TACTICAL NUCLEAR WEAPONS ELIMINATION: NEXT STEP FOR ARMS CONTROL

by Nikolai Sokov

Dr. Nikolai Sokov began his career as a research fellow at the Institute of USA and Canada Studies in Moscow and at the Institute of World Economy and International Relations (IMEMO), where he received his candidate of history degree in 1986. In 1987, he joined the Soviet Foreign Ministry and worked on disarmament issues and participated in the START I talks. In 1992, he took a leave of absence and enrolled at the University of Michigan, where he received his Ph.D. in Political Science in 1996. Dr. Sokov is now a postdoctoral fellow at the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

Nuclear disarmament is again receiving the attention of politicians and nongovernmental experts after several years on the back burner. Debates have been stimulated by the December 1996 letter from a distinguished group of retired U.S. and Russian generals calling for the complete elimination of nuclear arms.[1] The uncertain START II ratification process and potential U.S.-Russian confrontation over NATO enlargement add urgency to this task of moving ahead with further disarmament.

An obvious question is where to start? The Canberra Report, which developed a specific plan of moving toward complete elimination of nuclear weapons, singled out measures related to non-strategic weapons as a desirable first step.[2]

Tactical nuclear weapons (TNW) are the only part of the nuclear arsenals of the United States and Russia that is regulated primarily by an informal regime—one that is not codified in an international treaty. That regime was established in 1991 by reciprocal *unilateral* obligations of the United States and the Soviet Union. According to these initiatives, all ground- and sea-launched TNW of the United States and the Soviet Union were withdrawn to storage facilities (along with long-range sea-launched cruise missiles (SLCMs)), while the number of air-launched TNW was also reduced. Meanwhile, a large number were slated for elimination.

The agreements concluded within the Commonwealth of Independent States (CIS) at the end of 1991 and in early 1992 (indirectly codified by the Lisbon Protocol to the START I Treaty) developed this informal regime further. These agreements provided for the withdrawal to Russia of TNW from the territories of Belarus, Ukraine, and Kazakstan. Finally, in December 1996, the North Atlantic Council ministerial meeting declared that "NATO countries have no intention, no plan, and no reason" to deploy TNW on the territories of the future new members of the North Atlantic Treaty Organization (NATO) and "do not foresee any future need to do so."[3]

The remaining number of deployed TNW is relatively small. The United States has about 500 nuclear bombs

in Europe.[4] Although Russia has not disclosed the number of its deployed TNW in Europe officially, *The Bulletin of Atomic Scientists* estimates that Russia has 2,200 deployed TNW,[5] with probably about half of them in Europe. The number of TNW in storage, however, is still fairly large. The United States is estimated to have 7,000.[6] While official Russian figures remain classified, warheads for non-strategic delivery vehicles constitute 40 percent of the total nuclear weapons stockpile,[7] which puts their actual number somewhere between 6,000 and 13,000 warheads.[8] According to scheduled reductions, the total stockpile should fall to 5,000 to 10,000 warheads by the year 2005.[9]

The existing, largely informal regime might become inadequate fairly soon, however. A consensus is emerging in Russia regarding the value of TNW for ensuring the country's security, especially in the wake of NATO's upcoming enlargement. The decision to reverse the 1991 Soviet obligations is all but official: reportedly, it has already been endorsed by the military and the presidential administration as a preferred response in case Russia perceives the need to adopt military countermeasures.[10] A distinguished military expert, retired general Vladimir Belous wrote that the new deployment should entail the creation of "groupings" of tactical nuclear weapons,[11] which could include delegation of control over TNW to local commanders, at least in time of crisis. Reportedly, a new missile (dubbed SS-X-26 by NATO) with a range of 400 kilometers is already being flight-tested.[12] Belarusian President Aleksandr Lukashenko, in a recent statement before the Russian Duma, hinted that he would like Russian nuclear weapons to be redeployed in his country.[13]

But there are even more far-reaching proposals. Minister of Atomic Energy Viktor Mikhailov has proposed development and production of 10,000 new, fourth generation nuclear warheads, as well as the abrogation of the Intermediate-Range Nuclear Forces (INF) Treaty of 1987 and the redeployment of SS-20 and SS-23 missiles.[14] His proposal on the fourth generation of weapons is not as far-fetched as it might seem: as early as 1992, Lieutenant General Evgeniy Negin announced that Russia already had developed a miniaturized nuclear weapon.[15]

The possible consequences of these proposals are bleak. A new round of the arms race could follow. A breakdown of the existing TNW regime also could lead to Russia's rejection of the START II Treaty and to new deployments of land-based strategic missiles with multiple warheads (MIRVed ICBMs), which START II bans. The United States is likely to respond in kind, by deploying additional TNW in Europe and taking other measures. As a result, at least one of the nuclear states—and more in the case of a NATO response—would be seen as reneging on obligations under Article VI of the Non-Proliferation Treaty (NPT). If these events were to occur, the nonproliferation regime would be seriously weakened.

The only way out of the conundrum is to formalize the current regime, make it legally binding, and broaden its scope to include complete elimination of TNW worldwide. However, deeply entrenched assumptions about the value of TNW for security hinder progress toward this solution. Until these assumptions are challenged, serious initiatives in the area of TNW will always lack the necessary domestic support.

This article is an effort to reassess traditional views of TNW. It seeks to demonstrate that TNW do not enhance security under any conditions, that their value for deterrence is grossly overestimated both by Russia and by NATO, and that these weapons need to be eliminated, regardless of actual or potential imbalances in conventional or strategic nuclear weapons. Consequently, measures to formalize the current regime could (and should) be undertaken independently of the issues of NATO enlargement and START II ratification.

This article begins with an overview of the missions assigned to TNW by Russia and NATO and then proceeds with a critical reassessment of the utility of TNW. Finally, it elaborates on some initial measures to create a formal TNW regime and move toward deep reductions in and eventual elimination of TNW.

MISSIONS ASSIGNED TO TNW

Increased attention to TNW in Russia is part of a larger trend, underway since the breakup of the Soviet Union, toward reliance upon nuclear weapons as the main source of security. As early as the spring of 1992, the military proposed abandoning the Soviet Union's no-first-use policy. This innovation became official in the fall of 1993.[16] The policy shift was justified by the radical weakening of Russian conventional forces as a result of both the disintegration of the Soviet Union and the on-going economic crisis. The 1993 doctrine, however, did not

specify which classes of nuclear weapons Russia needed. But the first-use plank is likely to figure prominently in the new defense doctrine. Indeed, Yuri Baturin, the Secretary of the Defense Council, has complained that the strategic situation has become even worse since 1993, suggesting a strengthened commitment to the first-use doctrine.[17]

The upcoming enlargement of NATO has focused attention on developing means to compensate for NATO's considerable superiority in conventional forces, which is expected to increase further after the actual enlargement takes place. In 1995, for the first time, deployment of additional TNW by Russia was proposed as an appropriate means of response.[18]

NATO's statements about its absence of hostile intentions receive relatively little attention in Russia,[19] where few now trust promises from the West. The points commonly made even at the official level are that: 1) NATO has not yet transformed itself sufficiently for Russia to be able to discount the alliance as a military threat[20]; and 2) even if NATO is not a threat today, it might change its policies in the future and become a threat, especially after enlargement.[21]

Consequently, the decision on whether military countermeasures are needed and whether to deploy TNW will depend, to a large extent, on NATO's capabilities. As Defense Minister Igor Rodionov said in a speech in Brussels on December 18, 1996: "political intentions are an abstract category, but military potential is a permanent and tangible factor. [...]as even the recent experience of history shows, political intentions change and verbal declarations are forgotten."[22] In other words, for the foreseeable future, the imbalance in conventional weapons will continue to preoccupy Russian decision-makers; success in the ongoing negotiations might help to postpone the decision until such time as the level of trust becomes sufficient to abandon plans of TNW deployment completely, but, in the meantime, the possibility of deployment will continue to exist.

In view of the regional imbalance, Russia has adopted the same solution that NATO developed during the Cold War in the face of Soviet superiority in conventional forces. The differences between the past NATO and current Russian approaches are insignificant and can be accounted for by the particulars of Russia's geostrategic position. Similarities include the two policies' stress on: a desire to contain superior conventional forces of the other side, deter the other side's TNW, and deter "third states" (either non-NATO or those not in alliance with Russia). In addition, within NATO, TNW played a role in providing a link between the United States and the European members of NATO; such a role is not yet relevant for Russia.

Containment of Superior Conventional Forces

Generally, speaking, the threat of "going nuclear" supposedly deters the other side from utilizing its superiority and thus helps to prevent war. But the effectiveness of deterrence depends on the technical readiness and political will to actually employ nuclear weapons.[23]

In the plans of NATO, TNW were supposed to stop the advancement of Soviet troops in case of war and possibly defeat them, bringing the conflict to an early termination.[24] Under current international conditions, the role of TNW has remained more or less the same, although their war-fighting mission is being deemphasized somewhat. The "Alliance's Strategic Concept" of 1991 states:

> The fundamental purpose of the nuclear forces of the Allies is political: to preserve peace and prevent coercion and any kind of war. They will continue to fulfill an essential role by ensuring uncertainty in the mind of any aggressor about the nature of the Allies' response to military aggression.[25]

Officially, they are not targeted against Russia: a 1996 NATO document stated that nuclear weapons "are no longer targeted against anyone."[26] The remaining question, therefore, is who is the potential target, since the negative guarantees adopted in connection with the NPT preclude the United States from threatening non-nuclear states with nuclear weapons?

Russia's new approach proceeds from the same premise. A recent book, published by the Russian Institute of Strategic Studies, stresses the effectiveness of TNW as a deterrent and specifically points out that their deterrent value depends on a demonstrated willingness to use them.[27] As General Belous writes, "TNW, which have relatively high indicators under the cost/effectiveness criteria, might serve as an equalizer of sorts, depriving NATO of military superiority."[28] He assesses NATO's superiority as threefold today and even greater after an enlargement that he assumes to include Poland, the Czech Republic, and Hungary. The inferiority of Russia in modern precision-guided conven-

tional weapons is even greater (four-to-one compared to the United States alone and six-to-one compared to NATO as a whole[29]) and is another reason often cited in favor of reliance on TNW. Based on these assessments, some experts consider proportionate reductions of TNW as disadvantageous to Russia, if the conventional imbalances are not taken care of in advance.[30]

TNW as a Link between the United States and Its European Allies

For NATO during the Cold War, the reliability of U.S. security guarantees represented a serious problem: the question was whether the United States would come to the defense of Europe if U.S. territory were not affected by a supposed Soviet attack.[31] It was believed that early use of TNW would guarantee U.S. participation in a European war.[32]

The "coupling" role of TNW was (and is) somewhat uncertain, however, since TNW simultaneously raised the specter of a limited nuclear war in Europe, in which only substrategic nuclear weapons would be used.[33] The possibility of a limited war gave the United States a theoretical ability to stay out of a European conflict. This contradiction was never solved and, for all practical purposes, should have died out with the Soviet Union and the Warsaw Pact (although officially it is still listed as an important mission of U.S. TNW[34]). But, paradoxically, the question of whether or not TNW do, in fact, strengthen the commitment of the United States to the defense of Europe, is probably irrelevant: the presence of U.S. troops in Europe, who effectively played the role of hostages, provided for a much stronger coupling effect in and of itself.

This issue is not relevant for Russia because there simply is not a cohesive alliance, and, consequently, there is no need for such a link. When (and if) an alliance emerges (Belarus is effectively a military ally and the Tashkent Treaty Organization, established in 1992, is a prototype of an alliance[35]), Russian guarantees still will not be seriously doubted, since the territories of its allies would be contiguous. The need for such a link might surface, however, if Russia establishes a permanent military presence in Serbia.[36]

TNW as a Deterrent to the TNW of the Main Opponent

The deterrent mission of TNW emerged by default, simply because both the Soviet Union and the United States had TNW in Europe. The Soviet Union, despite its superiority in conventional forces (which it never recognized and the significance of which is challenged by some analysts[37]), sought to balance against U.S., British, and French non-strategic nuclear weapons. It treated TNW as an integral part of its conventional forces, whose mission was straightforward support of combat operations. This mission was inherited from the early stages of the nuclear age, when nuclear weapons were thought to be fairly "usable."[38] As a result, TNW came to play a dual role for NATO—that of an equalizer and of a counterbalance to the TNW of the Soviet Union. The second mission ostensibly downgraded the relevance of TNW as a deterrent in relation to Soviet conventional superiority and as a link between the United States and its European allies.

For Russia, the contradictions and uncertainties of the non-strategic nuclear balance are the same, if not greater. The presence of U.S. TNW clearly weakens the equalizing role of Russia's TNW. Moreover, U.S. TNW are capable of something that Soviet TNW could never achieve during the Cold War: reaching the *strategic* forces of the other side. According to General Vladimir Dvorkin, probably the most authoritative source on the issue, up to 50 to 60 percent of facilities that comprise the strategic arsenal of Russia and its command and control centers are within reach of NATO TNW; after the enlargement, the figure could reach 70 to 80 percent.[39] This figure will continue to haunt Russian military planners, since the decision of NATO not to move nuclear weapons eastward is unilateral and could be reversed. It is no wonder, then, that U.S. TNW are often classified as "strategic"[40] and that the issue of NATO enlargement has figured prominently during START II ratification hearings in the Duma.

Deterrence of "Third" States

Many Russian experts consider TNW important for missions other than deterring NATO. China, with its enormous superiority over Russia in conventional forces, is an obvious object of nuclear deterrence, even though it has not been mentioned explicitly in open publications. A Russian study that attempted to measure the level of external threat to various regions listed the Russian Far East as facing a threat that was three times greater than that facing western Russia.[41] It should be noted, however, that the "danger of the threat," which denotes the imminence and the gravity of conse-

quences of possible attack, is the same for both regions. This means that Russian military analysts consider NATO a more immediate military threat than China.

Non-nuclear states bordering on the former Soviet Union are an object of nuclear deterrence as well, even though this appears to contradict Russia's negative guarantees under the NPT. A study by the Spiritual Heritage foundation, a conservative Russian think tank, notes that Russia faces a new threat from the South: "a belt of unstable, and sometimes unfriendly, states and countries, covertly seeking weapons of mass destruction."[42]

There is evidence that the U.S. military is considering similar missions. For example, Assistant Secretary of Defense Harold Smith identified the B-61 nuclear bomb as "a weapon of choice against the Libyan chemical weapons program."[43] In general, there is a growing trend to view TNW as a deterrent against potential weapons of mass destruction (WMD) proliferators—ostensibly under the assumption that the presence of TNW could render the WMD of proliferators useless before they are actually acquired.[44]

To summarize, both sides have certain missions that, admittedly, can be filled only by TNW. For Russia, the significance of TNW as an instrument of security is greater than for NATO. But NATO, too, seems to value TNW, even if they now have only residual value. The question is whether the need for TNW is real or perceived. The next section explores this question and seeks to demonstrate that the value of TNW may be misperceived. It concludes that the elimination of these weapons will not diminish the security of either side and, indeed, is likely to increase it.

THE MISGUIDED RATIONALE FOR TNW

The "sacred" foundations of nuclear deterrence theory, as applied to TNW, merit renewed examination. No matter what security challenges might beset a country or an alliance that possesses TNW, it can be shown that these weapons would be of little help. Assuming that nuclear weapons can be a security guarantee at all, strategic weapons can provide security without negative "side effects" of the same magnitude. This assumption does not suggest that nuclear weapons need to be retained indefinitely. Rather, elimination of nuclear weapons should begin with TNW, whose very existence is fraught with danger for both the deterred and the deterring side. Several points are worth elaborating in detail.

1. *TNW promote a hair-trigger posture, making accidental nuclear war more likely.*

Effective deterrence hinges on an ability and willingness to use nuclear weapons or, at least, upon the *perception* of the other side that nuclear weapons would be used in case of attack. This principle applies differently to strategic and non-strategic nuclear weapons. Strategic weapons are much less vulnerable and thus are suitable for a second strike: the deterring side has the luxury of waiting some time after the aggression takes place, determining the goals of the attacker and the scale of hostilities, and only then retaliating.

By contrast, because TNW are deployed close to the potential front line, they are highly vulnerable and not as reliably controlled.[45] To convince the other side of readiness and ability to use these weapons, the deterring side must deploy TNW in the field in a ready-for-combat mode (or, at least, to have a proven, demonstrated capability to deploy them with troops in a crisis period). It must also predelegate the authority to use TNW to field commanders. No matter how limited hostile action is, TNW have to be used quickly, or they might be lost to a first strike by the other side. Deployment of TNW, therefore, results in a hair-trigger posture, under which a mistake or an over-reaction by a local commander might start a nuclear war in a situation where a limited response or even diplomatic efforts could have saved the day.

Even worse, the deployment of TNW to combat units in a time of crisis represents, by itself, a move that could be easily misread by the other side. Instead of deterring an attack, TNW could provoke it. But even that does not represent the complete list of dangerous possibilities: the vulnerability of TNW might make a preemptive strike an attractive option under the "use them or lose them" principle.

The ability of nuclear weapons to be a "great equalizer" makes them suitable for offensive purposes even by the side whose conventional forces are inferior. Yuri Fedorov, a professor at MGIMO (Moscow Institute of International Relations) is one of the very few experts in Russia who has pointed out that the presence of TNW and their high combat readiness might actually provoke NATO instead of deterring it.[46] Paradoxically, this was the view of the Soviet military, which feared NATO aggression despite Soviet conven-

tional strength; now the Russian military denies the same logic to the other side.

2. *TNW are better suited for war-fighting than deterrence.*

Contrary to beliefs generated by Western theoreticians and shared by many Russian experts, the capability to fight a war does not equal "pure deterrence": the latter is ensured by the ability to "punish" the aggressor. Hence, deterrence is provided by weapons that possess a second-strike capability.

TNW, however, are primarily counterforce or "war-fighting" weapons. By definition, they were designed for use primarily against troops and other military targets, which makes them unsuitable for "pure" deterrence. Strategic weapons, on the other hand, while possessing counterforce capabilities, can also be used efficiently against civilian targets, which makes their deterrent value greater. After all, the level of unacceptable damage to the civilian population is much lower than that to military personnel: any country would be less disposed to have its civilian population suffer than its troops. Consequently, only a handful of warheads on strategic delivery vehicles might assure unacceptable damage, while many more TNW warheads would be needed for the same effect on the battlefield.

The disadvantages for Russia of maintaining a reliance on non-strategic weapons can best be seen by analyzing bilateral nuclear dynamics with China. There are very few Chinese non-military targets (especially major cities) within the range of Russian TNW (by contrast, there are plenty of Russian civilian targets within the range of Chinese TNW). This means that while Russia can use TNW to fight Chinese troops, it will not be able to achieve a level of unacceptable damage without using strategic weapons. Why, then, are TNW needed at all, if the goal is deterrence and not war-fighting?

An increase in war-fighting capability stimulates an equal or greater increase in the war-fighting capability of the other side. In a potential Russian-NATO standoff, the greater reliance of Russia upon TNW is likely to prompt NATO to upgrade its own TNW, so the overall level of security would decrease. The same logic applies to Russian-Chinese relations. The process could lead to an exact repetition of the situation in the relations between the Soviet Union and NATO in the late 1970s and early 1980s, except that the roles would now be reversed. It is well-known that the U.S.-Soviet arms race was on a very dangerous track and was reversed only as a result of the elimination of intermediate-range missiles. Unfortunately, the opposition of NATO did not make it possible to expand this approach quickly to TNW, and a new Soviet proposal, under development in the summer of 1991, was preempted by the initiatives of President George Bush.[47] As at the end of the 1980s, a combination of nuclear and conventional arms control measures is the only way out of the new security stalemate.

3. *TNW cannot achieve non-military goals.*

A popular line of reasoning among more nationalistic experts in Russia is that the West intends to use its superior economic and military potential to force Russia into political concessions, such as foregoing influence among the former Soviet republics or accepting membership of the Baltic states in NATO.[48] TNW are intended to deprive NATO of its military leverage and give Russia a stronger position in bargaining with the West.

Underlying this logic is a belief that the threat of nuclear war is credible under any circumstances and, consequently, has considerable political payoffs. But this belief is based on faulty premises. True, NATO may not be willing to risk nuclear war for the sake of political gains, but neither is Russia likely to risk war for the sake of preventing NATO from achieving political gains. If NATO were to decide to admit the Baltic states, would a reasonable Russian response be to resort to an all-out nuclear war? The impermissibility of war is about equal for both sides, but NATO is much better positioned in a brinkmanship game because the Baltic states want to join the alliance. Russia is automatically on the defensive, and it is Russia that would have to decide whether to start a war. Russia's decision has to be against that option and yielding under threat would only further decrease Russia's global position and credibility.

In addition, there are other instruments of pressure the West can employ that TNW cannot neutralize. For example, Russia—or any other state—would not start a nuclear war over economic sanctions, nor the West's refusal to invest money.

Such fears about future pressure by the West may or may not be well-founded: but whether such plans exist is entirely beside the point. Even if such suspicions are correct, TNW cannot help and, to the contrary, might even aggravate the situ-

ation. Political stability, economic prosperity, and multi-faceted interdependence are much better means to avoid inequality and pressure. The problem is, they take time and patience to develop. TNW, however, provide the illusion of a "quick fix," which is so appealing to populist and nationalist politicians but is ultimately counter-productive.

4. *TNW are inapplicable for deterring potential threats from non-nuclear states.*

It is illegal and contrary to Russia's and NATO's international obligations to threaten the use of nuclear weapons against non-nuclear states. Russian military doctrine does not provide for that possibility either. Nevertheless, as was noted above, some authors do suggest that TNW could be employed in deterring potential threats from such countries, so this option has to be explored as well.

To say that large-scale aggression on the part of Iran, Iraq, or Pakistan is highly improbable would be a gross overstatement. Realistically, that threat can be ruled out completely. For other potential threats, TNW are simply inapplicable. But how would Russia use TNW if Pakistan were to install a friendly regime in Afghanistan and acquire strong influence over Turkmenistan? Or if Turkey were to get an upper hand in Azerbaijan? Under any possible scenario not to Russia's liking, TNW will prove useless and will remain at their storage facilities. A threat of use would not be credible enough, so even the deployment to combat units would be of no effect. Thus, the "southern flank" cannot be used as a justification for retaining TNW, much less for their modernization.

Another problem that might emerge if nuclear weapons were explicitly assigned a mission of deterring non-nuclear states is the disappearance of the psychological barrier between nuclear and conventional weapons. As Schelling noted in one of his early writings, if nuclear weapons were used even once (he referred, specifically, to the experience of the Korean War), this would "open the door" for unrestrained use of such weapons.[49] The logic seems applicable to deterrence: if nuclear weapons deter non-nuclear states, these states eventually are likely to try to obtain such weapons. Obviously the acquisition of nuclear weapons by the "southern flank" states would be detrimental to Russia's security. Strict adherence to negative guarantees is about the only means to deny non-nuclear states a solid pretext to go nuclear.

Similarly, NATO's plans to rely on TNW to prevent "rogue states" from acquiring nuclear weapons appear faulty. First, potential proliferators are likely to assign their nuclear weapons other missions than containment of nuclear states (e.g., Iraq might want them against Iran, Israel, or Saudi Arabia). Second, the mere presence of TNW in nuclear states makes it more likely that non-nuclear states might want to acquire the same weapons as a means of deterrence, following standard Schelling-esque logic.

CONCLUSION: INITIAL ARMS CONTROL MEASURES

This article has sought to demonstrate that regardless of any value TNW might have as a security guarantor (whether against superior conventional forces or as a balance to the other side's TNW, or any other mission), these weapons have serious negative side-effects that cannot be discounted. In fact, the very presence of TNW in the nuclear arsenals of any side promotes a war-fighting, trigger-happy military posture, weakens central control over nuclear weapons, and leads to a general deterioration of the strategic situation. Under current conditions, when U.S. TNW are capable of reaching Russian strategic weapons, TNW also affect the strategic balance between Russia and the United States and are capable of seriously derailing the ongoing efforts to reduce the strategic arsenals of the two sides.

Unless measures to limit, reduce, and ultimately eliminate TNW are taken within the next several years, a new arms race could ensue. Elimination of TNW will not be an easy task and will require serious efforts by both Russia and the West. The first steps should include: 1) the creation of more favorable conditions under which elites of the nuclear states can become more amenable to the idea of parting with their TNW; and 2) the development of arms control approaches that would be politically acceptable.

The first question is, which side should take the initiative? We can look to the past to find prescriptions of how to deal with the emerging crisis. At the end of the 1980s, the arms race in intermediate-range nuclear weapons was reversed by an initiative of the side that had superiority in conventional forces: the Soviet Union agreed to eliminate more weapons than the United States and to overlook the existence of British and French theater nuclear weapons. The reason is simple: the side that enjoys a greater margin of security

can afford greater flexibility, especially regarding steps that are bound to be controversial domestically.

If this example is followed, then it is up to NATO, in particular the United States, to take the lead. This conclusion also follows from the fact that Russia today is highly unlikely to be responsive to the idea of unilateral elimination of TNW.[50] The prevailing mood in Moscow is that "the period of material concessions for the sake of political gains is over."[51] Granted, an initiative on TNW would not be easy, given the current domestic political climate in the United States, but an initiative by Russia is even less likely.

The key background condition for successful measures in the area of TNW is a new Conventional Forces in Europe (CFE) Treaty. Negotiations began in early 1997. The elimination or at least significant reduction of conventional imbalances in Europe might make Russia more amenable to the idea of parting with its TNW. Another important step was that taken by NATO at the December 1996 North Atlantic Council ministerial meeting when it all but ruled out the possibility of any nuclear deployments to new NATO members. Only months before, such a statement was commonly considered unthinkable.

A measure that might help to jump-start a dialogue would be the codification of the 1991-96 informal TNW regime to make it legally binding and verifiable.[52] It might also include an obligation by Russia not to deploy its TNW in Belarus. For NATO, the new regime would ensure that Russia's TNW are not increased or modernized, that they are not deployed to the west of its territory, and that the numbers and location of the TNW that Russia currently has are known and verifiable. Russia would benefit from the lower level of nuclear weapons that could be targeted against its territory and from the greater predictability that American TNW would not be deployed covertly in Eastern Europe (or be moved from U.S. territory to Europe with little or no warning).

An obvious problem with this proposal is verification. Indeed, difficulties with developing a reliable verification regime are one of the reasons why the existing TNW regime is still informal. For the first time in the history of arms control, verification measures will have to focus on warheads rather than delivery vehicles and might involve access to sensitive facilities where warheads are stored and dismantled.

The task of codification of the 1991-96 regime poses several verification challenges. The first task, verifying the absence of nuclear warheads in the territories of Eastern Europe and Belarus (a *de facto* non-nuclear zone in the center of Europe), is probably the easiest. It would be sufficient to monitor the existing and well-known facilities that were intended for nuclear warheads. The second challenge is monitoring the central storage facilities outside the non-nuclear zone, where warheads are being stored. This measure would probably have to include the whole territory of Russia and the whole territory of the United States, even if verification would be limited to declared facilities. Finally, the storage facilities at military bases where "deployed" warheads are kept must be monitored (these weapons are "deployed" in the sense that they are close at hand and can be quickly mounted on aircraft, but they are not attached to the aircraft all the time).

Existing verification techniques, particularly those used under the START I and II Treaties, as well as under the INF and the CFE Treaties, appropriately amended and strengthened, might also be used for a TNW regime. Warheads could be corralled at declared facilities and a system of perimeter monitoring, not requiring the presence of inspectors (approximately along the lines of the continuous perimeter and portal monitoring procedures at production facilities under the INF and START I Treaties), might be created to make sure that warheads are not being removed. Other measures might include: exchanges and periodic updates of information; extensive baseline inspections to verify accuracy of the initial exchange of data; on-site inspections at declared facilities to verify the declared number of warheads; on-site inspections to confirm elimination of warheads; on-site challenge inspections at undeclared facilities to verify the absence of warheads; and national technical means, enhanced by confidence-building measures.

Clearly, the easiest task is to verify the absence of nuclear warheads: this could be done without excessively intrusive inspections simply by using radiation detection devices. Verification of the number of warheads presents a greater challenge, especially since during some types of inspections it would be necessary to distinguish between warheads for tactical delivery systems and warheads for strategic systems, as well as between nuclear warheads and other objects that contain fissionable materials. These problems are by no means insurmountable, but would

require the special attention of experts.

After that, the two sides can proceed to complete withdrawal of all TNW from Europe and elimination of the withdrawn warheads; this measure would generally follow the guidelines of the Canberra Report. As noted above, the "coupling" role of U.S. TNW in Europe was always doubtful; in the absence of an identifiable large-scale threat to NATO, they do not seem to play any justifiable role. British and French tactical nuclear weapons might be placed under an international verification regime within their national territories. Incidentally, the withdrawal of U.S. and Russian TNW from Europe would immediately ease the burdens of the verification regime. The final step would be complete worldwide elimination of TNW, including those of France, Great Britain, and China.

The most pressing issue today is to avoid a new nuclear arms race, and the only available means is through renewed attention to arms control and disarmament. We no longer have the benefit of preserving the current situation, as it is likely to change in the near future. The only question is whether the change will be toward greater numbers and variety of TNW or toward lower numbers.

Domestic politics in the United States, Russia, European NATO states, and future members of NATO remain a serious obstacle as current domestic conditions are not very conducive for TNW-related arms control measures. But there are two ways to approach obstacles: as a reason for doing nothing or as a reason for an increased effort. Under the present circumstances, the latter should be tried.

---

[1] Press Release, "Statement on Nuclear Weapons by International Generals and Admirals," December 5, 1996; for the full text, see version published in *Arms Control Today* 26 (November/December 1996), pp. 15, 18.

[2] "Statement of the Canberra Commission on the Elimination of Nuclear Weapons," section "Immediate Steps," *Programme for Promoting Nuclear Non-Proliferation*, No. 35 (3rd quarter 1996), p. 22.

[3] "Final Communiqué," issued at the Ministerial Meeting of the North Atlantic Council, 10 December 1996, M-NAC-2(96)165, paragraph 5 (gopher://marvin.nc3A.nato.int:70/11/natodata/PRESS/COMMUNIQUE/1996).

[4] *Yaderniy Kontrol'*, No. 14 (February 1996), p. 7; this data is taken from the Nuclear Notebook, *The Bulletin of Atomic Scientists*, (November/December 1995). A report of Greenpeace International estimates the total number of NATO TNW at 520, of which 480 are U.S. warheads and the rest British. See Hans Kristensen and Joshua Handler, "The 520 Forgotten Bombs: How U.S. and British Nuclear Weapons in Europe Undermine the Non-Proliferation Treaty," Greenpeace International, Nuclear Campaign Report, October 1995 (www.greenpeace.org/~usa/reports/nuclear/520.html).

[5] "Estimated Russian Nuclear Stockpile, September 1996," *The Bulletin of Atomic Scientists* (September/October 1996), p. 63. The journal lists 1,600 warheads on 426 aircraft (presumably, belonging to the air force) and 600 warheads on 240 aircraft, which belong to the navy. Additionally, 1,000 nuclear warheads are assigned to other sea-launched systems, but they should have been withdrawn in accordance with the 1991 initiatives and, as *The Bulletin* notes, Russian officials say that the initiatives are being followed. Indeed, in September 1996, a representative of the Russian Foreign Ministry officially announced that Russia did continue to implement the 1991 obligations and intended to complete implementation by the year 2000. (Interfax, September 26, 1996; in FBIS-SOV-96-189 (26 September 1996) (on-line).

[6] *Yaderniy Kontrol'*, No. 14 (February 1996), p. 8; this data is taken from the "Nuclear Notebook," *The Bulletin of Atomic Scientists* (November/December 1995).

[7] Interview of Commander-in-Chief of Russian Strategic Rocket Forces Igor Sergeev, *Krasnaya Zvezda*, December 5, 1996.

[8] *Yaderniy Kontrol'*, No. 14 (February 1996), p. 4. Some analysts give a higher figure—up to 20,000: Oleg Bukharin, "Analiz razmerov i kachestva uranovykh zapasov Rossii" (An Analysis of the Size and Quality of Uranium Stockpile in Russia), reprinted in *Vooruzhenie i Voennaia Tekhnika*, December 4, 1996, p. 4.

[9] Bukharin, "Analiz razmerov i kachestva uranovykh zapasov Rossii," p. 4.

[10] "Russia's Answer to the Expansion of NATO," *Power in Russia: Russian Executive and Legislative Newsletter*, Nos. 22-28 (June 1996)(www.russia.net/rial.reln/rexln.html). The article is based on an interview with Sergei Kortunov, whose title is given as a representative of the office of presidential aides (in other sources he is named advisor to Yuri Baturin, the secretary of the Defense Council). Kortunov said that the proposal about reversing the 1991 obligations in case a military response is needed had been made already by the military and was being considered by the administration of the president. An article by the Minister of Defense Igor Rodionov corroborates that statement: "We might objectively face the task of increasing tactical nuclear weapons at our borders...." (Igor Rodionov, "Neobkhodimo reformirovat' ne chasti systemy voennoi bezopasnosti gosudarstva, a vsyu ee v tselom" (It is Necessary To Reform the Whole System of the State's Security, Instead of Its Parts), *Nezavisimoe Voennoe Obozrenie*, No. 22 (November 1996).

[11] Vladimir Belous, "Budet li ratifitsirovan Dogovor SNV-2?" (Will the START II Treaty Be Ratified?), *Yaderniy Kontrol'*, No. 18-19 (June-July 1996), p. 35. "Groupings" mean administratively independent groups composed of various units (for example, several divisions under the military district commander).

[12] *The Bulletin of Atomic Scientists* (September-October 1996), p. 62. This missile is mentioned in a book published by the conservative Spiritual Heritage Foundation, *Ratifikatsiia Dogovora SNV-2: Resheniia, Problemy, Perspektivy* (Ratification of START II: Solutions, Problems, Perspectives), (Moscow: Spiritual Heritage and RAU-Corporation, 1996), p. 58. This book specifically states that the new missile will replace the Oka (SS-23) missile complex, which the Russian military continues to believe was slated for elimination improperly (the INF Treaty covers the systems with the range of 500 km and more, while the Oka complex had the range of 450 km; the U.S. side insisted during the talks that it had been tested to the 500 km distance and thus had to be eliminated; Gorbachev made that decision without consulting with the military).

[13] The text was published in *Sovetskaya Rossiya*, November 14, 1996; in FBIS-SOV-96-221 (14 November 1996) (on-line). There exists, of course, a question of whether such deployment would be consistent with the obligations of the two countries under the Lisbon Protocol to START II. The question is beyond the scope of this article, but a cursory look suggests that if the deployment is limited to TNW and if control over weapons remains in Russian hands (similar to the status of U.S. weapons in Germany), the move might be legal.

[14] Viktor Mikhailov and Aleksandr Chernyshov, "NATO's Expansion and Russia's Security," *Vek*, September 20, 1996, p. 5.

[15] Mary Fitzgerald, "The Russian Image of Future War," *Comparative Strategy* 13 (1994), p. 173.

[16] The doctrine was published in *Izvestiya*, November 18, 1993. However, unpublished drafts dating from the spring and summer of 1992 already contained a similar provision. A new

doctrine, which is being developed under the auspices of the Defense Council, is widely assumed to retain the plank on the first strike (see "The Second Military Doctrine: the Defense Council Draws it for Approval in the Near Future," *Nezavisimaya Gazeta,* November 6, 1996, and a press conference of Yuri Baturin "Russia Needs a Provisional Military Doctrine," *Power in Russia: Russian Executive and Legislative Newsletter* (RIA-Novosti), No. 46 (November 1996) (www.russia.net/ria/reln/rexln.html).

[17] "Russia Needs a Provisional Military Doctrine," *Power in Russia: Russian Executive and Legislative Newsletter* (www.russia.net/ria/reln/rexln.html).

[18] Vladimir Belous, "Takticheskoe yadernoe oruzhie: poluzabytaia realnost" (Tactical Nuclear Weapons: A Half-Forgotten Reality), *Segodnya*, June 23, 1995.

[19] Yuri Baturin noted in this regard: "We are being told that NATO is not a threatening bloc, but a friendly one. But why they are insisting the Russian heavy missiles be eliminated [under the START II Treaty]? We can say, too, that under the conditions of proclaimed partnership SS-18 missiles are 'friendly' toward the West, which should not be afraid of." (*Oborona i Bezopasnost'*, No. 143, December 2, 1996, p. 3).

[20] See, for example, an article by the Minister of Defense Igor Rodionov, reprinted in *Oborona i Bezopasnost'*, No. 139, November 22, 1996, p. 4.

[21] See, for example, an interview of Yuri Baturin, reprinted in *Oborona i Bezopasnost'*, No. 143, December 2, 1996, p. 2.

[22] *Military Bulletin* 6 (RIA Novosti)(January 1997)(www.russia.net/ria/military/military.html). Rodionov was referring to the late-1980s promise of key NATO states not to expand NATO eastward. It is a widely held view in Russia that such promise was actually made.

[23] See Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966) on the problem of credibility of deterrence, which depends, in his view on the perceived willingness to use them.

[24] For a concise description of non-strategic nuclear weapons as a deterrence against conventional forces see George Lewis, "The Future of US Nonstrategic Nuclear Forces," in Michelle Flournoy, ed., *Nuclear Weapons After the Cold War* (New York: Harper Collins, 1993).

[25] The Alliance's Strategic Concept, November 1991, paragraph 57 (gopher://marvin.nc3A.nato.int:70/11/natodata/PRESS/COMMUNIQUE/1991-1994).

[26] "Final Communiqué," M-DPC/NPG-1 (96)88, 13 June 1996, paragraph 3 (gopher://marvin.nc3A.nato.int:70/11/natodata/PRESS/COMMUNIQUE/1996).

[27] *Yadernyi faktor v sovremennom mire* (The Nuclear Factor in the Contemporary World), Vasili Krivokhizha, ed., (Moscow: RISI, 1996), p. 114.

[28] Vladimir Belous, "Budet li ratifitsirovan Dogovor SNV-2?" (Will the START II Treaty Be Ratified?), *Yaderniy Kontrol'*, No. 18-19 (June-July 1996), p. 35. See also Vladimir Belous, "Means of Political and Military Deterrence: Evolution of Washington's Views on Tactical Nuclear Weapons," *Nezavisimoye Voyennoe Obozrenie*, October 31, 1996; in FBIS-SOV-96-212-S (1 November 1996) (on-line).

[29] Lev Rokhlin, "Opinion: A Third Position on START II: We Need to Ratify the Treaty, but Under the Condition that We Prepare a New One." *Nezavisimoye Voennoe Obozrenie*, August 22, 1996; in FBIS-SOV-96-184-S (22 August 1996) (on-line).

[30] Vladimir Belous, "Budet li ratifitsirovan Dogovor SNV-2?" (Will the START II Treaty Be Ratified?), *Yaderniy Kontrol'*, Nos. 18-19 (June-July 1996), p. 35.

[31] See Jane E. Stromseth, *The Origins of Flexible Response: NATO's Debate over Strategy in the 1960s* (London: Macmillan, 1988); Gregory Treverton, "Managing NATO's Nuclear Dilemma," *International Security* 7 (Spring 1983); Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St.Martin's Press, 1983), especially pp. 383-86. Freedman, however, has pointed out that the link between the United States and Europe remained relatively weak even with the presence of U.S. TNW in Europe.

[32] Catherine Kelleher noted in this respect that at least some members of NATO, especially Great Britain and West Germany, tried "to secure the most complete US involvement, whether as conventional 'hostage' or as tactical nuclear 'trigger' to strategic retaliation." (Catherine Kelleher, Gali Mattox, eds., *Evolving European Defense Politics* (Lexington, MA: Lexington Books, 1987), p. 5). See also Paul Butteus, *The Politics of Nuclear Consultation in NATO, 1965-1980* (New York: Cambridge University Press, 1988).

[33] On the contradictions involving limited nuclear war, see Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984), especially pp. 86-96 and 109-11. The possibility of a limited nuclear war, waged only with non-strategic weapons, was clearly spelled out by the Secretary of Defense Elliot Richardson in 1974. He stated that theater nuclear weapons would be used in a conflict involving "the use of nuclear weapons against or by the US or allied forces overseas, but not against the United States itself.") ("Statement of Secretary of Defense Elliot Richardson before the House Armed Services Committee on the FY 1974 Defense Budget and the FY 1974-8 Program," April 10, 1973, p. 27).

[34] "Final Communiqué of the Defense Planning Committee and the Nuclear Planning Group of NATO," December 17, 1996, M-DPC-NPG-2(96)173, paragraph 7 (gopher://marvin.nc3A.nato.int:70/11/natodata/PRESS/COMMUNIQUE/1996).

[35] Interestingly, Ukraine seems to take the TTO quite seriously—as a military-political alliance. This has been stated by a high-placed Ukrainian official, who asked not to disclose his name.

[36] On the "theoretical" possibility of such presence see an interview of Yuri Baturin to *Ekho Moskvy*, November 13, 1996; in FBIS-SOV-96-211 (13 November 1996) (on-line).

[37] Recent reappraisals of the Soviet conventional forces posture cast doubt upon the common perception of the ability of the Soviet Union to win a war in Europe. See Matthew Evangelista, "Stalin's Postwar Army Reapprised," *International Security* 7 (Winter 1982-83) and Richard Ned Lebow, "The Soviet Offensive in Europe," *International Security* 9 (Spring 1995). The evidence, recently found in the archives of the former GDR, suggests that, despite the offensive posture, the Soviet plans were not necessarily intended for aggression (See Christoph Bluth, *The Collapse of Soviet Military Power* (Brookfield: Dartmouth Publishing Company, 1995). One is tempted to note that the inadequacies of conventional forces, which the Soviet military knew well and probably even overestimated, might have increased the role of TNW.

[38] For the old Soviet view of employment of nuclear weapons in conventional warfare see V. Ye. Savkin, *The Basic Principles of Operational Art and Tactics (A Soviet View)* (Moscow: Military Press of the Ministry of Defense, 1972) (translated and published under the Auspices of the United States Air Force) Especially relevant is chapter 3, "Summary of the Basic Principles of Operational Art and Tactics (According to Views of 1953-59)," pp. 167-278.

[39] Vladimir Dvorkin, "Narushenie strategicheskogo balansa" (A Violation of the Strategic Balance), *Nezavisimaya Gazeta*, May 16, 1996. For similar arguments see also Lev Rokhlin, "Opinion: A Third Position on START II ..." and an interview with Viktor Ilyukhin, the chairman of the Duma Security Committee, published in *Yaderniy Kontrol'*, No. 20-21 (August-September, 1996), pp. 2-3.

[40] See Igor Borisenko, "Rokhlin Says START-2 Will Cause Rearmament," ITAR-TASS, September 17, 1996; in FBIS-SOV-96-121 (17 September 1996) (on-line).

[41] V. Tsygychko, "*Geostrategicheskie aspekty kontseptsii natsional'noi bezopasnosti Rossii*" (The Geostrategic Aspects of Russia's National Security), *Voyennaya Mysl'*, No. 9 (1996), p. 23.

[42] *Ratifikatsiia Dogovora SNV-2: Resheniia, Problemy, Perspektivy* (Ratification of START II: Solutions, Problems, Perspectives), (Moscow: Spiritual Heritage and RAU-Corporation, 1996), p. 58.

[43] Cited in Stephen Lambert and David Miller, "The Future of US Nuclear Weapons in Europe," unpublished manuscript,The Naval Postgraduate School, Monterey, CA, fall 1996, p. 8.

[44] For a comprehensive analysis of that rationale behind TNW see Hans Kristensen and Joshua Handler, "The 520 Forgotten Bombs..."

[45] See Bruce Blair, *Strategic Command and Control: Redefining the Nuclear Threat* (Washington, D.C.: Brookings Institution, 1985). The problems of control over nuclear weapons, including that of communications under crisis conditions, was thoroughly explored by Valeri

Yarynych, a retired military expert, who now works in the staff of the Duma Defense Committee. See Valery Yarynych, *C3: Overcoming Nonsense*, unpublished book manuscript, Naval Postgraduate School-Monterey Institute of International Studies, 1996.

[46] Yuri Fedorov, "Perspectivy i protivorechiia rossiiskogo yadernogo sderzhivaniia" (The Prospects and Contradictions of the Russian Nuclear Deterrence), *Yaderniy Kontrol'*, No. 14 (February 1996). This argument was developed by Jervis, Lebow and Stein. See *Psychology and Deterrence*, ed. by Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, (Baltimore, MD: The Johns Hopkins University Press, 1985).

[47] Prior to the U.S. initiatives in September 1991, the Soviet Foreign Ministry was developing a new proposal to begin negotiations on tactical nuclear weapons. This proposal envisaged deep reduction to equal levels, below the lowest level of either side, and eventual elimination of all such weapons. The plan included intrusive verification and broad transparency measures. In making that new effort, the Soviet Union sought to capitalize on the apparent concern of the West about the control over TNW in the Soviet Union in the aftermath of the 1991 attempted coup. The Western concerns were somewhat misguided, because even before the coup the Soviet military had withdrawn TNW from all republics except those, where strategic weapons were deployed (in at least one case—in Azerbaijan—the withdrawal of TNW involved a serious confrontation and the military had to resort to arms, although, luckily, no one was injured). The new proposal on TNW was almost ready by the end of September, but had to be abandoned in the aftermath of the Bush initiatives: the Soviet military, like their American counterparts, grasped the opportunity to achieve the goal without intrusive verification and withdrew its support from a complex verification scheme developed by the Foreign Ministry.

[48] This view is actively promulgated in, among other publications, *Ratifikatsiia Dogovora SNV-2: Resheniia, Problemy, Perspektivy* (Ratification of START II: Solutions, Problems, Perspectives), (Moscow: Spiritual Heritage and RAU-Corporation, 1996).

[49] Thomas Schelling, *Nuclear Weapons and Limited War* (Santa Monica: RAND, 1959). It is interesting that later Schelling adopted a different view: that demonstrated readiness to use weapons is the best deterrence. It is the latter approach that came to dominate the Western and recently the Russian policies on TNW.

[50] En route to Scandinavia in September 1996, Perry urged Russia to eliminate its entire stock of TNW, but did not specifically mention any possible matching steps on part of the United States. See *Disarmament Diplomacy* (October 1996), p. 47. More recently a similar proposal was put forward by NATO defense ministers ("Final Communiqué," M-DPC/NPG-1 (96)88, 13 June 1996 (gopher://marvin.nc3A.nato.int:70/11/natodata/PRESS/COMMUNIQUE/1996)).

[51] See, for example, *Ratifikatsiia Dogovora SNV-2: Resheniia, Problemy, Perspektivy* (Ratification of START II: Solutions, Problems, Perspectives), (Moscow: Spiritual Heritage and RAU-Corporation, 1996), pp. 8-9.

[52] For an elaboration of the proposal see William Potter, "Next Steps in Nuclear Disarmament: The Challenge of Tactical Nuclear Weapons," paper prepared for the Seminar on Nuclear Disarmament After the Indefinite Extension of the NPT, Kyoto, Japan, December 2-5, 1996.