

## **REDUCING OR INCREASING THE NUCLEAR THREAT?**

Contribution to WG1: Eliminating Nuclear Weapons,  
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### INTRODUCTION

Since I will be otherwise occupied in WG3: CBW and WMD Terrorism, I thought it might be useful to record my views on the topic of WG1: Eliminating Nuclear Weapons.

### EVENTS OF THE LAST YEAR

On May 24, 2002, President's George W. Bush and Vladimir Putin signed the Strategic Offensive Reductions Treaty, which commits each side to reduce its strategic nuclear weapons to 1700-2200 by December 31, 2012. The Treaty then expires.

There is no agreement in the Treaty text as to what constitutes a strategic nuclear weapon. The Treaty refers to statements by the two Presidents, according to which the United States apparently will count "operationally deployed strategic nuclear weapons," while Russia intends to limit all strategic nuclear weapons. In any case, in official statements the United States has made clear that it has no commitment to destroy or to render unusable nuclear weapons removed from the "operationally deployed" status. And, specifically, it intends to retain many of these for upload within days, weeks, months, or years. President Bush's National Security Advisor, Condoleezza Rice, has emphasized that no previous treaty required the destruction of the nuclear weapons, and that we don't know how to go about it, anyhow. And Secretary Rumsfeld has deemed it "irresponsible" to destroy substantial numbers of U.S. nuclear weapons.

I judge this Treaty to be an insult to the people of the United States, of Russia, and to the international community, which has an interest even in bilateral treaties. As the Senate Foreign Relations Committee, the Armed Services Committee, and the Senate itself consider the Treaty in the constitutional process of advising ratification, they need to consider carefully any benefits which might accrue from the Treaty. If the Senate advises ratification, it should do so with "conditions" and interpretations to help achieve these benefits. But this creates problems under the US Constitution, which requires both the Senate and the House of Representatives to agree on specific legislation, while the Senate alone is involved in the Treaty ratification process.

In fact, it is difficult to find any benefit in this Treaty. In particular, either side on 12/31/02 could simply declare weapons above 2200 to be not "operationally deployed" for the day or even for a few minutes. There are no

milestones or intermediate goals for the Treaty, and hence "verification" has no role in assuring compliance with the Treaty.

Still, each side has the need for an accurate and current accounting of its weapons, and the Treaty might be the opportunity for each side to provide the other side with a table containing a line for each individual nuclear weapon, its status and location. These lines could be transformed ("hashed") so as to deny the possibility of any information transfer, in such a way that at some later time a line could be validated by releasing to the other side the clear text of the line. In the meantime, the table would serve its creator as an element of that accounting system.

On balance, I believe that the Senate would best serve the security interests of the nation by not providing the two-thirds vote required for ratification.

#### FUTURE OF U.S.-RUSSIAN ARMS CONTROL

The Bush Administration came into office with an explicit aversion to "arms control". It also proposed budget cuts in elements of the Cooperative Threat Reduction programs with Russia.

By December, 2001, government evaluation of the CTR program showed that they were reasonably well run and overall cost effective, so the Administration has become in general a supporter of increased funding and urgency for these programs.

Of course, the benefits of CTR are largely to guard against the unpredictable future-- to limit somewhat the peril which lies much more in nonproliferation and terrorism problems than it does in limiting the capabilities of the current Russian government.

One example of the CTR program on which there is substantial consensus would limit terrorist access to highly enriched uranium. This would be accomplished by consolidating HEU stocks in Russia in fewer locations; by supporting the rapid blend down of weapon-usable uranium to 19.9% (the upper limit of low-enriched uranium under the IAEA rules); and completing the transformation of dozens of research reactors the world over to use LEU fuel.

COMPREHENSIVE TEST BAN TREATY. On July 31, 2002, the National Academy of Sciences issued its report, "Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty". I was a member of that Committee and thoroughly support its conclusions. The analysis was limited to the technical issues which were prominent in the brief Senate debate on ratification of the CTBT, and did not extend to the overall security benefits of the Treaty.

The three main technical concerns were:

1. The capacity of the United States to maintain confidence in the safety and reliability of its nuclear stockpile-- and in its nuclear-weapon design and evaluation capability-- in the absence of nuclear testing;
2. The capabilities of the international nuclear-test monitoring system (with and without augmentation by national technical means and by instrumentation in use for scientific purposes, and taking into account the possibilities for decoupling nuclear explosions from surrounding geologic media); and

3. The additions to their nuclear-weapon capabilities that other countries could achieve through nuclear testing at yield levels that might escape detection-- as well as the additions they could achieve without nuclear testing at all-- and the potential effect of such additions on the security of the United States.

The Committee membership included three former directors of laboratories of the U.S. Department of Energy-- two of them directors of weapon laboratories.

The Committee concluded that the three technical issues should not stand in the way of ratification-- that detection capabilities are good for those nuclear test explosions which could lead to significant advances in nuclear capability; and that the CTBT does not impose significant impediments to the maintenance of U.S. nuclear weapon stockpiles or to the health of the weapon laboratories.

The Report itself provides a wealth of useful information.

#### THE STATUS AND ROLE OF THE NPT AND CTBT

There is no inherent right of some nations to have nuclear weapons, while they are denied to others. On the other hand, most nations have long declared their intent under the NPT not to acquire nuclear weaponry, and thus to have access to some of the benefits of the NPT, including access to peaceful uses of nuclear energy.

While any nation has the right to acquire nuclear weaponry, it would be unwise in the extreme for most nations to do so, and I thoroughly support the NPT bargain. However, the nuclear weapon states under the NPT should be reducing their dependence upon nuclear weapons and moving toward nuclear disarmament.

The elimination of nuclear weapons at this time would not, in my opinion, be in the security interests of either nuclear weapon states or non-nuclear weapons states. On the other hand, massive and permanent reductions in numbers of nuclear weapons and in their readiness for use would be in the interest of all nations.

Thus, I regret very much that the current U.S. Administration has missed the opportunity to take advantage of the willingness in Russia at present to reduce all strategic nuclear weapons to the range of 1500 warheads or below, and has missed the opportunity to push for the elimination of tactical U.S. and Russian nuclear weapons.

At the least, one could have established a regime limiting tactical nuclear weapons to a number equal to the number of strategic nuclear weapons, with appropriate transparency and verification.

I doubt the technical utility of low-yield "bunker buster" nuclear weapons, and also the advisability of using them. The problem with underground installations is to know their locations and their function. Once this is known, if there is a war the underground installation can be nullified by dealing with its entrance and exit, either by troops on the ground or by advanced technologies of monitoring and of non-nuclear weapon techniques. Among these are rapid drilling techniques.

The national security of most nations is not improved by their acquisition of nuclear weaponry. We may soon see in South Asia the employment of nuclear

weapons by two nations with continuing conventional confrontation and a long common border.

In my judgment, the U.S. should ratify the CTBT and, as is so cogently stated in the U.S. Declaration of Independence, maintain "a decent respect for the opinions of mankind".

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