting stresses."¹³

⁵ Brannen, Kate, "Hagel revamps US Nuclear Program," *Foreign Policy*, November 14, 2014. http://complex.foreignpolicy.com/posts/2014/11/14/hagel_revamps_us_nuclear_program

⁶ Bannen, Ibid, 2014.

⁷ Department of Defense. Ibid. Page 37.

⁸ Department of Defense. Ibid. Page 37.

⁹ Department of Defense. Ibid. Page 38.

¹⁰ Burns, Robert, "Hagel to order nuke force overhaul to fix failures," AP, November 13, 2014. <http://news.yahoo.com/hagel-order-nuke-force-overhaul-fix-failures-010143821--politics.html>

¹¹ AP. Ibid. November 2014.

¹² AP. Ibid. November 2014.

¹³ AP. Ibid. November 2014.

UNANSWERED QUESTIONS

Hagel, with Pentagon backing, found our nuclear forces are meeting demands that are broad in scope, but are becoming harder to cope with the mission of deterrence, safety of American military personnel, and protecting the American people.¹⁴ But a lack of funding has not been the biggest issue. In President Obama's first year in office, his Administration negotiated the New Start Treaty (START 3) with the Russian Federation that slated for the arsenal to be reduced to 1,500 weapons, along with a corresponding reduction of the size of the Russian arsenal.¹⁵ In a political move to assist ratifying the treaty, President Obama agreed to provide the Pentagon an extra \$185 billion over 10 years for nuclear weapons.¹⁶ Nonetheless, Hagel commented to reporters on November 14, 2014, "[T]he root cause of nuclear decline has been a lack of sustained focus, attention and resources resulting in a pervasive sense that a career in the nuclear enterprise offers too few opportunities for growth and advancement."¹⁷

The degree of decay is becoming unprecedented for the US. Pentagon reviews found undeniable decay in the Intercontinental Ballistic Missile (ICBM) force. Maintenance crews had access to only one tool set required to tighten bolts on the Minuteman 3 missile warhead. A single tool was being used by maintenance crews at all three ICBM bases, and these bases had to share the tool via Federal Express delivery, Pentagon officials stated in Hagel's reports.¹⁸ Given these types of issues, American taxpayers should be asking the President, Secretary of Defense, and Congress where the \$185 billion dollars has been allocated. Why do three bases that house the most deadly weapons in the history of mankind share tools through overnight delivery? Hagel has begun making significant moves to address problems, but will it be enough?

Secretary Hagel has authorized the Air Force, which controls the US nuclear arsenal, to put a 4-star General in command of the nuclear forces. Currently the top Air Force nuclear commander in charge of the 450 Minuteman ICBMs and the nuclear bomber forces is 3-star Lieutenant General Stephen Wilson. After reviewing Pentagon reports, Hagel ordered that a 4-star General to have an office at Air Force headquarters in the Pentagon.¹⁹ An admirable addition, but still no one can account for the \$185 billion dollars appropriated over 10 years that were intended to solve these problems. Hagel in November 2014 stated at the Reagan Library Defense Forum that despite tight Pentagon budget due to sequestration, billions more will be needed over the next five years to upgrade equipment.²⁰ He's proposed three measures. The first is replacing Vietnam-era UH-1 Huey helicopter fleet relied upon by security personnel at ICBM bases; The Air Force has concluded they are out of date, but has not addressed the issue of why other issues had higher budget priority. The second is an additional investment of \$1 to \$10 billion for improvement; Hagel, Defense officials, the President, or Congress hasn't

¹⁴ De Luce, Dan, "Troubled US nuclear force needs reforms, funds: Hagel," AFP, November 14, 2014. <http://news.yahoo.com/hagel-unveil-reforms-troubled-us-nuclear-force-055520379.html>

¹⁵ Maddow, Rachel, *Drift*, (New York, NY, Broadway Paperbacks), Page 239. April 13, 2012

¹⁶ Maddow. *Ibid.* Page 239. April 2012.

¹⁷ De Luce. *Ibid.* 2014.

¹⁸ De Luce. *Ibid.* 2014.

¹⁹ De Luce. *Ibid.* 2014

²⁰ Alexander, David, "Hagel reassures troops of US commitment to nuclear arms mission," Reuters, November 15, 2014. <http://news.yahoo.com/hagel-reassures-troops-u-commitment-nuclear-arms-mission-052814631.html>

determined an exact number.²¹ The third is authorization for the Navy to hire more civilians to assist Navy personnel to maintain nuclear submarines and the Air Force to add 1,100 troops and civilians to its nuclear command structure to fill gaps in manpower and competence levels;²² This authorization comes in light of scandals tarring the nuclear forces that occurred at land-based missile centers maintained by Air Force crews, which will be discussed later in this paper.²³ Hagel has begun asking why these problems have occurred, or if these problems are related to sequestration. When enemies and allies of the US read about these problems after tens of billions have been set aside, allies could wonder what is happening to the US, and enemies could ponder how they can capitalize upon our mistakes.

Why Has This Happened?

The post 9/11 focus on counterterrorism and the breakup of the former Soviet Union has seemingly made the days of needing nuclear weapons an anachronism.²⁴ Nuclear weapons with the potential to end humanity and a strategy of deterrence known as Mutually Assured Destruction (MAD) should have faded into history. Is this perceived need for catastrophic weaponry still necessary? Has the need ever gone away? Seemingly the demand still exists, although fortunately the world has not seen a large conventional war, the scale of World War I or II, since the advent of nuclear deterrence.²⁵ The US and its allies should be concerned about the eroding US nuclear standards for the sake of humanity's peaceful existence.

There have been concerns about slipping standards of the nuclear forces since the end of the Cold War, and in 2008, Secretary Gates ordered a review similar to reviews Hagel concluded this past summer.²⁶ When asked why at a Pentagon briefing the week of November 10, Hagel blamed the problem of nuclear force deterioration on the military being focused on two large ground wars in Iraq and Afghanistan, which took “our eye off the ball,” when it came to the nuclear triad.²⁷ This has supposedly forced the US to become complacent when it came to the role of nuclear weapons, but still doesn't answer the question of where the \$185 billion went that was allocated to fix these above-mentioned problems. Nowhere in the START 3 negotiations was it mentioned the problems with our nuclear weapons were the wars in Iraq and Afghanistan, or that the President pulled out of Iraq in 2012 where it was considered a complete success

²¹ Alexander. Ibid. 2014

²² De Luce. Ibid. 2014.

²³ Associated Press (no author stated), “Key findings in AP nuclear missile probe,” AP, November 14, 2014. <http://news.yahoo.com/key-findings-ap-nuclear-missiles-corps-probe-091952296.html>

²⁴ White House National Security Staff for President George W. Bush, White House National Security Strategy, White House of President George W. Bush, Page 1, September 2002. <http://nssarchive.us.nssr/2002.pdf>

²⁵ Coyle, James Dr., “Fall 2014 Lectures MPP.644 National Security and Freedom,” Pepperdine School of Public Policy, August-November 2014.

²⁶ Department of Defense. Report of the Secretary of Defense Task Force on DoD Nuclear Weapon Management. December 2008. Chairman's opening letter to Secretary Robert M. Gates and full report. <http://www.defense.gov/pubs/pdfs/phaseiiereportfinal.pdf>

²⁷ Hennigan, W.J., “Major overhaul of nuclear force planned to improve security and morale,” Los Angeles Times, November 25, 2014. <http://touch.latimes.com/#section/-1/article/p2p-81972191>

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according to him.²⁸ Why then did Hagel blame wars that are either completed (Iraq) or nearing completion (Afghanistan)? These questions also do not answer the question of why our nuclear forces are in disarray. Hagel also added, “If we don’t pay attention to this, if we don’t fix this, eventually there will get to the point where there will be questions about our security.”²⁹

Arms control advocates argue morale problems are inevitable when crews sense their mission is obsolete, and that it is time to scale back the costly arsenal. Hagel believes the opposite when he said, “the nuclear weapons forces, which cost more than \$15 billion annually, would need a 10% increase in funding each year over the next five years. That would be more than \$7.5 billion over the period.”³⁰ On November 14, 2014, Hagel visited Minot Air Force Base in North Dakota where he sought to assure troops to the commitment of revitalizing the forces and implementing job improvement and working conditions.³¹ He further sought to reassure the troops of the deterrence factor these troops bring to the US and our allies. But can money solve the problem when the Pentagon has already begun spending millions to improve conditions at Minot, which is the only base to house nuclear bombers and missiles? These millions are going towards cleaning the launch and control centers built in the 1960s. Millions are being spent at Hagel’s request without ever mentioning various wars or billions the President allocated toward the START 3 treaty approval. Can it be concluded there are bigger issues than budget sizes, facility conditions, and troop morale? Outside defense analysts believe that that is the case.

While many defense analysts believe Hagel’s reviews were long overdue; they also believe this could renew US nuclear weaponry focus after years of neglect.³² Others are skeptical, because spending more money on Cold War era nuclear weapons for deterrence while sloppy accounting takes place could send the wrong message that money is the issue. Attempting to throw more money at the problem will not solve the issues without addressing the limited role these weapons have in US security policy – particularly under President Obama, who has called for complete nuclear disarmament.³³ The total number of ICBMs is being reduced under START 3 where the US will have 400 deployed ICBMs while kept in 450 silos. Maintaining this infrastructure of the nuclear triad faces renewed criticism in today’s budget environment, but large amounts of unaccounted for monies while budgets are being cut are decisions that should be justified by the White House. Critics believe there is not a decent, understandable, or plausible reason how these weapons will ever be fired. Then questions remain as for why the US maintains them. Is it truly for deterrence where the US doesn’t have a choice?

Jeffrey Lewis, Director of the East Asia Nonproliferation Program at the Monterrey Institute of International Studies states that the problem with our nuclear

²⁸ Pavlich, Katie, “President Who Pulled US Troops Out of Iraq Says Idea He Pulled Troops Out of Iraq is Bogus,” Townhall.com, August 11, 2014. <http://townhall.com/tipsheet/katiepavlich/2014/08/11/president-who-pulled-troops-out-of-iraq-says-he-didn't-pull-troops-out-of-iraq-n1877290>

²⁹ Knickerbocker, Brad, “Chuck Hagel orders fixes to ‘systemic problems’ in US Nuclear Arsenal,” The Christian Science Monitor, November 14, 2014. <http://news.yahoo.com/chuck-hagel-order-fixes-systemic-problems-us-nuclear-184415518.html>

³⁰ Alexander. Ibid. November 2014.

³¹ Alexander. Ibid. November 2014.

³² Bannen. Ibid. November 2014.

³³ Department of Defense. Ibid. November 2010. Page i.

weapons infrastructure and design is, “there is no mission and more money can’t invent one.”³⁴ Lewis has counted six or seven reports since 2006 that have reached the same conclusions that Hagel has begun acting upon. Each report states the problem, yet nothing seems to change,³⁵ since nonproliferation and elimination of all nuclear weapons is part of the NPR.³⁶ Lewis’ comments about the obsolete nature of these weapons are important to understand how the US should begin asking what is going to happen to these weapons moving forward.

Another expert in the field of disarmament and a critic of nuclear weapons as deterrence, Kingston Reif, Director of Disarmament and Threat Reduction Policy at the Arms Control Association, believes high-level Pentagon attention is immediately required for the problems Hagel has outlined, but he states:

It’s unlikely that these problems can be solved by more money, more stars, more organizational changes, reducing burdens on airmen, or recommitting to the importance of nuclear deterrence without addressing the underlying problem. The reality is that nuclear weapons play an increasingly limited role in US national security policy, but our arsenal is still configured and sized for a Cold War world that no longer exists.³⁷

These questions and statements about nuclear validation have truth concerning what the US wants to do about nuclear weapons, but none of these experts seem to address what the US accomplishes by disarmament, including President Obama, when the Chinese, Russians, and even the Iranians deem these weapons vitally important.³⁸ Others believe the ICBMs are in decline because of policy disagreements between the Republicans in Congress and the White House.³⁹ Still, money is important and according to American Enterprise Institute fellow MacKenzie Eaglen:

While more money is needed as part of the solution, this is much easier said than done, and there is a reason the triad has basically stalled out in any maintenance, testing or investment in future capabilities over the past six years, because Congress and the President are at irreconcilable odds over nuclear disarmament and strategic nuclear deterrence policies.⁴⁰

To secure more funding for modernization to the military’s nuclear forces would have required Hagel to win policy battles with the White House, and no one knows what Hagel’s replacement will want to accomplish with the triad’s modernization. Secretary

³⁴ Bannen. Ibid. November 2014

³⁵ Bannen. Ibid. November 2014

³⁶ Defense Department. Nuclear Posture Review Report. April 2010.

³⁷ Bannen. Ibid. November 2014.

³⁸ Pearl, Jonathan, Forecasting Zero: US Nuclear History and the Low Probability of Disarmament. (Carlisle, PA: US Army War College), complete document.

<http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=1092>

³⁹ Bannen. Ibid. November 2014.

⁴⁰ Pavlich. Ibid. August 2014.

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Gates attempted some reforms when he fired civilian and military leaders of the Air Force in 2008 after nuclear triggers were shipped to Taiwan without proper authorization, and a B-52 bomber crew unknowingly flew six nuclear warheads across US airspace. These failures have been a theme since 2006, but these are only the tip of the iceberg for what has taken place recently with our nuclear arsenal.

Disturbing Incidents And Why Something Has To Be Done

This cascade of incompetence, and embarrassing stories show the nuclear arsenal has problems of decay within the force. An AP report showed personnel burnout, misconduct throughout the Air Force at all levels, and missile security on outdated weaponry and infrastructure that was considered secure is severely lacking. Thirteen problems were identified.

Four ICBM launch officers were disciplined for violating security rules when they opened a blast door to their underground command post while one crewmember was asleep on the job. The week of November 2, 2014 the Air Force fired two nuclear commanders and disciplined another over leadership lapses as top Air Force officials are attempting to bring order to the ICBM force. The same week, Colonel Carl Jones, Vice Commander of the 90th Missile Wing at F.E. Warren Air Force base in Wyoming was relieved of duty for incompetence. In February 2014, the Air Force announced it was investigating cheating on exams at an unnamed ICBM base, and another investigation into drug use by missile crewmembers.

In April 2013, 19 nuclear launch officers of the 91st Missile Wing at Minot Air Force Base in North Dakota were taken off duty when they were found unfit to serve and in need of basic remedial training since their performance were considered sub-par. The 341st Missile Wing at Malmstrom Air Force Base in Montana failed safety-and-security inspections, and nine days later the officer in charge of base security was fired for poor job performance. An internal Air Force report documenting the Malmstrom inspection issues, obtained by the AP revealed the security forces at the base did not respond properly to a simulated, hostile takeover of a nuclear silo housing live weapons, and even though, the Air Force has since implemented measures to improve security forces training it is still unknown if the changes are adequate enough.

In March 2014 the Air Force fired nine mid-level commanders, supervisors, and allowed a senior commander to resign while disciplining dozens of junior officers in response to the exam cheating at Malmstrom. On November 3, 2014 the Air Force fired a missile squadron commander at Minot, and reassigned the Vice Commander of the 90th Missile Wing at F.E. Warren Air Force base to a non-command staff position. Further, a colonel in charge of all three-missile squadrons at Minot was given administrative punishment, but not relieved of command for unnamed reasons.

The 13 mentioned actions, which are only some of the most serious ones, spurred Hagel on November 14, 2014 to order top-down changes for how the US nuclear triad and infrastructure would be managed and operated.⁴¹ The Pentagon under Hagel's leadership released its own findings for public consumption, which will be reviewed in the next section.

⁴¹ Knickerbocker. Ibid. November 2014. This footnote is for point 1-14, from pages 11-13 of this paper.

Pentagon Review Findings

After concluding that serious problems existed within the Air Force, and that overall nuclear security was lacking the nuclear arsenal was found to have problems in the areas of operation and oversight and in additional need of modernization. The Pentagon ordered an external review, headed by retired senior Air Force and Navy officers to augment the Pentagon review. The initial findings of the Pentagon report for public consumption noted, “...challenges resulting from being understaffed, under-resourced and reliant on an aging and fragile supporting infrastructure in an over-inspected and overly risk averse environment.”⁴² Additionally, “both reports (Pentagon interval reviews) identified serious issues with potential real world consequences if not addressed – some of which require long-term and permanent cultural and structural changes.”⁴³ The Pentagon report described these problems as: Lines being blurred between accountability and a level of perfection never being achieved; Inadequate facilities and equipment; An aging civilian workforce in unspecified Naval shipyards; A lack of promotional opportunities for nuclear force personnel, as nuclear military officers and enlisted personnel are specialized in such a way that institutional constraints place restrictions against advancement in these military careers; Submarine crew stress created by shipyard shortfalls at unnamed shipyards and; The burden created on nuclear forces by risk-averse implementation of personnel reliability programs, although it was not explained what this means for nuclear forces, which continues a theme of vague policy recommendations for all areas of the nuclear triad.⁴⁴

Hans Kristensen, a nuclear expert with the Federation of American Scientists told the Associated Press in a recurring theme that money wouldn’t fix these issues. Kristensen said:

Throwing money after problems may fix some technical issues, but it is unlikely to resolve the dissolution that must come from sitting in a silo hole in the Midwest with missiles on high alert to respond to a nuclear attack that is unlikely to ever come.⁴⁵

While this expert analysis is important, none of these experts have answers for what to do with a Cold War acting Russia,⁴⁶ and what takes the place of nuclear deterrence. Those answers never seem to be addressed, and the Pentagon report does not address the limitations of the START 3 treaty with Russia, which according to Forbes contributor James Conca, limits the ability of the US to develop and modernize nuclear weapons.⁴⁷

⁴² Knickerbocker. Ibid. November 2014

⁴³ Knickerbocker. Ibid. November 2014

⁴⁴ Knickerbocker. Ibid. November 2014. For points 1-6 on pages 13-14.

⁴⁵ Knickerbocker. Ibid. November 2014

⁴⁶ Mardiste, David, and Saul, Jonathan, “NATO scrambles jets 400 times as Russian air activity jumps,” Reuters, November 20, 2014. <http://www.reuters.com/article/2014/11/20/us-ukraine-crisis-nato-stoltenberg-idUSKCN0j41h520141120>

⁴⁷ Jones, Michelle, “World War 3: Would Russian Win?” Valuewalk.com, November 21, 2014. <http://www.valuewalk.com/2014/11/world-war-3-russia-win/>

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The issues of nuclear overhaul with START 3 limitations have to be considered when the Pentagon, Hagel, and the new incoming Defense Secretary are putting together policy actions for the President.

Pentagon Recommendations

Hagel's internal reviews of the Defense Department resulted in 100 recommendations to improve the nuclear forces. This section will highlight the most important improvements identified, beginning with a recommendation to increase the force's nuclear oversight and understanding of the deterrent leadership structure, while reducing the administrative burden imposed upon them. Other points included improving and sustaining current equipment, changing "the culture of micromanagement," boosting morale, and improving the manner in which training and inspections are conducted.⁴⁸ Furthermore, improving and sustaining security forces at bases while the nuclear triad is being modernized was also on the list.

Hagel established the Nuclear Deterrent Enterprise Review Group (NDERG) to establish senior leadership accountability, and to bring all command structure elements of the nuclear force into a coherent enterprise. This group will consist of senior leaders responsible for "training, funding, and implementing the nuclear mission."⁴⁹

Hagel also directed his office and the Cost Assessment and Program Evaluation (CAPE) to lead an effort to track and assess each of the 100 recommendations from the internal and external reviews. Admiral Cecil D. Haney, Commander of the US Strategic Command, will begin "conducting quarterly nuclear force readiness reviews focused on critical resources required for the mission."⁵⁰ Admiral Haney has refined his reporting to include nuclear infrastructure sustainability while adding nuclear command, control, and communications to his force readiness report. The report was confusing in this area because it mentions that "this approach broadens readiness taking into account a more holistic view of the health of the force," but it never explains the correlation between holistic views and nuclear readiness.⁵¹ As a result of the reviews, it was also determined that the Navy would have consolidated oversight of the nuclear mission under the Director of Strategic Systems Programs.

Hagel has ordered the Air Force to make organizational changes to ICBM operation groups, consistent crew training, and scheduling hands-on-training for crew commanders who are now empowered for the responsibility and proficiency of their nuclear crews. This order is to integrate Air Force human capital while managing talent with the goal of delivering correct personnel to the proper place and time utilizing specific skills and procedures. This point was so broad it was hard to define exactly what this means.

⁴⁸ Welch, Larry D. & Harvey, John C., (2014) *Independent Review of the Department of Defense Nuclear Enterprise* Washington, DC: Retrieved from Department of Defense website: <http://www.defense.gov/pubs/Independent-Nuclear-Enterprise-Review-Report-30-June-2014.pdf>

⁴⁹ Welch & Harvey Ibid. 2 Jun 2014

⁵⁰ US Department of Defense. (2014). *Fact Sheet: Implementing Changes to the Nuclear Enterprise*. Washington, DC: Retrieved from Department of Defense website: <http://www.defense.gov/pubs/NER-Fact-Sheet.pdf>

⁵¹ US Department of Defense Ibid. 2014

The Air Force also received Hagel's orders to elevate the rank of Global Strike Command from a "4-star billet and HQ USAF Strategic Deterrence and Nuclear Integration (AF/A-10) to a 3-star billet in order to ensure their rank is commensurate with the importance of the mission."⁵² Note this part of the Hagel's report never addresses why lesser ranking officers were overseeing this part of the military's nuclear command structure in the first place; it never asks why the President, Secretary of Defense, and Joint Chiefs failed to raise the issue. Instead it identifies the plan on a go-forward basis, while conveniently remaining silent on the factors that led to the grave oversight in the command structure.

The Air Force has revised proficiency test scoring for missileers to pass/fail from previous expectations where crewmembers had to score one hundred percent on every test to advance in their chosen nuclear career path. The Air Force also incentivized pay for ICBM field operations and nuclear force specialties to add allure for individuals on the nuclear force career track. Once Congress approves the FY15 budget, a further incentive will include a provision for nuclear personnel to receive back pay and additional bonuses for being on the nuclear career track.

The Joint Chiefs staff will begin providing training that is standardized across all levels of the nuclear forces for Pentagon inspectors to certify service members on the Personnel Reliability Program. This is being implemented to do away with repetitive procedures that tax existing personnel across the nuclear enterprise.

At the Pentagon, the Personnel Reliability Program will be under new guidelines. Pentagon inspectors will have to take the professional judgment of medical professionals and no longer be allowed to penalize nuclear force personnel because of medical or psychological problems.

On the administrative front, the Navy also established a new program called Reduce Administrative Distractions (RAD), which aimed to streamline or eliminate administrative burdens, instructions and training of sailors serving on nuclear fleets. Feedback was solicited from the affected sailors in an effort to address their specific challenges. Although this section of Hagel's report was forward thinking, it simply called for the allocation of resources to address the problem at hand, while neglecting to identify the root causes of the problem. The report also failed to make a distinct connection between the outcome of this program and the improvement of nuclear readiness and deterrence. Instead, additional layers of bureaucracy and Pentagon management were established, but it is not clear that problems will be solved by these new initiatives.

Deficiencies in infrastructure and equipment were critical issues identified in Hagel's reviews. As a result, the Navy will work toward infrastructure recapitalization at public nuclear shipyards and Strategic Nuclear Weapon Facilities, but the Pentagon's report does not explain specific infrastructure revitalization programs. Naval nuclear reactors will replace two training platforms (the report doesn't specify what is a platform compared to a live nuclear reactor) that have reached the end of their maintenance capability, while refueling a third training platform. These enhancements are designed to incorporate simulation technology for nuclear training while augmenting training capacity for all nuclear forces.

⁵² US Department of Defense Ibid. 2014

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An Air Force Improvement Program through the US Air Force Global Strike Command was also established as a result of the report. This program reallocated \$161 million to ICBM support in FY14, of which \$150 million was used to address urgent shortfalls to equipment, facilities, and personnel.

On the fiscal front, the Defense Department conducted a Nuclear Enterprise Review (NER) Strategic Portfolio Review to inform the President's FY16 budget. A Program Review Team assessed unfunded mandates across the entire US nuclear spectrum, and presented them to the Deputy Secretary of Defense for consideration, although the specific unfunded mandates and requirements were not specified.

Finally, as this summary is concerned, the reviews recommended that the President's FY16 budget submission provide a detailed analysis of the spending and time horizons for various nuclear programs. Note that this section of Hagel's report does not mention or question what happened to the previous \$185 billion allocated to the nuclear program, nor does it mention any presidential action related to arsenal and command structure problems, and how this will affect the President's budget.⁵³

Current State Of The World

The section will examine Russia, China, and Iran, as all three nations are potential national security threats to the US. Wary of a more muscular posture by all three nations, but in particular, Russia and China, Hagel said on November 22, 2014, "...the Pentagon will make a new push for fresh thinking about how the US can keep and extend its military superiority despite tighter budgets and the wear and tear of thirteen years of war."⁵⁴ Hagel also announced a "defense innovation initiative,"⁵⁵ to assist offsetting military advantages of US adversaries. Hagel likened these challenges to threats the US faced during the Cold War. A "game-changing strategy,"⁵⁶ is how Hagel described America's military edge deficit in the face of sequestration, but he didn't mention his recent attempts to overhaul the nuclear triad. In a memo to Pentagon leaders, Hagel outlined how the US must not lose its commanding leadership in military technology, stating that:

Our potential adversaries have been modernizing their militaries, developing and proliferating disruptive capabilities across the spectrum of conflict. This represents a clear and growing challenge to our military power, and America and its allies prevailed over a determined Soviet adversary by coming together as a nation – over decades and across party line – to make long-term, strategic investments in innovation and reform of our nation's military.⁵⁷

Joint Chiefs of Staff, Admiral James Winnefeld, echoed sentiments recently about Russia and China reasserting their power on the world stage to capitalize on America's "distraction," from Iraq and Afghanistan.⁵⁸ Winnefeld remarked at the same Reagan

⁵³ Department of Defense. Pentagon Fact Sheet. Summer 2014. Footnote is for findings on pages 15-19 in this paper.

⁵⁴ Burns, Robert, "Hagel: US needs game-changing military innovation," AP, November 16, 2014. <http://news.yahoo.com/hagel-us-needs-game-changing-military-innovation-010423487--politics.html>

⁵⁵ Burns. Ibid. November 2014

⁵⁶ Burns. Ibid. November 2014

⁵⁷ Burns. Ibid. November 2014

⁵⁸ Burns. Ibid. November 2014

National Defense Forum where Hagel spoke, “[The] US overmatch is now in jeopardy.”⁵⁹ Both men, but in particular Hagel, have outlined launching new, long-range research and development programs for breakthrough in key technologies, including nuclear. The Pentagon under Hagel’s leadership wants to call upon academia and the private sector for help. With regards to US nuclear interests, Hagel likens his approach to the Eisenhower Administration’s “New Look”⁶⁰ program in the 1950’s, which sought to expand the US nuclear arsenal to offset the Soviet Union’s conventional military superiority in Eastern Europe. The initiatives have not answered the question of does this money come from the previous \$185 billion allocated or the new \$1 to 10 billion Hagel has asked for from the President’s FY15 budget for nuclear modernization across all levels of weaponry, infrastructure, and personnel.

US officials appear to be deeply concerned that Russia has surpassed the US military in nuclear capabilities and superiority, according to James Conca. Russia has been spending money aggressively on developing tactical nuclear weapons, and Putin has stated publicly his aim is to develop a guaranteed deterrent to protect against NATO.⁶¹ Moscow also believes its own tactical nuclear weapons are better than the current nuclear force projection from either the US or NATO.⁶² NATO member countries have only 260 older tactical nuclear weapons sited in Germany, Italy, Belgium, the Netherlands, and Turkey. The US has 200 nuclear bombs with an overall capacity of 18 megatons and France has 60 atomic bombs.⁶³ Russia has 5,000 nuclear weapons of various tactical classes, including Iskander warheads and torpedoes, as well as aerial and artillery warheads parked next to European/NATO interests.⁶⁴ However, the US has only 300 tactical B-61 bombs that do not take into consideration the imbalance between the two nations.⁶⁵ The State Department has admitted in a report published in September 2014, stating that, “Russia for the first time in forty years has passed the US in nuclear weapons capability.”⁶⁶ Conca correctly points out the US will be hard pressed to catch up to Russia in any type of nuclear arms modernization race as much of the US arsenal built up during the Cold War has been destroyed.⁶⁷ Conca further elaborates that the US has created treaties under previous administrations limiting the ability to develop modern nuclear weapons, but nothing as detrimental to US interests as the START 3 treaty “that was overwhelmingly favorable to Russia.”⁶⁸ Yet the US has the ability to pull out of the

⁵⁹ Burns. Ibid. November 2014

⁶⁰ Burns. Ibid. November 2014

⁶¹ Jones. Ibid. November 2014

⁶² Jones. Ibid. November 2014

⁶³ Conca, James, “Does Russia think their new nuclear weapons could win a war?” Forbes, November 20, 2014. <http://www.forbes.com/sites/jamesconca/2014/11/20/could-russias-new-nuclear-weapons-win-world-war-iii/>

⁶⁴ Conca. Ibid. November 2014

⁶⁵ Jones. Ibid. November 2014

⁶⁶ Pravda.ru. Global Research: Centre for Global Research from an article by Pravda.ru, “Russia’s Strategic Nuclear Force (SNF) More Advanced in Comparison with US Arsenal,” Global Research: Centre for Global Research, November 14, 2014. <http://www.globalresearch.ca/russias-strategic-nuclear-force-snf-more-advanced-in-comparison-with-us-arsenal/5414012>

⁶⁷ Conca. Ibid. November 2014

⁶⁸ Conca. Ibid. November 2014

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agreement under “extraordinary circumstance that threaten national sovereignty,”⁶⁹ but all indications under the Obama Administration seem to signal that the US will live up to its treaty obligations under START 3.

Moscow has not been limited in nuclear weapon development and has built next-generation, long-range cruise missiles that will soon be deployed onto Russian submarines in the Black Sea and Caspian flotilla ships. Russian officials also recently revealed they want to send long-range bombers over the Gulf of Mexico, “just for practice,” although they do not state whether or not there will be nuclear weapons on board.⁷⁰

Russia’s strategic nuclear forces (SNF) are even more advanced when parity is considered on warheads. According to the State Department, the US has 794 vehicles and 1,652 warheads, while Russia has 528 carriers for 1,643 strategic nuclear warheads, giving them the lead in parity to numbers of nuclear carriers.⁷¹ The gap between the two nations will grow since Russian defense officials have announced their intention to rearm Russia’s SNF with new generation missiles.⁷² This has occurred because of START 3. In the treaty, the nuclear warheads of both nations will be reduced to 1,550 by 2021, and the number of carriers of ICBMs, submarine-launched ballistic missiles and heavy bombers will be cut to 700 units as well.⁷³ It is the first strategic agreement under a Democratic controlled leadership in the Senate where Russia managed to win a huge advantage. Never before had a treaty been signed where the US promised to reduce their strategic nuclear potential and the Russians won the opportunity to increase theirs.⁷⁴ START 3 removed limitations that existed in previous START 1 and 2 treaties in the areas of deployment of mobile ICBMs, the number of multi-charge ICBMs, and the possibility to build railway-based ICBMs for the US, but Russia never made one of these concessions. It is unclear why the Obama Administration and the Senate ratified this treaty, unless these actions were taken under the belief Russia will never rise to the level of a Cold War menace again, even though their recent aggression point towards a Cold War mentality.⁷⁵

Dr. Victor Davis Hanson believes times are bleak for Chinese relations with the US. According to Hanson, the Chinese “sense American isolationism, hear parlor talk about the US reducing its nuclear arsenal and notice America’s habit of distancing itself from its allies.”⁷⁶ Most disturbing to Dr. Hanson is the correlation between a rising Japan in the 1930s and Chinese aggression towards Japan over the Senkaku Islands in Japan, or Diaoyu Islands in China, while harboring hatred toward Japan dating back to the Japanese treatment of the Chinese during World War II.⁷⁷ China senses America’s power

⁶⁹ US State Department document signed by President Barack Obama, START 3 Treaty, Prague, Czechoslovakia, April 8, 2010, Article XIV, Page 16.

<http://www.state.gov/documents/organization/140035.pdf>

⁷⁰ Conca. Ibid. November 2014

⁷¹ Pravda.ru. Global Research: Centre for Global Research. Ibid. November 2014

⁷² Pravda.ru. Global Research: Centre for Global Research. Ibid. November 2014

⁷³ Pravda.ru. Global Research: Centre for Global Research. Ibid. November 2014

⁷⁴ Pravda.ru. Global Research: Centre for Global Research. Ibid. November 2014

⁷⁵ Mardiste, Saul. Ibid. November 2014

⁷⁶ Hanson, Victor Davis, “Victor Davis Hanson commentary: China behaving at the Japanese did in 1930s,” The Columbus Dispatch, January 9, 2014.

<http://www.dispatch.com/content/stories/editorial/2014/01/09/china-behaving-as-japan-did-in-1930s.html>

⁷⁷ Hanson. Ibid. January 2014

waning when it comes to protecting Japan, and China welcomes the US reduction of its nuclear arsenal. Meanwhile, China is modernizing its own weaponry, infrastructure, and manpower without the United Nations or International Atomic Energy Agency (IAEA) stepping in to check Chinese aggression.⁷⁸ China's stated policy is that it will not fire nuclear weapons first, and even though China is a signatory to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), there is major concern that the Chinese sense American weakness in the US nuclear strategy at the executive level. This perceived weakness stems from an unbalanced, inconsistent US nuclear triad policy that allows the Chinese to continue their march toward weapon modernization.

Mark Schneider, Senior Analyst at the National Institute for Public Policy testified before the US House Subcommittee on Strategic Force on Friday, October 14, 2011. Dr. Schneider elaborated,

China has developed or is in the process of producing two brand-new ICBMs, a new ballistic missile submarine, and potentially a new bomber, and that China with Russia are experimenting with new types of nuclear weapons, including testing low-yield nuclear weapons.⁷⁹

Adding everything together, it would seem the Chinese are satisfied with its new place in the world vis-a-vis the US nuclear equation and modernization. US options seem limited because of START 3, and with China holding trillions in US debt, it has to be asked what the US would actually do to counter China's aggression knowing they could dump trillions of US debt on the world market. While this could crush China, it would also be devastating on the US. More than likely the Obama Administration does not want to find out what would happen in the midst of an economic recovery with a 36-year low in US labor participation rates.⁸⁰

Iran is negotiating with world powers (P5 + 1, which includes the US, France, Great Britain, China, Russia and Germany) currently in Vienna over its nuclear program. Over the weekend of November 22, 2014 negotiations were extended because an agreement had not been reached. They were also extended after the March 31, 2015 deadline had been passed in Lausanne, Switzerland. Curiously, these announcements facilitated little notice, attention, or concern. George Friedman of Stratfor makes the case that the reason why talks were extended seven more months quietly are the US and Iran now need one another more than ever fighting the Islamic State.⁸¹ Friedman adds,

Both countries want the Islamic State broken. Both want the government in Baghdad to function. The Americans have no problem with Iran guaranteeing security in the south, and the Iranians have no

⁷⁸ Hanson. Ibid. January 2014

⁷⁹ Spies, Stephanie, "Nuclear Weapons Modernization in Russia and China: A Re-Cap," Center for Strategic and International Studies, October 17, 2011. <http://csis.org/blog/nuclear-weapons-modernization-russia-and-china-re-cap>

⁸⁰ Kotkin, Joel, "Legal but Still Poor: The Economic Consequences of Amnesty," [www.FoxandHoundsDaily.com](http://www.foxandhoundsdaily.com), November 24, 2014. <http://www.foxandhoundsdaily.com/2014/11/legal-still-poor-economic-consequences-amnesty/>

⁸¹ Friedman, George, "The Islamic State Reshapes the Middle East," Stratfor Global Intelligence, November 25, 2014. <http://www.stratfor.com/weekly/islamic-state-reshapes-middle-east#axzz3K17snwqD>

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objection to a pro-American Kurdistan so long as they continue to dominate southern oil flows.⁸²

However, world powers have presented Iran with an accord that would restrict its nuclear program for roughly 10 years, and cap Iran's legal ability to produce fissile material for a weapon during that time.⁸³ If Tehran agrees to the deal then the Russians would be relied upon to convert Iran's current uranium stockpile into fuel rods for peaceful energy use.⁸⁴ The accords would also set up an inspection regime that is supposed to follow Tehran's entire supply chain of nuclear material from mining raw material to siphoning materials to various nuclear facilities across the nation.⁸⁵

The problem for US ally Israel and her leaders is the worst-case scenario where these accords do not work as advertised, and Iran chooses not to abide by the nuclear inspections for the entire 10 year period. Israeli officials are quoted as saying,

Our intelligence agencies aren't perfect – we didn't know for years about Natanz or Qom, and inspection regimes are certainly not perfect. They weren't in the case of North Korea and it isn't the case now – and Iran's been giving the IAEA the run around for years about its past activities.⁸⁶

On November 22, 2014, reports from Vienna suggested the P5 + 1 were willing to negotiate away full disclosure of any secret work by Tehran. Israel fears the proposal, which only calls for Iran's nuclear infrastructure to be dismantled for storage and not for destruction would be a crushing blow for a lasting peace.⁸⁷ These accords pushed by Secretary of State John Kerry and President Obama would allow the P5 + 1 to grant Iran the ability to enrich uranium after ten years and keep most of its nuclear infrastructure in place, but thus far the Iranians have rejected the accords in an arrangement that favors Tehran by giving them sanctions relief and limited international recognition of their nuclear programs.⁸⁸ Why would Iran, who now according to George Friedman, has common interests with the US in fighting IS, reject the deal? Armin Rosen of *Business Insider* gives two reasons: Iran does not want a deal because Iran is a compartmentalized authoritarian state with several competing semi-accountable centers of power, where the Supreme Leader, Ali Khamenei, "winces at the possibility of a grand bargain with the west,"⁸⁹ and Iran has the ability to keep extending talks while being allowed access to an additional \$700 million a month in sanctions relief.⁹⁰ The other possibility according to

⁸² Friedman. Ibid. November 2014

⁸³ Wilner, Michael, "Exclusive: Cornered but unbound by nuclear pact, Israel reconsiders military action against Iran," Jerusalem Post, November 22, 2014. <http://www.jpost.com/International/Exclusive-Cornered-but-unbound-by-nuclear-pact-Israel-reconsiders-military-action-against-Iran-382541>

⁸⁴ Wilner. Ibid. November 2014

⁸⁵ Wilner. Ibid. November 2014

⁸⁶ Wilner. Ibid. November 2014

⁸⁷ Wilner. Ibid. November 2014

⁸⁸ Rosen, Armin, "Here's The Depressing Reason Why Iran May Have Rejected A Generous Nuclear Deal," Business Insider, November 24, 2014. <http://finance.yahoo.com/news/heres-depressing-reason-why-iran235427834.html>

⁸⁹ Rosen. Ibid. November 2014

⁹⁰ Rosen. Ibid. November 2014

Tom Moore, former Senate Committee on Foreign Relations staffer and Luger Center senior fellow believes Iran's strategy towards the US has not changed much over the years. Iran's stubborn behavior is intentional since it is a highly effective negotiating tactic.⁹¹ Moore also adds the Western hope of "near-term concessions keep the West interested in negotiating – while slowly building its program and resisting a final resolution to the nuclear issue."⁹² Hanson adds,

Sanctions had crippled Iran to the point that it soon would have grown desperate to meet US demands to stop its nuclear enrichment, but instead Obama eased trade restrictions just as they were coming to fruition. Iran is now on its way to acquiring a bomb, while supplying missiles to Hamas and Hezbollah.⁹³

The question regarding Russia, China, and Iran is why has the Obama Administration decided on the policy actions it has taken? In the most current *National Security Strategy* report from February 2015, President Obama states, "The US will use military force, unilaterally if necessary, when our enduring interests demand it."⁹⁴ If this is the case, then why have the President and his administration taken actions threatening US national security according to numerous experts, and reportedly forcing Secretary Hagel to resign?⁹⁵ Hagel seems to be the one high-ranking Obama official attempting to speak truthfully about the threat of IS,⁹⁶ Russia, China, and a host of other issues threatening the security and defense of the US nuclear arsenal and US national security.⁹⁷

Political Dilemma

In light of Secretary Hagel's departure from the Obama Administration, of all the problems this paper has highlighted the President has taken no official position on all the recent issues relating to the US nuclear arsenal. The President has not highlighted his position since new nuclear revelations under Hagel's tenure have been brought into the open. What the President has stated, and the DOD has reiterated, is that the official position of the US is to have a world without nuclear weapons,⁹⁸ while negotiating with Iran and signing treaties with Russia. While the President states the US can act unilaterally if threatened there have not been recent policy statements regarding this contradiction between unilateral action and a deteriorating nuclear triad. Hagel's departure raises further questions of what, if anything, will be done to modernize the force. These political dilemmas, which will eventually need to be addressed by the White

⁹¹ Rosen. Ibid. November 2014

⁹² Rosen. Ibid. November 2014

⁹³ Hanson, Victor Davis, "Obama and the Road Not Taken," Townhall.com, July 31, 2014.

<http://townhall.com/columnists/victordavishanson/2014/07/31/obama-and-the-road-not-taken-n1872279>

⁹⁴ White House National Security Staff for President Barack Obama, White House National Security Strategy, White House of President Barack Obama, February 2015.

https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf

⁹⁵ Pace, Julie, Burns, Robert, "AP Source: Hagel resigning as Defense secretary," AP, November 24, 2014. <http://news.yahoo.com/ap-source-hagel-resigning-defense-secretary-142227543.html>

⁹⁶ Pace, Burns. Ibid. November 2014

⁹⁷ Pace, Burns. Ibid. November 2014

⁹⁸ Department of Defense. Ibid. April 2010. Page ii

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House, are burdens that also have to take into consideration the 2010 NPR about official US policies regarding nuclear weapons, or a world without nuclear weapons.⁹⁹ Obama, Hagel, the Joint Chiefs or leaders in Congress have not provided answers to these questions.

NPR Policy Recommendations

The case of numerous embarrassing setbacks for the nuclear force was one of many reasons Hagel took action. Disciplinary problems, security flaws, weak morale, leadership lapses, numerous high-level firings, \$185 billion unaccounted for in Hagel's reviews, and rotting weaponry infrastructure were all motives for significant changes to the US nuclear triad. Does Hagel want billions with no end in sight regarding the costs to the benefits? But what is the official position of the US towards nuclear weapons? The NPR states five key objectives for US nuclear weapons policies and posture: Preventing nuclear proliferation and nuclear terrorism; Reducing the role of US nuclear weapons in US national security strategy; Maintaining strategic deterrence and stability at reduced nuclear force levels; Strengthening regional deterrence; and sustaining a safe, secure, and effective nuclear arsenal."¹⁰⁰

There is a large issue to be considered moving forward. If the American public hates nuclear bombs along with President Obama, but love the idea of deterrence, how does the US go from strategic stability to zero bombs that the President has said, "is the goal,"¹⁰¹ when there are actors on the world stage with bad intentions?¹⁰² To the President's credit, his administration has consistently supported increased funding for the US nuclear complex and deterrent.¹⁰³ Yet, if the White House is committed to more taxpayer dollars why has there been silence from the President? Billions of dollars have been spent, but problems only seem to grow, and the President has stated, "...the US will retain its deterrent so long as there is a country with nuclear weapons."¹⁰⁴ What does the future hold for the anti-nuclear movement within and out of government? No one seems to know that answer. For now the NPR clearly states,¹⁰⁵ and this paper asserts, all features of US nuclear triad, weaponry, and infrastructure need immediate modernization and updating, otherwise problems and questions will continue to grow leading to possible weakening of US national security and defense.

Concluding Remarks

Writing in the *Los Angeles Times*, journalist W.J. Hennington writes:

The Obama administration is moving forward with a plan to modernize strategic weapons over the next decade, an effort the Congressional Budget Office estimates will cost \$355 billion. This comes as the Pentagon is under pressure to reduce its budget, and outside experts

⁹⁹ Department of Defense. Ibid. April 2010

¹⁰⁰ Department of Defense. Ibid. April 2010. Footnote for points 1-5

¹⁰¹ White House National Security Staff. Ibid. February 2015

¹⁰² White House National Security Staff. Ibid. February 2015

¹⁰³ Pearl. Ibid. Page 34. November 2011

¹⁰⁴ Pearl. Ibid. Page 34. November 2011

¹⁰⁵ Department of Defense. Ibid. Executive Summary Vi. April 2010

warn that the modernization could cost more than \$1 trillion over the next 30 years.¹⁰⁶

It should be noted that of all the grave troubles uncovered by AP regarding the nuclear triad, and Hagel leaving Defense did the *Los Angeles Times* mention how the \$185 billion was going to be used. There was never any specificity given to this appropriated money in the NPR, National Security Strategy, or the President's budget for FY15 and FY16. There are a number of conclusions that can be drawn from attempting to modernize and update the US nuclear arsenal. One could draw the conclusion that more money will solve the problem, but with hundreds of billions of dollars earmarked towards the arsenal, it is curious why Hagel would only ask for \$1 to 10 billion for what his reviews concluded. Why not take from the monies appropriated to achieve START 3 ratification through the Senate or the \$355 billion the President has put towards nuclear modernization? After all, the \$1 to 10 billion appears to be a pittance relative to the \$540 billion appropriated toward the US nuclear arsenal between the START 3 ratification and the monies reported by the *Los Angeles Times*. Yet answers for where these funds are going to be spent are lacking. The specifics behind what they will improve in terms of US national security and nuclear deterrence are not evident. Instead, on the heels of executive rhetoric that contradicts itself,¹⁰⁷ as well as massive appropriations¹⁰⁸ that don't seem to align with the overall vision of the executive branch's goal of disarmament goals, policies or even a vision are never put in place. This seemingly causes the US to allocate further taxpayer money hoping that it one day will hit its undefined target. And it is not just money that is being thrown at the problem; it is also a diverse group of former Secretaries of Defense that apparently were unable to execute their own personal goals or the executive's convoluted vision for the nuclear arsenal. All in all, dollars have been appropriated, analyses have been performed, reports have been delivered, and results and recommendations have been communicated. But in the end, this is a problem that the executive branch, Department of Defense, and Congress do not want to address. Is the triad a Cold War arsenal, an outdated relic of another era, or with recent Russian belligerence¹⁰⁹ and Chinese emergence,¹¹⁰ are US nuclear weapons a deterrence factor that can no longer be ignored? These questions need to be answered otherwise it is not only costly for the taxpayer when it comes to modernization of the arsenal, but also dangerous for America.

The friction between the White House and Pentagon have been particularly pronounced under the Obama Administration the past six years with the President relying on a close group of advisors (National Security Advisor Susan Rice, Chief of Staff Denis McDonough and Chairman of the Joint Chiefs of Staff General Martin Dempsey) with degrees of micromanagement, "that's not bureaucratic, but political."¹¹¹ Whether nuclear policy can be made under these conditions is one of many challenges the incoming

¹⁰⁶ Hennigan, W.J., "Major overhaul of nuclear force planned to improve security and morale," *Los Angeles Times*, November 14, 2014. <http://touch.latimes.com/#section/-1/article/p2p-81972191>

¹⁰⁷ Pearl. *Ibid.* Page 40-41. November 2011.

¹⁰⁸ Maddow. *Ibid.* Page 239. April 2012 and Hennigan. *Ibid.* November 2014

¹⁰⁹ Mardiste and Saul. *Ibid.* November 2014

¹¹⁰ Hanson. *Ibid.* January 2014

¹¹¹ Pace, Julie and Burns, Robert, "For Obama and the Pentagon, an uneasy relationship," AP for Yahoo News, November 29, 2014. <http://news.yahoo.com/obama-pentagon-uneasy-relationship-132030775.html>

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Secretary of Defense will have to overcome. Questions should be answered and strategies fleshed out for the US nuclear complex to be the deterrence that will continue to daunt all present and future enemies while reassuring the American people, and our allies. Yet the answers remain as uncertain as ever.

WORKS CITED

- Alexander, David, “Hagel reassures troops of U.S. commitment to nuclear arms mission,” Reuters, November 15, 2014. <http://news.yahoo.com/hagel-reassures-troops-u-commitment-nuclear-arms-mission-052814631.html>
- Associated Press (no author stated), “Key findings in AP nuclear missile probe,” AP, November 14, 2014. <http://news.yahoo.com/key-findings-ap-nuclear-missiles-corps-probe-091952296.html>
- Brannen, Kate, “Hagel revamps U.S. Nuclear Program,” Foreign Policy, November 14, 2014. http://complex.foreignpolicy.com/posts/2014/11/14/hagel_revamps_us_nuclear_program
- Burns, Robert, “Hagel to order nuke force overhaul to fix failures,” AP, November 13, 2014. <http://news.yahoo.com/hagel-order-nuke-force-overhaul-fix-failures-010143821--politics.html>
- Burns, Robert, “Hagel: US needs game-changing military innovation,” AP, November 16, 2014. <http://news.yahoo.com/hagel-us-needs-game-changing-military-innovation-010423487--politics.html>
- Conca, James, “Does Russia think their new nuclear weapons could win a war?” Forbes, November 20, 2014. <http://www.forbes.com/sites/jamesconca/2014/11/20/could-russias-new-nuclear-weapons-win-world-war-iii/>
- Coyle, James Dr., “Fall 2014 Lectures MPP.644 National Security and Freedom,” Pepperdine School of Public Policy, August-November 2014.
- Department of Defense. Nuclear Posture Review Report. April 2010. <http://www.defense.gov/npr/docs/2010%20nuclear%20posture%20review%20report.pdf>
- Department of Defense. Pentagon Fact Sheet. Summer 2014. <http://www.defense.gov/pubs/NER-Fact-Sheet.pdf>
- Department of Defense. Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management. Phase II: Review of the DoD Nuclear Mission. December 2008. <http://www.defense.gov/pubs/pdfs/phseiiireportfinal.pdf>
- De Luce, Dan, “Troubled US nuclear force needs reforms, funds: Hagel,” AFP, November 14, 2014. <http://news.yahoo.com/hagel-unveil-reforms-troubled-us-nuclear-force-055520379.html>
- Friedman, George, “The Islamic State Reshapes the Middle East,” Stratfor Global Intelligence, November 25, 2014. <http://www.stratfor.com/weekly/islamic-state->

UNANSWERED QUESTIONS

- [reshapes-middle-east#axzz3K17snwqD](#)
- Hanson, Victor Davis, "Victor Davis Hanson commentary: China behaving at the Japanese did in 1930s," The Columbus Dispatch, January 9, 2014.
<http://www.dispatch.com/content/stories/editorial/2014/01/09/china-behaving-as-japan-did-in-1930s.html>
- Hanson, Victor Davis, "Obama and the Road Not Taken," Townhall.com, July 31, 2014.
<http://townhall.com/columnists/victordavishanson/2014/07/31/obama-and-the-road-not-taken-n1872279>
- Hennigan, W.J., "Major overhaul of nuclear force planned to improve security and morale," Los Angeles Times, November 14, 2014.
<http://touch.latimes.com/#section/-1/article/p2p-81972191>
- Jones, Michelle, "World War 3: Would Russian Win?" Valuewalk.com, November 21, 2014. <http://www.valuewalk.com/2014/11/world-war-3-russia-win/>
- Knickerbocker, Brad, "Chuck Hagel orders fixes to 'systemic problems' in US Nuclear Arsenal," The Christian Science Monitor, November 14, 2014.
<http://news.yahoo.com/chuck-hagel-order-fixes-systemic-problems-us-nuclear-184415518.html>
- Kotkin, Joel, "Legal but Still Poor: The Economic Consequences of Amnesty," www.FoxandHoundsDaily.com, November 24, 2014.
<http://www.foxandhoundsdaily.com/2014/11/legal-still-poor-economic-consequences-amnesty/>
- Maddow, Rachel, *Drift*, (New York, NY, Broadway Paperbacks), Page 239. April 13, 2012.
- Mardiste, David, and Saul, Jonathan, "NATO scrambles jets 400 times as Russian air activity jumps," Reuters, November 20, 2014.
<http://www.reuters.com/article/2014/11/20/us-ukraine-crisis-nato-stoltenberg-idUSKCN0j41h520141120>
- Pace, Julie, Burns, Robert, "AP Source: Hagel resigning as Defense secretary," AP for Yahoo News, November 24, 2014. <http://news.yahoo.com/ap-source-hagel-resigning-defense-secretary-142227543.html>
- Pace, Julie and Burns, Robert, "For Obama and the Pentagon, an uneasy relationship," AP for Yahoo News, November 29, 2014. <http://news.yahoo.com/obama-pentagon-uneasy-relationship-132030775.html>
- Pavlich, Katie, "President Who Pulled US Troops Out of Iraq Says Idea He Pulled Troops Out of Iraq is Bogus," Townhall.com, August 11, 2014.
<http://townhall.com/tipsheet/katiepavlich/2014/08/11/president-who-pulled->

[troops-out-of-iraq-says-he-didn't-pull-troops-out-of-iraq-n1877290](#)

Pearl, Jonathan, Forecasting Zero: US Nuclear History and the Low Probability of Disarmament. (Carlisle, PA: US Army War College), complete document. <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=1092>

Pravda.ru. Global Research: Centre for Global Research from an article by Pravda.ru, "Russia's Strategic Nuclear Force (SNF) More Advanced in Comparison with US Arsenal," Global Research: Centre for Global Research, November 14, 2014. <http://www.globalresearch.ca/russias-strategic-nuclear-force-snf-more-advanced-in-comparison-with-us-arsenal/5414012>

Rosen, Armin, "Here's The Depressing Reason Why Iran May Have Rejected A Generous Nuclear Deal," Business Insider, November 24, 2014. <http://finance.yahoo.com/news/heres-depressing-reason-why-iran235427834.html>

Reuters, "Hagel to announce nuclear operations overhaul," Reuters via Yahoo News, November 13, 2014. <http://news.yahoo.com/u-defense-secretary-announce-nuclear-operations-overhaul-024934952.html> (NOTE: this isn't a footnote in the paper, but used as a research source)

Silverberg, David, "\$5.5 trillion well spent," Brookings, July 8, 1998. <http://www.brookings.edu/about/project/archive/nucweapons/silverberg>

Spies, Stephanie, "Nuclear Weapons Modernization in Russia and China: A Re-Cap," Center for Strategic and International Studies, October 17, 2011. <http://csis.org/blog/nuclear-weapons-modernization-russia-and-china-re-cap>

U.S. Department of Energy. Nevada Operations Office. Office of Science and Technical Information. US Nuclear Test July 1945 through September 1992. December 2000. http://en.wikipedia.org/wiki/List_of_nuclear_weapons_tests_of_the_United_States

US State Department document signed by President Barack Obama, START 3 Treaty, Prague, Czechoslovakia, April 8, 2010, Article XIV, Page 16. <http://www.state.gov/documents/organization/140035.pdf>

White House National Security Staff for President George W. Bush, White House National Security Strategy, White House of President George W. Bush, Page 1, September 2002. <http://nssarchive.us.nssr/2002.pdf>

White House National Security Staff for President Barack Obama, White House National Security Strategy, White House of President Barack Obama, May 2010. http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy

UNANSWERED QUESTIONS

[gy.pdf](#)

Wilner, Michael, "Exclusive: Cornered but unbound by nuclear pact, Israel reconsiders military action against Iran," Jerusalem Post, November 22, 2014.
<http://www.jpost.com/International/Exclusive-Cornered-but-unbound-by-nuclear-pact-Israel-reconsiders-military-action-against-Iran-382541>