

Issues related to nuclear disarmament and non-proliferation – Part I

delivered by John Burroughs, Lawyers Committee on Nuclear Policy

drafted by Ray Acheson, Reaching Critical Will of the Women's International League for Peace and Freedom; John Burroughs, Lawyers Committee on Nuclear Policy; John Hallam, People for Nuclear Disarmament Nuclear Flashpoints Project; John Kim, Fellowship of Reconciliation; Young Dae Ko, Solidarity for Peace and Reunification of Korea; Jae Won Lee, Solidarity for Peace and Reunification of Korea; Oh Hye-ran, Solidarity for Peace and Reunification of Korea; Elizabeth Shafer, Lawyers Committee on Nuclear Policy; Steven Starr, Physicians for Social Responsibility; Hiromichi Umebayashi, Peace Depot Japan.

INTRODUCTION

In two parts, this presentation addresses some of the key issues currently facing the non-proliferation/disarmament regime. In Part I, we begin with US-Russian negotiations, and then comment on modernization and investment; transparency and reporting; and operational status of nuclear forces. Part II addresses the CTBT and a fissile materials treaty; security assurances and alliances; the Korean peninsula and North-East Asia; NWFZs; preventing the further spread of nuclear weapons; and universality.

US-RUSSIAN REDUCTIONS AND BEYOND

The New START agreement signed April 8, 2010 by Presidents Medvedev and Obama will not fundamentally alter the nuclear balance of terror between the United States and Russia. The 2002 Strategic Offensive Reductions Treaty (SORT) set a ceiling of 2200 strategic deployed warheads. Seven years after entry into force, New START would lower the ceiling to around 1500 warheads deployed on land- and submarine-based missiles, plus up to several hundred bombs assigned to heavy bombers.¹ This would not qualitatively change the relationship.

The main virtue of the new agreement is that it will continue the process of reduction and ensure continued fulfillment of the verification and monitoring functions once met by START. One encouraging feature is that inspectors will verify the numbers of warheads deployed on missiles. In contrast, under START warheads were ascribed to permitted delivery systems.

The stakes—and the obstacles—would be much higher with respect to a subsequent agreement the Obama administration has indicated it would seek. Such an agreement following the START replacement could further reduce strategic warheads, reduce non-strategic warheads, and provide, for the first time, for verification of the dismantlement of withdrawn warheads. The result would be verified limits on the entire nuclear arsenals, not just deployed strategic warheads, of both sides. Provision should be made for international monitoring as well, to afford accountability.

Obstacles arise in part from the fact that Russia attaches great importance to its nuclear forces, including its non-strategic weapons, in view of its degraded security and military posture. And Russia will be reluctant to pursue deep strategic reductions while the United States engages in research and development regarding strategic anti-missile systems, makes advances in non-nuclear strategic strike

¹ See Pavel Podvig, “New START treaty in numbers,” Russian strategic nuclear forces blog, March 27, 2010, at http://russianforces.org/blog/2010/03/new_start_treaty_in_numbers.shtml; Hans Kristensen, “New START Treaty Has New Counting,” FAS Strategic Security Blog, March 29, 2010, at <http://www.fas.org/blog/ssp/2010/03/newstart.php>; Jeffrey Lewis, “Prague Treaty Cuts Are Modest, Real,” ArmsControlWonk.com, April 5, 2010, at <http://www.armscontrolwonk.com/2682/prague-treaty-cuts-are-modest-real>.

systems, and holds open the option of deploying space-based strike and interceptor systems.²

On the US side, there will be opposition from influential elements to limitations on all three types of non-nuclear strategic systems.³ Tensions between the two countries over anti-missile systems are ongoing. Regarding non-nuclear strategic strike systems, the Obama administration has proposed about \$440 million in 2011 spending on “Long Range Strike” and “Prompt Global Strike,” and spending on related work is scattered throughout the budget.⁴ There likely would also be significant resistance within the US government to further reductions of strategic nuclear arms *per se*.⁵

From the standpoint of civil society, it would be unacceptable for Russia to put nuclear disarmament on hold pending improvement of its overall security posture. But it is also crucial for the United States to reassure Russia in deed as well as word that nuclear disarmament is part of the project of building common security.

The two countries should establish a process for Continuous Arms Reduction Talks (CART) bringing in other states that possess nuclear arsenals.⁶ Reductions could proceed in parallel with preparations, deliberations and negotiations for a Nuclear Weapons Convention.

A final but important observation regarding reductions: Negotiations can be derailed by domestic or international developments. It remains the case that the United States and Russia, and other states with nuclear weapons, can and should undertake unilateral reductions, which can be politically coordinated.⁷ Such initiatives both reduce tension and invite reciprocation.⁸

² Russia’s statement to the First Committee of the General Assembly on 15 October 2009 made clear that in negotiations after a START replacement is agreed, it will want to address all three types of non-nuclear strategic systems. See Viktor L. Vasiliev, Statement to the UNGA First Committee, New York, 15 October 2009, at http://www.reachingcriticalwill.org/political/1com/1com09/statements/15Oct_Russia.pdf.

³ In 2009, the US Congress adopted a provision on military spending in 2010 urging the President that the START replacement treaty not include any limitations on US ballistic missile defense systems, space capabilities, or advanced conventional weapons systems. For analysis and recommendations from a disarmament perspective, see Jürgen Scheffran, Ray Acheson, and Andrew Lichterman, “Missiles, Missile Defence, and Space Weapons,” in Ray Acheson, ed., *Beyond arms control: challenges and choices for nuclear disarmament* (2010), full text available at <http://reachingcriticalwill.org/resources/books/BAC/text.html>.

⁴ For a report on current thinking in the US government about “Prompt Global Strike,” see David Sanger and Thom Shanker, “U.S. Faces Choice on New Weapons for Fast Strikes,” *New York Times*, April 22, 2010.

⁵ For many in the US nuclear establishment, the New START levels may be as low as they are prepared to support. Those levels still enable the performance of missions historically assigned to US nuclear forces.

⁶ President Obama’s campaign pledge points in the direction of widening the reduction process: “I will initiate a high-level dialogue among all the declared nuclear-weapon states on how to make their nuclear capabilities more transparent, create greater confidence, and move toward meaningful reductions and the eventual elimination of all nuclear weapons.” Arms Control Today 2008 Presidential Q&A, September 10, 2008, <http://www.armscontrol.org/2008election>. The recently released US Nuclear Posture Review refers to strategic dialogue with China as well as Russia, and also identifies as an objective: “Following substantial further [post-New START] nuclear force reductions with Russia, engage other states possessing nuclear weapons, over time, in a multilateral effort to limit, reduce, and eventually all nuclear weapons worldwide.” US Department of Defense, *Nuclear Posture Review Report*, April 2010 (“NPR”), pp. 46-47. The problem with this approach is that it delays indefinitely the involvement of states other than the United States and Russia.

⁷ Unfortunately, the Nuclear Posture Review ties US reductions to the need to avoid “large disparities in nuclear capabilities” with Russia, not for any articulated strategic reason, but because they “could raise concerns on both sides and among U.S. allies and partners.” NPR at p. xi. The NPR does state that reductions following entry into force of New START “could be pursued through formal agreements and/or parallel voluntary measures.” *Id.* at p. 30.

⁸ There are precedents, among them the 1991 Presidential Nuclear Initiatives, and the 2001 US decision to undertake

MODERNIZATION AND INVESTMENT

In and of themselves, reductions do not suffice to create a path to elimination. A key step toward multilateral nuclear disarmament is for all nuclear weapon states—including those outside of the NPT—to cease all research, development, modernization, and production of nuclear weapons.

Ending modernization and investment is mandated by the Article VI obligation to negotiate cessation of the nuclear arms race at an early date, the principle of irreversibility agreed in 2000, and the principle of good faith. As Judge Mohammed Bedjaoui, former president of the International Court of Justice, has explained, good faith requires states “to respect the integrity” of the NPT and “to refrain from acts incompatible with [its] object and purpose;” good faith also proscribes “every initiative the effect of which would be to render impossible the conclusion of the contemplated disarmament treaty.”⁹

Yet research and development is taking place in all states possessing nuclear weapons for purposes of replacing existing systems; increasing reliability; and in some cases enhancing military capabilities. The horizon for planning is measured in decades.

In the United States, the weapons complex is being modernized even as it shrinks in size. Hoped-for US Senate approval of ratification of new START and the Comprehensive Test Ban Treaty (CTBT) is already being conditioned on increased investment in new infrastructure for building nuclear weapon components, including their cores (“pits”).¹⁰ The new facilities would provide the capability to build-up nuclear forces should the decision be made to do so and to produce modified or new-design warheads. The Obama administration’s FY2011 budget request on 1 February includes \$7.282 billion for the weapons complex, about a 14% increase over FY2010.¹¹ Ambassador Linton Brooks commented that as head of the National Nuclear Security Administration under the previous president, he “would have killed for the FY11 budget.”¹² The request includes a major increase, to \$225 million for FY2011 alone, for building a new facility to produce pits at Los Alamos.¹³ Building weapons facilities that among other things provide the capability for expanding arsenals runs contrary to the principle of

unilateral reductions in deployed strategic warheads prior to obtaining Russia’s agreement to implement corresponding changes and accept the 2002 SORT agreement.

- ⁹ Mohammed Bedjaoui, Keynote Address, Conference on Good Faith, International Law, and Elimination of Nuclear Weapons: The Once and Future Contributions of the International Court of Justice, May 1, 2008, Geneva, pp. 21-22, available at <http://www.lcnp.org/disarmament/2008May01eventBedjaoui.pdf>. He was President of the ICJ when it gave its 1996 advisory opinion on nuclear weapons.
- ¹⁰ The US Congress appropriated \$32.5 million for work in 2010 on design of non-nuclear components of refurbished nuclear bomb, the B-61, currently deployed in Europe. Congress also appropriated \$97 million for design of a new facility to produce the plutonium cores of warheads at Los Alamos Laboratory, the Chemistry and Metallurgy Research Replacement (CMRR) Nuclear Facility, and \$94 million for design of the Uranium Processing Facility at Oak Ridge, Tennessee, which would build secondaries for warheads. A replacement Kansas City Plant in Missouri for production of non-nuclear components of warheads is also planned.
- ¹¹ Dr. Robert Civiak, “Enhancing Nuclear Weapons Research and Production to Enhance Disarmament?”, February 22, 2010, <http://www.trivalleycares.org/new/reports/FY2011BUDGETRPT.pdf>. Spending on the nuclear weapons complex is not the same as total spending on US nuclear forces. Stephen Schwartz and Deepti Choubey estimate that in 2008 US nuclear weapons-related spending totaled \$52.4 billion, of which over \$29 billion was on “nuclear forces and operational support.” *Nuclear Security Spending: Assessing Costs, Examining Priorities*, Carnegie Endowment for International Peace, 2009, p. 7. Other categories within the total are deferred environmental and health costs, missile defense, nuclear threat reduction, and nuclear incident management.
- ¹² “Ambassador Linton Brooks on New START and the next agreement,” April 16, 2010, <http://csis.org/blog/ambassador-linton-brooks-new-start-and-next-treaty>.
- ¹³ *Department of Energy FY2011 Congressional Budget Request*, National Nuclear Security Administration, Office of the Administrator, Volume 1, February 2010.

irreversibility.

Modernization of existing US warheads is also ongoing to extend their life and other features, including in some cases additional military capabilities.¹⁴ The Obama administration is now proposing that nearly \$2 billion be spent from 2011 to 2015 on modernizing the B-61 gravity bomb, now deployed in Europe, among other things to make them compatible with the new nuclear-capable fighter jet, the F-35 Joint Strike Fighter.¹⁵ Unlike other nuclear weapon states, the United States is not now producing and deploying new versions of missiles, bombers, and submarines assigned to carrying nuclear warheads. However, the US Nuclear Posture Review outlines plans to develop and deploy new generations of delivery systems in the next two decades, including ballistic missile submarines and ICBMs.¹⁶ The United States will also study whether and how to replace the current air-launched cruise missile,¹⁷ and will not accept limits on its ongoing missile defense program.¹⁸ There is also intensive development of many other aspects of its nuclear forces, *e.g.* command and control and targeting capabilities.

Modernization of Russian nuclear forces is currently underway. In a November 2009 speech, President Dmitry Medvedev announced that the Russian military would receive “more than 30 ballistic land- and sea-based missiles” and three nuclear submarines in 2010.¹⁹ This is in line with previously announced Russian intentions to continuously modernize all three legs its nuclear triad—land-based intercontinental ballistic missiles, submarines, and bombers.²⁰ Unlike the US “Stockpile Stewardship” program which is based on extending the service lives of existing warheads, maintenance of Russia’s nuclear stockpile has been based on the periodic reproduction of warheads. However, seemingly adopting the US method, in July 2009, President Medvedev announced that by 2011 Russia would develop supercomputers to monitor the effectiveness of its nuclear weapons.²¹

Similar reports can be made for all states possessing nuclear arsenals. As to other NPT nuclear weapon states, modernization of French nuclear forces includes deployment planned for this year of the new, longer-range M-51 intercontinental ballistic missile, on new generation ballistic missile submarines.²² Later this decade the missiles reportedly will be armed with a new warhead.²³ The United Kingdom is

¹⁴ The Obama administration’s Nuclear Posture Review states that warhead “life extension” work will proceed for the W76, deployed on submarine-launched ballistic missiles, the B61, deployed on fighter-bombers, and the W78, deployed on ICBMs. NPR at p. 39. While the NPR claims that the work will not “support new military missions or provide for new military capabilities,” in fact life extension for the W76 is adding to the capability to hit hard targets. See Greg Mello, “That Old Designing Fever,” *The Bulletin of the Atomic Scientists*, January/February 2000, Vol. 56, No. 1, pp. 51-57. Also, the military capability of a nuclear weapon does not depend on the warhead alone, and there are ongoing improvements in delivery systems, for example the F-35, targeting, command and control, etc.

¹⁵ Otfried Nassauer, “Washington Mulls Modernization of Aging Bombs,” *Spiegel Online*, March 15, 2010.

¹⁶ NPR at p. 23. The administration is proposing to spend \$672 million in 2011 for design of a new ballistic missile submarine, to be built in 2019. See John M. Donnelly, “Cost of Nuclear Subs Could Sink Navy Budget,” *Congressional Quarter Today Online News*, March 1, 2010.

¹⁷ *Id.* at p. 24.

¹⁸ *Id.* at p. x.

¹⁹ Robert S. Norris and Hans M. Kristensen, “Russian nuclear forces, 2010,” *Bulletin of the Atomic Scientists*, January/February 2010, <http://thebulletin.metapress.com/content/4337066824700113/fulltext.pdf>.

²⁰ NTI Research Library, Russia Profile, Russia: Nuclear Chronology, 2006 – 2009, http://www.nti.org/e_research/profiles/Russia/Nuclear/chronology_2006-2009.html.

²¹ Norris and Kristensen, *ibid.*

²² “French sub tests M51 with success,” UPI, January 29, 2010, available at http://www.upi.com/Business_News/Security-Industry/2010/01/29/French-sub-tests-M51-with-success/UPI-72001264788477/.

²³ Robert S. Norris and Hans M. Kristensen, “French nuclear forces, 2008,” *Bulletin of the Atomic Scientists*, September/October 2008, <http://thebulletin.metapress.com/content/k01h5q0wg50353k5/fulltext.pdf>.

expected to begin design work in 2012-2014 on a new class of submarines to be armed with Trident missiles.²⁴ For its part, China is deploying new mobile missiles and a new class of ballistic missile submarine, and reportedly is increasing its number of nuclear warheads.²⁵

Trading some arms control agreements or arsenal reductions for modernized nuclear forces and modernized or new research and production facilities capable of building the nuclear threat anew is not disarmament. If the danger of nuclear war is to be eliminated, ceasing to plan and build for an eternal nuclear threat must come early, not late, in the process.

TRANSPARENCY AND REPORTING

At NPT review meetings, nuclear weapon states have provided general statements regarding, *e.g.*, reductions of deployed weapons, and some have also declared their arsenal size and fissile material holdings. However, there is nothing even resembling an authoritative accounting of warhead and fissile material stockpiles, nuclear weapons delivery systems, and spending on nuclear forces. Non-governmental researchers make valiant efforts to fill the gap, but their assessments are for the most part estimates based only partly on official information. The need for accounting is obvious: it would provide baselines for evaluating progress in disarmament, and enable the identification of objective benchmarks. In his 24 October 2008 five-point proposal for disarmament, Secretary-General Ban Ki-moon called for expanded reporting, observing that the “lack of an authoritative estimate of the total number of nuclear weapons testifies to the need for greater transparency.” States should seek a commitment to establishment of a comprehensive, UN-based accounting system.

OPERATIONAL STATUS OF NUCLEAR FORCES

In recent years, Chile, Malaysia, New Zealand, Nigeria, Sweden and Switzerland have sponsored the General Assembly resolution “Operational Readiness of Nuclear Weapons Systems.” Other resolutions have addressed the issue as well.²⁶ Last year, a very important report, *Reframing Nuclear De-Alert*, was released by the Swiss and New Zealand governments and the East-West Institute. It examines how to lower the state of operational readiness of US and Russian nuclear arsenals.²⁷

There is no doubt that very high states of operational readiness still exist almost two decades after the Cold War supposedly ended.²⁸ The US and Russia continue each to maintain about one thousand

²⁴ Ian Anthony, *The Future of Nuclear Weapons in NATO*, Friedrich Ebert Stiftung, 2008, p. 24.

²⁵ Jeffrey Lewis, “Chinese Nuclear Posture and Force Modernization,” in Cristina Hansell and William C. Potter, eds., *Engaging China and Russia on Nuclear Disarmament*, Occasional Paper No. 15, James Martin Center for Nonproliferation Studies, April 2009.

²⁶ India has for a number of years sponsored a resolution on Reducing Nuclear Dangers. In 2009, the “Renewed Determination” resolution championed by Japan was co-sponsored by the United States and supported by Russia. It calls for “measures to reduce the risk of an accidental or unauthorized launch of nuclear weapons and to also consider further reducing the operational status of nuclear weapons systems”

²⁷ The report was released last October at a First Committee event. One of the speakers, General (ret.) Eugene Habiger, former Commander in Chief of United States Strategic Command, strongly supported de-alerting, and said that it is feasible from a military point of view; what is required is a political decision. The recent report of the International Commission on Nuclear Non-proliferation and Disarmament also endorses measures to this end. The report observes that the “prospect that a catastrophic nuclear exchange could be triggered by a false alarm is fearful, and not fanciful.” *Eliminating nuclear threats: a practical agenda for global policymakers*, Report of the International Commission on Nuclear Non-proliferation and Disarmament, 2009, p. 27.

²⁸ The US Nuclear Posture Review states that “nearly all” US silo-based ICBMs are on alert, along with a “significant number of SSBNs [strategic ballistic missile submarines],” hopefully cutting through obfuscation about the matter. While the report states that the alert states will be maintained, it does contain welcome language about the need to increase presidential decision-making time during a nuclear crisis. NPR at pp. 25-27.

nuclear warheads in a status such that some can be launched within less than two minutes, others within 10 minutes. Both President Obama and President Medvedev are at all times shadowed by someone with a briefcase from which either president can - in theory anyway - order a nuclear strike.

The problem with having a system primed for such a quick response is not so much that “rogue commanders” might fire one or two shots, or that computer error or equipment malfunction might result in launches, though that has nearly taken place at least twice that we know of. With response times so tight, presidents and senior military may have minutes (or less) to make decisions of utterly apocalyptic significance involving hundreds of warheads. If those decisions turn out to be based on honestly believed but completely false data, it is too late to recall the missiles and not possible to abort their missions. Decision-making under such tight time constraints and in such panic cannot ever be rational.

The risks inherent in this posture are simply unacceptable. This is especially so in the light of recent peer-reviewed research, which predicts that less than one percent of currently deployed and operational nuclear arsenals, if detonated in urban areas, would cause catastrophic damage to the global climate and environment. A "regional" nuclear war between India and Pakistan, for example, would loft millions of tons of smoke above cloud level and rapidly produce Ice Age weather conditions on Earth, leading to massive nuclear famine which could cause up to one billion people to die of starvation.

De-alerting should be pursued within or in connection with US-Russian nuclear arms reduction negotiations, and also should be a topic for wider consideration by states with nuclear arsenals. Care should be taken in implementing de-alerting measures to guard against worsening crisis stability problems. Urgent work is needed to reduce the risks of accidental or mistaken launch, which is feasible short of more ambitious steps like demating warheads from missiles.²⁹

The use of the main arsenals of the US and Russia would probably bring about the end of what we call civilization and possibly of our species. It is time to take the apocalypse off the agenda: It has been there too long.

²⁹ To this end, the United States and Russia should ensure that the Joint Data Exchange Center, agreed on by Presidents Clinton and Yeltsin over 10 years ago, is brought into operation.