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NUCLEAR ZERO: KEY ISSUES TO BE ADDRESSED

In the West today, and perhaps in Russia, leading circles believe that nuclear deterrence is what prevented the U.S. and the Soviet Union from fighting directly during the Cold War. Many assume that these weapons will continue to deter without fail. Both ideas deserve to be questioned.

Is it really true that Soviet leaders were determined to go to war with the United States but were deterred by the existence of nuclear weapons? At what time and place were Soviet leaders willing to go to war against NATO states but chose not to do so because of nuclear counter-threats? What specific evidence shows this? There were cases, such as Vietnam and Afghanistan, where the U.S. and the U.S.S.R intervened militarily in other states. Would these interventions have happened if Washington or Moscow did not believe that nuclear deterrence would keep the other side from escalating? By making escalation to homeland attacks unthinkable, did intra-war nuclear deterrence prolong these wars and the damage they did? Is it possible that nuclear deterrence allowed more killing than it prevented during the Cold War? Even if objective scholars conclude that nuclear deterrence did directly prevent war and did not enable low-intensity conflicts in the Third World, the future effectiveness of nuclear deterrence remains unknowable.

Nuclear deterrence is effective because it can fail – nuclear weapons actually could be used. The horrifying consequences give pause. Wise human beings should continually examine whether and how the risks of nuclear deterrence are necessary or advisable, and whether the threats nuclear deterrence is supposed to protect against could not be deterred by other means. What made sense decades ago, may not make sense today. What makes sense today, may not be necessary tomorrow.

Allow me to be provocative and suggest that the end of the Cold War should cause us to re-examine our assumptions about nuclear deterrence. For civilized states, nuclear deterrence is credible only if the threatened use of nuclear weapons would be proportional in scale and existential danger to the aggression that stimulated it. Civilized human beings feel that disproportionate and indiscriminate violence are grossly unfair. This demand for proportionality is reflected in legal doctrines of *Just War*. A civilized state would not threaten to use nuclear weapons in response to economic sanctions, a territorial dispute, or even a conventional military invasion involving forces not large enough to inflict major territorial losses.

Even uncivilized states – there are a few – should know that if they unjustly used nuclear weapons the international response would be severe. The world's major powers would conclude that such a government should not be allowed to continue. If terrorists are not deterrable, nuclear weapons are not useable to deter them. Some might argue that nuclear weapons could be necessary to preemptively destroy terrorist nuclear weapons, but for this to be a politically feasible option, exceptionally reliable intelligence regarding the precise loca-



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tions would be required. This sort of intelligence has been absent in Iraq (2003) and in Iran. Moreover, if such reliable precise intelligence were available, it is highly likely that non-nuclear means could be used to destroy such targets, and would be preferred by political leaders.

The taboo against using nuclear weapons has grown steadily stronger since 1945. Taboo is an interesting, important word. According to the *Oxford English Dictionary*, it means “to give a sacred or privileged character to a thing which ... debars it from ordinary use or treatment.... To put a thing under a social ban.” War is undertaken to serve policy objectives, to gain power or prevent someone else from taking power from you. States that act unjustly on a grand scale tend to lose power and fail over time. They collapse from within because they cannot mobilize their citizens to work hard and support their government. Or, they fall from external pressure mounted by others determined to balance their power. The nuclear taboo increases the probability other powers would rally against a nuclear aggressor or that a government’s own people would turn against it if that government used nuclear weapons unjustly.

At the very least, the nuclear taboo means that nuclear deterrence is only credible against the most massive threats – aggression that has the scale and destructiveness that is proportional to that which would follow from nuclear war. How many such threats do Russia and the U.S. *realistically* face today? China? India? Pakistan? Israel? France and the U.K.? It is nearly impossible to see major powers committing aggression against each other on a scale to justify the use of nuclear weapons. Maybe they have learned from Germany’s catastrophic failures of World War, or Japan’s. The threat of nuclear weapons use is an even greater cause of restraint, but it is possible that civilized states have learned in the past one hundred years that major aggression carries enormous costs and provides no lasting benefits. Similarly, the U.S.A and Russia may have learned from their experiences in Vietnam, Afghanistan, and Iraq that invading smaller countries doesn’t really pay (even those that do not have nuclear weapons). Globalization should intensify the costs of territorial aggression as economic interdependence, especially in finance, leaves all states susceptible to isolation by others.

Of course, things could change and threats might emerge that could justify nuclear counter-threats. But historically, nuclear weapons have not enabled their possessors to conquer and occupy other territories, even those undefended by nuclear weapons. Does any nuclear-armed state hold territory or dominion over other people that it did not hold before it acquired nuclear weapons? It is far from clear that a state breaking out from a nuclear-disarmed world would be able to sustain aggression against others. In any case, states would not agree to get rid of their last nuclear weapons if they felt that others had the capabilities and motives to commit aggression on a scale that would justify nuclear retaliation. Moreover, such massive-scale threats would probably take enough time to develop that we – the United States, Russia, China, etc. – would have warning. If nuclear weapons had been abolished, this warning time would enable disarmed states to regenerate nuclear weapons if they thought it necessary.

Speaking realistically, political and technical realities will not permit the verifiable elimination of all nuclear weapons in the next 10–15 years (or longer). Therefore, it makes sense to examine the challenges that would need to be managed for all nuclear-armed states to move cautiously towards zero by reducing their arsenals to much lower numbers. Amb. Timerbaev points to this challenge when he asks “How, by what principles and in what stages should planned, deliberate and step-by-step reductions conducted [by all nuclear-armed states], so that they may satisfy all the concerned parties and do not violate international and regional stability during the implementation process and beyond.”¹¹

The following are some of the difficult issues that arise:

- Some observers suggest that deterrence would be weakened at low numbers. What scenarios underlay this concern, and are they realistic? How could such concerns be addressed through arms control or other measures?

American and perhaps Russian officials and experts tend to be the ones who assert that low numbers weaken deterrence and invite instability. By contrast, the majority of nuclear-armed states already live with “only” low numbers of nuclear weapons. The U.K. and French govern-

ments do not seem terribly worried that their relatively small arsenals will not deter or might invite instability. China has always managed nuclear deterrence with much smaller arsenals than its main potential adversaries possess. India and Pakistan remain in a conflict-prone relationship and possess “low numbers” of nuclear weapons which they do not maintain in a ready-to-use fashion. Both governments acknowledge that nuclear deterrence has rendered major warfare between them untenable and they have made progress through back-channel negotiations to seek a *modus vivendi* in Kashmir. While American and perhaps Russian nuclear experts might judge India’s and Pakistan’s nuclear situations to be inadequate, few urge that India and Pakistan should build larger arsenals, mate warheads to delivery systems, and deploy them in launch-ready configurations. In short, there is plenty of experience around the world since 1945 to suggest that deterrence and stability can be maintained with low numbers of nuclear weapons.

Much more analysis needs to be done on this issue. The simple assertion behind the concern is that low numbers might leave a state vulnerable to a first-strike, especially from a state with a larger arsenal. The vulnerable state would feel greater pressure to use its small arsenal early in a conflict. While this problem deserves expert theoretical analysis, we should pay even more attention to the actual historical experiences of states managing international relations and deterrence with “low numbers” of nuclear weapons, often in asymmetrical equations with adversaries. Moreover, arms control measures and other forms of transparency can be readily imagined to augment the stability of deterrence at low numbers.

Relatedly, some could worry that if a problem developed regarding the reliability of a warhead design in a small arsenal, the overall deterrent would be weakened, whereas with a larger arsenal with multiple designs, redundancy would preserve the deterrent. This “reliability” issue is one reason why some in the U.S. nuclear weapon complex urge development of a new warhead designed for reliability, safety, durability and easy maintenance without nuclear testing. Advocates say that such a warhead would allow the U.S. to undertake much greater reductions of nuclear weapons. It should be expected that discussions of multilateral nuclear arms reductions would need to address questions of modernization.

❑ How important is parity or disparity in the deterrence doctrines of the various states?

At various stages of the Cold War, the U.S. and the Soviet Union managed deterrence without parity. In the middle period – the 1970s and early 1980s – there was approximate parity. In the late 1980s, Soviet officials recognized that “sufficiency” was the more vital criterion than parity. Today, there is growing recognition that in the global context the distinction between strategic and tactical nuclear weapons is meaningless – a nuke is a nuke. In this context, Russia, with its much larger holdings of short-range nuclear weapons, has numerical superiority over the U.S. and NATO, yet this disparity is not perceived to undermine deterrence. Similarly, China is recognized to have a viable nuclear deterrent even though its arsenal is much smaller and more rudimentary than those of the U.S. and Russia. Indeed, today on a worldwide basis nuclear deterrence is largely based on asymmetric balances. Practice shows there is little reason to accept that parity is necessary for viable nuclear deterrence.

❑ The United States and Russia possess thousands more nuclear weapons than China, the U.K., France, India, Pakistan, Israel and North Korea – including “strategic” and “sub-strategic” and deployed and reserve weapons. How much of a numerical advantage do Washington and Moscow think they need over the others? On what basis would they claim they should be allowed to retain greater numbers?

Public sources do not indicate that either government has thought carefully about these questions. Perhaps this is because Moscow and Washington have not yet seriously considered reducing their arsenals to a point where multilateral nuclear arms control would be feasible.

In conversation, U.S. nuclear strategists tend to assert that the U.S.A should retain at least as many nuclear weapons as all other nuclear-armed states combined. For this assertion (and perhaps similar Russian views) to be worthy of serious consideration, other questions such as the ones raised in this essay must be closely analyzed. As a negotiating principle, it is difficult



to see how leaders of states with smaller arsenals would agree in a negotiation to accept vast disparities. But perhaps the different security environments and responsibilities of states could be recognized in ways that would enable the nuclear-armed states to negotiate unequal limitations.

- Who does each nuclear-armed state think it needs to deter with nuclear weapons? Does Russia need nuclear weapons to deter the United States and China? Anyone else? Does China calibrate its nuclear requirements in comparison to the United States, Russia, India and Japan? Does India determine its nuclear sufficiency relative to China and Pakistan?

A key variable in answering these questions is whether a given state envisions the need to deter more than one nuclear-armed adversary at the same time. Would Russia and the U.S. insist on maintaining an arsenal sized to fight two (or more) nuclear adversaries in the same crisis or war, or in two or more simultaneous crises with the potential to escalate to nuclear war?

Presumably Washington would not reasonably claim that it needs nuclear weapons to deter the U.K., France, India or Israel. This immediately puts into doubt the assertion that the U.S.A should retain at least as many nuclear weapons as all others combined (excluding Russia). But if the U.S.A and Russia could conceivably maintain mutual deterrence with, say, 500 total weapons, would the United States then seek an additional allowance to deter China? The answer could be “yes” if realistic threats existed of simultaneous major warfare in Eurasia – between NATO and Russia – in Northeast Asia – perhaps over Taiwan or in a future conflict with D.P.R.K.

Assuming that Russia would “require” at least near-parity with the U.S.A, there is probably a point in a reduction process where Moscow would then say that it needs additional weapons to deter China, too. Would it make a similar claim for additional weapons to deter the U.K. and France, or could this requirement be met with an arsenal matching the United States? If Russia and the U.S. were allowed to have significantly larger arsenals than, say, the U.K. and France, then Russia’s concern could be mitigated. But the nearer to parity that the U.S.A and Russia are asked to come with the smaller arsenals, the more likely Washington and Moscow are to resist by emphasizing risks of war against multiple nuclear-armed adversaries.

The Chinese arsenal today is smaller and operationally slower than one might expect in a state that envisions fighting nuclear wars with two adversaries, either simultaneously or one right after the other. Assuming that the United States and Russia further reduced the ratios of their arsenals compared to others *before* asking others to undertake reductions in a multilateral process, it is not obvious why any of the others should conclude that this would make them less able to deter multiple adversaries than they were before.

India has unresolved territorial issues with both Pakistan and China, both of whom target nuclear forces at India. To date, India has chosen not to seek an arsenal approximating parity with both China and Pakistan. Such a decision would appear unlikely given India’s strategic culture and planning. But would India in negotiations be willing to formally limit itself to an arsenal significantly smaller than those of Pakistan and China combined? As a political matter, it is one thing to choose to build less than rivals have. It is quite another thing to forego the right to do so and accept disparity in a treaty.

We can ask similar questions of each nuclear-armed state and realize that moving from bilateral U.S.-Russian nuclear arms control to multilateral arms control will be a multi-phased, extremely complicated process. It is reasonable to suppose that Washington and Moscow would be willing to approach parity with the next-largest arsenals only if they had significantly greater confidence in the security dynamics in Europe and Northeast Asia. For general strategic political reasons, China would probably not be willing to negotiate reductions without simultaneous improvements in its security relations with the U.S.A, Russia and India. Beijing also would want a clearer sense of positive security trends relating to North Korea, Japan and Taiwan. India would likely require both greater global equity and progress in resolving its security dilemmas with Pakistan and China.

If the necessary combinations of states were satisfied that they could maintain deterrence with uneven numbers, then the political problem of making disparities acceptable could likely be solved. For example, states could negotiate in terms of *ratios* rather than absolute numbers of nuclear weapons. If the U.S.A and Russia reduced to, say, 500 total nuclear weapons, the ratio of China's holdings would increase. China would gain parity. Similarly, if China reduced its arsenal somewhat, and India held steady, it would gain parity compared with the position it would have without arms control. Ultimately, the political issue of parity/equality could be addressed by framing multilateral nuclear reductions as a vital step toward the abolition of all nuclear weapons which is the only viable point of nuclear equality.

Rather than avoid this complicated challenge, it might help to think about multilateral nuclear arms control as a process that should begin with preliminary discussions of issues like the ones raised here. An early step would be to identify the various considerations that the U.S.A, Russia, China, France, the U.K., India, and Pakistan would want to have addressed before any negotiations could begin. The six-party talks already provide a forum for addressing North Korea's interests. Israel, because it has not tested or otherwise declared a nuclear-weapons capability, could be addressed in the context of creating a regional zone free of weapons of mass destruction. Such discussions could begin on an informal basis, perhaps through Track I.5 discussions involving well-connected think tanks from each state with government observers.

- Some American strategists worry that reductions to, say, 500 total weapons would invite China to rapidly build up its arsenal to reach parity. Does Russia have similar concerns? Does China worry that if it reduced its nuclear arsenal in some formula relative to U.S. and Russian reductions, India could try to build up to parity with China?

This concern is frequently expressed in the United States now that elder statesmen such as George Shultz, Henry Kissinger, William Perry and Sam Nunn have urged movement toward a world free of nuclear weapons, and President Obama has signaled his interest in this objective. However, an answer seems obvious: the U.S.A and Russia would not agree to reduce their total arsenals to a level where China could "race to parity" if there were not formal, reliable agreement that China would not do so. And China would not make such an agreement if it did not have confidence that the U.S.A (and others) were not gaining conventional or other military capabilities to negate its smaller arsenal.

- How do ballistic missile defenses fit into such equations?

If effective ballistic missile defenses could be developed that would be able to reliably destroy a high percentage of attacking nuclear weapons in realistic scenarios, an adversary could feel that its deterrent was jeopardized. This could be destabilizing, or at least could block further reductions of offensive systems. In practical terms today, Russia would not be willing to reduce to low numbers (say 500) if the U.S.A did not put limits on its potential ballistic missile defense capabilities. Nor would China be willing to undertake reductions if Washington was not prevented from developing and deploying systems that could negate a significant percentage of its nuclear arsenal. In short, multilateral reductions to lower numbers will not occur without agreed limitations on ballistic missile defenses, or a transformation of strategic relations so that states no longer feel the need to be able to deliver nuclear arms against other states that possess ballistic missile defenses.

The ballistic missile defense issue changes form, however, to the extent that the international community seeks the total elimination of nuclear weapons. In a world without nuclear weapons, missile defenses could be an insurance policy against anyone who might cheat.

One way to proceed could be to accept severe limits on ballistic missile defenses in the near-term in order to facilitate multilateral reductions of nuclear arms, and meanwhile to promote cooperation in research, development and potential operations of defenses as states agree to work jointly toward nuclear disarmament.



The questions I have explored here are only a few that arise if we seriously try to reduce toward zero the number of nuclear weapons in the world. The U.S.A, Russia and other nuclear-weapon states have an obligation to make this attempt, as agreed in the NPT and the 2000 Review Conference. Analysts, such as Roland Timerbaev and myself, can offer initial questions and answers, but governments are who matter. Today no nuclear-armed state has tasked its defense ministries or think tanks to work through these questions and propose ways of addressing them. Because such serious analysis has not been done *within* any nuclear-armed state, there has been no discussion of these problems between nuclear-armed states.

This absence of analysis and discussion should be corrected. At a minimum, each nuclear-armed state should commission its relevant government bodies and/or think tanks to begin such studies. Such commissions should be undertaken with the understanding that the results should then be discussed and debated among nuclear-armed states. Where and when it is appropriate, nongovernmental organizations should be invited to join such discussions.

Notes

¹ Roland Timerbaev, "Nuclear-Weapon-Free-World: Ways of Moving Ahead", *Security Index*, No. 2, Spring 2009, p.104.