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NEXT STEPS IN U.S.-RUSSIAN ARMS CONTROL[2]

The arrival of the Obama administration in the United States, along with several aspects of the world situation, indicates that we are about to see a revitalization of the arms control process in general, and the U.S.-Russian arms control process in particular. The relevant circumstances of the world situation are familiar to us all–the expiration of the START Treaty next December, the approaching NPT Review Conference next year, the urgent need to resolve the problems created by the nuclear activities of Iran and North Korea, the failure of the Conference on Disarmament in Geneva to make any progress whatsoever for almost 13 years and the growing realization (especially in the U.S.A, U.K. and elsewhere, and, I hope that includes Russia) that a continuation of the current situation, in which thousands of nuclear weapons are deployed, with thousands more in reserve, is both unnecessary and dangerous.

NEW GOALS

President Obama has set a very positive goal for us all by saying the following: "I will seek real verifiable reductions in all U.S. and Russian nuclear weapons–whether deployed or non-deployed, whether strategic or nonstrategic–and work with other nuclear powers to reduce global nuclear stockpiles dramatically by the end of my presidency. As a first step, I will seek Russia's agreement to extend essential monitoring and verification provisions of the START I before it expires in December, 2009."

Momentum is building in the U.S. for substantial reductions and the eventual elimination of nuclear weapons. Inspiration for this has been provided by the works leading experts, such as George Shultz, Henry Kissinger, Sam Nunn and William Perry, George Perkovich and James Acton, Jan Lodal and Ivo Daalder. A further contribution, examining in greater detail the complex verification issues in this effort, will appear soon in a major study to be published by the *Nuclear Threat Initiative*.

The U.K. has also been playing a very helpful role, beginning with the speech by Margaret Beckett at the Carnegie Nonproliferation Conference in 2007, and continuing with the very helpful exhortations of Des Browne and David Miliband. The U.K. and Norway, assisted by the Verification Research, Training and Information Centre (VERTIC), are already working on solving some of the difficult monitoring tasks we will face. The U.K. has also offered to host discussions of the technical aspects of these issues among the weapons laboratories of the nuclear weapon states–an offer that should be pursued. The Trilateral Initiative among the U.S., Russia and the IAEA was making good progress until it stalled and that work should be resumed.

WHAT IS TO BE DONE ABOUT START?

It is useful to divide this subject into two parts–a long-term goal and the immediate problems we face this year. The long term-goal is addressed in the publications and speeches mentioned above. Therefore, I would like to focus primarily on the immediate problem of what to do about the START Treaty, as well as the Moscow Treaty of 2002 or SORT.

Our immediate goal should be to replace the START Treaty before it expires on December 5, 2009. There seem to be four main options:

- ❑ *START Minus*: Lower the levels and simplify the START verification regime;
- ❑ *SORT Plus*: Lower the levels and add the necessary verification provisions;
- ❑ *New Treaty*: Replace both START and SORT with a new treaty;
- ❑ *Extend START*: This would be a fallback in case the other options prove to be too ambitious for this year. We can extend START for five years, as provided for in the Treaty itself, without the need for a formal amendment, which would require approval from the U.S. Senate and the Russian Parliament. There might possibly also be legal maneuvers by which we could agree to continue to implement only those parts of the verification regime which the sides agree to be essential. Extending START would mean that our partners in Ukraine, Belarus and Kazakhstan would continue to be States Parties. The other three options would be bilateral.

My personal recommendation would be to replace both START and SORT with a new treaty. Whatever option is chosen, there are two main questions–what should be the level of strategic nuclear weapons systems and what verification regime is needed?

As far as the levels are concerned, it would be advisable to reduce to about 1,000 deployed strategic nuclear warheads. This is ambitious and a level somewhat higher would not be surprising, but any level above 1,500 would be very disappointing and would not be well-received at the 2010 NPT Review Conference. Whatever the level, I hope we can agree to stop the curious practice, found in both the START II Treaty and SORT, of showing a range. Since the level is a ceiling, showing a range is confusing and illogical.

It seems clear that, in addition to a ceiling on warhead levels, there must also be some constraints on delivery vehicles–ICBM and SLBM launchers and heavy bombers–to assist verification and minimize the possibility of breakout. In addition, we cannot continue to ignore nondeployed systems and tactical nuclear weapons, especially as levels of deployed strategic systems get much lower. One idea we should consider now, in order to start to get a handle on the problem, would be to declare current nuclear stockpiles. Why should these numbers continue to be classified under current conditions? The U.S. and Russia could take the lead in this and encourage the other NWS to follow. Initially, we would not attempt to verify stockpiles, but would begin to build trust and establish a baseline from which future reductions could be measured.

Because I have been advocating reductions to about 1,000 as the next step for some time, I have been asked what is magic about this number. Of course, there is nothing *magic* here. Obviously 1,000 is a round number that would be a very significant reduction and would have considerable public appeal. A key point is that reducing to about 1,000 makes sense as the next step whether or not one believes that the eventual elimination of all nuclear weapons is feasible or even desirable. In addition, down to about this level, four key factors that apply today would still be true:

- ❑ Nuclear deterrence would continue to operate as it does today.
- ❑ A triad of nuclear forces would still be viable.

- ❑ The proven verification regime we have today in the START Treaty (or even a simplified version of it) would be adequate to provide effective verification.

- ❑ The levels of U.S. and Russian nuclear forces would still be far above those of any other country.

Somewhere below 1,000 these four statements might no longer be true and quantitative change would become qualitative change. We may need to rethink deterrence, including extended deterrence. It seems to me that deterrence is a rather fundamental aspect of international security and will still be needed even if all nuclear weapons are eliminated. The mistake made by both our countries was the idea that deterrence required tens of thousands of nuclear weapons–an idea that was always absurd and is even more so today.

As the role of nuclear weapons is diminished, deterrence will rely increasingly upon conventional weapons. Regional conflicts must be ameliorated and security increasingly based upon collective efforts. Greater respect for international law in initiating the use of force will be essential. These are serious issues–we must not allow our efforts *to reduce nuclear weapons* to make the world safe for conventional war and no one wishes to return to the pre-1945 world. The future role of conventional weapons in deterrence is a complex one and voices are already being heard saying that the elimination of nuclear weapons must not result in a world with large imbalances in conventional forces. This may be a point that must be considered, but it amounts to moving the goal posts, particularly when it comes from countries that have been advocating the elimination of nuclear weapons for decades.

Other complications that will arise at some point below about 1,000 warheads would be the need for the U.S. and Russia to move from a triad of forces to a dyad, a requirement for more stringent verification measures and the fact that other countries with nuclear weapons would have to come to the negotiating table and agree to begin to constrain their forces. If countries actually get to extremely low levels, further issues will arise. While the subject of eliminating the last few weapons is a fascinating one, governments should not allow this problem, for which definitive answers will not be needed for a long time, to dominate the debate.

The START verification regime is extremely complicated and we would not reinvent it if we were beginning all over again today. However, it exists and we know it works. Therefore, although it could be simplified, we should be cautious about what we throw away. This regime has nine major components, none of which is found in the SORT Treaty:

- ❑ Clear definitions, counting rules and over 100 Agreements and Joint Statements produced by the Joint Compliance and Inspection Commission (JCIC);

- ❑ Conversion or elimination procedures that make reductions irreversible;

- ❑ Non-interference with national technical means, operating in accordance with generally recognized principles of international law;

- ❑ A prohibition on most forms of telemetry denial;

- ❑ A massive data exchange–over 100 pages updated daily as required through the Nuclear Risk Reduction Centers and in full every six months;

- ❑ Notifications–153 different formats;

- ❑ 12 types of on-site inspection, plus Perimeter and Portal Continuous Monitoring (PPCM) at the Votkinsk facility;

- ❑ Seven cooperative measures per year;

- ❑ Unique identifiers, plus geographical and operational constraints on mobile ICBM systems.

Detailed study of how this regime might be modified to meet current conditions, which are far more favorable than they were in 1991, is clearly needed and is beyond the scope of this paper. It seems clear that both sides could probably live comfortably with fewer inspections and fewer notifications. For example, is it really necessary to send a notification when a heavy bomber flies from one internal base to another? One could also imagine elimination procedures that are less burdensome and costly, but still effective.

One feature that must be included in the next agreement is agreed counting rules. According to the START rules, as of July 2008, the primary deployed forces of the two sides are shown below:

Table 1. **Nuclear forces of Russia and the United States**

Ceiling	United States	Russia
1,600 delivery vehicles	1,214	839
6,000 deployed warheads	5,951	4,138
4,900 warheads on ballistic missiles	4,864	3,506
1,100 warheads on mobile ICBMs	0	198
1,540 warheads on heavy ICBMs	0	1,040

Secretary Gates has stated that the U.S.A will reach the SORT level of 2,200 deployed nuclear warheads by 2010 and there are reports that the United States is already there. However, no counting rules were ever agreed for SORT and the discrepancy between the agreed START counting rules illustrated above and the SORT rules used by the U.S. is about 3,000 warheads. At low levels, we will need rules that correspond more closely to reality than the START rules, but verification must also be considered. In any case, the details of these rules are less important than the fact that they must be clear and agreed. There are legitimate concerns about the "upload potential" of reduced forces. Reasonable constraints on strategic nuclear delivery vehicles, plus a return to the sort of limits on "downloading" found in the START Treaty, could ameliorate such concerns.

More difficult will be issues that we know are controversial and that need to be resolved for progress to be made toward deep reductions and eventual zero. Clearly the U.S.A needs to ratify the Comprehensive Test Ban Treaty and President Obama has already expressed his intention to do so. The United States, which is no longer obsessed with Russian missile throw-weight or force structure, could probably liberalize the rules on deploying MIRVs on ICBMs, in particular the new RS-24. Washington needs to take more seriously Russian concerns regarding future ABM systems, especially those close to Russian territory, and be willing to provide some assurances regarding its future ABM activities. Clearly, there is a connection between potential threats and the need for defenses to protect against such threats. Finally, now that the European Union has issued a draft Code of Conduct for space-faring nations, the U.S.A needs to be more open-minded and willing at least to discuss the problem of weapons in space. There are indications that the Obama administration will move in this direction.

For its part, the Russian Federation also needs to address several problems. For example, Russia needs to recognize more fully U.S. concerns regarding terrorism and rogue states. This includes understanding U.S. views about missile defenses. Both sides have long advocated cooperation in this area and the time has come to put words into action and solve this problem that has plagued us for years. Russia should be more reasonable about the possibility of replacing a small number of nuclear warheads with conventional warheads. The sides have proven equipment (neutron detectors) and procedures for distinguishing between nuclear and conventional warheads. Of course, at roughly 2,000 warheads for each side, simply counting these as nuclear solves the problem, but if interest persists in the conventional option, this

could become a problem at low levels. Finally, Russia must begin to come to grips with the issues posed by its large force of tactical or sub-strategic nuclear weapons. As strategic systems are reduced, the relative importance of these weapons will obviously increase. A good place to start would be with greater transparency.

ADDITIONAL ISSUES

As we contemplate very deep reductions, some difficult technical problems come into view. Monitoring techniques for the elimination of nuclear warheads and for the disposition of their fissile material will be needed. Some useful work along these lines was done in anticipation of the implementation of the 1997 *Helsinki Framework* (START III). The U.K.-Norway work mentioned above is also directed to this end. It is worth noting that vigorous work to address these problems need not, at this stage, involve any commitment to any particular level of reductions or to the eventual elimination of nuclear weapons. The point is that we do need to be adding things to our verification tool box so that we have options, and our leaders have time to consider and test these options. The U.S. scientists would welcome the opportunity to collaborate with their Russian colleagues in working toward solving these problems.

There will also be political issues. For example, we need to solve problems of access, liability, taxes, and so on, of the sort that complicated our attempts to cooperate on the *Mayak* facility.

More effective procedures for dealing with compliance issues will also be needed. Our countries have had a generally good record in dealing with compliance issues under the INF and START Treaties. However, some technical issues have been allowed to linger for years. As levels of weapons get lower, compliance issues will inevitably arise and countries will demand a system for dealing with such concerns, which is, and is seen to be, fair and effective.

This is clearly an exciting time. Over the next year, we need to make a productive start on solving these issues. We also have on our plate the broader multilateral issues of dealing with nuclear proliferation, strengthening the NPT, the crisis of the CFE Treaty, the problem of the rise of intermediate-range ballistic missiles in countries not covered by the INF Treaty and the ongoing problems of terrorism. We should welcome the opportunities provided by these challenges.

Notes

[1] The views and characterizations expressed are those of the author and do not necessarily reflect the policies of the U.S. Government or Georgetown University.

[2] The article is based on the remarks made by Edward Ifft at the roundtable *"What Should Be the Next Steps in the U.S.-Russian Nuclear Disarmament Process?"* held by the PIR Center together with the *Nuclear Threat Initiative* (NTI) in Moscow on March 5, 2009.