

# **U.S. Nuclear Posture Review and Its Implications**

by

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When I agreed to present a talk of this title, the U.S. Nuclear Posture review had been delayed until March 1, 2010, but I thought that would give me time to read the review carefully and to provide an analysis of its content and implications.

Unfortunately, the review has not yet been published, so I thought it best to comment on two publications, authoritative in different ways, that would let me provide some substance and views of my own, at least.

The first publication is the speech<sup>1</sup> of Vice President Joseph R. Biden at the National Defense University 02/18/2010. The second is a New York Times article of 02/28/2010, “White House is Rethinking Nuclear Policy.”<sup>2</sup>

The preparation of the Nuclear Posture Review (NPR) has been led by the Department of Defense in a process that is at least in part interdepartmental. The NPR process includes interagency working groups on various aspects of the NPR, including, notably, the U.S. Department of Energy National Nuclear Security Administration (NNSA) that develops and manufactures the nuclear weapons, without cost to the Department of Defense, the Department of State, the Department of Defense, and the National Security Council that includes the President and the Vice President, as well as the heads of relevant departments. But the “NSC” includes also important staff, with the full-time job of attending to various aspects of U.S. national security.

The NPR is expected to be an unclassified document in order to make it most widely available to the Congress, to U.S. citizens, and to the leaders and citizens of all countries of the world. According to the Vice President, it will fully support the nuclear weapon complex in NNSA, which in the first year of the next five will receive a 10% increase in funds, and an increase totaling \$5B over the next five years. The NPR will evidently make a strong commitment to ratify the Comprehensive Test Ban Treaty (CTBT) although it remains to be seen whether the Administration’s presentation to the U.S. Senate will be sufficient to sway skeptics and antagonists in that body.

## **COMMITMENT TO CTBT**

In any case, the U.S. is clearly committed to its moratorium on nuclear testing, in effect since 1992. The CTBT bans nuclear tests and nuclear explosions of any yield whatsoever, and thus bans “hydronuclear tests” in which explosively assembled fissile material becomes supercritical. The U.S. will continue to conduct tests with high explosive and fissile material, but they will be “subcritical” and will not produce nuclear yield.

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<sup>1</sup> <http://www.whitehouse.gov/the-press-office/remarks-vice-president-biden-national-defense-university>

<sup>2</sup> “White House is Rethinking Nuclear Policy,” by David E. Sanger and Thom Shanker, New York Times, Feb. 28, 2010, <http://www.nytimes.com/2010/03/01/us/politics/01nuke.html?pagewanted=print>

The CTBT bans only testing and does not ban the design of new nuclear weapons or the manufacture of existing types of nuclear weapons or even of brand-new nuclear weapons, although I believe that to create such a weapon for the stockpile would be foolish with the present state of simulation and evaluation of nuclear weapons designs that differ from the ones of the past.

### **RETAIN THE TRADITIONAL NUCLEAR TRIAD**

The NPR is expected to retain the three elements of the classical nuclear triad—weapons delivered by ballistic missiles from silos and from submarines at sea, and bombs delivered by heavy bomber. Vice President Biden recognizes that some of his party are unhappy about maintaining a substantial nuclear weapon capability and excellent people in the NNSA and military infrastructure for dealing with nuclear weapons, but President Obama is persuaded that until nuclear weapons can be eliminated, maintaining a smaller number of highly reliable, safe, and increasingly secure nuclear weapons is in the interest of world security, and not only that of the United States.

### **REDUCE OR ELIMINATE WEAPONS DEPLOYED ON FOREIGN TERRITORY?**

The NPR will surely address to some extent nuclear weapons deployed outside the United States in small numbers compared with the past, in Europe, and, in principle, as cruise missiles on submarines—in particular the TLAM-N. Informed comment indicates that the TLAM-N will be eliminated, although some argue for a new development to replace it.

In particular, it is argued that Japan would feel less well protected by the U.S. nuclear capability if the TLAM-N is eliminated. The TLAM-N was removed from U.S. Naval ships in the early 1990s and is scheduled for dismantlement in 2013. I apologize for the detail on this point, but it is valuable, especially for this audience.

*Foreign Minister Okada sent a letter to Secretary of State Clinton and Secretary of Defense Gates officially repudiating the testimony of some Japanese officials to the U.S. Strategic Posture Commission regarding Japanese requests for retaining tactical nuclear weapons. Okada's letter also indicates his support for restricting the purpose of nuclear weapons to deterring the use of nuclear weapons. (An unofficial translation of the letter is included below.)*

*Unofficial translation of Okada's letter to Clinton:*

*TO: Hillary Rodham Clinton, United States Secretary of State*

*FR: Japanese Minister for Foreign Affairs Okada*

*December 24, 2009*

*Allow me to convey my basic views regarding the Nuclear Posture Review (NPR) currently being conducted by the United States.*

*It goes without saying that the Japan-U.S. Security Treaty forms the basis of Japan's security. The Japanese government is well aware of the fact that Japan is dependent on the US extended deterrent, including the nuclear deterrent. Furthermore, it is necessary that trust in this deterrence be backed up by sufficient capability.*

*On the other hand, the Japanese government lauds the fact that President Obama called for a "world without nuclear weapons" and that your government is taking the lead in global nuclear disarmament, nuclear non-proliferation and nuclear abolition. Together with the United States, the Japanese Government also wishes to strive for the realization of this noble goal.*

*Hence, while the Japanese Government places trust and importance on your government's extended deterrence, this does not mean that the Japanese Government demands a policy of your government that conflicts with the goal of a "world without nuclear weapons".*

*It was reported in some sections of the Japanese media that, during the production of the report of the "Congressional Commission on the Strategic Posture of the United States" released in May this year, Japanese officials of the responsible diplomatic section lobbied your government not to reduce the number of its nuclear weapons, or, more specifically, opposed the retirement of the United States' Tomahawk Land Attack Missile - Nuclear (TLAM/N) and requested that the United States maintain a Robust Nuclear Earth Penetrator (RNEP).*

*However, the Japanese Government is not in a position to judge whether it is necessary or desirable for your government to possess particular [weapons] systems. Hence, although the discussions were held under the previous Cabinet, it is my understanding that, in the course of exchanges between our countries, including the deliberations of the above mentioned Commission, it was never the case that views were expressed as being those of our government concerning whether or not your government should possess particular [weapons] systems such as TLAM/N and RNEP. If, in some tentative way such a view was expressed, it would clearly be at variance with my views, which are in favor of nuclear disarmament.*

*Nevertheless, if TLAM/N is retired, we hope to receive ongoing explanations of your government's extended deterrence policy, including any impact this might have on extended deterrence for Japan and how this could be supplemented.*

*Incidentally, I believe that you are already aware that the International Commission on Nuclear Non-Proliferation and Nuclear Disarmament (ICNND), which was established as a joint Japan-Australia initiative, released its report on December 15. As a measure to be adopted by all nuclear weapon states, the report contains suggestions that the role of nuclear weapons be restricted to deterrence of the use of nuclear weapons and that the use of nuclear weapons against non-nuclear weapon state members of the NPT be banned. I am very interested in these suggestions as first steps towards a "world without nuclear weapons." While it may not be possible to realize these immediately, I would like to have further discussion between our two governments on the possibility of adopting such measures in present or future policy.*

The NPR will surely take this history of TLAM-N into account. I think it likely that the "demand" of some European governments and citizens that the U.S. retain some tactical nuclear weapons there is similarly dubious.

### **SUPPORT CONTINUED BALLISTIC MISSILE DEFENSE AGAINST PROLIFERANT STATES**

In 1972, the United States and the Soviet Union signed and ratified the ABM Treaty and the Limited Offensive Agreement. The ABM Treaty was abandoned by the George W. Bush Administration because it impeded freedom of action in deploying defenses, although that administration continued to maintain that the defense was not oriented against the still large number of Russian strategic ballistic missiles, or even against China's ICBMs, but against ballistic missiles of emerging nuclear states such as North Korea and Iran.

The deployment of the Bush BMD system (really the Clinton design) with ground-based radars and ground-based interceptors in Alaska and California took a new turn in the last years of the Bush Administration with the commitment to deploy a BMD radar in the Czech Republic and a small number of interceptor missiles in Poland, in order to better counter a potential ICBM threat from Iran against U.S. territory. In fact, the United States was already well covered by intercepts from the rockets based within the United States (although the effectiveness of those intercepts was questionable in the face of potential countermeasures), and the proposed deployment in Europe caused a great deal of controversy and opposition by Russia.

The Obama Administration scrapped or delayed those European deployments in favor of a system that augments the Alaska and California large interceptors by smaller interceptors on guided missile cruisers-- the SM-3 missile and its ship-based radar. This

will be further augmented by additional radars on land, perhaps in Turkey, in order both to focus more explicitly on the Iran threat and to provide protection of large portions of Europe from shorter ranged missiles fired from Iran.

## **REDUCE NUMBERS OF ACTIVE AND INACTIVE NUCLEAR WEAPONS**

The NPR will surely favor in principle the START follow-on treaty that is likely to limit operationally deployed U.S. and Russian warheads to 1500, and it will attempt to ease the path toward the elimination of nuclear weapons by increasing the rate of disassembly of excess U.S. nuclear weapons. As Vice President Biden says, “Today, the directors of our nuclear laboratories tell us they have a deeper understanding of our arsenal from Stockpile Stewardship than they ever had when testing was commonplace.”

In this regard, the unclassified Executive Summary of the September 2009 JASON Report<sup>3</sup> is of considerable interest. I believe myself that because of the successes of the Stockpile Stewardship Program—SSP—since 1992, the United States should have more confidence in the reliability of its nuclear weapons than it did in the days of nuclear testing. And, furthermore, this confidence can be maintained by Life Extension Programs now and, if necessary for the additional future by such LEPs every 20 or 30 years. It is certainly to be hoped that the number of weapons undergoing LEPs will be much reduced, even possibly to zero.

Clearly Vice President Biden anticipates strong emphasis in the NPR on prompt global conventional strike, on which the New York Times article comments as well. I was a co-author of a National Academy report on this topic<sup>4</sup> and I favor the “Conventional Trident Modification Program” under which some of the Trident nuclear missiles would be modified to contain a precision guided warhead with a targeting error on the order of 1-2 meters. The CTM program, carrying the modified Tridents in the standard Trident submarines would be relatively affordable, but other explicit deployments of other prompt global strike weapons would be much more expensive.

The NPR will no doubt take a serious position about preventing and countering proliferation of nuclear weapons to additional states, and it is to be hoped that both North Korea and Iran will see it to be in their interest to abandon their programs to attain nuclear weapons, as did South Africa.

<sup>3</sup> [http://www.fas.org/rlg/JASON\\_LEP%5B1%5D.pdf](http://www.fas.org/rlg/JASON_LEP%5B1%5D.pdf)

<sup>4</sup> [http://books.nap.edu/catalog.php?record\\_id=12061](http://books.nap.edu/catalog.php?record_id=12061)

In my discussions with the public and the Congress, I have often encountered the assertion that although U.S. nuclear weapons might be reliable and kept reliable by “Life Extension Programs,” they could be made even safer and more secure against terrorist theft or use by innovations that could only be made by new-design weapons such as the Reliable Replacement Warhead—RRW—for which there was a design competition between Livermore and Los Alamos a few years ago. In fact, there is much that can be done to provide such intrinsic security in the kind of LEP discussed in that Report, and my own view is that if people are seriously concerned about vulnerability of nuclear weapons, having a new-design nuclear weapon that will eventually replace existing weapons is a very slow process for reducing vulnerability. Those concerns should be allayed by specific attention to elements of vulnerability of existing weapons (for instance in transport) and addressed by means external to the weapons implemented much sooner.

Of course, reducing numbers of weapons can be a great help in reducing both the number of targets and the cost of guards and other protective means.

Soon we will be able to discuss the reality of the NPR, rather than the expectation of an NPR.