Western States Legal Foundation

Issue Brief **Fall 2001**

Fewer But Newer: the Role of Nuclear Weapons in U.S. Plans for Global Military Dominance

Air Force Space Command, *Strategic Master Plan for FY02 and Beyond,* February 2000, Figure 2-6: Force Applications capabilities evolve to timely, flexible and precise Global Engagement.

At last year's Nuclear Nonproliferation Treaty (NPT) Review Conference, the United States officially agreed to an "unequivocal undertaking" to accomplish the " total elimination" of its nuclear arsenal, yet the U.S. government seems to have no intention of giving up nuclear weapons — *ever*. To the contrary, although President Bush's pledges to reduce the size of the U.S. nuclear arsenal have been widely reported, the U.S. weapons labs are quietly designing *more useable* nuclear weapons, hand in hand with other high-tech weaponry including ballistic missile defenses and space-based weapons.[1] This is not a new development. It is a continuation of policies begun under the Truman administration and carried on through every U.S. administration since, Democrat or Republican.

During the Presidential campaign, George W. Bush indicated that, if elected, he would

unilaterally reduce the U.S. strategic nuclear arsenal."[2] More recently, at their July 22 meeting in Genoa, Italy, Bush and Russian President Vladimir Putin agreed to link discussion of American plans to deploy a missile defense system with possible deep cuts in both sides' nuclear arsenals, thereby holding open the possibility that a U.S.-Russian agreement could be reached on the ABM treaty. However, the very next day, Bush reiterated the U.S. determination to "move beyond the ABM treaty," while Putin "confirmed [Russia's] adherence to the ABM treaty as the cornerstone of strategic stability."[3] Although the state of U.S.-Russian negotiations seems to be in flux, if the U.S. unilaterally pulls out of the ABM treaty, Russia has repeatedly warned that it will withdraw from all existing arms control agreements. This threatens to ignite new U.S. arms races with Russia, and with China.

We should not be mislead by this apparent U.S. offer to trade *offensive* nuclear weapons for *defensive* missile systems. Bush's nuclear weapons policy might realistically be characterized as *fewer, but newer.* We must recognize that National Missile Defense, Theater Missile Defense (TMD), space-based weapons, first strike strategic nuclear weapons and precision, low-yield nuclear weapons are interconnected parts of one, U.S.-led, integrated, offensive global war fighting system. And we must challenge the purposes for which this overwhelming military force is deployed. The stated long-term goal of the U.S. military is to "enable an affordable capability to swiftly and effectively deliver highly effective weapons against targets at any required global location" in order to "affordably destroy or neutralize any target on the earth...."[4] Common sense tells us that if every nation on earth pursues such goals, the result will be endless military competition resulting in endless death and destruction.

Presidential Decision Directive-60 (PDD-60), the first review of U.S. nuclear weapons policy since the NPT's indefinite extension in 1995, was signed by President Bill Clinton in 1997 and is *still in effect*. It reaffirmed the U.S. policies of threatened first use and threatened massive retaliation, and recommitted the U.S. to nuclear weapons as the "cornerstone" of its national security for the foreseeable future. PDD-60 also contemplates nuclear retaliation against the use of chemical or biological weapons, part of the so-called "counterproliferation" policy. Other government documents indicate that the U.S. military is considering using nuclear weapons first in wartime, to destroy an adversary's chemical, biological, or nuclear "weapons of mass destruction" before they can be used:

> Nuclear weapons might be used to destroy enemy WMD before they can be used, or they may be used against enemy conventional forces if other means to stop them have proven ineffective. This can reduce the threat to the United States and its forces and could, through the destruction of enemy forces, bring an end to the conflict.[5]

Paul Robinson, the Director of Sandia National Laboratories, one of the three principal U.S. nuclear weapons labs, has argued that new designs are needed precisely to make nuclear weapons *use* easier to contemplate. In a speech last year he said:

> ". . . . The US will undoubtedly require a new nuclear weapon, either for a different delivery mode or vehicle or, quite likely, because it is realized that the yields of the weapons left over from the Cold War are too high for addressing the deterrence requirements of a multipolar, widely proliferated world. Without rectifying that situation, we would end up being self-deterred."[6]

Last year, the U.S. Congress passed legislation partially overturning a 1994 law barring the labs from developing precision, low-yield nuclear weapons. The new law mandated a study (which was due July 1, 2001, but is late) on a new generation of weaponry, including low-yield "mini-nukes" for use against hardened and deeply buried targets such as missile silos, stockpiles of chemical or biological weapons or Saddam Hussein's command bunker. A "mini-nuke" is defined as a weapon with a yield of five kilotons or less. By comparison, some modern nuclear weapons have yields of more than 1,000 kilotons. This is an extremely dangerous development, because the military is likely to regard these low-yield nuclear weapons as more useable than existing weapon types. [7]

Under other, already-existing programs, the U.S. nuclear weapons laboratories are researching ways to use small nuclear warheads to destroy or disable hardened targets such as tunnels and underground bunkers, and to attack chemical or biological weapons facilities. This threatens to blur the distinction between conventional and nuclear warfare by lowering the political obstacles to the use of nuclear weapons, and makes it more likely that the U.S. will use nuclear weapons against states which do not have them.[8]

START II, ratified by the Russian Duma in April 2000 but currently stalled in the U.S. Senate, will reduce the U.S. and Russian arsenals of strategic deployed nuclear weapons to 3,000 - 3,500 each. But it doesn't deal with "reserve," non-deployed strategic weapons or tactical nuclear weapons. Including all of these categories, under START II, the U.S. plans to maintain an arsenal of approximately 10,500 nuclear warheads. The prospective START III treaty would reduce each side's strategic deployed nuclear weapons to 2,000 - 2,500 — still a *huge* number.

Various sources make clear that the U.S. has no plans to reduce the essential character or significance of its nuclear arsenal. In February 2000, Secretary of Defense William Cohen stated that the U.S. will be able to "maintain survivable strategic forces of sufficient size and diversity" to respond to "the full range of crisis" -- *after* completing the reductions envisioned *even under START III*. And U.S. documents supporting ABM treaty negotiations with Russia last year, under the Clinton Administration, presented arguments intended to persuade Russia that a "limited" U.S. ABM system would not be a threat to its nuclear deterrent. U.S. "talking points" obtained by the Bulletin of the Atomic Scientists state:

> "Both the United States and the Russian Federation now possess and, as before, will possess *under the terms of any possible future arms agreements*, large, diversified, viable arsenals of strategic offensive weapons consisting of various types of ICBM's, submarine-launched ballistic missiles, and heavy bombers." [9]

This view of the future U.S. arsenal is also projected in the Air Force Space Command *Strategic Master Plan for FY02 and Beyond*. An illustration captioned "Force Applications Vision End State" graphically depicts *Strategic Deterrence* using "nuclear-armed ICBMs" in combination with *Conventional Strike* using "rapid, global precision strike with space-based systems," including the space-based laser.[10]

At last spring's NPT Review Conference, the United States reaffirmed its commitment to Article VI of the Treaty, which requires the *cessation of the arms race* and the *elimination of nuclear weapons*. To support its claim, the U.S. delegation distributed a glossy public relations portfolio which states: "...Over the past decade, the United States has dramatically changed the role and mission of its nuclear-weapon complex from weapon research, development, testing, and production to weapon dismantlement, conversion for commercial use, environmental remediation, and stockpile stewardship."[11]

This is a gross distortion of the facts. The truth is that through a massive program called "Stockpile Stewardship," new nuclear weapons facilities of unprecedented sophistication are being built, a new generation of nuclear scientists is being trained, and nuclear weapons design and production is going forward. The U.S. is now spending more than $5 billion a year on nuclear weapons research, development, testing and production, an amount in constant dollars, well above the $3.7 billion annual Cold War average for directly comparable activities.[12] *And that's just for the warheads, not the delivery systems.*

What is "Stockpile Stewardship"? Technically, the current U.S. Stockpile Stewardship program is a continuation and expansion of nuclear weapons research, development, testing and production technologies that began with the Manhattan Project in 1942 — but without full-scale test explosions. The easiest way to understand Stockpile Stewardship is to imagine the kinds of experiments and preparations that led to the development and production of the atomic bombs that devastated Hiroshima and Nagasaki. In effect, those were "proof tests"of weapons that had been designed and built using the forerunners of modern "stockpile stewardship" technologies.

Today, the cycle of nuclear weapons design continues, despite the fact that the U.S. last exploded a nuclear weapon underground in 1992. How does Stockpile Stewardship work? In non-technical language, scientists conduct experiments -- in some cases involving explosive and radioactive materials -- in huge new experimental facilities at the nuclear weapons laboratories. These experiments, along with "subcritical" zero yield underground tests at the Nevada Test Site, produce data that are relevant to various aspects of nuclear weapons design and performance. This new diagnostic information, together with the archived data from more than 1,000 past tests, is then processed using the world's fastest supercomputers. Each of the nuclear weapon states has their own version of stockpile stewardship, and the strategic allies are cooperating with each other.

The Stockpile Stewardship program was the price exacted by the politically powerful U.S. nuclear weapons laboratories for their acceptance of the Comprehensive Test Ban Treaty (CTBT). Even so, in October 1999, the U.S. Senate voted not to ratify the CTBT. The vote was characterized by many analysts as a display of domestic political partisanship, but Republicans and Democrats share responsibility for the outcome. The Clinton administration and its allies in the Senate portrayed the CTBT as a means to preserve the decisive U.S. technological advantage in nuclear weaponry, and as a means to prevent non-nuclear weapon states from acquiring nuclear weapons — not as a step on the path to disarmament. This was reaffirmed by Secretary of State Madeline Albright a month after the vote, who said: "We simply do not need to test nuclear weapons to protect our security. On the other hand, would-be proliferators and modernizers must test if they are to develop the kind of advanced nuclear designs that are most threatening. *Thus, the CTBT would go far to lock in a technological status quo that is highly favorable to us*."[13]

Under the Stockpile Stewardship program, modifications or upgrades — including in some instances enhanced capabilities to meet "changed military requirements" — are planned for every weapon type in the U.S. arsenal.[14] One such modification, the B61-11 gravity bomb already has been developed and deployed without underground testing. The B61-11 is an earth-penetrating bomb with a variable yield (from 300 tons to over 300 kilotons of TNT) — developed *after* the Gulf War — which can be delivered by the B-2 stealth bomber. Other planned weapons modifications include an alteration of the B83 gravity bomb, which incorporates "new heights of burst."[15] Several modifications of the W-80 cruise missile warhead are in the pipeline, and "life-extension" programs are underway for weapon types including the W-87 (MX missile warhead) and W-88 (Trident missile warhead).

In addition, the weapons labs are developing replacement warhead designs for Trident submarine-launched ballistic missiles, and an upgrade of the arming, fuzing components of the 100 kiloton W-76 Trident warhead, the most numerous warhead in the U.S. arsenal. If actually produced and deployed, this upgrade could give W-76 warheads a near-ground-burst capability, upgrading them to potential "first strike" weapons. This could compensate for the loss of land-based ICBMs, slated eventually to be removed from the arsenal under START II.[16]

The Stockpile Stewardship program also is considering building new nuclear weapons production facilities, in order to have the capacity to produce as many as 450 new plutonium "pits" a year by 2020[17] — a number that equals or exceeds the individual nuclear arsenals of China, the United Kingdom, France and Israel. The pit is actually an atomic bomb that serves as the trigger for a hydrogen bomb. A current Los Alamos National Laboratory planning document specifies the following goal: "Re-establish a robust pit manufacturing capability to produce stockpiled and *new-design* pits *without underground testing*."[18] The U.S. is also preparing to resume the production of tritium — radioactive hydrogen; the "H" in H-bomb — for the first time since 1988.

The centerpiece of the Stockpile Stewardship program, the $5 billion[19] National Ignition Facility (NIF), is currently under construction at the Lawrence Livermore National Laboratory in California. It is a laser driven, inertial confinement fusion machine the size of a football stadium, designed to create for the first time, "nuclear fusion ignition" — very brief, contained thermonuclear

explosions. The NIF, which will be forty times larger than any laser in the world today, is slated to be used for a wide range of applications from training nuclear weapons designers to studying the effects of radiation, heat and blast on weapons components, sensors, communication satellites, and underground structures. NIF weapons effect experiments, including "laser/fireball" tests, may be used in connection with development of low-yield nuclear weapons and missile defense concepts.[20] The mini-fusion explosions planned for NIF, and its capacity for new nuclear weapons design undercut U.S. obligations under the NPT and the CTBT.

On May 20, 2000, the NPT Review Conference ended with the United States and the other nuclear weapons states affirming their "unequivocal undertaking... to accomplish the total elimination of their nuclear arsenals." For the first time in the NPT's 30-year history they dropped qualifiers like "ultimate goal" regarding their treaty obligation to pursue nuclear disarmament. They also committed to "a diminishing role for nuclear weapons in security policies to minimize the risk that these weapons will ever be used and to facilitate the process of their total elimination."

And they agreed that a no-backtracking "principle of irreversibility" applies to "nuclear disarmament, nuclear and other related arms control and reduction measures."[21]

The U.S. should make good on its NPT commitments by immediately halting all efforts aimed at "improving" the military capabilities of its nuclear arsenal, including research and development for "mini-nukes." It should halt plans for upgrades to existing weapons production facilities and forgo building new ones, including those for plutonium pit manufacturing and tritium. The U.S. should cancel plans for missile defenses and weaponization of space and should work to *strengthen* the Biological and Chemical Weapons Conventions. Fundamentally, the U.S. should seek comprehensive negotiations to eliminate nuclear weapons and ban missiles worldwide. If the world's only remaining superpower feels that it must rely on the threatened first use of nuclear weapons to ensure its "national security," why shouldn't we expect other countries, like Israel, India and Pakistan, to follow suit? As responsible global citizens, we must insist on a more sustainable concept of "human security" based on the security of all people everywhere, in their homes, in their communities, in their jobs, and in their environment. Nuclear weapons and "star wars" have no place in this new security paradigm.

Adapted from a paper prepared by Jacqueline Cabasso, Executive Director, Western States Legal Foundation for the 2001 Conference Against A & H Bombs, Hiroshima, Japan, Aug. 3, 2001.

Endnotes

1. See *U.S. Nuclear Weapons Policies, Ballistic Missile Defense, and the Quest for Weapons in Space: Military Research and Development and the New Arms Race*," Western States Legal Foundation Information Bulletin, Summer 2000, available at: http:// www.wslfweb.org

2. Remarks at the National Press Club, May 23, 2000

3. "Missile defense optimism fades," BBC News Online, July 23, 2001, http://news.bbc.co.uk/hi/english/world/europe/newsid_1453000/1453181.stm

4.. U.S. Department of the Air Force, *The Air Force Science and Technology Plan for Fiscal Year 2000,* p. 22

5. *Nuclear Operations,* Air Force Doctrine Document 2-1.5, 15 (July 1998), pp. 8-9 (Emphasis added)

6. "Maintaining a Viable Nuclear Weapons Program in a Test Ban Environment: A Strong Technical Foundation in the Laboratories," C. Paul Robinson, President and Laboratories Director, Sandia National Laboratories (presented at the Nuclear Security Decisionmakers Forum, March 28, 2000, Albuquerque, NM.)
7. "Bill Would Give Push to 'Mini-Nuke'," *Philadelphia Inquirer,* October 16, 2000, p. A2

8. *See Looking for New Ways to Use Nuclear Weapons: U.S. Counterproliferation Programs, Weapons Effects Research, and "Mini-Nuke" Development*, Western States Legal Foundation Information Bulletin, Winter 2001, available at: http://www.wslfweb.org

9. "Proposal on ABM: 'Ready to Work with Russia,'" *The New York Times,* April 28, 2000, p. A10 (emphasis added). The document quoted from was a document "that American negotiators have presented to the Russians with proposals for amending the 1972 ABM treaty, in order to allow the United States to build a limited national missile defense system." *id.* These documents were obtained originally and provided to the *Times* by *The Bulletin of Atomic Scientists:* http://www.bullatomsci.org/issues/2000/mj00/mj00schwartz.html

10. Air Force Space Command, *Strategic Master Plan for Fy02 and Beyond*, 9 February 2000

11. U.S. Department of State, *The United States of America Meeting its Commitment to Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,* April 2000, p. 5

12. The U.S. Nuclear Weapons Cost Study Project, *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940*," Brookings Institution Press, 1998. See also *National Nuclear Security Administration FY 2001 Funding*, *Nuclear Weapons & Materials Monitor,* October 16, 2000, p. 3

13. Secretary of State Madeleine K. Albright, Remarks at Chicago Council on Foreign Relations, November 10, 1999, Chicago, Illinois, as released by the Office of the Spokesman, U.S. Department of State

14. U.S. Department of Energy Office of Defense Programs, *Stockpile Stewardship and Management Plan,* February 1996, and *Stockpile Stewardship and Management Plan: First Annual Update,* October 1997. See also, Andrew Lichterman and Jacqueline Cabasso, *Faustian Bargain 2000: Why 'Stockpile Stewardship' is Fundamentally Incompatible with the Process of Nuclear Disarmament,* Western States Legal Foundation, May 2000. Available at http://www.wslfweb.org

15. Department of Energy Fiscal Year 2001 Budget Request, p. 67

16. "That Old Designing Fever," Greg Mello, *The Bulletin of the Atomic Scientists,* January/Feburary 2000. See also, "Aging warheads getting upgrade," *The SUN* newspaper of Bremerton, Wash., April 25, 2000 http://www.thesunlink.com/news/2000/april/0425agingwarhead.html

17. *Plutonium-Pit Production in the 21st Century, Salient features of the DPAG [Defense Programs Analysis Group] - prepared for LSPF [Large-Scale Pit Facility]*, workshop on March 21, 2000 (slides), Linda Branstetter, Sandia National Laboratories (documents obtained by Greg Mello, Los Alamos Study Group)

18. *Institutional Plan FY 2001 - FY 2006*, Los Alamos National Laboratory, p. 31

19. See *Soaring Cost, Shrinking Performance: The Status of the National Ignition Facility*, by Dr. Robert Civiak, a Report for Tri-Valley CAREs, May 2001, available at http://www.igc.org/tvc

20. U.S. Department of Defense, Deputy Under Secretary of Defense (Science and Technology), 2000, *Defense Technology Area Plan*, Table XI-5, at p. XI-14. Obtained by Western States Legal Foundation through under the Freedom of Information Act.

21. 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document, Volume I, Part I. NPT/CONF.2000/28 (Vol I, Part I and II), 22 May 2000