

**Christopher F. Chyba**  
**Center for International Security and Cooperation**  
**Stanford Institute for International Studies**  
**Stanford University**

**Remarks at Carnegie International Non-Proliferation Conference**  
**June 22, 2004**

Good Morning. Yesterday, Ambassador Linton Brooks in effect gave an extensive introduction to this session, one that John Harvey and in a different way Ash Carter have now expanded upon. In his remarks, Ambassador Brooks told us that four policy goals are served by U.S nuclear weapons:

1. To reassure our allies; among other objectives this includes so-called positive security guarantees to prevent proliferation.
2. To dissuade our adversaries from trying to match our capabilities. (The US would have either the forces or the hedge to convince any would-be adversary to desist before trying to match us.)
3. To deter those threats that do emerge, by holding at risk assets valued by our adversaries; and
4. To defeat those threats that we cannot deter.

Ambassador Brooks said in his remarks yesterday that “these policy goals determine both the size and the shape of our nuclear forces.”<sup>1</sup>

I have to say that that statement puzzled me. That is, I think that the size and shape of U.S. nuclear forces must be determined in the context of the highest considerations of United States strategy. And I believe that it is correct to say that *one* of the highest strategic considerations for the United States in the coming decades is to prevent the use of nuclear warheads against any city in the U.S. or indeed anywhere in the world, whether by the act of a state or of a terrorist group.

Of course, in fairness, most of Ambassador Brooks’ four points speak directly to this issue: positive security guarantees, deterrence, and so on are crucial parts of nonproliferation strategy. Still, I believe that these four goals are hardly exhaustive of the concerns that need to factor into our decisions regarding “the size and the shape” of our nuclear forces, and in particular, how the crucial goal of preventing the further

---

<sup>1</sup> See the video of Ambassador Brooks’ June 21, 2004 address at this conference, available at <http://www.ceip.org/files/projects/npp/resources/2004conference/home.htm>. The text of his remarks posted subsequent to his talk reads: “These policy goals *help* determine both the size and the nature of our nuclear forces.” (Available at the same url; italics mine.)

proliferation of nuclear weapons and the spread of nuclear weapons to terrorist groups should affect these decisions.

Ambassador Brooks did specifically raise, as what he called a responsible question, the issue of whether U.S. research into new types of nuclear weapons might be causing damage to our nonproliferation objectives. My preference would be to view this goal—the goal of not significantly damaging nonproliferation objectives—as built in from the start as one of the factors helping to determine the size and shape of our nuclear forces. But Ambassador Brooks did ask the question, and in his view the answer is no—there is no significant damage.

His arguments are contained, in greater detail, in the March 2004 report that he communicated to Congress from the Secretaries of State, Defense, and Energy, titled *An Assessment of the Impact of Repeal of the Prohibition on Low Yield Warhead Development on the Ability of the United States to Achieve its Nonproliferation Objectives*.

You can find this on the web. The document explains why its authors believe that research into new weapons is needed to bolster deterrence, and I quote:

“A key strategic goal of the United States is to deter aggression: deterrence is in the eye of the adversary leadership and involves its perception of both the capability and will of the United States to respond to aggression. In light of the widely-held view that the United States goes to great lengths to limit collateral damage, would a rogue state leader contemplating use of WMD consider credible a response employing warheads with yields in the range of tens or hundreds of kilotons that could cause considerable collateral blast damage and radioactive contamination to civilian populations? Would such a leader think that the United States would risk a larger number of unintended casualties? There is no way of knowing. In seeking, however, to minimize any misperceptions about U.S. capabilities or resolve, it is prudent, as called for in the NPR, at least to explore whether there are ways to provide the nuclear weapons stockpile with capabilities more appropriate for deterring 21<sup>st</sup> century threats in such areas as precision delivery, reduced collateral damage, earth penetration, and agent defeat.”

And at the same time, it is the conclusion, according to this document, of the Secretaries of State, Defense, and Energy, that the repeal of the prohibition on low-yield warhead development will have no appreciable impact on proliferation. Again, I quote:

“Repeal of PLYWD [Prohibition on Low Yield Warhead Development] is unlikely to increase incentives for terrorists to acquire WMD—those incentives are already high and are unrelated to U.S. nuclear (or conventional) defense capabilities. Nor is it likely to have any impact on rogue state proliferation, which marches forward independently of the U.S. nuclear program. Indeed, there is no indication at all that very significant reductions in the numbers of U.S. (and Russian) nuclear weapons, and in the alert levels of nuclear forces, over the past decade, coupled with no U.S. nuclear testing and very little U.S. nuclear modernization, has caused North Korea or Iran to slow down covert

programs to acquire capabilities to produce nuclear weapons. On the contrary, these programs have accelerated during this period. Nor did U.S. restraint convince India and Pakistan not to test in 1998. Rather, North Korea and Iran appear to seek WMD in response to their own perceived security needs, in part, to deter the United States from taking steps to protect itself and allies in each of these regions. In this regard, their incentives to acquire WMD may be shaped more by U.S. advanced conventional weapons capabilities and our demonstrated will to employ them to great effect—in Bosnia, Kosovo, Afghanistan, and during both wars with Iraq—than to anything the United States has done, or is doing, in the nuclear weapons arena.”

Implicit in this is an answer to those who argue that U.S. research into new nuclear warheads risks undermining the NPT because it walks the U.S. back from its Article VI commitments, for example those made by the US at the 1995 and 2000 review conferences.

Basically, in their report to Congress, the Secretaries are saying that in fact U.S. nuclear weapons restraint *doesn't* lead to restraint on the part of other countries, and that we have evidence for this, so by restraining ourselves from research and development in low-yield nuclear warheads the U.S. on the one hand would be failing to buttress its ability to better deter its adversaries, while, based on historical induction, reaping no benefit from that restraint.

The Carnegie draft report<sup>2</sup> on p.70 urges the U.S. to comply with its NPT commitments by “renouncing the development of new types of nuclear weapons,” on the grounds that this would “bring greater leverage to its efforts to convince others to accept and enforce tougher nonproliferation rules.” On page 64 the report sketches the disagreement over new weapons designs, and on page 65 it notes that some are concerned about the impact on the regime if the U.S. is seen to be breaking its Article VI commitments. But I don't find a specific response to the kind of arguments laid out in the March 2004 State/DoD/DoE report to Congress. This is a weakness of the report.

What might such responses be? I think that there are three that should be considered.

The first is weaker than a rebuttal; it is merely a caution. It concerns the induction from the claim that US nuclear weapons policy in the past has not caused an Article VI train wreck to the conclusion that no such train wreck will occur in the future. I'll call my caution, grimly, the Space Shuttle Columbia warning. You'll recall that on launch 1.7 lbs of frozen foam moving in excess of 500 mph hit the left wing and eventually caused the Shuttle's destruction, and the loss of its crew. But there had been foam impacts on previous Shuttle launches. They had been smaller and less critical, and NASA had begun to think of them as no big deal. Over and over again, it seemed clear that foam strikes did not cause a train wreck. But rather than this being some sort of immutable law, there was in fact only simply a statistical question of when disaster would finally occur.

---

<sup>2</sup> George Perkovich, Joe Cirincione, Rose Gottemoeller, Jon B. Wolfsthal, and Jessica T. Mathews, *Universal Compliance: A Strategy for Nuclear Security*, draft available June 21, 2004.

At a minimum, U.S. policymakers need to think carefully about where the threshold for a train wreck in the NPT might be. There must be some threshold; where is it?

This would matter less if the prospects of a world without the NPT were of less concern. But the U.S. has learned in Iraq that preventive war is unlikely to be a solution that we can apply serially to WMD proliferators. We cannot therefore afford a world with a large number of such threats, but must instead prevent that world from arising. This must be one of our highest priorities.

The second reply has to do with negative security assurances. Negative security assurances, nuclear non-use pledges, were first made by the US in 1978, revised in 1995, and repeated in February 2002 by State Department spokesman Richard Boucher. At the 1995 NPT review and extension conference, these negative security assurances were incorporated in the final document's "Principles and Objectives for Non-Proliferation and Disarmament".

Yet despite spokesman Boucher's reaffirmation, these assurances were weakened by the Bush Administration's 2001 *Nuclear Posture Review*. According to excerpts leaked to the press, the *Nuclear Posture Review*<sup>3</sup> named a number of non-nuclear weapons states of concern to the U.S. as countries who could be involved in the kind of "contingencies" that needed to be considered when setting nuclear strike capabilities.

Statements like these send a message to the named countries and to others as well that they may risk nuclear attack by the United States, and the development of new nuclear weapons whose use is intended to seem more credible to our adversaries will only reinforce this. If it is true, as it appears to be, that security threats are a key driver for nuclear proliferation, U.S. nuclear weapons policy should be made with the recognition that countries' perceptions of US intentions may be an important factor in these calculations.

My final caution concerns the lack of utility of deterrence in the context of terrorism, something I know that the Administration appreciates very well. But just as US nuclear weapons policy will have little if any impact on terrorist motivations, so will putative gains in deterrence.

Barring theft of nuclear weapons or HEU, it is still the case that terrorists will only get nuclear weapons via state support. We can list three possibilities: (1) deliberate transfer of nuclear weapons—clearly a very high risk decision; (2) weapons transfer due to insufficient internal state security; and (3) a coup or state collapse followed by an extremist group taking control

---

<sup>3</sup> Excerpts from the Nuclear Posture Review are posted at <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>.

Deterrence will only influence the first of those three possibilities. Preventing all three requires that we minimize the number of states that may be in a position to provide nuclear weapons to terrorists. The trade we are being asked to make in developing new nuclear weapons whose use seems more credible is to choose some small, difficult-to-quantify improvement in the credibility of our nuclear deterrent against adversarial states, should those states have or acquire nuclear weapons, at the cost of a difficult-to-quantify risk that we add to the security pressures that convince potentially adversarial states to pursue nuclear programs. Those states might be deterrable, but increasing the number of states with nuclear weapons will in turn increase the prospects for the acquisition of nuclear weapons by terrorist groups, who will be unconcerned with deterrence. Is this the right trade?

I don't believe that this trade is in the security interests of the United States.

Rather than representing an updating of an obsolete nuclear force structure from the Cold War into the 21<sup>st</sup> century, proposals to develop new small nuclear warheads are clinging to an out-of-date view that it is more important to incrementally improve deterrence against the state use of WMD than it is to minimize the risk of proliferation and therefore the risk that terrorist groups could acquire these weapons. It's the wrong calculation.

Thank you.