The US 2002 Nuclear Posture Review and Its Implications for Nuclear Abolition

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Assessment

US nuclear policy has undergone an in-house Nuclear Posture Review, completed in late 2001 and issued in January 2002. It is the first since 1994. As revealed, the NPR is a *nuclearist* document, for it

- projects keeping "the nuclear forces that we have to 2020 and beyond";
- makes a sham of much-touted cuts, because it retains cut warheads in stockpiles for future us;
- even in introducing cuts in "operational deployed" warheads to 1700-2200, puts off until 2011 the time to accomplish this;
- far from accepting "sustained" reductions and "irreversibility," leaves open the possibility the United

States might cease cuts, and even increase deployed warhead numbers, at any time;[1]

- stipulates that "we will be taking additional operationally deployed warheads off existing ICBMs and SLBMs down to a level of about 3,800 by FY '07" though under START II, which the United States has signed and ratified (in its original form), the maximum number of warheads "attributed to" ICBMs, SLBMs, and bombers is to be a maximum of 3500 on 31 December 2007;

- makes modernizing, cosmetic, and convenient adjustments in the "operational deployed" force, but fails to meet disarmament obligations under Article VI of the Nonproliferation Treaty;

- unilaterally abandons the possibility of binding Russia by Treaty to make matching, reciprocal cuts;

- repeats the present Administration's reliance on 'national missile defense', which is technically and logically flawed.

The Cheney-Rumsfeld NPR buys time for nuclearism. It is strategically sophomoric and unpersuasive. In particular, it cannot advance serious nuclear discussions with Russia, and it undermines non-proliferation efforts.

The 2002 Nuclear Posture Review

On 8 January 2002 the US Administration briefed members of Congress on key points of a new Nuclear Posture Review, and two days later the US Department of Defense briefed the text for the

[1] Compare Article I § 5 of the START II Treaty, which would require that "the process of reductions … shall be sustained throughout the reductions period … "

public.[2] Although the document itself remains classified, the Administration has selected elements to place in the public realm. This analysis, therefore, must be confined to these managed revelations. Perhaps additional facts will be revealed in the annual Report of the Secretary of Defense to Congress, due shortly.

The DoD briefer made these key points:

• [The president asked us] "to try to develop a framework in which we were able to reduce to the lowest possible number of operationally deployed nuclear weapons. And the number, of course, as you know, that we came up with, or the number that he released was, in fact, informed by this review, and that is 1,700 to 2,200 operationally deployed nuclear weapons."

• "Our goal is to reach the level of 1,700 to 2,200 operationally deployed warheads within a decade"

The effect is to move from 2007 to 2011 the cuts envisaged during the Clinton Administration [see Robert Bell's comments below]. Moreover, the DoD briefing does not commit to gradual reductions after START II levels are met: cuts could be postponed until 2011. The NPR repeats GW Bush's statement that he was specifying 'operationally deployed nuclear weapons'.

• "But we will maintain the force structure and the warheads that we take off these systems as part of that responsive force;"

Crouch introduces the notion of a 'responsive force'. In subsequent questioning about stockpiled weapons, questioners tried to clarify what was in and what was out. [See below.] He then makes four important points:

• *Projecting the Status Quo*. "we are currently projecting to keep the nuclear forces that we have to 2020 and beyond—and longer, and beyond"

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[2] "Special Briefing on the Nuclear Posture Review," US Department of Defense, 9 January 2002.
http://www.defenselink.mil/news/Jan2002/t01092002_t0109npr.html

• *Specific System Cuts*. "And we have made initial decisions right now, including the Peacekeeper elimination, which you see there; the taking down—taking four Trident submarines out of strategic service; and taking away the requirement for the B-1 to maintain a nuclear capability. We've also made additional decisions, which will result in additional reduction in warheads to FY '07."

• *Downloading*: "we're planning on downloading warheads from both the operationally deployed ICBMs and SLBMs. And these planned reductions are going to be completed in phases. In addition to the 1,300 START accountable warheads that will come off the force as a result of the retirement of Peacekeeper, the Tridents and the like, we will be taking additional operationally deployed warheads off existing ICBMs and SLBMs down to a level of about 3,800 by FY '07. And beyond FY '07, we'll be making the force structure decisions on how we will be bringing down the force to 1,700 to 2,200 operationally deployed warheads."

• *Oppose CTBT Ratification and Reduce Preparatory Time-to-Test*: "We are continuing the current administration policy, as I said, which is we continue to oppose ratification of the CTBT; we continue to adhere to a test moratorium. And the testing readiness issue really came out of—in fact, a number of studies that had been done prior to the NPR, including, I think, what was it, the Foster Panel, which was a congressionally mandated study, which said that two to three years from a decision to test is too long; that if you were to have a problem with a weapon system that you needed to rectify using a test, you would want to be able to do that faster.

"And so one of the recommendations that came out was that—has nothing to do with the issue of whether we would conduct a nuclear test, but that if there was in fact a determination that we needed to conduct a nuclear test, what would be the time period—what would be an appropriate time period? And we're continuing to study what that time period would be. And—but one thing that the NPR does state is that we need to improve our readiness posture to test from its current two to three year period to something substantially better."[3]

In summary, not much changes in the 2002-2011 period from the *status quo* of the 1994 Nuclear Posture Review. Much of the reduction lodges—it appears—in the stockpile. So details of the stockpile are important.

Questioners tried to pry from Assistant Secretary Crouch some greater precision about just what the stockpile meant. In the end John Harvey of the Department of Energy did offer a clear distinction between the 'active' and 'inactive' stockpiles, confirming earlier-known understandings.

[3] Briefing, above, quoting J. D. Crouch, Assistant Secretary of Defense for International Security Policy.

The Initial Russian Response: Challenging the 'Hedge'

Russian Foreign Ministry spokesman Alexander Yakovenko, responding to the DoD briefing, said "We hold that Russian-American agreements on further nuclear arsenal reductions should, first, be radical—1,500-2,200 warheads—secondly, verifiable, and thirdly, irreversible; that is, strategic offensive arms will be reduced not only 'on paper'."[4] US and Russian negotiators met in Moscow at the end of January, Russia seeking "a legally binding document that provides for radical, real and verifiable cuts in strategic offensive weapons, with ceilings at 1,700 to 2,200 warheads in the course of 10 years."[5] The US position, as related by *The New York Times*, is to talk of a "codification agreement": a senior US official said that

> We told them we will agree to a legally binding document regarding the reductions. Exactly what form that takes remains to be decided. Exactly what it contains remains to be decided.

Deputy Foreign Minister Georgi Mamedov said Russia's draft "includes a provision calling for the elimination of both the delivery systems and warheads."[6] Another official said Russia sought a document ensuring "the transparency of the deactivation and storage of these missiles,"[7] which suggests readiness to accept storage, subject to conditions.

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4 Embassy of the Russian Federation, Washington. 10 January 2002. http://www.russianembassy.org/

5 The official Russian statement on the talks, quoted in *The New York Times*, 31 January 2002.

6 *The New York Times*, 31 January 2002.

7 Valery Manilov, aide to Deputy Chief of Staff General Yury Baluyevsky, who headed the Russian delegation.. AFP, 15 January 2002, in *Space Daily* [http://www.spacedaily.com/news/icbm-02c.html]. At the close of the talks Baluyevsky put Russia's position in these terms:

> We are for transparency, we are for predictability, but also we are for irreversibility of the reduction of the nuclear forces …

In the run-up to GW Bush's anticipated visit to Moscow in spring 2002, Russia and the United States face sharp differences on strategic weapons. Should deployed weapons be reduced, abandoned weapons destroyed, and the terms for mutual reductions be codified by treaty, as Moscow proposes? Or should deployed weapons be reduced, unused weapons be kept on the shelf, and treaty codification avoided, as Washington insists? One commentator argues that "Russia will push strongly for the nuclear cuts to be irreversible, but the United States is unlikely to make any major concessions. Unfortunately for Russia, its position in talks is rather weak because its aging nuclear weapons are to go off-duty anyway."[8]

In order to put into perspective the argument about the 'hedge' in the 2002 Nuclear Posture Review, we should turn back to the preceding years in which the 'hedge' was established and Washington and Moscow maneuvered on strategic reductions.

The 'Hedge': 1994-2002

Do successive reductions in nuclear inventories promise a path to zero nuclear weapons? Of course. Have US and Russian reductions led in this direction?

Although there were substantial reductions in nuclear inventories during the latter part of the Cold War, and of non-strategic inventories in the early 1990s, cuts in strategic forces since the Soviet Union imploded in December 1991 have been small. The effect has been to *retain* large inventories, rather than give them up.

> We are following the principle that the whole nuclear weapons should be destroyed …
>
> You are talking about a statement, I am talking about a legally binding document.

AFP 16 January 2002, in *Space Daily* [http://www.spacedaily.com/news/icbm-02d.html].

8 Alexander Pikayev, a military analyst with the Carnegie Endowment's Moscow office, quoted in Associated Press, 10 January 2002.

How can this be? The successive Strategic Arms Limitation Talks agreements—START I and START II—and the unilateral undertakings of GW Bush and Vladimir Putin in November 2001 seem to promise cuts from the pre-START I level of perhaps 10,000 warheads to as few as 1700 when—and if—the November 2001 offers were fulfilled.[9] But the September 1994 Nuclear Posture Review

> called for an affordable hedge in which the approved force structure could support weapons levels greater than those called for under START II should major geostrategic changes demand it.[10]

A starting-point from which to estimate the 'hedge' is the difference between warheads which have been deployed and the deployments envisaged for START II. START II, spelling out by category what maximum deployments are permitted, sets out four requirements for 31 December 2007:[11]

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[9] START I was signed 31 July 1991 and entered into force on 5 December 1994. It called for reduction of deployed strategic warheads to 6000 by 5 December 2001, and specified corresponding cuts in delivery systems. START II was signed 3 January 1993; the US Senate acted to approve on 26 January 1996; but Duma and Federation Council action on 14 and 19 April 2000 carried conditions, which the US Senate has not yet considered. The treaty remains unratified. The Bush-Putin talks took place in Washington DC and Crawford, Texas 12-16 November 2001. GW Bush made a unilateral pledge to reduce US operational deployed strategic warheads to 1700-2200 within ten years.

[10] US Department of Defense. Annual Defense Report, 1995. [http://www.dtic.mil/execsec/adr95/npr_.html]

[11] Treaty Between the United States of America and the Russian Federation on the Further Reduction and Limitation of Strategic Offensive Arms, 3 January 1993. [http://www.state.gov/www/global/arms/starthtm/start2/strt2txt.html] The 1997 START II Protocol changed the date by which implementation was to be completed from the beginning of 2003 to the end of 2007.

> Article I
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> 1. Each Party shall reduce and limit its intercontinental ballistic missiles (ICBMs) and ICBM launchers, submarine-launched ballistic missiles (SLBMs) and SLBM launchers, heavy bombers, ICBM warheads, SLBM warheads, and heavy bomber armaments, so that [seven years after entry into force of the START Treaty] no later than December 31, 2004 and thereafter, the aggregate number for each Party, as counted in accordance with Articles III and IV of this Treaty, does

[1] That no 'heavy ICBMs' be deployed;
[2] That no deployed ICBMs be MIRVed;

not exceed, for warheads attributed to deployed ICBMs, deployed SLBMs, and deployed heavy bombers, a number between 3800 and 4250 or such lower number as each Party shall decide for itself, but in no case shall such number exceed 4250. [ABA]

2. Within the limitations provided for in paragraph 1 of this Article, the aggregate numbers for each Party shall not exceed:

(a) 2160, for warheads attributed to deployed SLBMs;

(b) 1200 for warheads attributed to deployed ICBMs of types to which more than one warhead is attributed; and

(c) 650, for warheads attributed to deployed heavy ICBMs. [ABA, Memorandum of Attribution]

3. Upon fulfillment of the obligations provided for in paragraph 1 of this Article, each Party shall further reduce and limit its ICBMs and ICBM launchers, SLBMs and SLBM launchers, s, ICBM warheads, SLBM warheads, and heavy bomber armaments, so that no later than [January 1, 2003] December 31, 2007, and thereafter, the aggregate number for each Party, as counted in accordance with Articles III and IV of this Treaty, does not exceed, for warheads attributed to deployed ICBMs, deployed SLBMS, and deployed heavy bombers, a number between 3000 and 3500 or such lower number as each Party shall decide for itself, but in no case shall such number exceed 3500. [ABA]

4. Within the limitations provided for in paragraph 3 of this Article, the aggregate numbers for each Party shall not exceed:

(a) a number between 1700 and 1750, for warheads attributed to deployed SLBMs or such lower number as each Party shall decide for itself, but in no case shall such number exceed 1750; [Memorandum of Attribution]

(b) zero, for warheads attributed to deployed ICBMs of types to which more than one warhead is attributed; and

(c) zero, for warheads attributed to deployed heavy ICBMs. [ABA, Memorandum of Attribution]

[3] That deployed SLBM warheads not exceed 1750; and
[4] That warheads "attributed to" deployed ICBMs, SLBMs, and heavy bombers not exceed 3500.

In the 1994 Nuclear Posture Review the Clinton Administration defined a force meeting the START II limits. It would consist of

• 14 Trident submarines—four fewer than previously planned—carrying 24 D-5 missiles, each with five warheads, per submarine. This will require backfitting four Trident SSBNs, currently carrying the Trident I (C- 4) missile, with the more modern and capable D-5 missile system.

• 66 B-52 bombers—down from 94 planned in 1993—carrying air-launched cruise missiles (AGM-86B) and advanced cruise missiles (AGM-129).[12]

• 20 B-2 bombers—the same number previously envisioned—carrying gravity bombs.[13]

• 450/500 Minuteman III missiles, each carrying a single warhead.[14]

Thus there would be 1680 SLBM warheads, up to 500 ICBM warheads, 20 B-2 bombers with gravity bombs, and 66 B-52s carrying cruise missiles. A number of TLAM/N nuclear-armed cruise missiles would be stored but not deployed, retaining the option to deploy on attack submarines.[15]

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[12] The Memorandum of Understanding associated with START II stipulates the number of warheads "attributed to" heavy bombers:

B-52G	12 warheads
B-52H	20 warheads

http://www.state.gov/www/global/arms/starthtm/start2/strt2mou.html

[13] Similarly, the Memorandum of Understanding attributes to

B-2	16 warheads

The B-1B, now to be converted to a non-nuclear role, also carries 16 warheads. *Ibid*.

[14] US Department of Defense. Annual Defense Report, 1995. [http://www.dtic.mil/execsec/adr95/npr_.html]

[15] David Mosher, Strategic Weapons Analyst, National Security Division, Congressional Budget Office, has estimated the START II 2007 force as follows:

How would this hypothetical force differ from existing deployments? The *SIPRI Yearbook 2001* explained the number deployed in January 2001 as follows:[16]

> • SLBM warheads: 1536 warheads on 192 Trident I C-4 missiles, plus 1920 warheads on 240 Trident II D-5 missiles. Total: 3456.
>
> • ICBMs: 500 Minuteman IIIs with 3 warheads each, and 50 MX missiles with 10 warheads each. Total: 2000.
>
> •Bombers: B-52s: 800 air-launched cruise missile warheads. B-2s: 950 bombs. Total: 1750 warheads and gravity bombs.

This presents a total of 7206 strategic warheads and bombs, supplemented by 320 Tomahawk SLCMs and 1350 non-strategic bombs.

The moves foreseen in the 1994 Nuclear Posture Review then free 1776 SLBM warheads and 1500 ICBM warheads. They become candidates for the 'hedge' stock. In 1998 NRDC wrote that there were 1200 gravity bombs in 'storage', as well as 400 GLCM warheads 'in reserve'.[17] Taken together, these four

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[Summary] A likely US force mix under START II might include 500 Minuteman IIIs, loaded at one W-78 or W-87 warhead each; 14 Trident submarines, with 24 D-5 missiles loaded at 5 mostly W-76 warheads (with less than 400 W-88s) each (warhead types can be mixed on submarines); 21 B-2 bombers at 16 B-61/B-83 bombs each and 71 B-52s, loaded at eight, twelve, or twenty W-80 warheads, for a total of 3500 strategic warheads deployed.

SIPRI Yearbook 2001 (Oxford: Oxford University Press, 2001), p. 458. Stockholm International Peace Research Institute. The same numbers, from the same compilers, are in "NRDC Nuclear Notebook: U.S. Nuclear Forces, 2001," *Bulletin of the Atomic Scientists*, March-April 2001, v 57 n 2, pp. 77-79.

Remarks at conference "The Future of Russian-US Strategic Arms Reductions: START III and Beyond," Cambridge, Massachusetts, 2 February 1998. [http://www.armscontrol.ru/transforming/day1.htm]

16 *SIPRI Yearbook 2002* (Oxford: Oxford University Press, 2001).

17 William M. Arkin, Robert S. Norris, and Joshua Handler, *Taking Stock: Worldwide Nuclear Deployments 1998* (Washington, DC: Natural Resources Defense Council, March 1998), p. 53.

numbers total 4876. NRDC has also written more loosely of some 500 additional 'spares' or 'reliability replacements'. And there are other 'non-strategic' warheads in the active inventory—some estimate 600 or so.

Another way to count is to say that 5000 warheads and bombs are anticipated for the *active* inventory: deployed, non-strategic, and 'spare'. And that—secondly—about 2500 warheads and bombs would be set aside for specific future deployments if required: the 'hedge'. And that—third—a further 2500 or so would be retained, perhaps in a less-ready condition: the 'inactive reserve'. Either counting leads to a total of about 10,000 warheads and bombs in the inventory, of which the START II strategic warheads and bombs are only 3500.

Table. Deployed Strategic Warheads

Actual Jan 1993 [SIPRI estimate]	Actual Jan 2000 [SIPRI estimate]	2001 START I (target)	2007 START II (target)	Clinton-Yeltsin (proposal)	2011 Bush (offer)
8570	7206	6000	3000-3500	2000-2500	1700-2200

Source: Actual 1993 and 2000 from the SIPRI Yearbook.[18]

As to what all this might mean under START III—had START III been pursued—in February 1998 White House official Robert Bell answered questions about the Clinton Administration's intentions, with these semi-revealing results:[19]

> ***Q**: What are the administration's plans for dealing with the reserve warheads under the START III arrangements?*

[18] *SIPRI Yearbook 1993* (Oxford: Oxford University Press, 1993), p. 233 ff.; *SIPRI Yearbook 2000* (Oxford: Oxford University Press, 2000), p. 479 ff.

[19] On February 18, 1998, Robert Bell, special assistant to the president for national security and counselor to the assistant to the president for national security affairs, delivered the luncheon address to the Arms Control Association's annual membership meeting. *Arms Control Today*, January-February 1998.

Bell: I think there are two elements that will come into play, neither of which has been decided yet, but both are very interesting and fundamental questions. The first one is: How successful will we be in the course of the START III negotiations themselves in making real headway in a side agreement to eliminate warheads? At Helsinki we agreed in principle that, for the first time, the START III treaty will feature a negotiation on the disposition of the warheads and fissile material. We've been very hard at work—Rose Gottemoeller and Lucas Fischer have co-chaired an interagency working group on the options that are available in terms of an opening U.S. position on that very subject, and there's a full range of options. I can't breach the confidentiality of that options review right now because we've not taken it yet to a point of decision.

Perhaps even more important, Russian receptivity to push the envelope with respect to actually dealing with reserve warheads is going to fundamentally affect your overall nuclear holdings, setting aside what the accountable deployed levels are. The accountable deployed levels will, by the year 2007, be down to 2,000-2,500. So the question is what's in your reserve, or inactive storage? That's going to be a function, first, of the result of the negotiations in START III. But second, it's going to be a function of sort of national policies with respect to the weight you attach 10 years from now—in the year 2007—to hedge strategies.

In other words, we basically maintain a START I force now. We've kept at START I levels to keep weight on the Duma to do the right thing with respect to START II. Once you get an agreement to come down to that next level, you have to make decisions as a matter of national policy about what reconstitution capability you want to preserve should the agreement fall apart or should you discover that the other side is fundamentally violating the treaty. So, in the context of START III levels, a big-ticket question will be: What is your tasking to the Department of Energy in terms of a reconstitution level? That's a decision that has not been made and will only be made once we get further into START III negotiations. I can't confirm or deny that 10,000 is the total number of warheads the U.S. will have under START III because there is no number yet that is associated with a successful START III negotiation. We just have not made those decisions.

***Q**: Will tactical warheads be addressed in START III as well?*

Bell: We agreed at Helsinki that there will be a separate but related negotiation on non-strategic nuclear forces. One of the big questions, in terms of the actual content of START III negotiations, is what position the Russian government will bring to the table when it's time to start turning cards over and show what they're prepared to propose.

Certainly, we expect scrupulous Russian reaffirmation and adherence to the unilateral tactical nuclear reduction commitments that were made in 1990 and 1991 by Gorbachev and Yeltsin, which, in the aggregate, could produce about a two-thirds drawdown. That would, in comparison with the levels that President Bush announced,

> leave a Russian advantage, but it's markedly reduced from the advantage they have in non-strategic nuclear forces right now.
>
> With regard to both warhead disposition and tactical weapons, in the run-up to Helsinki we were able to reach agreement on a set of words that both sides would sign up to. But there are a lot of second- and third-order specifics beyond that baseline in terms of what the Russian government really proposes to do when we get to the negotiation.

GW Bush's November 2001 remarks did not address tactical nuclear weapons.

There is a further fine point about the distance between the 1997 Clinton-Yeltsin proposals and the November 2001 GW Bush offer. The Bush offer is confined to "operationally deployed strategic nuclear warheads."[20] Analysts have pointed out that a system which is temporarily withdrawn for repair or replacement is no longer 'operationally deployed', though such systems are counted in previous maxima. The START II term is simply 'deployed'. The effect is to give the *appearance* of a lower number of warheads, without that being so much of a lower number *in fact.*

When more details of US-Russian arms talks are revealed, it will be important to compare the result to the 10,000 warhead inventories instantiated by START II.

The 'Active' and 'Inactive' Stockpile

When the 2002 Nuclear Posture Review was explained, questioners asked for clarification about the 'hedge' and its components. J. D. Crouch and the Department of Energy's John Harvey engaged in a long exchange with a questioner about weapons that were *not* part of the 'responsive force' but were stockpiled. Note both Crouch's evasions and the clarity with which the 'active' and 'inactive' stockpiles are distinguished by Harvey:

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[20] GW Bush, 13 November 2001. [http://www.whitehouse.gov/news/releases/2001/11/20011113-3.html]] By contrast, for example, the START II Treaty refers to "warheads attributed to deployed ICBMs," without any reference to their "operational" status.

Numbers

Question: My question is, there are many critics who say that while you are announcing sharp reductions in nuclear weapons here, that since you aren't going to destroy the weapons—the warheads that you're pulling off these weapons or removing from aircraft, that you aren't really reducing nuclear weapons. Correct me if I'm wrong, you already have thousands of warheads on the shelf, in addition to the 6,000 that are deployed. What would you say to people who say that since you're not destroying these weapons, you really aren't reducing the nuclear force, if these weapons are ready to put back on planes quickly?

Crouch: Right. We are in fact—right now, as you say, there are weapons in the stockpile—and we refer to this as an active and an inactive stockpile. There are a number of weapons in that stockpile. Many of them are in the queue for dismantlement and destruction.

Q: Could you—I'm sorry. I don't mean to break in. Could you give us a ballpark figure on how many there are in addition to --

Crouch: That's one thing we can't do. (laughs) But what I can say is that, you know, as—there have been no final decisions made at this point on what the size of our responsive capability would be, and also there have been no final decisions made on the overall size of the active stockpile and the inactive stockpile. Those things will shift over time …

Q: Could you give us a rough percentage, perhaps, of the 3,800 missiles that you—warheads that you'd be taking off [*sic*], what amount of those you would keep in the responsive force? …

Crouch: Oh. At this point no decisions have been made exactly on the character of that responsive force. And as I said, there will be ongoing assessments on that. And that number itself will probably change over time.

'The Responsive Force' and 'Inactive Status', 'Inactive Stockpile'

Q: Could you explain what the difference is, if there is a difference, between inactive and the responsive force? When you refer to—whatever, some of the—the current operational force going into the responsive force, is that different from being in an inactive status?

Crouch: Unfortunately, these are not terms that are necessarily separate baskets. When I talk about the immediate—the operationally deployed force to deal with immediate and unexpected contingencies, those are, in fact, the forces that are deployed on a day-to-day basis that can respond in anywhere from minutes to days and a few weeks. The responsive capability would be able to augment that force. And it essentially will be additional warheads that could be uploaded back onto that force if necessary and, obviously, if the president were to make a decision to do that. And that would take weeks, months, even years to do that, depending upon the system and the character of the threat.

Q: Presumably we have weapons in that status now, correct? Warheads that are—that have been removed from delivery systems that are available to be uploaded --

Crouch: Well, we have weapons that are in the inactive stockpile. That is correct.

Inactive stockpile—and I don't know, John, do you want to maybe talk a little bit about the distinction between the active and inactive stockpile?

Active and Inactive Stockpile: In the 'Inactive Stockpile' the 'Limited-Life Components' are Removed

Harvey: It's a very straightforward distinction. The active stockpile is a unit, a weapon which is available, fully ready to be deployed and used.

The inactive stockpile, typically the limited-life components that go into a nuclear warhead, such as tritium, neutron generators, things that live for a relatively short period of time in comparison with the weapon, are typically removed, and when the weapon is transitioned to the active stockpile from the inactive, those components are reinstalled in the weapon. So the inactive weapon consists of those weapons that are not fielded with limited-life components.

Crouch: And there are a number of things in that inactive stockpile, including weapons that are in that dismantlement, you know, earmark or --

'Critical Components' are 'Available' in the Active Stockpile

Q: So—I'm sorry. Can I ask just one more? Would—in a responsive stockpile, would the tritium be removed, or would these simply be warheads that are removed from the delivery vehicle?

Crouch: The responsive capability would reside in the active stockpile. Right? So, in other words, those forces would be maintained at—with the critical components that John was talking about available. Otherwise, it wouldn't be responsive, if you follow me.

How Much Time to Reconstitute?

If it matters that some warheads are placed in an 'active stockpile', there are two obvious questions to consider. Under what circumstances would reconstitution make sense? And if the United States *decided* to reconstitute, how much time would be required to do so? In turn, that depends on the reconstitutions which would be available. There are only a few of these, and each is technically constrained.

• SLBMs which have been 'downloaded'—carrying fewer warheads than the original eight—could be 'uploaded'.

• ICBMs which had been 'downloaded' could be 'uploaded'.

• SSBNs removed from service could be restored to service.

• Nuclear-armed cruise missiles removed from SSNs could be restored to them.

• Trident SSBNs converted to carry conventionally-armed cruise missiles could receive nuclear-armed cruise missiles.

• B-1 bombers shifted to conventional missions could be restored to strategic service.[21]

• Bombs in the stockpile could be moved close to bombers, to rearm an aircraft which returned to base after a nuclear mission.

Of these measures Crouch identified uploading as the main means of reconstitution:

it essentially will be additional warheads that could be uploaded back onto that force if necessary[22]

Do these measures require days, weeks, months, or more? Since some SSNs in service can receive SLCMs and train in their use, the time to convert from non-nuclear to a nuclear role would be similar to that required to load SLCMs. The time to restore B-1 bombers to service would depend on the state of readiness in which they had been maintained; associating them with bombs

[21] See Hans M. Kristensen, "The B-1 Bomber: Not 'Conventional Only'," in *Arms Control Today*, December 2001. [http://www.armscontrol.org/act/2001_12/kristensennov01.asp] Kristensen explains how the capacity to reconstitute a nuclear-armed B-1 force has been accomplished. He also notes that the change in counting rules from START I (in which each of 91 B-1's was counted as 'one bomb') to START II (which counted 16 bombs for each bomber) would have meant B-1s were charged for 1456 bombs, had the B-1 remained 'strategic'.

[22] NPR Briefing, above.

could be done quickly.[23] To 'upload' an ICBM would require only as much time as to mount any payload, if the new payload were ready. But to 'upload' SLBMs would require that the boat be in port, and then depend too on whether payloads had been readied with the larger number of warheads.[24] Of course, not all SSBNs would be available at the same time, since many would be on patrol or in transit when the decision to 'upload' was made, so that it could take months to receive and convert the payloads of all SSBNs.

So in practice the right answer to "how long does it take to reconstitute?" is days, weeks, and months, for all methods and for the most likely method, uploading.

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[23] Among documents Hans M. Kristensen [Nautilus Institute] has obtained using the Freedom of Information Act and placed on the Net is the "B-1 Nuclear Rerole Plan," Headquarters, Air Combat Command, 14 October 1998. [http://www.nautilus.org/nukestrat/USA/bombers/b1rerole.pdf] It supplies several clues on reconstitution time:

> 7.1.1. (U)l The installation of a CMUP Conventional Kit on the B-1 launcher is not considered a modification and does not render it non-nuclear certified. The launcher will still be capable of rapid conversion from conventional to nuclear if the Nuclear Kits and the nuclear operational checkout capability exists …
>
> 7..1.4.3 (U) A sufficient number of B-1 launcher Nuclear Weapon Kits (Nuclear Bomb, B-61, and B-83 Kits) … Conventional Kits would be removed and Nuclear Kits installed (estimate 3 days per launcher).

Nuclear launcher testing is estimated to require 1 day per launcher [§ 7.2.1]. Although long-term rerole could require up to six months to install an Electronic Systems Test Set, a shortcut for "short term B-1 rerole" is available using the Aircraft Weapons Preload Tester. Information on time to train a squadron is deleted, but included is § 9.1.2 "Command and control procedures (CCP) training for aircrews can be completed within 90 days." "Recertification of the B-1 weapons system" [§ 13.3] will require 90-120 days. The paper is silent about compression of these times under urgence, but it's not hard to imagine that some steps, such as environmental assessment of moving personnel and facilities among bases [§ 13.4], would be foregone.

[24] Missiles may be put aboard Trident SSBNs in either a one-step or two-step process: the missile and its payload may be mated first and then lowered into the tube, or the missile may be loaded first and then the payload added.

Irreversibility

The other side of the Cheney-Rumsfeld preference for unilateral arms reduction is *unilateral policy revision.* Guide policy by interest. Rather than constraining treaty partners through formal commitments, each constrains the other by threat and the prospect of increased threat. J. D. Crouch puts the matter very clearly:

> The assessment points are very important. We have a responsive force. We may decide at—somewhere along the line that we have to flatten out our reductions because changes have been made in the strategic environment that require us to do that. We may decide that we would have to increase our forces. We may also decide that we could decrease our forces further, or bring our forces down much faster, depending upon the security environment, depending upon technological surprise, and depending upon our ability and our confidence in developing new elements or fielding new elements of the triad. So we are going to be assessing along the way, along this journey, as we reach the president's goal of 1,700 to 2,200 operationally deployed warheads in a decade.[25]

The 'hedge' is very much a part of this flexibility. Crouch:

> But we will maintain the force structure and the warheads that we take off these systems as part of that responsive force; and how we look at immediate and potential contingencies over the future will change.
>
> We will reassess our situation continually and in an ongoing way and probably more formally periodically.

Part of the difficulty with Cheney-Rumsfeld's insistence on unilateralism is that there are other countries in the world, and the United States has joined agreements with many of them which require ongoing, progressive reductions in nuclear weapons. The Nuclear Nonproliferation Treaty requires steps to "nuclear disarmament."[26] When the treaty-mandated NPT Review Conference met in April-May 2000 it agreed to the principle of "irreversibility." The United States was a party to that agreement.

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25 NPR Briefing, above.

26 Article VI: "Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

So the ABM Treaty is not the only treaty game in town: Washington has other obligations which casual disregard for "irreversibility" would jeopardize.

Irreversibility has been a recurrent, explicit subject in US-Russian negotiations. When Clinton and Yeltsin met in Washington in September 1994 they directed their Joint Working Group on Nuclear Safeguards, Transparency, and Irreversibility "to pursue by March 1995 further measures to improve confidence in and increase the transparency and irreversibility of the process of reducing nuclear weapons."[27]

Conclusion

The Cheney-Rumsfeld nuclear policy seems to turn on three key points: keep the nuclear *status quo*, confine cuts to appearances, and make no firm commitments about the future. It is both unilateral and nuclearist, and it is a tired response to the grave hazard posed by some 13,000 or more nuclear weapons now deployed in the world, *mated to delivery systems, and ready for use*.

2002.02.01
Version 1.0

[27] US Department of State Dispatch, v 5 n 41, 10 October 1994. [http://dosfan.lib.uic.edu/ERC/briefing/dispatch/1994/html/Dispatchv5no41.html] But note that at the 2000 NPT Review Conference the Russians bargained around the notion of 'irreversibility,' insisting that it be linked inseparably to 'strategic stability', codephrase for maintaining the ABM Treaty's prohibitions on National Missile Defense.