

# Speaking Notes: U.S. Nuclear Weapons Policies and Programs

Strategic Weapons in the 21<sup>st</sup> Century  
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John R. Harvey  
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I am pleased to be invited to this annual event hosted by Los Alamos and Lawrence Livermore National Labs. Today, I will recap some developments over the past year in the nuclear forces arena—all have a close connection to the “stability” theme of this conference. I will address:

- Aspects of the President’s updated nuclear weapons employment policy issued last June including “required force levels”, “reduced role for nuclear weapons” and “hedge,”
- Extended deterrence including operations last March of U.S. B-52 and B-2 nuclear bombers over the Korean peninsula,
- Nuclear modernization and the ongoing debate over the B61 life extension program,
- The critical need to grow the next generation of nuclear weapons experts.

## U.S. Nuclear Weapons Employment Policy

The 87 pages of the 2010 NPR, somewhat irreverently, can be boiled down to two sentences:

- We seek as a long term objective the elimination of nuclear weapons globally (“probably not in my lifetime” said the president)
- Until such time as our nation’s security permits, we will maintain nuclear forces that are safe, secure and effective.

The NPR thus reflects a strong commitment to nuclear forces sustainment and modernization. More specifically, “safe, secure and effective” requires (1) maintenance of the nuclear triad including modernization of aging warheads, delivery systems, and NC2 systems that link nuclear forces with Presidential authority, and (2) modernization of an age-degraded, 1940’s-era infrastructure that supports nuclear forces.

When this Administration entered office it sought to reinvigorate strategic arms dialog with Russia. In the 2010 NPR, it reassessed force requirements to meet the nuclear employment policy of the *previous* administration.

It concluded that a triad of nuclear forces at a level of 1500 “arms control accountable” warheads—about 1850 “real” deployed warheads under the bomber counting rule—met the needs for strategic deterrence. This is well within the range of 1700-2200 “real” deployed warheads deemed sufficient by George W. Bush’s team.

In the subsequent “NPR follow on review”, the Administration revised its nuclear employment policy based on current assessments of a range of relevant factors. It looked at changes to the current policy that could best advance the following five NPR objectives:

- Prevent nuclear proliferation and nuclear terrorism,
- Reduce the role of nuclear weapons in U.S. national security strategy,
- Maintain strategic deterrence and stability at reduced force levels,
- Strengthen regional deterrence and assure US allies and partners, and
- Sustain a safe, secure and effective nuclear arsenal.

Moreover, it addressed the specifics of U.S. policy for achieving U.S. and allied objectives should nuclear deterrence fail. Among other things, the Administration's updated policy:

- Evaluates today's strategic security environment,
- Issues guidance for nuclear employment in light of that environment,
- Addresses a reduced role for nuclear weapons,
- Identifies the needed operationally-deployed force posture,
- Identifies force levels needed to execute the new policy, and
- Establishes the framework to "hedge" technical and geopolitical uncertainties.

It concluded that a triad of forces of about 1000 warheads—about 1300 total deployed weapons under the bomber counting rule—could achieve U.S. targeting objectives. But, and I quote, "the new employment strategy does not direct any changes to the currently deployed nuclear forces of the United States." In other words, while the ability to hold at risk those installations deemed necessary for deterrence could be achieved even with unilateral reductions to these lower levels, the United States concluded that it was not prudent to do so now. Rather, the administration sought to engage Russia on bilateral reductions to such levels. Russia, to date, has shown absolutely no interest in further reductions below the New START levels.

The administration did its due diligence in analyzing levels below 1000 warheads and the required adjustments in strategy that would accompany them, in part to understand better the risks and challenges of a path to much deeper reductions. It concluded that such reductions were not in U.S. national security interests.

### **Reduced Role**

In seeking to reduce the role of nuclear weapons, the new policy directs DoD to examine, and plan for, a broader role for non-nuclear strike options. Such options are not intended to substitute for nuclear weapons across the broad mission space. Rather, they could provide flexibility that does not now exist for the President to achieve, without resort to nuclear weapons, certain military objectives that are very high priority but limited in scope.

Acknowledging the "significantly diminished possibility of a disarming surprise nuclear attack," DoD will also examine options to reduce the role of Launch Under Attack (LUA) in U.S. planning while retaining the option to do so if directed. Whether any President would ever execute LUA in even the most dire circumstance is an open question. That said, LUA is planned for, and exercised, so that no potential adversary poised to strike the U.S. could ever be certain he or she wouldn't or couldn't.

### **Extended Deterrence and Assurance**

To support extended deterrence and assurance of U.S. allies and partners, the President's new employment policy calls for continued maintenance of a capability to forward-deploy nuclear weapons with heavy bombers and dual-capable fighter aircraft. Moreover, a forward-based presence will be maintained in Europe consistent with NATO policies.

It is becoming increasingly clear from our evolving security dialog with Japan and South Korea that both nations pay close attention to the nuclear debate in NATO, and to the status of the B61 bomb LEP which is essential to continued forward nuclear presence. Allied perceptions of U.S. commitments are critical; losing their confidence could lead to two bad outcomes: (1) allies make their own accommodation with nuclear rivals in the region to the detriment of U.S. interests, or (2) allies develop their own nuclear forces which many are capable of doing.

In the past, Japan looked to the nuclear SLCM as a concrete expression of regional deterrence. The 2010 NPR retired the SLCM; as a result, the U.S. capability to forward-deploy with DCA has become more important in assuring Japan. Notwithstanding U.S. arguments that all forces contribute to extended deterrence, Japan believes that deterrence is more credible with a U.S. ability to visibly and demonstrably threaten strikes from within the region. It sees regional employment options as more likely to avoid retaliation to the U.S. homeland, which in turn makes such an option more credible.

South Korea has a different take. To the ROK, credible deterrence involves a partnership in which both countries share the burden of deterrence. South Korean officials pose the question: "What is our role in assuring credible deterrence on the peninsula?" During a time of increasing tensions, a U.S. capability to deploy DCA squadrons to South Korea would allow the ROK to take on a burden comparable to that several NATO allies take on today.

### **Extended Deterrence at Work: B-52 and B-2 Operations over the Korean Peninsula**

Recently, we experienced a concrete example of extended deterrence at work. Last March, the United States carried out training flights of B-52 and B-2 bombers over the Korean Peninsula. The first ever such B-2 flight was a non-stop mission from the United States with delivery of inert munitions to a South Korean test range. Not so unusual you might argue? What *was* unusual was the rationale for these specific flights. They were undertaken in response to recent provocations by North Korea—a ballistic-missile-related space launch in December, a nuclear test in February, recent threats to launch preemptive strikes against the United States—and designed to send a message.

The message was not a warning to North Korea; rather, the message was to underscore our security commitment to South Korea including our commitment to extended nuclear deterrence. After all, these bombers deliver nuclear weapons and missions were planned and carried out, not by PACOM or USFK, but under Strategic Command's operational control. If that weren't enough, Deputy Secretary of Defense Ash Carter, who was visiting South Korea at the time, made clear the connection.

Concerns about stability in the Asia-Pacific region highlight the importance of engaging allies on what is required for their assurance. We should not be surprised to see other demonstrations in

the region or elsewhere, when necessary, to underscore security commitments. Funding support for the B61 LEP and the program to add nuclear capability to the Joint Strike Fighter is essential to continuing a capability to forward deploy nuclear weapons with dual capable aircraft.

### **Point/Counterpoint on the B61 Bomb**

The B61-12 LEP will produce one bomb that will replace both strategic and non-strategic B61s. On 26 May 2013, the New York Times published an editorial—“*Throwing Money at Nukes*”—which criticized the administration’s plan to carry out the LEP. The editorial has resonated with several members of Congress despite egregious misstatements and misinterpretations of facts. The administration has not properly responded, so it is up to others to do so. Following is a point/counterpoint rebuttal to key passages (the entire editorial is included as an appendix):

*NYT assertion:* The B61 LEP “is at odds with Mr. Obama’s own vision...Prague in 2009”

*Response:* A life extended B61 is not at odds with the President’s vision. At Prague, he declared the U.S. will “seek the peace and security of a world without nuclear weapons” and expressed his determination to take concrete steps toward that goal. At the same time, he pledged that as long as nuclear weapons exist, the U.S. will maintain a safe, secure, and effective arsenal. The B61 LEP is a critical element of his vision for “safe, secure, and effective.”

*NYT assertion:* “...also promised not to field a new and improved warhead”

*Response:* The B61-12 is not a new warhead; nor will it have new military capabilities. Rather, the LEP will enable the current age-degraded bomb to achieve the military capability for which it was originally designed.

*NYT assertion:* “... allied opinion is divided on whether the weapons should stay....”

*Response:* NATO allies are unified in support of NATO’s current nuclear posture. The 2012 NATO Deterrence and Defense Posture Review concluded: “Nuclear weapons are a core component of NATO’s overall capabilities . . . (t)he review has shown that the Alliance’s nuclear force posture currently meets the criteria for an effective deterrence and defense posture.”

*NYT assertion:* “...many experts doubt that the B61 warheads need to be rebuilt now, if at all.”

*Response:* Without life extension these bombs must soon be removed from service. The B61 is the oldest weapon in the US nuclear stockpile with several components (some designed and built back in the 1960s) reaching end of life;

*NYT assertion:* “Government-financed nuclear labs have a rigorous program for testing them to make sure they still work.”

*Response:* Correct. It is precisely the robust surveillance programs at the nuclear labs that identified the aging components that must be replaced so that a refurbished bomb will be able to achieve its original military capabilities.

*NYT assertion:* “Mr. Obama’s \$537M request for the B61 bomb in 2014 is 45.5 percent higher than the 2013 figure.”

*Response:* In 2012, the B61 LEP advanced from a study of feasibility and cost to full scale engineering development. All programs that evolve from paper concept studies to engineering development experience budget increases.

*NYT assertion:* “...the president made a Faustian bargain with Senate Republicans who demanded that he invest more than \$80B in the nuclear labs as a condition of their allowing the New START arms reduction treaty with Russia to be approved. It is a mystery why he would feel bound by this commitment at a time when limited dollars should be directed toward real needs...”

*Response:* The President’s commitment to the investments needed to sustain safe, secure, and effective nuclear forces has been strong throughout. That said, schedules for key modernization efforts have been adjusted to reflect budget realities.

*NYT assertion:* “...Mr. Obama has cut the Global Threat Reduction Initiative program...by 15 percent from 2013 levels.”

*Response:* The editorial suggests that non proliferation programs have suffered as a result of “overspending on warheads.” Not true. Reduction in funding for the Global Threat Reduction Initiative reflects progress on achieving its key objective of securing vulnerable weapons usable materials worldwide. It has always been expected that these programs would wind down as they accomplish their mission.

As said by many, we are all entitled to our opinions but not to our own set of facts. It is hard to fathom how this distinguished “newspaper of record” could wander so far from the factual base.

## **Hedge**

The President’s policy, more so than any other public document to date, articulates the strategy for hedging technical and geopolitical risk. The United States will maintain additional warheads in the nuclear stockpile, and the ability to upload those warheads on existing delivery systems to (1) restore existing force levels in the event of a technical problem with a warhead or delivery system, or (2) field a larger deployed force, if required, in the event of geopolitical reversal.

The preference, reflected in the NPR, is to “hedge” with a modern, responsive nuclear weapons infrastructure that could repair or manufacture warheads in a timely way in response to such contingencies. But that infrastructure does not exist, and won’t exist for a decade or more. Thus, the need to maintain additional non-deployed warheads in the stockpile to hedge risk.

Hedge planning is guided by a number of factors:

- Hedging within a triad leg (intra-leg hedging) is preferred to maintain triad synergism,
- Hedging between legs (inter-leg hedging) will be carried out when there are insufficient weapons for intra-leg hedging,

- Hedge will be sized to address technical risks to warheads, delivery systems. That same hedge will also provide upload capability to address geopolitical reversals—this approach accepts the risk of a technical problem arising during a crisis,
- Additional legacy warheads will be maintained to hedge a warhead undergoing life extension only until confidence in the LEP is attained.

In light of a number of factors, today's hedge is sized with a different approach than in the previous administration; this provides some opportunities for further reductions in the non deployed stockpile once a responsive infrastructure is established. The administration's hedge policy is a prudent and sensible approach to manage our nation's nuclear security in a complex world, and assure allies of our commitment to their security.

### **Next Generation**

Lastly, I am reminded of a comment by Linton Brooks referring to another meeting:

“As I look around the table today, I see the same folks talking about nuclear policy that sat around other tables in 1985 discussing these same issues!”

One of my greatest concerns about the future of the U.S. nuclear enterprise is its ability to grow the next generation of nuclear weapons experts including policy makers, the technical stewards of our warheads and delivery systems, and the young men and women of our military forces who operate them. Today's is a particularly challenging environment. Budgets are tight and entry level positions in nuclear fields in government are shrinking. Our young people find it increasingly difficult to find employment in these fields. As a generation of baby boomers (including myself!) retire, we who care about the future of the nuclear enterprise must do some hard and creative thinking about the best way to grow and sustain that next generation.

I am encouraged to see several young men and women in attendance today and I applaud the efforts of John Hamre and Clark Murdock at CSIS, the fathers of PONI, and to folks such as Keith Payne of Missouri State University who are devoting time and effort nurturing and networking a next generation. They deserve our support.

On a trip last January to F.E. Warren AFB, I spent the day touring ICBM facilities. That visit brought home the basic fact that our nuclear forces are being planned, maintained, operated and secured by a cadre of highly-trained and capable young men and women in their early twenties. How are we to ensure that the right incentives are there for their children and grandchildren to take over from them in sustaining our nation's nuclear might? This is a challenge for all of us—we must support them, let them know how important their work is, lead them to excellence, and ensure their career progression.

Let me conclude there; I am happy to take your questions.

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**APPENDIX—New York Times Editorial: “Throwing Money at Nukes”**

May 26, 2013

The United States has about 180 B61 gravity nuclear bombs based in Europe. They are the detritus of the cold war, tactical weapons deployed in Belgium, Germany, Italy, the Netherlands and Turkey to protect NATO allies from the once-feared Soviet advantage in conventional arms. But the cold war is long over, and no American military commander can conceive of their ever being used. Even so, President Obama has put \$537 million in his 2014 budget proposal to upgrade these bombs. When all is said and done, experts say, the cost of the rebuilding program is expected to total around \$10 billion — \$4 billion more than an earlier projection — and yield an estimated 400 weapons, fitted with new guided tail kits so that they are more reliable and accurate than the current ones.

This is a nonsensical decision, not least because it is at odds with Mr. Obama’s own vision. In a seminal speech in Prague in 2009 and a strategy review in 2010, Mr. Obama advocated the long-term goal of a world without nuclear arms and promised to reduce America’s reliance on them. He also promised not to field a new and improved warhead.

But the B61 upgrade would significantly increase America’s tactical nuclear capability and send the wrong signal while Mr. Obama is trying to draw Russia into a new round of nuclear reduction talks that are supposedly aimed at cutting tactical, as well as strategic, arsenals.

Even if there is a case to be made for keeping the bombs in Europe as a sign of America’s political commitment to NATO (allied opinion is divided on whether the weapons should stay), many experts doubt that the B61 warheads need to be rebuilt now, if at all. Government-financed nuclear labs have a rigorous program for testing them to make sure they still work.

Moreover, as Congress slashes spending on far more defensible programs like food stamps and Head Start, Mr. Obama’s \$537 million request for the B61 bomb in 2014 is 45.5 percent higher than the 2013 figure; the \$7.86 billion request for all weapons-related activity in the National Nuclear Security Administration, a semi-independent agency within the Department of Energy that oversees the nuclear warhead programs, is 9 percent above the amount Congress appropriated in 2012.

Mr. Obama’s profligacy apparently has its roots in 2010. That is when the president made a Faustian bargain with Senate Republicans who demanded that he invest more than \$80 billion in the nuclear labs as a condition of their allowing the New Start arms reduction treaty with Russia to be approved. It is a mystery why he would feel bound by this commitment at a time when limited dollars should be directed toward real needs, and when Republicans have obstructed him at every turn on those needs.

In addition to overspending on warheads, Mr. Obama has cut the Global Threat Reduction Initiative program, which reduces and protects from terrorism vulnerable nuclear material at sites worldwide, by 15 percent from 2013 levels. His budget is being rewritten by Congress, but in the nuclear area it is a disappointing, and befuddling, measure of his priorities.