

**CONTROLLING NON-STRATEGIC
NUCLEAR WEAPONS**

OBSTACLES AND OPPORTUNITIES

Edited by

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and

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June 2001

The USAF Institute for National Security Studies

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FOREWORD

Rose Gottemoeller

For fifty years non-strategic nuclear weapons (NSNW) have been the main source of the crises, accidents and diplomatic *contretemps* associated with weapons of mass destruction. It was Khrushchev's theater-range nuclear weapons deployed in Cuba that brought the world to the brink of nuclear catastrophe in 1962. In the 1980s, public resistance to the neutron bomb and intermediate-range nuclear forces in Europe tested the mettle of the NATO alliance. Deployments succeeded, but so did an eventual Intermediate- and Shorter-Range Nuclear Forces (INF) Treaty, which banned an entire class of weapons world-wide. In 2000, the issue sprang to the fore again with concerns that Russia was redeploying non-strategic nuclear weapons in its military enclave in Kaliningrad. In the complex world of the nuclear era, non-strategic nuclear weapons have produced more than their share of difficulty and danger.

There are a number of reasons why this is so. The first is sheer numbers. We have heard from a Minister of Atomic Energy of Russia, Victor Mikhailov, that the Soviets produced some 45,000 nuclear warheads during the course of the Cold War. Since we know that approximately 12,000 of these were strategic nuclear weapons, the vast majority of the Soviet stockpile was obviously built for non-strategic missions.¹

The second reason has to do with the wide variety of these missions. Many non-strategic nuclear weapons were built for war-fighting on the battlefield; as a result, they were configured to be handled in operational deployments. Small, mobile, and designed to be used by a field commander, their command and control has always been questionable. For example, the Soviets only installed the most primitive of permissive action links (PALs) on their battlefield weapons. Some of their older warheads had no such use control systems at all. The more weapons are moved, deployed, exercised and serviced, the more

opportunities there are for accident, loss, and even, in recent years, theft and illicit use.

The third and perhaps most important reason is the relationship with strategic weapons that geography imposes on their non-strategic kin. The past fifty years are littered with East-West arguments about the relative advantage that two oceans of separation afford the United States. The Cuban Missile Crisis itself sprang from the Soviets' notion that they could even the balance by deploying non-strategic nuclear weapons in Cuba. If the United States could have nuclear weapons deployed on the Soviet doorstep in Europe, went their reasoning, should not the Soviet Union have nuclear weapons on the U.S. doorstep? After all, NATO-deployed "non-strategic" weapons could strike Soviet strategic targets such as Moscow. Why not return the favor?

The United States fortunately won that argument in 1962, but it continued to rankle the Soviet Union and continues to rankle Russia today. The most frequent argument that the Russians advance against Moscow negotiating treaty constraints on its non-strategic nuclear weapons touches this issue: If the United States will not remove its nuclear weapons from Europe, why should the Russian Federation even consider negotiations to constrain its own capabilities in this regard?

These differences over nuclear weapons in the U.S.-Russian relationship have been further complicated by an internal Russian debate about the role of nuclear weapons in Russian military doctrine. General Kvashnin, the Chief of the Russia's General Staff, has recently argued that the Russian Federation needs to de-emphasize nuclear weapons in the interest of achieving a high-quality conventional force structure capable of addressing threats on the Russian periphery such as Chechen separatism and Islamic extremism. Marshal Sergeyev, the Russian Minister of Defense, argues the opposite view, stressing that in a period of profound weakness, nuclear weapons can provide a stable and predictable deterrent against Russia's enemies—including Islamic elements on its periphery, and potential threats in Europe from an expanding NATO.²

Thus, an already complicated picture has been further muddied by deep differences among the leadership of the Russian military about the importance of nuclear weapons, and non-strategic nuclear weapons in particular. President Putin has as yet suspended judgment on these questions, and if the experience of the first post-Soviet decade is any guide, then he will not try to force a final resolution of the issue. Instead, both sides of the debate will continue, and eventually one will pull ahead in the battle over scarce budget resources.

This uncertainty will tend to breed Russian inaction regarding proposed bilateral efforts to control non-strategic nuclear weapons. No clear view among the Russian leadership is the recipe for a default to the long-standing Soviet and now Russian approach: “Unless you, the United States and NATO alliance, remove nuclear weapons from Europe, we are not prepared to move forward on any approach you might propose.”

Such a dead-end, however, is by no means decisive, as the experience of the INF Treaty shows. In the 1980s the Soviets walked out of arms control negotiations to protest the deployment of Pershing II and Ground-Launched Cruise Missiles (GLCMs) in Europe, but eventually they returned to the negotiating table and completed the treaty. The factors that led to that reversal are not important to this discussion—some say it was the Reagan administration’s decisive approach, others that it was the advent of Gorbachev and his reform regime. The important point is that Russia at any time may choose to leave a dead-end of its own making.

Foreseeing that time and being ready for it is the purpose of this unique book. It developed out of an intense and detailed two-day conversation among specialists in nuclear weapons and practitioners of nuclear diplomacy, at a time when many in the United States believed that the non-strategic nuclear weapons problem had simply gone away. The end of the Cold War, the U.S. and Russian parallel unilateral reductions known as the Presidential Nuclear Initiatives, and the de-emphasis of nuclear weapons in U.S. operational deployments have led many Americans to forget about the existence of these weapons. They

remain, however, and are already a dangerous irritant in the U.S.-Russian relationship as well as in the Russian relationship with America's allies.

The value of this book is that it goes well beyond stock answers to the policy challenge of non-strategic nuclear weapons to wrestle with some important questions: How do strategic and non-strategic weapons relate? Is there military value to them? Can obstacles to traditional arms control measures be overcome? What new and practical steps should we try, if we choose not to rely on traditional arms control? What is the Russian debate over these weapons, and how does it relate to China's perspective?

We must wrestle with each of these questions if we are to bring non-strategic nuclear weapons out of the policy shadows. This book brings clarity to the issues, and will help readers to understand the complexity, but by no means impossibility, of controlling these weapons.

Endnotes

¹ For more on Soviet warhead numbers see the Natural Resources Defense Council "Archive of Nuclear Data" at <http://www.nrdc.org/nuclear/nudb/datainx.asp>. Minister Mikhailov is quoted in Thomas B. Cochran, Robert S. Norris, and Oleg A. Bukharin, *Making the Russian Bomb: From Stalin to Yeltsin* (Boulder, CO: Westview Press, 1995), p. 31.

² See Chapter 9 by David Yost for an in-depth analysis of this debate at the highest levels of Russia's leadership.

INTRODUCTION

Jeffrey A. Larsen

The issue of non-strategic nuclear weapons, a serious military and political concern for more than a generation, seemed to vanish from the scene in the early post-Cold War years. Indeed, the Presidential Nuclear Initiatives (PNI) of George Bush, Mikhail Gorbachev, and Boris Yeltsin in 1991 and 1992 had apparently eliminated this category of weapons as an issue worthy of further consideration or intellectual concern.

But tactical nuclear weapons never really went away.

As the new millennium begins the United States finds itself facing a much-diminished Russian competitor that still holds a significant advantage in at least one category of weapons of mass destruction: non-strategic nuclear weapons (NSNW).¹ Russia still has thousands of these warheads, as well as multiple means for their delivery.² Despite the difficulties associated with establishing compliance with non-binding unilateral initiatives, the signs seem to indicate that Russia has not completely honored its PNI commitments of a decade ago. In fact, Russia appears to be adjusting its national security doctrine to place even greater emphasis on nuclear weapons. Meanwhile, the United States is trying to decide what value such weapons provide to its own security, and is considering whether to keep or eliminate its remaining stockpile. As part of this consideration, the U.S. government is debating the role of arms control in stabilizing the strategic (and sub-strategic) balances with Russia and China in Europe and Asia.

This book addresses many of the fundamental issues surrounding non-strategic nuclear weapons. It is the result of a conference on NSNW held November 2-3, 2000 at the Airlie Center in Warrenton, Virginia. Some 75 experts in arms control, nuclear weapons, and national security strategy from both sides of the political spectrum attended the workshop, which featured formal panel presentations and lively discussion on the topic. The

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conference was hosted by the National Security Policy Division, Nuclear and Counterproliferation Directorate, Headquarters United States Air Force (AF/XONP). Most of the chapters in this book are the result of presentations at the conference.³

Themes

A number of themes that arose during the conference are discussed in this volume. First, even the experts find it difficult to precisely define what non-strategic nuclear weapons are. Traditional attempts at delineating between types of nuclear weapons—range, delivery vehicle, explosive power, and the like—were generally dismissed as overly simplistic and outmoded approaches that missed the nuances of these weapons. The best way to define them may be “by exclusion.” That is, anything not captured by strategic arms control negotiations is, by default, non-strategic. Another perspective holds that *any* nuclear weapon must be strategic, given its potential for physical devastation and political chaos. A third view suggests that only one’s adversary can define whether a weapon is strategic or non-strategic, based on its perceived use.

The role and value of formal arms control in trying to capture these weapons was also found wanting. Any future negotiation that focuses strictly on NSNW is unlikely to succeed—if it occurs at all. It is perhaps possible, on the other hand, to envisage talks that consider *all* nuclear warheads in one general category, rather than attempting to break them down into “strategic” versus “non-strategic.”

All the participants acknowledged Russia’s large asymmetrical advantage in numbers of NSNW, and the fact that it is unwilling to implement the 1991 agreements or discuss NSNW in a separate, formal arms control forum. Yet the 1997 Helsinki Agreement indicated that Russia is willing to talk about NSNW to the degree that it benefits them or is linked to broader strategic issues. Russia’s huge arsenal of tactical nuclear weapons is particularly unsettling given worries about Russia’s future, its current weakness and possibilities for complete collapse, and the dangers for other states in confronting a weak, vulnerable,

nuclear armed state. All this leads to the concern over “loose nukes.” As one participant put it, “the real worry about Russian NSNW is if they become someone else’s NSNW.”

Nor is China likely to be interested in arms control discussions over its sub-strategic nuclear forces—not that many Americans even consider China when talking about strategic issues. Therein lies another problem: China is a rising superpower, armed with nuclear weapons in a region of the world that the United States considers a strategic interest, but that country is often overlooked in Washington policy discussions and decisions.

The conferees agreed that a new paradigm was needed to replace traditional arms control as it related to non-strategic nuclear weapons. One alternative suggested a new round of unilateral initiatives similar to those the United States put forth in 1991. If the United States were to cut its NSNW even deeper, goes this argument, such moves might be reciprocated by other states, and could be codified later once all parties realized the benefits of such cuts.

On the other hand, after ten years the 1991-1992 PNIs have yet to bear fruit, if one accepts the widely held premise that Russia has not kept its end of that bargain. In addition, most observers believe that nuclear weapons are here to stay. In that sense, all nuclear weapons may indeed be becoming strategic, and there is therefore little reason to maintain the non-strategic distinction in any new paradigm.

Purpose of Non-Strategic Nuclear Weapons

So what is the role of nuclear weapons? Their key purpose, from an American perspective, is to deter coercion and aggression against the United States and its allies. To do this, the United States built a massive arsenal during the Cold War, eventually numbering some 15,000 strategic warheads and more than 20,000 tactical nuclear weapons.⁴

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The second cornerstone of America's NSNW policy was to provide a nuclear presence in Europe, supporting NATO as the essential link between the European and North American allies. These weapons were part of NATO's triad: conventional forces, tactical nuclear weapons in theater, and U.S. and British strategic systems. The North Atlantic Treaty Organization's strategic concept still calls for the continued presence of such weapons in Europe, in order to maintain the transatlantic link to the United States and for purposes of creating political and military uncertainty in the mind of any potential opponent.

Their third purpose became evident in the 1990s: to deter the use of weapons of mass destruction (WMD) more broadly. During the Gulf War the United States government made it clear, for example, that any WMD use by Iraq would result in a "prompt, devastating retaliatory blow" in which no weapons would be ruled out. It was widely understood by both sides in the conflict that this meant nuclear weapons, specifically NSNW.

Whether the Bush administration which took office in January 2001 will honor these traditional roles for non-strategic nuclear weapons is uncertain. The 2001 Nuclear Posture Review, in coordination with the refinement of the national security strategy, the development of a new national defense strategy, and the Quadrennial Defense Review will help the new administration determine the role, if any, these weapons will play in the future.

Current U.S. NSNW Posture

Presidential Bush's nuclear initiatives in the fall of 1991 called for the withdrawal and eventual elimination of most U.S. NSNW, including the cancellation of all related research and development programs. The Clinton administration furthered this decision by eliminating naval nuclear capabilities on surface ships entirely. America's remaining non-strategic capabilities are now limited to gravity bombs delivered by tactical aircraft, and nuclear Tomahawk Land Attack Missiles (TLAM-Ns) delivered by submarine. The latter are not routinely deployed with the fleet. Precise numbers of warheads are classified, but

the total U.S. force is commonly understood to stand at about 1,300 bombs and 320 TLAM-Ns.⁵ A significant proportion of these remaining weapons are still based in Europe, and several European states maintain nuclear delivery plans in their NATO war orders that would depend on U.S. warheads.⁶

Key issues for the existing NSNW force posture include deciding whether the United States should keep its current levels or reduce the numbers further, and determining the purposes for these remaining weapons and where to station them.

The perceived battlefield use and utility of these weapons has dropped significantly since the end of the Cold War. Nevertheless, the United States government maintains the firm belief that it must be able to deliver on its threat to use nuclear weapons in certain scenarios if its words are to be believed in international relations. And there exist some military operations that can only be accomplished using the particular effects that nuclear weapons provide. For those reasons the U.S. military maintains NSNW and the plans for their use.

One of the biggest challenges to planners in today's increasingly complicated world is determining how to respond to enemy chemical or biological weapons use. Are nuclear weapons appropriate for such retaliation? Even if the determination was made that they were, that does not necessarily imply the need for retaining NSNW for such cases, nor for concerns simply over the warheads themselves. True force projection capability also requires the platforms, support infrastructure, and trained and certified crews that have been maintained or can be brought to a proper level of readiness. The reality is that in such a situation the entire U.S. arsenal, strategic and non-strategic alike, would be available, although the use of strategic systems would raise serious concerns vis-à-vis several countries, including Russia.

The Role for Arms Control

Historically, nuclear arms control has focused primarily on long-range strategic systems, but Russia has always tried to include U.S. NSNW in arms control talks. From the Russian

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perspective, nuclear weapons stationed in Europe and aimed at Russian soil should not be considered “non-strategic.” The United States, on the other hand, has consistently rejected that position, and Russia has consistently conceded. Yet in 1997 Russian negotiators at the Helsinki Summit raised this old desire again by asking that NSNW be directly considered as part of any START III negotiations.

Should NSNW be considered in future arms control talks? Doing so would raise a plethora of new or recycled ideas and concerns. For example, should nuclear weapons be considered in one aggregate ceiling, or disaggregated into different categories? Is there a role for unilateral tacit bargaining? How will ballistic missile defenses affect the relationship with other nuclear nations? Is no-first-use a good idea? This book does not attempt to answer these questions directly, but its chapters do form the basis for understanding and debate regarding these issues.

About the Book

The book is divided into four sections, which take the reader through some of the key concerns and questions that arise when addressing non-strategic nuclear weapons. In the first section, “Defining NSNW,” Lewis Dunn begins by reminding the reader of the multiple issues involved in the debate over NSNW. He raises a series of questions helpful in determining what we are talking about, and in explaining why the topic is so important.

Andrea Gabbitas tackles the daunting task of determining what makes a nuclear weapon non-strategic. After reviewing the reasons why this poses a problem, she surveys Russia’s non-strategic arsenal and explains why a definition is necessary. She then describes the various means that have been proposed as a way of delineating NSNW from other nuclear weapons. One of the strengths of her chapter is the set of tables that show the types, ranges, yields and numbers of these weapons in each of the seven confirmed nuclear states.

Stanley Sloan reviews NATO's nuclear history and current policy issues, including the role for residual U.S. nuclear forces in Europe, the question of nuclear weapons and NATO enlargement, and reassuring Russia. He also addresses potential roles for the independent French and British nuclear forces. Maynard Glitman then describes NATO's continuing rationale for its NSNW strategy. The 1999 Alliance Strategic Concept reiterated that nuclear weapons, though de-emphasized since the Cold War's end, are still considered crucial to the defense of the Alliance by deterring potential adversaries.

Section two, "Contending Objectives," reviews the difficulty the United States would face if it decided to get rid of these weapons. For one thing, the United States has valid purposes for these weapons involving global deterrence and potential warfighting scenarios. Robert Gromoll and Dunbar Lockwood provide a practical perspective on this issue, as they ask several important questions that might explain why further progress on NSNW arms control has not been made. Can limits on these weapons be effectively verified? Does the United States have any bargaining leverage over Russia that would entice it to enter negotiations? Would the United States have to include its weapons in Europe? They are pessimistic about finding solutions to these conundrums.

Robert Joseph reminds the reader that one of the important military and political purposes for NSNW has traditionally been to provide regional deterrence in places around the globe other than Europe. That role remains, and may be even more important in today's world of proliferating weapons of mass destruction. Whether arms control can play a role in controlling these weapons is unclear but, according to Joseph, should remain a secondary consideration to military needs.

In the third section of the book, "Obstacles," we focus on the serious problems that block the path to NSNW arms control solutions. Philip Foley begins by emphasizing the verification difficulties that would arise in trying to assure compliance with any new arms control treaty. Verifiability must be considered an integral part of any potential agreement, he argues. Both sides

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have a large tool kit of verification means available that they have developed in past arms control treaties.

Jack Mendelsohn provides a comprehensive list of other obstacles that need to be considered. These can be grouped under policy, operational, and arms control obstacles, and range from considerations over first-use doctrine to the relevance of limits on third party states.

David Yost then provides a superbly documented study of recent Russian perspectives on arms control and the role of non-strategic nuclear weapons. He points out that there are a number of reasons why Moscow would be uninterested in considering NSNW limits, not least of which is Russia's increasing reliance on nuclear weapons to overcome its economic decline and conventional military weakness.

In an equally in-depth manner, Kenneth Allen provides a cogent study of China's views of arms control, its nuclear policy and force structure, and its interpretation of Washington's recent foreign policy actions. Of particular interest is his section on possible nuclear employment scenarios for the Chinese leadership, focusing on crises involving Taiwan or India.

Part four, "Solutions," suggests a number of possible ways to successfully negotiate, implement, and verify future reductions in non-strategic nuclear weapons. Linton Brooks begins by delineating the diplomatic steps that would be required to deal with this set of weapons. These involve determining the real issues involved, concentrating on the safety and security of Russia's NSNW arsenal, and then applying traditional arms control options and considering external linkages or trade-offs.

Bill Potter also addresses practical steps for addressing the NSNW problem. These include transparency measures, formalizing the 1991 PNIs, developing new unilateral initiatives, or creating a cooperative defense strategy building on the success of the Cooperative Threat Reduction program. He then provides a valuable appendix that compares alternative estimates of Russia's current NSNW force structure.

Joe Pilat picks up on the cooperative defense theme as one possible solution to concerns surrounding an NSNW arms control agreement. To Dr. Pilat, the key is verification of any deal. He examines possible incentives for both the United States and Russia that might lead them to negotiate NSNW controls, and establishes a model framework for such negotiations that addresses such issues as scope, units of account, and costs. His suggestion is that any NSNW agreement must address warheads and materials, rather than delivery systems as in past agreements.

Jim Smith concludes the book with a thematic review of the four sections, followed by a discussion of the operational implications of this subject for the U.S. Air Force in its role as the caretaker for the bulk of America's NSNW arsenal. Over the short term, he suggests, the Air Force must continue to sustain, plan, and exercise with these weapons in case it is called upon to provide a military option. Over the medium term, the Air Force would be well advised to consider how it would go about withdrawing its NSNW from Europe, and what types of precision conventional forces would be needed in their place, should NATO ever decide to downsize or eliminate that leg of its deterrent forces. And in the long term, the Air Force must be prepared to adapt to formal arms control initiatives or agreements that affect these forces.

The book concludes with a series of appendices containing applicable papers and policy announcements related to NSNW, followed by short biographical sketches of the contributors.

* * * * *

As Jim Smith says in his conclusion, the Air Force has “the most deep-seated appreciation for nuclear weapons, both strategic and non-strategic, and holds the highest stakes in their disposition... Today the Air Force has the unprecedented luxury of time to think, plan, and act in a deliberate manner to ensure survival and security in alternative futures with or without non-strategic nuclear weapons. It owes it to the nation to seize that opportunity and make the best of it.” This book is an attempt to help that process through an open debate on the issue of controlling non-strategic nuclear weapons.

Endnotes

¹ Non-strategic nuclear weapons have gone by various names over the years. Primarily stationed in Europe and the Far East, as well as at sea, they have been known at different times as battlefield nuclear weapons, tactical nuclear weapons (TNW), theater nuclear weapons, theater nuclear forces (TNF), intermediate range nuclear forces (INF), short range nuclear forces (SNF), sub-strategic nuclear weapons (SNW), and so on. Although the common default used in this book is NSNW, not all conferees liked that term. Hence many of these terms may be found and used interchangeably throughout this book.

² See chapters 1 and 12 for a comparison of the range of estimates for Russia's existing NSNW stockpile. Some participants at the Airlie conference suggested that Russia may still have as many as 15,000 non-strategic nuclear weapons. At a minimum, Russia has 1,200 warheads for surface to air missiles, 1,600 bombs and missile warheads for aircraft, and 2,500 naval warheads (for aircraft, cruise missiles, and anti-submarine torpedos or missiles). "Russian Nuclear Forces 2000," NRDC Nuclear Notebook, *The Bulletin of the Atomic Scientists*, July/August 2000, pp. 70-71

³ China was considered during the Airlie House conference, but the presenter was not able to prepare a chapter for this book. Due to the geopolitical importance of China, Chapter 10 was commissioned following the conference. It captures the points made during the Airlie conference. So do Chapters 3 and 4, which were both commissioned after the conference because the NATO representative at the session could not publish his remarks.

⁴ According to the Natural Resources Defense Council, America's non-strategic stockpile peaked at almost 23,000 warheads in 1965. The U.S. strategic arsenal peaked years later, reaching 15,000 warheads in 1987, by which time NSNW numbers had already declined significantly. See "Figure of US Nuclear Stockpile, 1945-96," in the NRDC nuclear data archive at www.nrdc.org/nuclear/nudb/dafig9.asp.

⁵ NRDC Nuclear Notebook, "U.S. Nuclear Forces, 2000," from *The Bulletin of the Atomic Scientists*, May/June 2000, pp. 69-70, lists 325 launchers and 320 warheads for Tomahawk sea-launched cruise missiles, and 1,350 B-61 bomb (mod 3, 4, and 10) warheads.

⁶ See David Yost, *The U.S. and Nuclear Deterrence in Europe*, Aephi Paper no. 326 (London: Institute for International Security Studies, March 1999).

CHAPTER 1

Non-Strategic Nuclear Weapons Controls: What's the Problem?

Lewis A. Dunn

In 1987 the United States and the former Soviet Union signed the Intermediate- and Shorter-Range Nuclear Forces (INF) Treaty. This first treaty dealing with non-strategic nuclear weapons (NSNW) broke new ground, from its far-reaching provisions for on-site inspections to the fact that it eliminated a complete class of nuclear weapon systems. Faced in 1991 with the imminent break-up of the Soviet Union – and the danger of loss of control over non-strategic nuclear weapons – President George H. Bush proposed what has come to be called the Presidential Nuclear Initiatives (PNIs). A prominent part of these initiatives was a set of parallel unilateral actions by the United States and Russia to withdraw from foreign deployments and eliminate both ground-launched and ship-borne tactical nuclear weapons. Here, too, new ground was broken in the use of non-treaty arms control as a means to respond very quickly to [the changed security environment](#).

Throughout the 1990s, U.S. policymakers focused little additional attention on NSNW arms control. Instead, their primary concern was how to reduce strategic offensive nuclear systems under the Strategic Arms Reduction Treaty (START) process, as well as to redefine the limits on missile defenses set by the 1972 Anti-Ballistic Missile (ABM) Treaty. More recently, however, whether or not to seek further arms control limits on non-strategic nuclear forces has again appeared on the radar screen. To help provide an overall framework for thinking about controls on NSNW, this chapter asks what the problem [is](#) that needs to be addressed. In so doing, it briefly sketches some alternative arguments for pursuing new NSNW arms control initiatives, but also highlights some important constraints. In conclusion, it highlights the options available to U.S. policymakers.

16 NSNW: What's the Problem?

A broad range of different answers is possible to the question, “what’s the problem?” In many instances, these answers comprise arguments for “doing NSNW controls;” in some cases, these answers suggest important cautions and constraints that need to be weighed in thinking about U.S. options. More specifically, the problem the United States needs to address may be related to any one of a number of issues:

- Dealing with uncertainties concerning Russian implementation of the 1991 Presidential Nuclear Initiatives;
- Enhancing controls on Russian nuclear weapons and lessening the risk of nuclear theft;
- Providing a counter-balance to a growing Russian emphasis on tactical nuclear weapons in its military doctrine;
- Reducing an NSNW “overhang” that could ultimately affect the prospects for further strategic nuclear offensive arms reductions;
- Institutionalizing further the principle of cooperative U.S.-Russian management and restructuring of their Cold War nuclear legacies;
- Saving money and force structure;
- Demonstrating compliance with U.S. nuclear disarmament undertakings under Article VI of the Nuclear Non-Proliferation Treaty;
- Preserving deterrence, including an NSNW component;
- Keeping the NATO Alliance intact; and
- Retaining credible options for deterring or responding to regional threats from weapons of mass destruction (WMD).

We will first consider the logic of pursuing NSNW controls, then examine the cautions or constraints on doing so. Each element is reflected in these answers to the question of the problem to be worked.

The Logic of Pursuing NSNW Controls

Turning to the first possible answer to the problem, questions persist in many U.S. government quarters about Russian implementation of the 1991 PNIs over the past decade. It seems clear that Russian efforts at dismantlement have fallen well short of their PNI commitments. This is so despite statements by Russian officials over the past decade that Moscow had withdrawn its ground-launched tactical nuclear weapons to central Russia and that it had been dismantling these systems at a rate of over 2,000 per year. What is less clear is the degree to which this lagging dismantlement is attributable to technical, logistical, or security shortfalls. Even if the Russian government was fully committed to complete and rapid compliance with the PNIs, does it have the capacity to carry out the implementation? The poor health of the Russian economy and crumbling technical infrastructure within the Russian defense establishment likely pose great constraints on even a well-intentioned compliance effort.

But is that effort really well-intentioned? There have been recent indications that some Russian officials and military leaders have become increasingly uncomfortable with the PNI restraints. A major push by the United States for NSNW arms control could conceivably shore up the 1991-92 commitments by Presidents Bush, Gorbachev, and Yeltsin. For example, the PNIs could now be codified in a legally binding agreement, whether in a treaty requiring U.S. Senate and Russian Duma ratification or in an executive agreement which would avoid this hurdle. Or a mixture could be pursued which included confidence-building measures (such as exchanges of data and visits) as well as the types of on-site presence and hands-on implementation that are the essence of the Cooperative Threat Reduction (CTR) program with Russia (currently limited primarily to eliminating START-constrained nuclear systems as well as some biological and chemical weapons). Traditional verification means also might be added. Regardless of the approaches used, the purpose would be to provide enhanced confidence in the implementation of the PNIs and to avoid further Russian backsliding. Indirectly, this

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would result in mutual political reassurance between Moscow and Washington.

The importance of further strengthening controls on Russian tactical nuclear weapons, thereby lessening the risk of nuclear theft, comprises another definition of the problem. In the midst of continuing social and economic instability, enhancing nuclear controls in Russia remains a central U.S. security objective. A breakdown of such controls over not only nuclear weapons materials but also nuclear weapons themselves is a credible route to “instant proliferation” – access to an initial nuclear arsenal, whether by an U.S. adversary such as Iraq or Iran, or by a terrorist group. From this perspective the logic of NSNW arms control is two-fold. On the one hand, codified and confirmed reductions – by treaty or agreement, traditional verification or less rigorous means – would eliminate potential targets for theft. This is especially important since Russia is publicly estimated to have upwards of 10,000 tactical nuclear weapons. On the other hand, an NSNW agreement could provide a legally or politically binding framework that would buttress already ongoing cooperation aimed at security improvements for Russian storage sites. It also could result in exchanges of information on NSNW and increased access that would facilitate the process of enhancing security.

Third, part of the NSNW problem today is a growing Russian emphasis on tactical nuclear weapons in its military doctrine. For Russia, that new emphasis reflects the combination of sharp economic decline, conventional military weakness, and long borders. For the United States and its allies, however, such a nuclear emphasis poses a dual problem. It could result in heightened tensions between Russia and NATO, particularly if it results in future westward redeployments of Russian nuclear weapons. It also could slow the emergence of a more politically cooperative post-Cold War relationship between Washington and Moscow. In this context, sharp reductions in NSNW numbers could provide a partial political counter-balance to those elements within the Russian military that support a nuclear emphasis. In turn, NSNW controls that included centralized storage of residual systems in non-deployed status could place *de*

facto limits on the integration and forward deployment of tactical nuclear weapons into Russia's military force posture on a day to day basis, as in exercises, training, and other activities.

From a fourth perspective, the problem to be worked is reducing the NSNW "overhang" from the Cold War. Though public estimates vary, Russia is often assumed to possess 10,000-plus non-strategic nuclear weapons – compared to public estimates of several hundred comparable U.S. weapons deployed overseas. With the end of the Cold War confrontation in Europe, this imbalance has little immediate or direct military significance. At the same time, however, there is widespread discussion of reductions of U.S. and Russian strategic nuclear forces to levels considerably below the agreed START II levels of 3,000 to 3,500 deployed warheads. Washington and Moscow have also discussed putting in place a more comprehensive regime for the monitored elimination of nuclear warheads from strategic reductions. However, Russia's possession of a significant uncontrolled stockpile of NSNW could emerge as a significant political and psychological obstacle to further restructuring of both sides' nuclear postures in directions more consistent with a post-Cold War political relationship.

In turn, NSNW controls would be yet another way to institutionalize further the principle of cooperative U.S. and Russian management of their overall nuclear relationship. During the Cold War both Washington and Moscow eventually came to acknowledge that they had a mutual interest in the safe, stable management of nuclear matters. This principle was reflected in arms control agreements ranging from the 1971 Accident Measures Agreement to the START treaties. More recently, the U.S. Cooperative Threat Reduction (CTR) program has epitomized this basic principle. A commitment to cooperative management remains, moreover, an important element of stability today, since both countries have yet to put the psychology of their Cold War nuclear competition fully behind them. In turn, over the longer term both Washington and Moscow have political, budgetary, and economic incentives to cooperatively restructure their overall nuclear force postures in a manner consistent with a very different political relationship.

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For this view of “the problem,” NSNW controls would be part of that cooperative restructuring.

Saving money and freeing up force structure provides a somewhat different logic for working the issue of non-strategic nuclear forces. From this definition of the problem, a key consideration for NSNW controls would be whether such controls would permit significant cost savings due to lessened requirements for maintenance of nuclear security and storage sites overseas. In turn, from the perspective of the U.S. Air Force, with its continuing responsibilities in this area, the desirability of giving up the NSNW mission would need to be weighed.

Particularly for those U.S. officials responsible for nuclear non-proliferation matters, there is a quite different logic for pursuing NSNW controls. For this group, reducing or eliminating such weapons would further demonstrate U.S. compliance with Article VI of the Nuclear Non-Proliferation Treaty. Long regarded as the cornerstone of U.S. non-proliferation efforts, that Treaty calls on the United States and other parties to undertake good faith negotiations on nuclear disarmament. Effective progress toward that goal would help to buttress the Treaty's legitimacy and to strengthen the hand of opponents of further proliferation.

Cautions and Constraints – Other Views of “The Problem”

Taken together, the preceding perspectives provide a set of overlapping arguments for pursuing controls on non-strategic nuclear weapons. But there are other ways to define the NSNW problem that suggest a need for considerable caution in approaching this issue. These perspectives highlight the need for ensuring deterrence, maintaining Alliance cohesion, and retaining regional WMD deterrence and response options.

For most of the past four decades, U.S. non-strategic nuclear weapons were an important element of the overall U.S. nuclear deterrent posture. Today, there is considerable debate about what should be the principles and dimensions of future U.S.

nuclear strategy. The robust active deterrence posture of the Cold War years has given way to a new emphasis on a “hedging” strategy. There are some calls for even more far-reaching changes to a recessed deterrent posture in which nuclear weapons would be very much in the background, on non-alert status, and in reduced numbers. Consequently, pursuit of any future controls on NSNW would need to be consistent with maintenance of that overall U.S. deterrence posture.

Still another consideration would be to ensure that the issue of non-strategic nuclear weapons does not disrupt the cohesion of the NATO Alliance. During the Cold War, the presence of U.S. nuclear weapons in Europe demonstrated the linkage of American and European security. Even today, the American security connection remains essential for European security and stability. Nuclear weapon posture, doctrine, and deployments have historically been matters of periodic controversy within the Alliance. While there now is virtually no attention being paid among allied publics to the presence of U.S. nuclear weapons in Europe, that presence has also been a subject of intense public debate in the past. So viewed, the impact of any new initiatives to control NSNW on Alliance cohesion and public support for NATO also would need to be carefully assessed and weighed.

One final if perhaps more controversial view of the problem should not be overlooked. In a world of more WMD proliferation, credible U.S. deterrent and response options are essential— not only to counter regional adversaries armed with WMD, but also to reassure allies and friends. In particular, absent effective deterrence, there will be growing pressures on those allies and friends to seek their own matching WMD capabilities. U.S. conventional military responses as well as more effective defensive measures can play a part in such deterrence and response. So can “strategic” systems based in the continental United States. But consideration also needs to be given to how new controls would impact U.S. regional WMD deterrence postures.

Conclusion

In light of the preceding answers to “what is the NSNW problem?” the most fundamental choice confronting U.S. policymakers is whether to pursue new controls or to leave well enough alone. Assuming a decision to pursue such controls, a broad range of potential goals stands out: from a minimalist effort to backfill the PNIs to pursuit of the complete elimination of U.S. and Russian non-strategic nuclear weapons.

At the same time, in crafting a negotiating strategy, it will be important to think more broadly than simply in terms of taking additional unilateral actions or pursuing a full-fledged legally binding treaty that would need to be ratified by the U.S. Senate and the Russian Duma. The toolkit of approaches available to U.S. policymakers is far broader. It includes politically binding agreements as well as legally binding executive agreements; confidence building measures such as data declarations, exchanges of visits, technical experiments and cooperation; and the use of techniques from the CTR program to provide implementation support, on-site presence, and, as a result, a measure of verification in practice. In pursuit of NSNW controls, as well as more broadly in the arms control arena, the challenge ahead is to combine these multiple approaches into a mutually reinforcing strategy to enhance U.S. national security.

CHAPTER 2

Non-Strategic Nuclear Weapons: Problems of Definition

Andrea Gabbitas

Non-strategic nuclear weapons, though reduced in number from the massive Cold War arsenals of the United States and Soviet Union, continue to pose a significant problem for arms control. Though only about one thousand NSNW remain in the U.S. arsenal, many thousands still exist throughout Russia.¹ These weapons are not yet covered under any of the formal arms control treaties and may pose a problem for future arms control efforts. In addition to the political problems associated with the reduction of these weapons, the difficulty in defining which weapons should be characterized as NSNW has caused problems for arms control in the past and is likely to continue to impede future attempts at arms control. This chapter focuses on the difficulty of defining these weapons and why a definition is necessary for further progress in arms control.

Anatomy of the NSNW Problem

The first motivation to control these weapons is U.S. concern over the remaining NSNW in the Russian arsenal. Three main problems highlight the perceived need to target and reduce Russian NSNW. First, the collapse of the Soviet Union and consequent crash of the Russian economy has led to concern over the command and control of the former Soviet nuclear arsenal. Although virtually all Russian strategic nuclear weapons are equipped with locking mechanisms, many of the older NSNW are not equipped with these safety measures or are safeguarded by permissive action links (PALs) of questionable quality.² Therefore, those locks might not prevent these weapons from being used by unauthorized persons if they could be obtained. Additionally, the high number of Russian NSNW and different storage sites – as well as the poor accounting system for these weapons – makes it more likely that weapons could be

diverted from storage, a leading proliferation risk. Given the financial hardship of the military officers that are guarding these weapons, questions have been raised about the long-term security of Russia's NSNW forces. Furthermore, Russian moves to consolidate its storage sites (under U.S. encouragement) rely upon transporting nuclear weapons over long distances, making them more vulnerable to theft.

The second reason that it is important to target Russian NSNW in the short-term concerns arms control. If NSNW are not addressed soon, the possibility exists that the Russians may backslide from the status quo or even defect from past agreements, both formal and informal.³ Because of the disintegration of Russia's conventional forces, Moscow has looked for an alternate way to match the conventional capabilities of NATO. When faced with a conventionally superior force in 1999 military exercises, for example, Russia found that it needed to use nuclear weapons in order to stop the invading forces. Given that NATO relied on NSNW when it felt that it was conventionally inferior to the Soviet Union during the Cold War, it should be no surprise that a weakened Russia has adopted the same tactic.⁴

Furthermore, Russia currently has little incentive to pursue reductions in NSNW. In addition to Moscow's perception that it needs NSNW to make up for its conventional inferiority to NATO, discussions of further NATO expansion have exacerbated Russia's feelings of conventional inferiority. NATO poses a real military threat to Russia despite its proclaimed peaceful intentions, especially since future expansions of NATO would bring the alliance closer to the Russian border, perhaps even incorporating some of the former Soviet republics. Moreover, the United States continues to pursue a national missile defense system (NMD) that would mean scrapping the ABM treaty and potentially decreasing the effectiveness of Russia's strategic deterrent. Not only does NMD threaten Russian security, but it lays the precedent for breaking old agreements or treaties that no longer benefit the security of one of the signatories. This would lay the groundwork for Moscow to re-deploy NSNW into Europe in violation of the Intermediate-

Range Nuclear Forces (INF) Treaty or to rebuild nuclear forces that it supposedly gave up through the 1991 Bush-Gorbachev Presidential Nuclear Initiatives (PNIs).

There continue to be significant discrepancies in reports of the remaining number of NSNW in the Russian arsenal. Although estimates by the NRDC and two Russian experts, Diakov and Arbatov, all agree that Russia has approximately 4,000 NSNW left, the numbers of different types of weapons vary significantly (see Figure 1). The variance in these numbers makes it especially difficult to predict how many NSNW actually exist in Russia and cast doubt on whether the Russians themselves actually have an accurate count of their arsenal. If no exact inventory exists, it would be impossible to know whether and when any NSNW have been stolen or sold. Other estimates of Russia's NSNW stockpile range from 4,000 to 20,000 weapons. The higher numbers take into account the large numbers of weapons that still exist given that Russia has apparently not fulfilled its promise to destroy the NSNW withdrawn under the PNIs.⁵

	NRDC ⁶	Arbatov ⁷	Diakov ⁸
Air defense missiles	1,100	600	1,250
Land mines (ADMs)	0	200	0
Tactical Aviation	1,600	1,000	2,060
Naval Weapons	1,200	2,000	2,400
Total	3,900	3,800	5,710

Figure 1 – Estimates of Russia's NSNW Arsenal

The third motivation to control NSNW is the U.S. desire to pursue further arms control measures with Russia. Although strategic nuclear weapons have been limited under the START treaties, there is currently no formalized arms control regime for non-strategic nuclear weapons. Little attention has been paid to

NSNW since the 1991 PNIs.

Furthermore, NSNW threaten the progress of strategic arms control. The United States has hopes of moving forward from START II, which institutes limits of 3,500 strategic nuclear warheads, to START III, which would reduce that number to a maximum of 2,500 or less for both the United States and Russia.⁹ Because the arsenals of both the United States and Russia contain high-yield NSNW, the value and meaning of further strategic reductions is diluted if non-strategic weapons are not addressed. U.S. NSNW have yields as high as 170 kilotons (KT), higher than many of its strategic weapons, while Russia has NSNW with yields up to 1 megaton (MT).¹⁰ Furthermore, at least five other countries have nuclear weapons which are not encompassed under the START regime.

	Max Range (km)	Maximum Yield
U.S. NSNW	Intercontinental (B-2/B-52)	170 KT (B-61) ¹¹
Russian NSNW	Intercontinental (Bear)	1 MT (AS-4 ASM) ¹²
China*	3,100 (H-6)	4-5 MT (DF-5A) ¹³
India*	2,600 (Jaguar)	50 KT ¹⁴
Pakistan*	1,500 (Ghauri)	35 KT ¹⁵
France*	6,000 (SLBM)	300 KT (Mirage 2000/Super Etendard) ¹⁶
Britain*	7,400 (Trident SLBM)	100 KT ¹⁷

**not considered NSNW by possessing state*

Figure 2 – Nuclear Arsenals Unaffected By START

Finally, even if the United States develops a strong interest in pursuing arms control for NSNW, Washington may have little to offer Russia in order to encourage Russian reductions. Given that the United States has placed all of its nuclear SLCMs in storage, the only weapons that remain deployed are B-61 bombs located throughout Europe. However, these weapons serve what the Europeans see as a very valuable political purpose, which limits

America's ability – and the desirability – of removing these weapons from Europe. Therefore, the most valuable nuclear carrot that may be available to persuade Russia to pursue reductions in NSNW is likely to be politically untenable for Washington.

Why a Definition Is Necessary

There are four main reasons why the arms control community needs to develop a workable definition for non-strategic nuclear weapons. First, in order to move towards a solution of the NSNW problem, a definition is necessary to form a basis for further discussion. Second, whether arms control is seen as a measure to reduce costs, prevent accidents, or to reduce the threat of weapons of mass destruction, it is necessary to include all nuclear weapons into arms control treaties in order to meet these goals. Without a workable definition, NSNW cannot be incorporated in future arms control efforts. Third, a definition of NSNW would allow the United States and Russia to meet the intent of the START regime and make reductions more meaningful. As Moscow and Washington meet their obligations under START II, including reductions to 3,500 warheads, and then move forward to the proposed START III reductions to 2,500 warheads, NSNW become an increasingly large proportion of the U.S. and Russian arsenals. Agreement to START III obligations would leave the United States with over 50 percent more nuclear weapons than allowed by the treaty and would leave Russia (by even the lowest count) with over 150 percent more nuclear weapons than counted under START.¹⁸

Finally, if the United States and Russia ever intend to include third party states in an arms control regime, a definition of strategic and non-strategic weapons is critical. Reductions to low numbers increase the importance of incorporating third states. If the United States and Russia find it necessary for either security or cost considerations to reduce the level of their own arsenals, it will be important for third party arsenals to remain as small or smaller than the arsenals of the United States or Russia. A failure to include third states might allow the perceived strategic nuclear advantage to favor a state not incorporated into the arms control

regime. For instance, Russia is especially concerned about the Sino-Russian nuclear dyad. Without international limits, either Russia or the United States might find it in their own interests to rebuild part of their arsenal in response to a third-party threat, potentially leading to arms racing or other negative spiral effects. Placing limits on the arsenals of all states also shows progress toward the obligations that Russia, the United States, and China have as signatories of the Nuclear Non-Proliferation Treaty (NPT).

Categories for Definition¹⁹

There are seven possible ways to define non-strategic nuclear weapons. Each has potential downfalls for nuclear weapons reductions or the incorporation of third states into an arms control framework. Both the utility and the potential problems of each of the definitions are discussed below. The costs and benefits of using any of these definitions should be considered in any attempts to define NSNW for the purposes of reductions.

Range.

Range-based definitions have been useful in the past because it is easy to differentiate between intercontinental weapons and shorter-range or battlefield weapons. Any weapon that could hit the territory of the Soviet Union or the United States when launched from the other could be considered strategic, defining the remainder of the two superpower arsenals as non-strategic. The main problem with a range-based approach is that there is a significant gray area between strategic and non-strategic weapons and their associated delivery vehicles. For instance, aerial refueling allows tactical aircraft to carry nuclear weapons across ranges that would be considered strategic under a range-based definition. Furthermore, some classes of weapons classically thought of as non-strategic have characteristics similar to strategic weapons. Long-range non-strategic SLCMs have weapons characteristics that approximate those of strategic ALCMs, for example. Thus, a range-based approach is not sufficient for a clear differentiation of strategic and non-strategic nuclear weapons. Additionally, range-based definitions have significant implications for third state arsenals. The arsenals of

France and Britain could be defined as NSNW based on their ranges, as would the entire arsenals of India and Pakistan. The nuclear weapons of all four of these countries are designed for intra-continental range even though each country sees its nuclear weapons as having strategic roles. Much of China's nuclear arsenal would also be defined as non-strategic using this approach.

Yield.

A second potential definition for NSNW is by yield. As strategic and non-strategic weapons were being built, this type of definition seemed to have much practicality. Initially, NSNW had much smaller yields than strategic weapons. However, considerable overlap currently exists in the yields of strategic and non-strategic nuclear weapons. In the U.S. arsenal, the highest yields of weapons considered to be NSNW are a variant of the B-61 bomb at 170 KT and the nuclear SLCM with a yield of 150 KT. By contrast, U.S. strategic weapons have yields as low as 5 KT for air-launched cruise missiles (ALCMs) and 100 KT for ballistic missiles. U.S. gravity bombs exist with yields lower than 1 KT. Illustrative of this overlap is the fact that both the non-strategic B-61 gravity bomb and the strategic Minuteman III warheads have 170 KT yields.²⁰

Target.

Third, NSNW could be characterized by the target against which the weapon is intended to be used. This definition has two advantages. First, target-based definitions fit the earlier characteristics of nuclear weapons. At least in the U.S. case, strategic weapons were typically designed to cause damage to the adversary's homeland, including the destruction of nuclear missile sites, industrial nodes, and political targets. Most strategic targets were predetermined and listed as geographic points in the nuclear Single Integrated Operational Plan. By contrast, NSNW were usually designed to hit short-range targets of tactical value, most often on the battlefield or theater of war. These targets would be determined during the course of a campaign, and were usually of immediate or short-term military value. A target-based definition also fits the classic nomenclature for the weapons. Strategic weapons are those that are designed to

be used against strategic targets while non-strategic (also known as tactical) weapons are deployed for tactical purposes. However, most of the unambiguously non-strategic weapons that once existed in the U.S. and Russian arsenals have been retired. For instance, the United States no longer has short-range nuclear ammunition which could only be employed on the battlefield. Thus, NSNW increasingly look like strategic weapons. Furthermore, during wartime, the same targets might become both strategic and tactical, thus blurring the distinction even further. A submarine base or airfield could be targeted to eliminate the threat of strategic retaliation and to eliminate the conventional threat that assets deployed at these sites might create.

National Ownership.

Nuclear weapons may be designated as either strategic or non-strategic based on national ownership. While the arsenals of China, India, and Pakistan are clearly designed for strategic purposes, these arsenals would be considered non-strategic in the U.S.-Russia context (see Figures 3, 4, and 5). The geographic proximity of the nuclear weapons state to its likely adversary is an important consideration when determining whether the state's arsenal is strategic or non-strategic. Definitions based on national ownership would circumvent the problem of using a definition that does not translate well from negotiations between the United States and Russia to third party states. This would allow third states to be brought into arms negotiations while avoiding characterizing their entire arsenals as non-strategic. However, definitions based on national ownership might also create a double standard, allowing some states to expand their "strategic" arsenals while other states were eliminating or reducing weapons with similar characteristics under limitations imposed on NSNW.

	Range (km)	Yield	Number of Warheads in Arsenal
Short-range missiles (M-9/M-11)	300	Low KT	120
Aircraft (Q-5/H-6)	400/3,100	5-20 KT/varying yield	30/120
MRBMs (DF-21A)	1,800	200-300 KT	48
SLBMs	1,700	200-300 KT	12

Figure 3 – Estimated Chinese NSNW Arsenal²¹

	Range (km)	Yield	Number in Arsenal
Short-range missiles (Privthi)	150/250/350	Low	
Aircraft (Jaguar)	2,600	Up to 50 KT (est.)	
MRBMs	1,500/2,500	15-20 KT (est.)	
SLBMs (Sagarika) (in development)	330 (est.)		
			Total: 50

Figure 4 – Estimated Indian Arsenal²²

	Range (km)	Yield	Number in Arsenal
Short-range missiles (Hatf)	60/280	Low	
Aircraft (F-16)	850	Short-term potential, up to 25 KT	
MRBMs	800/1,500	Short-term potential, 15 KT	
			Total: ~12

Figure 5 – Estimated Pakistani Arsenal²³

Delivery Vehicle.

NSNW could be defined by delivery vehicle. Classifications based on delivery vehicle are useful because prior strategic arms treaties between the United States and the Soviet Union counted delivery vehicles to reach the limits mandated under the treaties. Therefore, using delivery vehicles to define NSNW would appear to more easily allow NSNW to be incorporated into the START regime. Since the original intent for START III was to include NSNW, it would be useful to have a definition that maintained the provision to limit NSNW under this regime. However, under a definition based on delivery system, it would likely be difficult to find agreement on some weapons classifications. For instance, both strategic and non-strategic bombs can be launched from the same aircraft. Russian strategic missile submarines can carry non-strategic weapons. Finally, what the United States considers theater defense might constitute national defense for smaller third party states.

Capability.

Weapons could be categorized according to their capability.²⁴ Under this definition, all weapons, conventional or nuclear, which could take out strategic targets would be considered strategic. By contrast, weapons of either low-enough accuracy or small-enough yield would be considered non-strategic. This definition would allay some of Russia's concerns for its security in the post-Cold War world. Moscow has declared that limits on nuclear weapons alone are not sufficient to provide for Russian security since the United States and its NATO allies are so superior conventionally that even Russia's strategic targets are at risk. However, this definition still falls prey to the problems of defining some targets as strategic and others as non-strategic, not to mention the difficulty in getting both the United States and Russia to agree to those definitions.

By Exclusion.

Finally, given the problems that arise from each of the above definitions, NSNW could be defined "by exclusion." In other words, for the purposes of arms control, NSNW would be defined as all of the nuclear weapons not yet counted under

strategic arms control treaties. This type of definition is useful because it avoids the problem of classifying weapons that overlap according to yield, range, potential target, or delivery vehicle. Additionally, this definition would allow a more seamless transition to incorporating NSNW into START III or other treaties based on the strategic framework. However, defining NSNW according to prior arms control treaties between the United States and Soviet Union would have little applicability to third party states.

Consequences for Arms Control

The definition that is chosen for NSNW might have significant consequences for arms control, given that any definition will impact third party states in two main ways. First, it is important to consider nuclear states other than the United States and Russia when designing future nuclear reductions. Third party states must be taken into account in order for deep cuts in the U.S. and Russian arsenals to occur. The most critical state to consider in the short-term is China. Given both the size and the proximity of China to Russia, Moscow is understandably concerned about the Chinese conventional and nuclear arsenals. Russia has used China to justify the deployment of tactical nuclear weapons closer to its border with China to deter an attack.²⁵ Moscow fears that because of its current conventional weakness, it must use nuclear threats to deter even conventional attack. If the Chinese arsenal will affect Russian nuclear decision making, then it is important to consider the threats for which China maintains its own arsenal. China faces a second nuclear threat in its neighbor, India, and Pakistan looks to the Indian arsenal to decide on its own nuclear policies and production. Thus, when dealing with NSNW, it would be useful to consider third party states which might affect the nuclear dialogue between the United States and Russia if any progress is to be made.

The second potential negative consequence of creating a definition without considering third party states is that some definitions may define the entire arsenals of states as non-strategic despite their clearly strategic purposes. For instance, although China does not claim to have any weapons or delivery

systems that are designated as non-strategic,²⁶ under a definition based on range or yield, much of their nuclear arsenal might be delineated as such. The current arsenals of India and Pakistan would be designated almost completely as NSNW by these measures of classification. This could give India incentive to increase its nuclear arsenal, given that one of the main reasons for India to test nuclear weapons in 1998 was for purposes of prestige. New Delhi felt that nuclear weapons were a necessary “currency of power,” and that, therefore, they needed nuclear weapons in order to be seen as both a world power and a state of technical prowess.²⁷ In order to maintain parity with the major states, India might find it necessary to build weapons that would be considered strategic (according to U.S. and Russian standards) in order to get the international prestige that they feel they deserve. This would mean an expansion of the Indian arsenal and perhaps the manufacture of weapons that could, for the first time, threaten the United States. This would be an unfortunate and regionally destabilizing consequence of some definitions for NSNW.

Additionally, under yield-based definitions, the much-reduced nuclear arsenals of France (max 300 KT) and Britain (max 100 KT)²⁸ would likely be seen as non-strategic despite their long range and their ability to hit strategic targets in Russia (see Figure 6).

	Range (km)	Yield	Number in Arsenal
Carrier-based aircraft (Super Etendard)	650	300 KT	20
Long-range aircraft (Mirage 2000)	2,750	300 KT	60
SLBMs	6,000	6x150/100 KT	384
			Total: 464

Figure 6 – French Arsenal²⁹

When considering potential definitions for NSNW, definitions that are based on yield, range, or target might eliminate third party states from the arms control dialogue or encourage the expansion of existing arsenals. Therefore, even though yield-, range-, and target-based definitions may have some utility in the U.S.-Russia context, they might cause problems when trying to incorporate third party states. Furthermore, if third party states, most critically China, are not considered, Russia is likely to remain unwilling to take significant steps to reduce NSNW.

Conclusion

Despite many obstacles, NSNW reductions are an important goal. Most importantly, reductions would decrease the threat of loose nuclear weapons or unauthorized use from Russia where NSNW still do not seem to be accounted for in a reliable way. In order to proceed with any nuclear reductions – either strategic or non-strategic – it is likely that NSNW will have to be incorporated in the disarmament regime, given the increasingly high proportion of the U.S. and Russian arsenals that they make up. To deal with NSNW, they must be defined in a way that accomplishes as many U.S. goals as possible. These goals include Russian reductions, which will be in part dictated by perceptions of Chinese strength, and the maintenance of the nonproliferation regime, thus limiting the expansion of already existing arsenals in third party states. However, the most useful definition for NSNW in the U.S.-Russia context – a definition based on those weapons which have thus far been excluded from strategic treaties – is likely to ignore critical third party states, upon which Russian reductions are partially based. In a worst case scenario, a poorly-chosen definition could even encourage third party states to build more nuclear weapons. Therefore, defining NSNW in a way that allows all-encompassing arms reductions may be difficult. Nevertheless, reductions in NSNW are a worthwhile goal, and efforts should be made to define these weapons in such a way that eliminating NSNW arsenals is possible.

Endnotes

¹ See “U.S. Nuclear Forces, 2001,” *The Bulletin of the Atomic Scientists*, March/April 2001, pp. 77-79.

² See, for instance, Amy F. Woolf, “Nuclear Weapons in the Former Soviet Union: Location, Command, and Control,” *CRS Issue Brief*, 27 November 1996; and Stephen P. Lambert and David A. Miller, “Russia’s Crumbling Tactical Nuclear Weapons Complex: An Opportunity for Arms Control,” INSS Occasional Paper 12, (Colorado Springs: USAF Institute for National Security Studies, April 1997).

³ Russia has already decided to store rather than eliminate 20,000 tactical nuclear weapons that it withdrew from deployment in accordance with the 1991 PNIs. There has been some discussion in the Kremlin Security Council about improving and perhaps redeploying these weapons. See Walter Pincus, “U.S. Nuclear Stockpile Plans Draw Scrutiny; Navy Upgrading Warheads as Talks With Russia Seek Further Arms Reduction,” *The Washington Post*, 24 April 1999; and David Hoffman, “Kremlin to Bolster Nuclear Stockpile; NATO’s Airstrikes Are Making Russia Worried, Sources Say,” *The Washington Post*, 30 April 1999.

⁴ Michael R. Gordon, “Nuke Arsenal Takes Center Stage; Russia’s Recent Military Exercise Reflects Expanding Role of Arms,” *New York Times*, 10 July 1999.

⁵ Pincus; also William M. Arkin, Robert S. Norris, and Joshua Handler, *Taking Stock: Worldwide Nuclear Deployments, 1998* (Washington: Natural Resources Defense Council, March 1998), p. 27.

⁶ “Russian Nuclear Forces, 2000,” *The Bulletin of the Atomic Scientists*, July/August 2000, p. 70.

⁷ Alexei Arbatov, “Deep Cuts and De-Alerting: A Russian Perspective” in H.A. Feiveson, ed., *The Nuclear Turning Point – A Blueprint for Deep Cuts and De-Alerting of Nuclear Weapons* (Washington, D.C.: Brookings Institution, 1999), p. 320.

⁸ Anatoli Diakov, quoted in Nikolai Sokov, “Estimate of Total Russian (non-deployed) Sub-Strategic Nuclear Weapons,” appendix to William C. Potter, “Update on Developments Regarding Tactical Nuclear Weapons Disarmament,” presented to the United Nations Secretary-General’s Advisory Board on Disarmament Matters, New York, 28-30 June 1999.

⁹ President George W. Bush has indicated that he would like START III to institute limits lower than the commonly discussed number of 2,500.

¹⁰ “U.S. Nuclear Forces, 2001.”

¹¹ *Ibid.*

¹² See Arkin, Norris, and Handler, *Taking Stock: Worldwide Nuclear Deployments, 1998*, p. 27. On the yield characteristics of the AS-4, see Thomas B. Cochran, et al, *Nuclear Weapons Databook, Volume IV: Soviet Nuclear Weapons* (New York: Harper and Row, 1989), p. 165.

¹³ “Chinese Nuclear Forces, 2000,” *Bulletin of the Atomic Scientists*, November/December 2000, pp 78-79

¹⁴ 50 KT is the highest-yield weapon that India claimed to explode in its 1998 tests. Seismic data, however, suggest that the test yields were closer to 25-30 KT. See David Albright, “The Shots Heard ‘Round the World,” *The Bulletin of the Atomic Scientists*, July/August 1998.

¹⁵ Pakistani uranium weapons are based on a Chinese design that has a reported yield of 20-25 kilotons. See Andrew Koch, “Subcontinental Missiles,” *The Bulletin of the Atomic Scientists*, July/August 1998, pp. 44-49. The higher estimate of 35 KT comes from Robert S. Norris and William M. Arkin, “After the Tests: India and Pakistan Update,” *The Bulletin of the Atomic Scientists*, September/October 1998, pp. 69-71.

¹⁶ See “French and British Nuclear Forces,” *The Bulletin of the Atomic Scientists*, September/October 2000, pp. 69-71.

¹⁷ *Ibid.*

¹⁸ Russian NSNW are summarized in Figure 1. U.S. NSNW currently include 320 SLCMs in storage in the United States and 1,350 B-61 variants deployed in Europe and the United States. “U.S. Nuclear Forces, 2000,” *The Bulletin of the Atomic Scientists*, May/June 2000, p. 69.

¹⁹ Much of the information in this section on definitions of NSNW was first published in George Lewis and Andrea Gabbitas, “What Should Be Done About Tactical Nuclear Weapons?” (Washington, D.C.: The Atlantic Council of the United States, 1999), pp. 2-4.

²⁰ See “U.S. Nuclear Forces, 2000.”

²¹ “Chinese Nuclear Forces, 2000,” pp 78-79. This type of analysis of the Chinese arsenal was suggested by William C. Potter and Nikolai Sokov, “Tactical Nuclear Weapons: The Nature of the Problem,” draft, United Nations Institute for Disarmament Research, available at <http://www.unog.ch/unidir/e-tnw1.htm>.

²² “After the Tests: India and Pakistan Update,” and Albright, “The Shots Heard ‘Round the World,” *The Bulletin of the Atomic Scientists*, July/August 1998, pp. 20-25.

²³ Koch, “Subcontinental Missiles,” and Norris and Arkin, “After the Tests: India and Pakistan Update.”

²⁴ Thanks to Lt. Col. Neil Couch, USAF, for bringing this potential definition to my attention.

²⁵ See, for instance, Walter Pincus, "Russia Considering Increased Nuclear Dependence," *Washington Post*, 7 December 1997.

²⁶ In 1982, a Chinese military exercise resulted in the use of nuclear weapons for "tactical" purposes, showing some potential interest in NSNW. Additionally, Chinese nuclear policy has been responsive to relations with Russia. Therefore, it would not be wholly unlikely that China might pursue the development of NSNW if Russia were to use non-strategic weapons as a deterrent along the Sino-Russian border. See "China's Mixed Signals on Nuclear Weapons," *The Bulletin of the Atomic Scientists*, Vol. 47, No. 1 (May 1991); and Kenneth Allen, Chapter 10, "Chinese Perceptions of NSNW"

²⁷ See, for instance, Leo E. Rose, "India's Regional Policy: Nonmilitary Dimensions" in Stephen Philip Cohen, ed., *The Security of South Asia: American and Asian Perspectives* (Urbana, IL: University of Illinois Press, 1987), p. 4; and K. Subrahmanyam, "Nuclear Force Design and Minimum Deterrence Strategy for India" in Bharat Karnad, ed., *Future Security Imperilled: India's Security in the 1990s and Beyond* (New Delhi: Viking, 1994), p. 178.

²⁸ Britain has 48 Trident-III SLBMs and 185 warheads in its stockpile. See "French and British Nuclear Forces," *The Bulletin of the Atomic Scientists*, September/October 2000, pp. 69-71.

²⁹ See "French and British Nuclear Forces;" also Robert Norris, Andrew Burrows, and Richard Fieldhouse, *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons* (Boulder: Westview Press, 1994).

CHAPTER 3

NATO Nuclear Strategy Beyond the Cold War

Stanley R. Sloan

One of the loose ends still untied after the end of the Cold War is the question of how NATO countries should incorporate nuclear weapons in their defense strategy. Some clearer definition of the role of nuclear weapons in NATO's strategy may be a prerequisite for development of future approaches to controlling non-strategic nuclear weapons.

The Post-Cold War Context

NATO's Cold War strategy of flexible response was an imperfect doctrine but it served the Alliance well for over 25 years as a way to deter an attack on Western Europe by Warsaw Pact forces, to reassure European states (Germany in particular) of America's commitment to their defense, and to accommodate a variety of allied perspectives on nuclear weapons issues. Since 1989, the allies have largely focused their efforts in the nuclear field on countering nuclear proliferation. They have not produced a clear substitute for flexible response, although they have reaffirmed that nuclear weapons remain central to NATO's deterrence strategy. In the early glow of the post-Cold War era, the allies even described them as weapons of "last resort," although they subsequently put more emphasis on the constructive uncertainty that NATO's nuclear capabilities would raise in any potential adversary's mind.

Now, several factors—the process of enlarging NATO, NATO's evolving relationship with Russia, France's return to active military cooperation in NATO, and the process of developing a Common European Security and Defense Policy in the European Union (EU)—may lead the allies to give more attention to NATO's nuclear policies and posture in the coming years.

With regard to enlargement, Poland, the Czech Republic and Hungary have become NATO members and at least nine other candidates wait at the door, including the three Baltic states, formerly part of the Soviet Union. The allies have suggested that, among the responsibilities of membership, prospective new members would have to be prepared to accept nuclear weapons on their soil, should that become necessary, even though there is no current plan nor necessity to do so.

NATO seeks to develop a close cooperative relationship with Russia. At the same time, Russian officials have expressed their concern that NATO enlargement could bring nuclear weapons closer to Russian borders. An enhanced dialogue and cooperation with Russia on nuclear issues is seen by some as an avenue for reassuring the Russians about NATO nuclear policy.

With respect to EU nuclear cooperation, statements in the mid-1990s by French President Chirac once again raised the question of whether or not French nuclear forces, perhaps combined with British forces, could one day serve as a nuclear umbrella for all members of the European Union. Current plans for a Common European Security and Defense Policy exclude nuclear weapons cooperation. Under what circumstances might EU members rethink the issue?

An important underlying issue is the question of who, in the future, will provide nuclear guarantees for Germany. Will it continue to be the United States through NATO, a new European arrangement, or some combination of the two. Or will Germany be left to its own devices?

The U.S. nuclear arsenal in Western Europe is now limited to a few hundred free-fall nuclear bombs at sites in several allied states. These weapons are of questionable military utility and their function has become largely political—intended to ensure continued sharing of nuclear risks and responsibilities in the Alliance.

These factors, set against a dramatically changed threat environment, suggest that the NATO allies may be called on to

develop new perspectives on the role of nuclear weapons in Alliance strategy and perhaps some new consultative means to deal with those issues.

The Role of Nuclear Weapons in NATO's Strategy

From Massive Retaliation to Flexible Response

Nuclear weapons became an integral part of NATO strategy in 1954 when the United States, facing superior Soviet conventional forces in Europe, threatened "massive retaliation" against the Soviet Union in the case of a Soviet attack against Western Europe. By so doing, the United States "extended deterrence" to its European allies against a Soviet attack and created what also was referred to as a "nuclear umbrella" sheltering Western Europe.

By the early 1960s, the credibility of the massive retaliation threat was called into question by the reciprocal ability of the Soviet Union to hit U.S. cities with its nuclear weapons. Therefore, in 1967, the allies agreed to replace massive retaliation with the more nuanced "flexible response" doctrine designed to give NATO a variety of nuclear and conventional force responses to a Soviet attack.¹

In theory, flexible response required that the allies deploy conventional and nuclear forces sufficient to respond to a Warsaw Pact attack at any level and to escalate all the way to strategic nuclear strikes on the Soviet Union if necessary to terminate hostilities on acceptable terms. In fact, the Alliance never was in a position to respond to a Warsaw Pact attack with the full range of military options. But NATO did manage to sustain options that were considered sufficiently credible to deter aggression and to discourage Warsaw Pact escalatory steps once hostilities began. Experts debated for many years whether NATO or the Warsaw Pact would be able to "control" escalation in a European conflict, but the contending theories were fortunately never tested.

Because the Warsaw Pact nations deployed substantially greater numbers of conventional forces than the NATO countries,

NATO relied heavily on nuclear weapons to deter Pact use of its conventional capabilities, as well as to deter potential Soviet use of tactical nuclear weapons in a conflict. Flexible response included NATO's declared readiness to use nuclear weapons first if Western conventional defenses were failing to hold against a Warsaw Pact attack.

The vast majority of NATO's nuclear weapons systems were U.S. owned and operated. A portion of the nuclear inventory was for years under "dual-key" arrangements with NATO allies who had delivery systems for one or more types of U.S. nuclear weapons, including nuclear artillery shells, depth charges, short-range missile warheads, and free-fall bombs. The warheads for such systems were kept under U.S. control in peacetime but could have been transferred to non-nuclear allies for use with their delivery systems in war. British-owned and operated nuclear forces were also committed to NATO. France maintained its own independent strategic and tactical nuclear forces.

The main political role of U.S. nuclear forces in Europe was to ensure linkage to the broad spectrum of U.S. nuclear forces, most of which were strategic forces located in the United States or at sea. These forces included all three legs of the U.S. strategic "triad:" land-based intercontinental ballistic missiles, sea-launched ballistic missiles, and strategic aircraft carrying bombs, air-launched cruise missiles, and short-range attack missiles.

U.S. nuclear weapons were deployed in forward locations in Europe, particularly in West Germany, to ensure that in the early stages of a Warsaw Pact attack on Western Europe the United States would face a "use 'em or lose 'em" decision. Thus, NATO's nuclear strategy, combined with extensive forward deployments, gave very specific meaning to the U.S. nuclear commitment to the defense of Europe. The mutual defense commitment in the Treaty of Washington said nothing about what nuclear risks the United States would be required to take on behalf of its European allies. That commitment was given

specific meaning by NATO's strategy and deployments, not by the language of Article 5.²

Although NATO never managed to match the Warsaw Pact's quantitative superiority in conventional forces, the disparity made it even more important that the Alliance not be "outgunned" in nuclear arms. Yet, by the late 1970s, NATO leaders had become increasingly alarmed by the introduction of Soviet triple-warhead SS-20 mobile missiles capable of striking throughout European NATO territory. NATO's response, in its attempt to preserve a credible flexible response strategy, was articulated by NATO ministers in December 1979 in the Alliance's "dual track" decision to improve its own long-range theater systems while at the same time pursuing the arms negotiations with the Soviet Union. Both tracks were severely tested over the next several years. Only after overcoming strong domestic opposition from their own populations (accompanied by an intensive Soviet peace campaign) were the European allies finally able to commit to the stationing of new Ground Launched Cruise Missiles and Pershing II ballistic missiles in their countries. Arms control efforts were also stymied for nearly half a decade until the reality of the GLCM and Pershing deployments made negotiations more compelling to the Soviets.³

The main rationale for the deployment of the INF missiles, which could hit Soviet territory from locations in Western Europe, was to help convince the Soviet Union that a war in Europe could not be kept at the conventional level and escalation would put Soviet territory at risk. Unlike U.S. strategic nuclear systems, the INF missiles would become vulnerable to preemptive attack early in a European war, potentially forcing an early use decision by the United States rather than risk losing them to capture or destruction.

On December 8, 1987, the United States and the Soviet Union signed the Intermediate-Range Nuclear Forces (INF) Treaty designed to eliminate two categories of their intermediate range nuclear missiles: long-range INF (LRINF), with a range between 600 and 3,400 miles; and short-range INF (SRINF), with a range between 300 and 600 miles. The treaty did not

cover short-range (under 300 miles) nuclear force (SNF) missiles. In this shorter-range category, NATO countries still had the aging Lance missile system with approximately 700 nuclear warheads, deployed in Belgium, the Netherlands, West Germany, Italy, and the United Kingdom under dual-key arrangements with the United States. These missiles could not reach Soviet targets from their launch sites in Europe and therefore were not of great concern to Moscow and did not accomplish the same strategic objectives intended in deployment of the INF missiles.

Although European as well as American public opinion strongly supported the INF Treaty, some observers judged that elimination of the missiles would undermine the credibility of flexible response, and argued that the Alliance would have to compensate for the loss of the INF missiles to keep its strategy intact. Others argued, however, that the United States still committed a small—but strategically significant—portion of its relatively invulnerable sea-launched ballistic missile force for use by NATO's Supreme Allied Commander, and that this force plus nuclear weapons carried on FB-111 and B-52 bombers based in the United States preserved a strategic strike potential for NATO. They also argued that a substantial U.S. troop presence in Europe served as a "tripwire," and thus ensured linkage to U.S. strategic nuclear forces.

In addition, British and French strategic capabilities, capable of hitting targets in the Soviet Union, which were not included either in the INF negotiations or in U.S.-Soviet strategic arms talks, were being modernized and expanded.

End of the Cold War

Virtually all decisions that NATO had taken on allied nuclear forces were called into question after Communist regimes across Eastern Europe began to crumble and the Berlin Wall was opened in November 1989. Although it took another two years for the Warsaw Pact to disband and the Soviet Union to dissolve, by early 1990 the threat to Europe that U.S. nuclear weapons were originally intended to deter was vanishing.

On May 3, 1990, President Bush told a Washington press conference that the United States would not modernize the obsolete Lance missile system or U.S. nuclear artillery shells deployed in Europe. The President's move came in response to the dramatic changes in Europe and resulting opposition in the Congress to costly programs that made little sense in terms of the new political and military situation there. He called for a NATO summit conference to agree, among other things, on "broad objectives for future negotiations between the United States and the Soviet Union on the current short-range nuclear missile forces in Europe, which should begin shortly after a CFE [Conventional Forces in Europe] treaty has been signed."

The London Declaration issued by NATO leaders at their summit meeting July 5-6, 1990 concluded that with eventual withdrawal of Soviet forces from their deployments in Eastern Europe, and implementation of an agreement reducing conventional armed forces in Europe, the Alliance would be able "to adopt a new NATO strategy making nuclear forces truly weapons of last resort."⁴ This shift in approach would alter NATO's long-standing flexible response doctrine in which the use of nuclear weapons could conceivably be authorized early in a military conflict. The summit declaration did not, however, forego the allied option of using nuclear weapons first in a conflict if necessary, and it left open the possibility that nuclear forces will be "kept up to date where necessary." The leaders nonetheless decided that NATO no longer would require all of its current inventory of short-range nuclear weapons consisting largely of nuclear artillery shells, bombs on dual-capable attack aircraft, and the obsolescent Lance missile system.

On September 27, 1991, following the failed attempt of hard line Communists to seize control in Moscow, President Bush announced a set of wide-ranging changes in U.S. nuclear policy and deployments. He decided to remove and destroy all U.S. land-based nuclear missiles from Europe and withdraw all U.S. sea-based tactical nuclear weapons while inviting the Soviet Union to take reciprocal actions. The President said that the United States should keep a nuclear capability for NATO, but at the same time he discontinued the program to develop the Short-

Range Attack Missile (SRAM-II) intended for deployment on strategic bombers. A tactical version of this system, the SRAM-T, intended for deployment in Europe, also was discontinued. This left the U.S. nuclear deployment in Europe limited to free-fall nuclear bombs on dual-capable ground attack aircraft.

The President's decisions were positively received throughout Europe and in the Soviet Union. On October 5, 1991, then-Soviet President Gorbachev announced his reciprocal intent to eliminate short-range ground-launched nuclear weapons and proposed U.S.-Soviet limitations on air-delivered tactical nuclear weapons as well. On October 17, 1991, the process of reducing such weapons was taken a step further when NATO Ministers of Defense meeting as the Nuclear Planning Group announced a 50% reduction in the inventory of some 1,400 free fall nuclear bombs deployed primarily by the United States in Europe.

From the 1991 "New Strategic Concept" to the "Alliance Strategic Concept" of 1999

The new NATO strategic concept approved by NATO leaders on November 7, 1991 in Rome declared that "the fundamental purpose of the nuclear forces of the Allies is political: to preserve peace and prevent coercion and any kind of war." The Allies rejected adopting a "no first use posture," which had been advocated by some. The concept placed principal reliance on the strategic nuclear capabilities of the United States, France and the United Kingdom. But it also asserted that peacetime basing of nuclear forces on European territory (meaning the residual U.S. free-fall bombs) "provide an essential political and military link between the European and the North American members of the Alliance."⁵ Even as the leaders met to approve the new concept, however, the Soviet Union itself was breaking apart, raising new issues that allied officials had not been able to take into account in drafting the new strategy.

A main focus of NATO and U.S. concern since 1992 has been to ensure that the tactical and strategic nuclear forces of the former Soviet Union remained under reliable control. The United States and its allies sought to diminish the chances that the dissolution of the Soviet Union would result in nuclear proliferation, either

from a number of former republics retaining nuclear weapons or from the transfer of nuclear-weapons-making technology and know-how to other nations. By June 1992, all tactical nuclear weapons of the former Soviet Union had been consolidated within Russia, where many of the warheads were scheduled for elimination. By June 1996, Ukraine and Kazakhstan had returned all their strategic warheads to Russia. Belarus did so by the end of 1996. Unfortunately, Russia has apparently not followed through with its destruction commitments and many of these warheads remain stored at sites in Russia.

With regard to the potential for European nuclear cooperation, early in 1992, various French officials suggested that French nuclear forces might some day be placed in the service of a unified European political and defense entity. French President François Mitterrand raised the issue by asking, "Is it possible to develop a European doctrine? That question will rapidly become one of the major considerations in the building of a common European defense."⁶ French officials and politicians subsequently answered Mitterrand's rhetorical question in a variety of ways, many of them supporting the idea of eventually dedicating French nuclear capabilities to the European Union. But France's European partners remained skeptical about the French willingness to make any real sacrifice of national sovereignty on behalf of European integration, and French nuclear strategy remained based on French national deterrence requirements. Nor did they want to encourage U.S. disengagement.

In other respects, NATO nuclear issues remained largely out of sight during 1993 and 1994. In 1995, they began to resurface in the context of the debate on NATO enlargement and as a consequence of French President Chirac's renewed offer of French nuclear capabilities on behalf of the European Union's defense.⁷

When the NATO defense ministers met in Brussels on June 13, 1996, they reiterated the fundamental purposes of NATO nuclear policy outlined in the new strategic concept. The communiqué also observed that NATO's nuclear forces have been

"substantially reduced" and, in a direct message to Moscow, the ministers declared that NATO's nuclear forces "are no longer targeted against anyone...." The ministers appeared to reinforce the point by noting that the readiness of NATO's dual-capable aircraft "has been recently adapted", presumably to a lower level of readiness to perform nuclear missions.⁸ This move, intended to reassure Moscow, suggests that the remaining U.S. nuclear-capable forces stationed in Europe are also less ready for possible use in a non-Russian scenario.

The ministers concluded the very brief statement on nuclear policy by expressing satisfaction that NATO's current nuclear posture will "for the foreseeable future, continue to meet the requirements of the Alliance." They then reaffirmed the strategic concept's conclusion that "nuclear forces continue to fulfill an indispensable and unique role in Alliance strategy" and emphasized that the remaining U.S. free-fall nuclear bombs for delivery by dual-capable aircraft were still essential to link the interests of the European and North American members of NATO.

In the 1999 Strategic Concept, the allies essentially reiterated their view that "The fundamental purpose of the nuclear forces of the Allies is political: to preserve peace and prevent coercion and any kind of war." They maintained that deploying nuclear weapons on the soil of several allied nations was an important demonstration of alliance solidarity. Finally, following another line taken consistently since 1991, the 1999 concept declared that sub-strategic forces based in Europe "provide an essential link with strategic nuclear forces, reinforcing the transatlantic link."⁹

Current Deployments of U.S. Nuclear Weapons in Europe

Reductions in the early 1990s brought U.S. nuclear deployments in Europe to very low levels, and the reduction process apparently has continued. By the mid-1990s, all U.S. nuclear weapons had been removed from Europe except for several hundred B-61 free-fall bombs.¹⁰ According to one unclassified source, approximately 150 bombs are still deployed at ten sites in seven European countries. The deployments reportedly

include weapons at three sites in Germany, two sites in Italy, and one site each in Belgium, Greece, the Netherlands, Turkey and the United Kingdom.¹¹ A portion of the U.S. submarine-launched intercontinental ballistic missile force also remains committed to NATO.¹²

Policy Issues

Notwithstanding consistent allied declarations concerning NATO strategy and the continued importance of U.S. sub-strategic weapons deployed in Europe, a number of questions may be posed. The most basic questions are whether a U.S. nuclear guarantee for European security is still essential and, if so, why, and how to implement that guarantee.

It is possible to argue that Russia for the foreseeable future will deploy strategic nuclear forces far superior to the French and British nuclear capabilities. Given continued uncertainties about the future of democracy in Russia, it is only prudent, according to this perspective, to sustain a U.S. nuclear guarantee for Europe and to deploy the nuclear and conventional forces that will make that guarantee credible. Others have argued that, in addition to uncertainties about Russia, potential security threats from North Africa and the Middle East warrant a continued U.S. nuclear contribution to NATO.¹³ Indeed, as early as 1991, NATO's New Strategic Concept noted that "the maintenance of a comprehensive in-place linear defensive posture in the central region will no longer be required [and that] geostrategic differences within the Alliance will have to be taken into account, including . . . in the southern region, the potential for instability and the military capabilities in the adjacent areas."

On the other hand, it can be argued that even an implicit U.S. nuclear threat against Russia is inconsistent with U.S. and Western attempts to support Russian reform and democracy, or that the French and British nuclear systems should be sufficient to deter any credible threats from a weakened Russia or elsewhere. In addition, even if it is deemed in the U.S. interest to extend deterrence to Europe against potential non-Russian military threats, there are questions about whether the United

States needs to deploy nuclear weapons in Europe to do so. And it remains unclear whether or not nuclear weapons have a significant deterrent effect on the behavior of non-nuclear rogue states in any case. It is also uncertain whether America's European allies would allow the United States to use its Europe-based weapons for any purpose other than deterrence or defense of the Alliance.

Even though the Soviet threat has vanished, some Europeans still worry about residual Russian nuclear forces and the potential for Germany at some point to become a nuclear power. The U.S. nuclear presence in Germany and the nuclear umbrella for the Germans have been seen as eliminating motivation for Germany to become a nuclear power. This raises several questions. Do other European allies still value the U.S. nuclear commitment for this purpose? Do the Germans still want some form of U.S. nuclear guarantee? Will France offer nuclear guarantees to its European partners, including Germany, as part of its commitment to the goal of European political union on terms that would be acceptable and as a new alternative to a German nuclear option? If so, would the Germans see a French guarantee as preferable to the U.S. commitment?

What Role for Residual U.S. Nuclear Weapons in Europe?

Questions remain whether a U.S. nuclear guarantee for Europe is warranted by current political and military conditions in Europe. The NATO countries continue to emphasize that collective defense, in which nuclear strategy played a key role, remains the core function of the Alliance. But the activities of U.S. forces stationed in Europe and of NATO forces more generally are concentrated on NATO's new "crisis management" missions. NATO is in the midst of a process of "adaptation," reorganizing itself to accommodate new missions and challenges, and the role of nuclear weapons and NATO nuclear planning might logically be seen as part of that reassessment.

Before the Warsaw Pact was disbanded and the Soviet Union dissolved, it was argued that the mere presence of some U.S. nuclear weapons in Europe played a role in deterring threats to the security of European NATO members. Now, however,

NATO cannot say who or what is being deterred. Even when there was a Soviet threat, many analysts believed that the U.S. commitment to extend nuclear deterrence to its European allies was made credible simply by the presence of U.S. military forces in Europe. Those force levels have been dramatically reduced. Other analysts have questioned whether the United States would be willing to use nuclear weapons to defend its European allies if it meant risking nuclear strikes on the American homeland.

What military role should free-fall bombs deployed in Europe play in NATO or U.S. strategy? NATO currently projects no imminent military threat against the territorial integrity or security of its members within the unrefueled range of the fighter bombers that would carry the free-fall bombs. Even in the extreme case of a newly antagonistic Russia, bombs would likely be the least credible component of any Western response to a Russian military threat. The fighter bombers currently available in Europe to deliver the bombs cannot reach targets in Russia and return without difficult air refueling arrangements. Other nuclear systems (such as the U.S. submarine-launched ballistic missiles still dedicated to NATO) have longer range and are more likely to survive defenses and arrive on target.

The apparent conclusion is that, from a military perspective, the bombs are largely intended as place-holders, presuming that withdrawal of the bombs could foreclose, or at least make politically more difficult, future U.S. deployment of any nuclear weapons in Europe. In addition, the presence of U.S. nuclear weapons on European soil both ensures continued nuclear risk sharing and affords European governments a consultative relationship with the United States concerning nuclear weapons strategy and doctrines.

Perhaps the most important rationale for a continuing U.S. nuclear presence in Europe is that virtually all European governments apparently still believe that the American military presence in Europe makes a significant contribution to European stability and peace. NATO's strategic concept asserts that the basing of U.S. nuclear weapons in Europe provides "an essential political and military link between the European and the North

American members of the Alliance." But unless there is some credible military or deterrence role for these weapons, their "linking" power may be quite limited.

On the other hand, there has been no significant governmental or public opposition to this residual nuclear presence and it is possible that withdrawal would, over time, invite fundamental questions about the U.S. commitment. A survey by the Atlantic Council of the United States in the mid-1990s observed that "the overwhelming consensus among political leaders and strategic thinkers in Europe is that it is premature to address major changes in future nuclear force postures." The survey noted that "Europe has long depended on the American nuclear umbrella, and few European leaders want that to change."¹⁴ Nevertheless, the question of whether or not the deployment of free-fall nuclear bombs on European soil is essential to sustain extended deterrence remains open.

Nuclear Weapons and NATO Enlargement

The question of the U.S. nuclear commitment has become part of the debate on NATO enlargement. The NATO allies have told prospective candidates that the commitments they will receive as NATO members must be matched by their willingness to assume full responsibilities of membership. According to the NATO enlargement study released in September 1995, "New members will be full members of the Alliance, enjoying all the rights and assuming all the obligations under the Washington Treaty. There must be no 'second tier' security guarantees for members within the Alliance..."¹⁵ Furthermore, according to the study, "New members will be expected to support the concept of deterrence and the essential role nuclear weapons play in the Alliance's strategy of war prevention as set forth in the Strategic Concept;"¹⁶

In practice, and as declared in the NATO enlargement study, NATO has no intention of deploying nuclear weapons on the territory of any new member state. In fact, any plan to station NATO nuclear weapons forward in Central Europe would destroy NATO's attempt to demonstrate to Russia that enlargement is not contrary to Russian interests. The study

specifically notes that "[t]here is no *a priori* requirement for the stationing of nuclear weapons on the territory of new members." This is so because, according to the allies, "[i]n light of both the current international environment and the potential threats facing the Alliance, NATO's current nuclear posture will, for the foreseeable future, continue to meet the requirements of an enlarged Alliance."¹⁷

In the debate on enlargement, opponents have raised the familiar Cold War formulations that questioned whether the United States would ultimately be willing to risk nuclear strikes on American cities in the cause of defending German cities from Soviet attack. To some extent, this argument reflects residual Cold War threat assessments rather than current circumstances. Russia's present leaders and their main political opponents appear to have no desire to return to military confrontation with the West and, even if they did, they would find it difficult or impossible to do so with available military and financial resources. This, of course, could change in the long run, forcing NATO and the United States to re-examine their strategy, forces, and nuclear commitments.

The contemporary reality, however, is that NATO strategy and force deployments in response to the new threat environment have fundamentally altered the circumstances under which the United States would be making decisions on the use of nuclear weapons. As noted earlier, during the Cold War the strategy of flexible response combined with the forward deployment of U.S. nuclear weapons suggested that the United States would have to make nuclear use decisions early in any conflict. The nuclear umbrella therefore appeared likely to be forced open in the case of a Warsaw Pact attack (even though the process would have required requests for nuclear use through the NATO command structure and political decisions by the President of the United States to employ the weapons).

Today, the nuclear umbrella is much less "automatic."¹⁸ NATO strategy now suggests that "the circumstances in which any use of nuclear weapons might have to be contemplated by them... extremely remote." This is not quite the same as calling them

"weapons of last resort," as they did in 1991. But it surely means that the Alliance does not now contemplate circumstances in which the use of nuclear weapons would come early in a conflict. The fact that the United States has withdrawn most of its militarily significant nuclear weapons from their forward deployments in Europe means that, in a crisis, the old "use `em or lose `em" formula would no longer apply.

Although nuclear weapons remain a central part of NATO's deterrence strategy, they no longer are on the front lines in that strategy. One might speculate, however, that as all NATO countries reduce their non-nuclear forces, defense of an enlarged NATO against some future threat could actually become more dependent on nuclear deterrence than it was in the past.

Reassuring Russia

One of the most difficult policy issues confronting the process of enlarging NATO is the question of how to reassure Russia that a growing NATO does not diminish Russian security.¹⁹ The allies are faced with the difficult task of keeping their commitment to enlarge while avoiding a new confrontational relationship with Moscow. The issue is a very broad one that includes important political, psychological, security and economic dimensions. But one key element relates to nuclear weapons.

Russian officials have expressed particular concern that NATO enlargement could lead to the deployment of nuclear weapons on Russia's borders. This complaint could be dismissed as insincere to the extent that Russian defense officials and experts know that NATO has no nuclear-armed missiles or other nuclear weapons systems that it would want to deploy forward on European territory. As noted above, there are even questions about the continued need for the United States to deploy the several hundred free-fall bombs on West European territory. However, this information may be understood only among Russian defense specialists, and not by average citizens or even many political leaders.

The Russian concern is one that the NATO countries continue to take seriously. However, the nuclear issue did not become a

major question during the enlargement process that resulted in the Czech Republic, Hungary and Poland joining NATO. It would not be a major question with regard to Slovenia and Slovakia, the two leading candidates for admission early in the 21st century. However, the nuclear question could become more prominent when and if NATO decides to invite one or more of the Baltic states to join the alliance—a step that Russia still strongly opposes.

At a minimum, the allies will continue to repeat their pledge to the Russians that, under current circumstances, the Alliance has no intention of deploying nuclear weapons on the soil of any new member states. Beyond this, it might be useful to expand cooperation beyond the NATO-Russia Permanent Joint Council, whose agenda already includes a wide range of nuclear issues, by inviting Russia to participate in special sessions of the Nuclear Planning Group aimed at discussing nuclear non-proliferation, strategic stability, and related issues. In general, any measures to make the military aspects of the enlargement process more transparent could help mitigate legitimate Russian concerns.

The Role of British and French Nuclear Forces

Another important NATO nuclear issue is the role to be played by British and French nuclear forces. If Europe were sufficiently united to have common foreign and security policies, the French and British nuclear forces presumably would become instruments of those policies. In December 1991, the members of the European Community pledged at Maastricht, to take additional steps toward foreign policy and defense cooperation. The French and German governments have formed the Eurocorps (along with Belgium, Spain and Luxembourg) as the possible foundation for a future European military force.

In spite of the impressive scope of such commitments, however, the process of developing such cooperation may stretch out over many years, perhaps decades. The agreement among all the European Union members to create a rapid intervention force within the framework of a Common European Security and Defense Policy does not encompass nuclear weapons. Even

though France has become more willing to identify its nuclear deterrent forces as a contribution to European, rather than just French, defense, Paris has yet to make specific commitments to its non-nuclear European partners. French President Chirac renewed the French offer to extend nuclear deterrence to its European Union partners after the French government decided to resume nuclear testing in 1995.²⁰ Because the offer was made as part of the reaction to widespread European opposition to the French testing program, it was regarded cynically by most observers who saw the offer as simply designed to wrap the French testing decision in the protective garb of European unity.

A number of factors suggest that there are sufficiently substantial differences between the nuclear and non-nuclear EU member states as to make extensive European-level nuclear cooperation unlikely in the near future. In fact, until the European allies develop much closer foreign and defense cooperation, and perhaps even after they do so, some sort of U.S. nuclear link may still appear desirable for many European nations as a hedge against an uncertain Russian future. The link to the United States might seem even more critical to those allies who are not members of the European Union.

Until recently, the very different British and French positions in NATO appeared to constrain development of Franco-British nuclear cooperation. The U.K. still sees its force within the framework of the Alliance, and participates fully in NATO's Nuclear Planning Group. French capabilities remain completely outside NATO. As France moves toward a more regularized relationship with NATO in other areas, NATO's adaptation process might lead to a closer French nuclear relationship with the Alliance. A revision of the role and functioning of the Nuclear Planning Group as part of a more general reform of NATO to adjust to new political and military realities could open the way for France to join with other allies in Nuclear Planning Group consultations.

Germany's Non-Nuclear Status

One of the major factors affecting attitudes toward NATO's nuclear strategy is the position of Germany. No government in

Europe wants Germany to become a nuclear weapons power. For the last four decades, the U.S. nuclear guarantee for Europe has served in lieu of a national German nuclear role. Germany apparently remains comfortable with the U.S. guarantee and has not sought a "European" replacement for it, in spite of past French suggestions that its nuclear force could serve as a nuclear umbrella for Germany. There is no indication that a united Germany has any desire to become a nuclear power and it has reasserted the pledge made earlier by the Federal Republic of Germany to abstain from production or possession of atomic, biological or chemical weapons.²¹

Many European governments support a continuing U.S. military presence and role in Europe in part to ensure that Germany will remain a non-nuclear power. European governments do not articulate this concern openly because they do not want to be seen as distrustful of Germany which has made significant constructive contributions to the Atlantic Alliance, as a leader for the process of European integration, and in relations with the East.

The Nuclear Commitment as a Source of U.S. Influence

Some observers suggest that one reason the United States may continue to offer extended deterrence to its NATO allies and keep some nuclear weapons in Europe is to maximize U.S. influence and its ability to advance its interests in relations with European nations. There is no way of proving that the United States derives influence as a result of its military commitment in Europe. It seems logical, however, to suggest that as long as European nations want the United States to make a contribution to military security in Europe, they will take U.S. interests and perspectives into account in their policy decisions. Whether or not the United States will derive influence based on the nuclear guarantee and a nuclear presence in Europe will therefore depend largely on how much European nations value this U.S. contribution to their security.

In the past, some U.S. critics of extended deterrence have argued that the United States risks much with the policy, without receiving meaningful benefits in return. Now, as long as U.S.

relations with Russia continue to develop essentially along cooperative lines, the risks inherent in a U.S. nuclear guarantee for NATO will be substantially lower than in the past. However, as noted above, the greatly reduced military threat to Europe also diminishes the necessity for and value of a U.S. nuclear commitment. Presumably, therefore, a nuclear commitment will yield less influence for the United States in the future than in the past.

Issues for the Future

If allied governments could avoid dealing with NATO nuclear strategy they probably would do so, given all the sensitive political issues raised in such an undertaking. But they may not be able to pursue an avoidance strategy in the context of debate on further NATO enlargement and in their efforts to increase European responsibilities in the Alliance.

It could be argued that the core of a new strategy already has been tentatively presented by NATO's suggestion in the early 1990s that nuclear weapons are weapons of "last resort." Such a strategy would have much popular appeal to the extent that it suggests a much-reduced reliance on nuclear weapons. But it might also have some unattractive aspects. For example, a "last resort" strategy could suggest to a potential aggressor that it had much leeway to make military advances with non-nuclear weapons before NATO would call on its nuclear weapons in response. In addition, it can be argued that nuclear weapons might be helpful in deterring rogue state employment of chemical or biological weapons

The allies therefore appear to face a basic question: should they replace flexible response with a strategy that limits the role of nuclear weapons to a "last resort", or should they develop a new approach that makes use of the potential deterrent value of nuclear weapons for threats short of a "last resort scenario? Such a strategy would leave open the possibility that the allies would respond to threats with defenses and weapons that are required to deter attacks at any level and defend against them if necessary. The main difference from flexible response would be that

nuclear weapons would not be woven into the fabric of conventional defense forces, and there would be a much wider gap between non-nuclear military options and nuclear options.

Developing any new strategy would require a serious and focused discussion among the allies, particularly among those who are nuclear weapons states. One task for the allies therefore is to find a way to expand nuclear consultations to include France in a way that would enhance the potential for the United States, Britain and France to work in concert when facing a military threat that might invoke the threat or use of nuclear forces.

This analysis gives rise to some central questions that might be asked relating to future U.S. defense strategy, nuclear policy, and NATO enlargement:

- What are the costs and benefits of maintaining a U.S. extended nuclear guarantee for its European allies?
- Is it necessary for the United States to deploy nuclear free-fall bombs, which are of questionable military utility, on European soil in order to maintain the credibility of the extended nuclear guarantee? Is such deployment useful to promote sharing of nuclear risks with allies?
- Does the further enlargement of NATO entail acceptable nuclear risks for the United States under current and foreseeable threat circumstances?
- What can or should the United States and the NATO allies do to try to reassure Russia that further NATO enlargement will not increase nuclear risks to Moscow?
- What are the costs and benefits of potential French participation in NATO nuclear consultations? Is there potential for a European nuclear deterrent within NATO that might obviate the need for the United States to station nuclear weapons in Europe?
- What changes in the structure and procedures of the Nuclear Planning Group might be required to involve France routinely in NPG work; or to include Russia in periodic NPG consultations?

NATO nuclear strategy *per se* is not generally seen to be an urgent issue for NATO or for the United States. But these questions suggest that some difficult issues of nuclear strategy and consultations may have to be addressed in the context of the dual processes of enlargement and adaptation of NATO that will continue well into this decade.

Endnotes

¹ The flexible response doctrine was set out in a document prepared by NATO's Military Committee, known as MC-14-3, and approved by the North Atlantic Council in December 1967.

² Article V of the April 4, 1949 North Atlantic Treaty founding document states that "The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking, forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area."

³ North Atlantic Treaty Organization, "Special Meeting of Foreign and Defense Ministers Communiqué," December 12, 1979, as printed in *NATO Review*, February 1980, pp. 25-26.

⁴ North Atlantic Treaty Organization, "London Declaration on a Transformed North Atlantic Alliance, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in London on 5-6 July 1990," as printed in *NATO Review*, August 1990, pp. 32-33.

⁵ North Atlantic Treaty Organization, "The Alliance's New Strategic Concept, Agreed by the Heads of State and Government participating in the meeting of the North Atlantic Council in Rome on 7-8 November 1991," printed in *NATO Review*, December 1991, pp. 25-32.

⁶ Mitterrand was speaking at a meeting in Paris on January 10, 1992, as reported by *Atlantic News*, No. 2387, January 14, 1992, p. 4.

⁷ Many Europeans looked skeptically on the French offer as an effort to deflect criticism of the France's nuclear testing program.

⁸ M-DPC/NPG 1(96)88, Meeting of the Defense Planning Committee in Ministerial Session, Brussels, 13 June 1996.

⁹ The Alliance's Strategic Concept, approved by the Heads of State and Government participating in the meeting of the North Atlantic Council in Washington D.C. 23-24 April 1999, NATO Press Release NAC-S(99)65.

¹⁰ See the description of these withdrawals in *Taking Stock, Worldwide Nuclear Deployments 1998* by William M. Arkin, Robert S. Norris and Joshua Handler (Washington, DC: Natural Resources Defense Council, March 1998), pp. 8-9, and a summary of current U.S. deployments on p. 24.

¹¹ British-American Security Information Council (Basic), "Nuclear Futures, Taking the Pulse: Fighter-Bomber Aircraft," found at <http://www.basicint.org/fighters.htm>, 2001.

¹² For more on these issues, see David S. Yost, "The US and Nuclear Deterrence in Europe," *Adelphi Paper 326* (London: International Institute for Strategic Studies, March 1999), and Bruno Tertrais, "Nuclear Policies in Europe," *Adelphi Paper 327*, March 1999.

¹³ The argument has been made, for example, by Thomas-Durell Young, who proposes that the United States, France and the U.K. cooperate to develop a tactical air-to-surface missile (a "tripartite TASM") to provide a "state-of-the-art" air-delivered nuclear capability for NATO countries. Thomas-Durell Young, "NATO's Substrategic Nuclear Forces and Strategy: Where Do We Go From Here?" Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, Pennsylvania, January 13, 1992.

¹⁴ "Nuclear Weapons and European Security," The Atlantic Council of the United States, Policy Paper, April 1996, p. 3.

¹⁵ North Atlantic Treaty Organization, "Study on Enlargement," September 1995, Chapter 5, paragraph 68.

¹⁶ *Ibid.*, paragraph 45, d.

¹⁷ *Ibid.*, Chapter 4, B, iv, paragraph 58.

¹⁸ Larry Chalmer, Director of the NATO Staff Officer Orientation Course at the U.S. National Defense University, has drawn the image out a little further, arguing that the nuclear umbrella, which was virtually automatic during the Cold War, has become more of a manual-opening umbrella in post-Cold War circumstances.

¹⁹ See David Yost's assessment of Russia's position in Chapter 9 of this volume.

²⁰ President Chirac announced on June 13, 1995 that France would conduct eight underground nuclear tests between September 1995 and May 1996 to ensure the security and reliability of its nuclear weapons and programs.

²¹ The Treaty on the Final Settlement with Respect to Germany, known as the "2+4 treaty," was signed in Berlin in 1990. It reaffirmed

Germany's renunciation of the manufacture and possession of nuclear, biological and chemical weapons as well as a united Germany's commitment to the Treaty on the Non-Proliferation of Nuclear Weapons. In addition, Germany agreed not to deploy nuclear weapons or foreign forces on that part of united Germany that used to be the German Democratic Republic.

CHAPTER 4

U.S. Sub-Strategic Nuclear Forces and NATO

Maynard W. Glitman

The topic discussed in this chapter has been accorded several labels over the years: theater or tactical nuclear forces or weapons (TNF/TNW), short range nuclear forces (SNF), sub-strategic nuclear forces (SSNF—the wording used in NATO documents to describe these systems), non-strategic nuclear forces (NSNF—used at times by the United States and Russia), and most recently, non-strategic nuclear weapons (NSNW). This suggests the degree to which the subject is hard to pin down and difficult to define. Even when using range as a criterion what appears tactical to one country can be highly strategic to another. In any event, given the important linkage between these forces and the North Atlantic Treaty Organization (NATO), this chapter uses the Alliance’s appellation: SSNF.

Background

U.S. SSNF were first introduced into American and NATO forces in the 1950s. All of the nuclear weapons remained in U.S. hands but several of the Allies joined the United States in providing and operating the fighter aircraft to deliver those weapons. Delivery systems included aircraft, air to ground missiles, surface-to-surface ballistic and cruise missiles, artillery, anti-aircraft missiles, and mines.

The initial military purpose of SSNF was to deter or defeat superior Soviet conventional forces. SSNF would also provide a “bigger bang for the buck” and help compensate for NATO’s failure to meet the financial and personnel requirements of the Alliance’s conventional force goals.

In addition to this military role, SSNF also had a political purpose. Along with U.S. INF systems in Europe and U.S. SLBMs assigned to the Supreme Allied Commander Europe,

SSNF would link the defense of the Alliance to U.S. strategic nuclear forces, thus reinforcing the deterrent role of sub-strategic forces. SSNF played this dual political/military role throughout the Cold War.

However, as that conflict came to a close, (and with Russia's armed forces no longer posing the threat they had during the Cold War) the military portion of that role wound down. The United States and its allies chose not to modernize their SSNF. The follow-on to Lance missile, a research and development program, was dropped, as was the tactical air to surface missile. Plans for the production of a new 155-millimeter nuclear artillery shell were also canceled. What eventually would remain into the new millennium were gravity bombs delivered by fighter aircraft (primarily NATO's F-16 and Tornado fleets).¹

The successful conclusion of the bilateral INF (Intermediate-Range Nuclear Forces) negotiations in 1987 generated support for negotiations on SSNF, as well, from both the United States and the Soviet Union. The United States and its NATO allies attempted to fashion an SSNF negotiating approach that would take into account the great disparity between the size of American and NATO SSNF and the much larger forces held by the USSR. But finding an acceptable formula, particularly one that provided for effective verification, proved to be a difficult task. After a year of effort, support for SSNF negotiations had not led to significant progress.

President George Bush became concerned over the prospect of large numbers of nuclear weapons remaining in a Soviet Union which was looking increasingly unstable (particularly following the failed August 1991 coup against President Gorbachev). On September 27, 1991, President Bush announced that, along with steps to limit its strategic nuclear forces, the United States would unilaterally and drastically reduce or eliminate most of its sub-strategic nuclear forces. The Soviets were encouraged to follow suit.

On October 5, 1991, President Gorbachev made a parallel announcement. But it contained a noteworthy difference.

President Bush had stated that “we will of course ensure that we preserve an effective air-delivered nuclear capability in Europe. That’s essential to NATO’s security.” President Gorbachev, with a different future in mind for NATO’s air-delivered nuclear capability, suggested that “it would also be possible on a reciprocal basis to remove all nuclear munitions (aircraft bombs and air-launched missiles) from combat units of front line (tactical) aviation and store them at centralized storage bases.”²

In January 1992 President Yeltsin reaffirmed Gorbachev’s unilateral reciprocal commitments including the approach regarding air delivered weapons. These were the only American SSNF which would remain deployed on the territory of its European NATO Allies. None of these statements were legally binding; nor have there ever been any provisions for a verification regime. Consequently the United States does not know with confidence whether or to what extent Russia has in fact carried out the announced reductions. The Russians continue to maintain their SSNF infrastructure, and to train, exercise, and evaluate the forces that would use them. Indeed, the *New York Times* reported on January 4, 2001 that “United States Intelligence Agencies have concluded that Russia has moved short-range nuclear weapons onto one of its bases in the Baltics.”³

By the end of 1993 NATO had reduced the number of its SSNF weapons in Europe by 85%. All nuclear warheads for ground launched SSNF, including surface-to-surface missiles and nuclear artillery, were eliminated, as were nuclear land mines, nuclear submarine warfare depth charges, and nuclear surface-to-air and air-to-surface missiles. The remaining nuclear warheads for these systems are to be eliminated in the near future.⁴ Submarine launched nuclear cruise missiles are no longer deployed at sea in peacetime. The number of nuclear storage sites has also been reduced by about 80%, and more survivable and secure storage systems have been installed.⁵

NATO Nuclear Capabilities Today

U.S. SSNF in Europe today consist of only one type of weapon: gravity bombs assigned to U.S. and Allied NATO aircraft. In addition, as a recent NATO press release stated, “In 1995 the readiness posture of dual-capable aircraft was greatly reduced, so that nuclear readiness is now measured in weeks rather than in minutes.”⁶ A small number of UK *Trident* submarine warheads are also assigned to NATO.

For its part, Russia claims to have eliminated, or safely and securely stored, its SSNF. However, in the absence of any agreed verification procedures it is not possible to be confident of their numbers, (estimated in the thousands by public sources—see the charts in Chapters 1, 9 and 12), or of their location, security, or safety.

Following announcement of the unilateral reciprocal measures in 1991, SSNF disappeared from the public’s radar screen. Nor has it been a top priority for policymakers. Nevertheless, history has shown that anything dealing with nuclear weapons, particularly those deployed on the territory of other states, has the potential for attracting attention. The recent public agitation over the use of depleted uranium rounds during the fighting in Kosovo and the Gulf War is a case in point.

Recent Developments

The topic of SSNF was raised during the 1997 Helsinki U.S.-Russian summit where Presidents Clinton and Yeltsin agreed that their “experts will explore as separated issues possible measures relating to long-range sea-launched cruise missiles and tactical nuclear systems to include appropriate confidence building and transparency measures.”⁷

Since that time, however, other issues on the U.S. Russian nuclear arms agenda have been given priority, particularly missile defense. There have been only sporadic signs of movement on the topic of SSNF reductions, and very little

commentary. Despite occasional prodding, SSNF can be likened to the proverbial sleeping dog.

To determine whether it is in the United States' or NATO's interest to fully awaken that dog, the various elements which compose the SSNF issue should be examined. While U.S. SSNF policy has wider ramifications beyond NATO (for example, its impact on China), it is most closely identified with the Alliance. Thus, given the history of SSNF and the location of existing U.S. SSNF deployments, the condition and future of America's principle Alliance should be given special attention.

While the SSNF issue has not garnered much attention outside official circles dealing with NATO or arms control, some members of the Alliance are seized with this issue. Nevertheless, recent NATO communiqués continue to mention the central deterrent role for SSNF.⁸

In its April 1999 50th Anniversary Summit Communiqué NATO spoke for the first time of the "reduced salience of nuclear weapons." In light of this, the Alliance would "consider options for confidence and security building measures, verification, non proliferation, and disarmament." It called for a report on this topic at the fall 2000 North Atlantic Council Ministerial meeting.⁹

The "reduced salience" phrase has appeared in several NATO Foreign Ministers' communiqués. That it probably represents a compromise with NATO members who wanted deeper changes in NATO's nuclear posture is suggested by the fact that the phrase was not included in the 1999 Strategic Concept or in communiqués issued by NATO Defense Ministers. In contrast, the Defense Ministers communiqués and the Strategic Concept continue to refer to SSNF in traditional terms, but also adapted and made germane to the post-Cold War environment.

Thus the April 24, 1999 Alliance Strategic Concept states in paragraph 62 that

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. They demonstrate that aggression of any kind is not a rational option. The supreme guarantee of the security of the Allies is provided by the strategic nuclear forces of the Alliance, particularly those provided by the United States.¹⁰

The 1999 Strategic Concept also refers to SSNF's role linking Europe to U.S. strategic deterrence: "Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and North American members of the Alliance. The Alliance will therefore maintain adequate nuclear forces in Europe." The Concept notes that given "NATO's ability to defuse a crisis through diplomatic and other means," or if necessary, via conventional defense, "the circumstances in which any use of nuclear weapons might have to be contemplated...are extremely remote."¹¹

The Strategic Concept underscores the vital role played by nuclear weapons in ensuring Alliance security. "To protect peace and prevent war or any kind of coercion, the Alliance will maintain for the foreseeable future an appropriate mix of nuclear and conventional forces based in Europe and kept up to date where necessary." This is necessary because "The Alliance's conventional forces alone cannot ensure credible deterrence. Nuclear weapons make a unique contribution in rendering the risks of aggression against the Alliance incalculable and unacceptable. Thus they remain essential to preserve peace."¹²

Regarding the role played by European forces in the Alliance's nuclear deterrent strategy, the Strategic Concept says that "A credible Alliance nuclear posture and the demonstration of Alliance solidarity and common commitment to war prevention continue to require widespread participation by European Allies. The Alliance will therefore maintain adequate nuclear forces in Europe." Adequate is defined as having "the necessary

characteristics and appropriate flexibility and survivability to be perceived as a credible and effective element of the Allies' strategy in preventing war."¹³

The Alliance Strategic Concept also notes that "by deterring the use of NBC (nuclear, biological, chemical) weapons (NATO's conventional and nuclear forces) contribute to Alliance efforts to prevent proliferation of these weapons and their delivery means."¹⁴ With Russia no longer a threat, and with the Strategic Concept mute on the possible impetus for this statement, one can only speculate on its meaning and the implications for NATO SSNF. In any case, the Strategic Concept makes it very clear that NATO's conventional and nuclear forces are defensive in nature and that the latter play a key role in the deterrence of war or coercion.

But if NATO is adapting SSNF and the doctrine which lies behind it to post-Cold War circumstances, there is still a carry-over problem from SSNF's Cold War connection. The North Atlantic Council's (NAC) spring 2000 ministerial communiqué referred to "the need to reduce uncertainties surrounding sub-strategic arms in Russia," and stated that "reaffirmation and perhaps codification of the 1991-1992 presidential initiatives might be a first, but not exhaustive step in this direction" (i.e. an arms control approach).¹⁵

Support for an arms control approach was also manifested by five NATO members (Belgium, Germany, Italy, Netherlands and Norway) who circulated a paper supporting various arms control initiatives during the May 2000 Nuclear Non-Proliferation Treaty Review Conference. They encouraged Russia and the United States to "proceed with SSNF reductions in a transparent and irreversible manner and to include the reduction and ultimate elimination of SSNF in START III."¹⁶

In contrast, in their spring 2000 communiqué NATO Defense Ministers reaffirmed their belief that "NATO's reduced nuclear force posture" is a "credible and effective element of the Allies' strategy of preventing war." They also renewed their call upon Russia to complete "the reductions in its tactical nuclear

weapons announced in 1991 and 1992 and to review its much larger tactical nuclear weapons stockpile with a view towards making additional reductions.”¹⁷

Arms Control

The NAC reported the results of its consideration of the issues presented to it by the April 1999 NATO Summit Communiqué at the December 15, 2000 NAC Ministerial Meeting. The lengthy, unclassified “Report on Options for Confidence and Security Building Measures (CSBMs), Verification, Non-Proliferation, Arms Control and Disarmament,” covers relations with Russia, in particular the lack of clarity concerning Russian SSNF and the extent to which Russia has carried out its unilateral reciprocal Presidential Nuclear Initiatives.¹⁸

The report suggests a variety of possible options, including confidence and security building measures, exchanges of information on nuclear forces, including readiness status and safety provisions and features, and transparency measures. It recommends data exchanges on U.S. and Russian sub-strategic nuclear forces. The Permanent Joint (NATO-Russia) Council is proposed as the venue for such exchanges. Time will tell how Russia will react to the offer.

Certainly there have been frequent reports in the press that Russia, its conventional forces short of just about everything, is reconsidering its military doctrine to place more reliance on its nuclear forces. What impact this will have on the future of sub-strategic nuclear forces and any SSNF arms control or confidence building measures also remains to be seen.

Another key area of the report deals with the risks to Alliance security posed by weapons of mass destruction (WMD) and their delivery means. It notes that new activities (such as NATO’s initiative on weapons of mass destruction (WMD)) are “enhancing existing Allied military readiness to operate in a WMD environment and to counter WMD threats.” It also recognizes that “proliferation can occur despite efforts to prevent it and can pose a direct military threat” to Allied nations and

forces. The Strategic Concept notes the “existence of powerful nuclear forces outside the Alliance” which the Alliance needs to take into account. Russia, China, and Pakistan are cited by name. It argues that “the defense posture against WMD risks must continue to be improved to further reduce operational vulnerabilities of NATO military forces while maintaining their flexibility and effectiveness despite the presence, threat, or use of NBC weapons.”¹⁹

The report states that “in the light of overall strategic developments and “reduced salience of nuclear weapons, the Alliance has considered options for confidence building and security building measures, verification, non-proliferation, and arms control and disarmament.” The results of the study are a series of specific policy options, summarized above.²⁰

The very next paragraph, however, takes a somewhat different tack.

Notwithstanding positive developments in the strategic environment, the security of the Alliance remains subject to a wide variety of risks, both military and non-military, which are multidirectional and often difficult to predict. As stated in the Strategic Concept of 1999, the existence of powerful nuclear forces outside the Alliance constitutes a significant factor, which the Alliance has to take into account if stability and security in the Euro-Atlantic area are to be maintained.²¹

The paragraph concludes by noting the “radical” extent to which NATO has already reduced its nuclear forces and relaxed their readiness, taking into account the end of the Cold War.

The concluding section of the NAC report sets out NATO’s fundamental approach to SSNF in the context of the current security environment:

There is a clear rationale for a continued, though much reduced, presence of sub-strategic forces in Europe.

This is consistent with the Alliance's fundamental guiding principle of common commitment, mutual co-operation and collective security. The burden and risks of providing the nuclear element of NATO's deterrent should not be borne by the nuclear powers alone.²²

Significantly, the report makes no reference to a specific arms control or disarmament approach for SSNF and does not refer to the possibility of codifying the 1991 and 1992 unilateral reciprocal Presidential Nuclear Initiatives, although NATO Ministers have raised the prospect of codification in past communiqués. This omission suggests that the Allies are not ready to embark on what would ineluctably turn into a negotiation on SSNF.

At their December 2000 meeting, NATO's Foreign Ministers recalled "the Alliance's long standing commitment to the goals of arms control, disarmament and non-proliferation" and welcomed "the comprehensive report on options for confidence and security building measures, verification, non-proliferation and arms control and disarmament" called for at the 1999 Washington summit. The North Atlantic Council in Permanent Session was tasked to "pursue vigorously implementation of the recommendations in this report, including with Russia through the Permanent Joint (NATO-Russia) Council."²³ That work is underway. Beyond the scope of this paper, of course, there lies a deeper, and perhaps unanswerable, question for NATO: the extent to which an approach founded on Cold War deterrence theories will remain valid when confronting non-rational and/or zealous leaders armed with nuclear, biological, or chemical weapons.

Future Prospects

NATO's nuclear policy is likely to continue to evolve, moved by the existence of underlying differences among the allies and efforts to resolve them. The communiqués and reports, the considerations which they reflect, and the activities which they

generate provide an insight into the intra-Alliance discussion on SSNF.

It is apparent that the Allies continue to support U.S. SSNF deployments in Europe. Indeed, the Strategic Concept makes clear that the Allies believe that SSNF will continue in the post-Cold War environment to play an important role in deterring war or coercion. The Allies appear to be satisfied with the current nuclear strategy and force posture, seeking neither to significantly improve nor abandon it.

At the same time the Alliance is ready to explore with Russia possible confidence building and transparency measures which would enhance stability by removing some of the uncertainty surrounding Russia's SSNF, while providing Russia with similar information about U.S. SSNF nuclear forces in Europe. But it does not appear that the Alliance is ready to press hard for some form of SSNF arms control negotiations, such as codifying the PNIs.

There appear to be two schools of thought within the Alliance concerning SSNF at this juncture. One side believes SSNF still performs a useful deterrent role against a variety of contingencies in a world made more dangerous by the proliferation of NBC weapons. It transfers the old Cold War verities underlying NATO's nuclear weapons policies and applies them to post-Cold War problems. At its core it sees a continuing need for SSNF. While not specifically articulated, the continuing need for SSNF might lead an observer to conclude that the force would at some point need to be modernized in order to remain "effective" and able—and seen to be able—to carry out its missions.

The other approach places emphasis on "the reduced salience" of nuclear weapons. It carries with it an implication of moving beyond that construct to an examination of CSBMs, transparency measures, and ultimately to arms control and disarmament approaches. Some of these contain at least an implication of further reductions in SSNF and perhaps minimal support for

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maintaining an effective force, thus risking the possibility of that force becoming obsolete.

What a “between the lines” reading of these communiqués and other NATO publications reveal is a NATO working hard, with some success, to find a course which will allow it move ahead, slowly, on both tracks. It bears some resemblance to the approach the Allies devised for dealing with the INF issue. As in its 1979 INF dual-track decision, the Alliance may find it desirable to articulate this new dual track policy in a single document. Should that moment arrive the consultative process will have to produce a solid and logically based consensus.

The consultative process is a crucial element in helping ensure that Alliance solidarity will be maintained when considering SSNF. Fortunately, the infrastructure for engaging in full, close, and continual U.S. consultation with the Allies, established when U.S. nuclear weapons were first introduced into the European theater (and greatly expanded during the INF debates during the 1980s, with the establishment of the High Level Group to coordinate the defense and deployment aspects of the issue, and the Special Consultative Group to coordinate the political, diplomatic and arms control elements) is in place and is being well used.

This process is particularly important now. The Alliance is engaged in the delicate task of sorting out the question of cooperation between NATO and the European Union. There are also significant concerns among European NATO members over the impact of a U.S. national missile defense program on the security foundations of the Alliance. Differences have also cropped up in other areas, such as Balkans policy and national positions on the Comprehensive Test Ban Treaty. Moreover, statements by Russian Foreign Minister Ivanov concerning possible Russian military relations with a European Union Force make it crystal clear that today’s Russia, like the Soviet Union, will seek opportunities to split the Alliance.²⁴

Nevertheless, NATO is in a good position to achieve an agreed outcome on the future of sub-strategic nuclear forces. The Allies

are more or less comfortable with the SSNF situation, including maintaining current SSNF systems on European territory and approaching Russia to improve transparency.

Conclusion

Despite the potential problems surrounding SSNF in Europe, NATO's 1999 Strategic Concept provided an agreed conceptual basis and the "Report on Options" set out a work program for the future. Thus has the Alliance positioned itself to maintain a strong consensus on the future of sub-strategic nuclear forces, provided that the relative harmony regarding SSNF is not upset by controversy over other issues.

Endnotes

¹ President George Bush, "Address to the Nation on Reducing United States and Soviet Nuclear Weapons," (the 1999 Presidential Nuclear Initiative), September 27, 1991.

² President Mikhail Gorbachev, Russian response to U.S. PNI, October 5, 1991.

³ *New York Times*, January 4, 2001.

⁴ "NATO's Nuclear Forces in the New Security Environment," NATO Fact Sheet, June 7, 1999. [Note that despite their value as information sources, NATO Fact Sheets are not formally agreed Alliance documents and therefore do not necessarily represent the official views of individual member governments on all policy issues discussed.]

⁵ NATO Fact Sheet, June 7, 1999.

⁶ "Numbers and Readiness Levels of Dual-Capable Aircraft," NATO Basic Fact Sheet, June 7, 1999, p. 4.

⁷ Joint Statement of the United States and Russia (The Helsinki Agreement), March 21, 1999.

⁸ For example, see paragraph 8 of the Final Communiqué of the Defense Planning Group and Nuclear Planning Group, December 5, 2000.

⁹ "The Alliance's Strategic Concept," (50th anniversary summit communiqué), April 23-24, 1999.

¹⁰ 1999 Strategic Concept, paragraph 62.

¹¹ 1999 Strategic Concept, paragraph 63.

¹² 1999 Strategic Concept, paragraph 46.

¹³ 1999 Strategic Concept, paragraph 63 and 64.

¹⁴ 1999 Strategic Concept, paragraph 41.

¹⁵ Spring 2000 communiqué of the North Atlantic Council.

¹⁶ Presentation by NATO official at Airlie House Conference on Non-Strategic Nuclear Weapons, November 2, 2000.

¹⁷ NATO Defense Ministers spring 2000 communiqué

¹⁸ “Report on Options for Confidence and Security Building measures (CSBMs), Verification, Non-Proliferation, Arms Control and Disarmament,” North Atlantic Council, December 15, 2000.

¹⁹ “Report on Options,” Section 4.2.2 and paragraphs 78 and 79.

²⁰ “Report on Options,” paragraph 85.

²¹ “Report on Options,” paragraph 86.

²² “Report on Options,” paragraph 98.

²³ December 2000 communiqué of the North Atlantic Council.

²⁴ *New York Times*, November 27, 2000, p.22

CHAPTER 5

Non-Strategic Nuclear Weapons: Defining U.S. Objectives

Robert H. Gromoll and Dunbar Lockwood¹

Most Americans would agree that reductions in Russian non-strategic nuclear weapons (NSNW) are desirable. Such reductions could reduce the gap between the number of U.S. and Russian NSNW. They could mitigate the potential "loose nuke" problem by reducing the number of Russian weapons and storage sites. They could indirectly improve the safety and security of NSNW through associated transparency or monitoring. Reductions might also assuage concerns about the new Russian military doctrine by constraining, to a degree, Russia's non-strategic nuclear capability.

Some observers believe the United States has been remiss by not pushing for negotiated reductions in U.S. and Russian NSNW. Certainly, the possibility has not been overlooked; but formal negotiations on NSNW have not been pursued because there are no satisfactory answers to some very fundamental questions. Specifically:

- What are non-strategic nuclear weapons?
- Could we verify NSNW limits?
- Would U.S. nuclear warheads and associated facilities in Europe be included in the regime?
- Is there enough symmetry to negotiate?
- How much of a threat are NSNW?

We would need to resolve most, if not all, of these questions to be in a position to negotiate limits or reductions.

What are NSNW? Can Limits be Effectively Verified?

One cannot reliably classify a warhead as "non-strategic" solely on the basis of its delivery vehicle, physical characteristics, or deployment location. There are serious problems with all three approaches.

Warheads of the same type often can be used with both strategic and non-strategic delivery systems. For example, a U.S. gravity bomb could be delivered by either a Strategic Arms Reduction Treaty (START)-accountable heavy bomber based in the United States or by a dual-capable fighter based in Europe. In the first instance the warhead would be "strategic;" in the second it would be, at least for the United States, "non-strategic." The same kind of ambiguity applies to Russian systems. NSNW delivery systems are generally dual-capable; nuclear and conventional variants of these systems often cannot be readily distinguished. If the delivery vehicle were the unit of account, a formulation would be needed that does not inadvertently capture U.S. conventional capability. Otherwise, we would need to accept constraints on conventional delivery systems. It would not be in the United States' interest to allow conventional capabilities to be captured in such an agreement.

There would also be problems if nuclear warheads were the unit of account. Any monitoring regime designed to count non-strategic nuclear warheads would have to be able to distinguish them from strategic warheads. Even if that proved to be technically possible, it would undoubtedly require an intrusive regime that would raise concerns about inadvertently disclosing nuclear warhead design information. Conceivably, this might not be a problem for warhead types that would not remain in the active inventory; it would almost certainly be a problem for types that would remain operational.

In addition, warheads are inherently more difficult to monitor than delivery systems. They are smaller and more easily transported and concealed, so their storage and transport cannot be monitored with confidence by national technical means. Even with on-site inspections, intrusive technical measures using

radiation detection equipment would be needed to help confirm that containers declared to contain warheads actually did so. Such measures would be controversial on both sides. In any case, the required technology is still being developed. Joint U.S.-Russian work needs to be done on "information barriers" that would protect sensitive nuclear weapon design information when radiation detection equipment is being used. Furthermore, although it may be theoretically possible to develop measures that enable one to distinguish between types of warheads (those declared to be "strategic" and "non-strategic") using pre-validated warhead templates, we are a long way from any practical application of such techniques.

Defining NSNW on the basis of their location (i.e., whether they are co-located with non-strategic delivery systems) would also have drawbacks. Moscow claims that U.S. NSNW in Europe are "strategic systems" because of their ability to reach Russian territory. Russia, on the other hand, has no nuclear weapons located outside of its territory, so an approach based on warhead location could position Russia to press for a withdrawal of U.S. nuclear weapons from Europe. Also, warheads can be moved easily without detection, so location restrictions in the long run might not have any practical utility.

Would U.S. NSNW in Europe be Included?

NSNW arms control would require extensive consultations within NATO, but it is hard to envision an Alliance consensus on what to declare. For example, should NATO declare the number and location of U.S. nuclear weapons based in Europe? Should the weapons be subject to on-site inspections? It would not be in the United States' or the Alliance's interest to create openings for a divisive debate about NATO nuclear weapons.

Is There Enough Symmetry to Negotiate?

Another obstacle is that Russia undoubtedly has thousands more NSNW warheads than the United States and the uncertainties about how many they have are significant. Recently, JCS Chairman General Henry Shelton stated that the ratio was between 4 to 1 and 14 to 1 in Russia's favor.² Russia also has

many more types of non-strategic systems for delivering nuclear warheads. These include short-range ballistic missiles, artillery, sea-launched cruise missiles, ships, submarines, aircraft and air-defense missiles. The United States, by contrast, maintains only two types of non-strategic nuclear delivery systems: dual capable aircraft with gravity bombs, and sea-launched cruise missiles (SLCMs) for possible deployment on attack submarines.

Given the asymmetries in numbers of warheads and types of delivery systems—both favoring Russia—there may not be much of a Russian incentive to enter into negotiations. The costs to the United States and NATO to bring Russia to the table could be too high. The United States could offer little of significance in return for consequential Russian NSNW reductions.

How Much of a Threat Are NSNW?

The threat from Russian NSNW today stems mainly from the possibility that these nuclear weapons could fall into the wrong hands. This may call for non-proliferation solutions, like U.S. assistance for the safe and secure transport, storage, and dismantlement of Russian nuclear weapons, rather than formal arms control solutions. For this reason, the U.S. Cooperative Threat Reduction (CTR) program, which provides this kind of assistance, is invaluable and needs to be continued.

With the end of the Cold War, it is inconceivable that there would be an intentional nuclear exchange between Russia and NATO. The United States and Russia are no longer adversaries. On what basis, then, do Russian NSNW pose a threat? If the Russian threat is minimal, or only theoretical, then the purpose of NSNW arms control may simply be to design and manage a long-term safe and secure draw-down for weapons that are no longer needed. However, even if Russia poses no serious threat, Moscow may not draw the same conclusion about the United States and NATO. Russian observers apparently continue to view the United States and NATO as a threat to their security. U.S. military, political and economic dominance in the world today, NATO expansion, conflicts in the Balkans, missile defense and other points of contention, real or imagined, have

created asymmetries in the way Russians and Americans view one another. The United States, after all, “won” the Cold War and, whereas some in the United States may see Russia as marginalized, many Russians undoubtedly resent this “victory” and view the United States as an imposing and headstrong global presence. These different perspectives could lead to misperception and miscalculation. Threat, therefore, has not disappeared in our relations; there continues to be suspicion and risk that relations will deteriorate.

Many in the United States and Europe, for example, wonder if Russia is still committed to implementing its pledges under the 1991/1992 Presidential Nuclear Initiative (PNI). And what should we make of Russia's revised strategic concept that calls for greater reliance on nuclear weapons, even as the U.S. and NATO continue to reduce the role of their nuclear weapons?

In April 1999 the Russian Security Council met and signed three decrees on nuclear weapons issues. We have no details on these policies, but the Council announced that one of the documents concerned the development of "non-strategic" nuclear weapons. The Russian press reported that there are "good grounds" to believe Russia is working on a new generation of tactical nuclear weapons "to make limited nuclear war possible in theory." Reportedly, the purpose of the effort is to give Russia the capability to carry out precision, low-yield, non-strategic nuclear strikes anywhere in the world.³ Thus, to compensate for the dramatic deterioration of its conventional forces and U.S. conventional superiority, Moscow appears to be increasing its reliance on tactical nuclear weapons for deterrence and possibly warfighting. There are also political and symbolic reasons for Russia's growing reliance on NSNW: many Russians view them as an important vestige of their great power status.

Thus, while the threat of Russian NSNW may be neither particularly great nor immediate, there remains potential for “backsliding” to a point where the threat could materialize, in addition to the potential for “loose nukes” falling into the wrong hands.

What is to be Done?

A key U.S. objective has been, and remains, to avoid negotiations or agreements that risk creating a 'slippery slope' toward the withdrawal of U.S. nuclear weapons from Europe. The weapons may have little or no military utility, but their political significance to the Alliance and to potential adversaries of the Alliance continues to be extremely important. NATO allies have all agreed that U.S. nuclear weapons in Europe help keep the peace and deter potential armed conflicts. The weapons also symbolize America's leadership of the Alliance and its commitment to NATO's security. This, in conjunction with technical difficulties associated with implementing a formal regime, suggests that there is little to recommend formal NSNW arms control.

With so many fundamental questions lacking good answers, a formal, legally binding arms control agreement that limits, reduces, or bans NSNW is not likely in the near term. Concluding and implementing such an agreement would be especially difficult — conceptually, technically, politically, and practically.

What, then, is to be done? First, the issue needs to be re-cast as a nuclear warhead problem, not as an NSNW issue. NSNW could be addressed in a broader nuclear warhead transparency regime that includes both strategic and non-strategic nuclear warheads. This would get around the problem of defining NSNWs and also avoid the problems inherent to a delivery system-based or location-based approach. A warhead would be a warhead, whether it is declared to be strategic or non-strategic. Such a regime would not address Russian NSNW directly, but it would be a start, and it would help reduce troubling uncertainties about the size and composition of Russia's overall stockpile and its nuclear warhead production and elimination infrastructure, as well as about the disposition of fissile material from dismantled warheads.

A transparency regime may also be easier to negotiate and implement than a verification regime because transparency need

not attain the same standard of confidence necessary for formal arms reduction agreements. That is, transparency need not be so intrusive. There should be no illusion, however, that negotiating a transparency regime would be easy. Russia does not like the idea of nuclear warhead transparency and so far it has not engaged substantively on any U.S. warhead transparency proposals. However, in the March 1997 Helsinki Joint Statement, which established a framework for START III, the United States and Russia made a commitment to explore transparency and confidence building measures relating to tactical nuclear systems. At the Cologne G-8 summit in June 1999, they made a commitment to begin bilateral START III discussions. During the course of these regular senior level discussions, the United States followed up on its Helsinki commitment by proposing transparency measures for U.S. and Russian nuclear warheads—both strategic and non-strategic. These initial warhead transparency efforts would be a means to gain practical experience that could eventually facilitate the negotiation of treaty provisions on the dismantlement and permanent removal of nuclear warheads from U.S. and Russian stockpiles. This could help lay the groundwork for the eventual monitoring, verification, and elimination of warhead stockpiles.

Conclusion

With the Cold War over and enthusiasm waning for negotiating new, formal arms control agreements involving complex monitoring and verification regimes, legally binding controls aimed specifically at NSNW do not seem to be technically or politically practical. A more promising approach appears to be a generic nuclear warhead transparency regime that does not try to distinguish between strategic and non-strategic nuclear warheads. Such a regime might cover warhead stockpiles, infrastructure, dismantlement, and disposition of fissile material from dismantled weapons. The experience gained in such a regime could pave the way for possible strategic and non-strategic nuclear warhead stockpile reductions in the future to complement deeper negotiated or unilateral reductions in strategic offensive weapons.

Endnotes

¹ The views expressed in this paper are those of the authors. They are not intended to reflect the views of the U.S. Government or the Department of State.

² General Shelton made this statement in testimony before the Senate Armed Services Committee on May 23, 2000. According to an unofficial estimate from the non-governmental Natural Resources Defense Council (NRDC), the United States has approximately 1,670 non-strategic nuclear warheads: 1,350 B-61 gravity bombs and 320 W-80 warheads for Tomahawk SLCMs. See NRDC Nuclear Notebook: U.S. Nuclear Forces 2000, *The Bulletin of the Atomic Scientists*, May/June 2000, Vol. 56, No. 3, p. 69; www.Bullatomsci.org/issues/nukenotes/mj00nukenote.html.

³ FBIS, Pavel Felgengauer, "Limited Nuclear War? Why Not! Russia's New Defense Concept Could Include Precision Use of Nuclear Weapons," *Moscow Segodnya*, May 6, 1999, pp. 1-2. Also see David Yost's Chapter 9 where this subject is covered in detail.

CHAPTER 6

Nuclear Weapons and Regional Deterrence

*Robert Joseph*¹

For this chapter I have not—thankfully—been asked to try to predict the future with regard to non-strategic nuclear weapons (NSNW), nor to recommend a specific action plan based on the many insights that have emerged from the discussions yesterday and earlier today. Instead, my task is to comment on the major issues that we need to take into account in determining a future course.

Before I address the way ahead I would recommend a brief look back, with the goal of identifying lessons learned from our experiences in the area of short-range or theater nuclear forces. In fact, let me start by saying that my preference is to use the terms short-range nuclear forces (SNF) or theater nuclear forces (TNF) rather than non-strategic.

The line between what we long held to be strategic and tactical has become increasingly blurred, and the convenience and benefits that this artificiality of arms control provided have been undermined by the profound changes that have occurred in the past decade. All nuclear weapons should be considered strategic, despite the problems that this may create for arms control.

Theater Nuclear Forces in Europe

What can we learn from the past? Two of my first jobs in government in the early and mid 1980s were the nuclear plans officer at our NATO Mission and Director of TNF Policy in the Pentagon. This was a time when we had over 7,000 deployed theater nuclear weapons, spanning a wide range of roles and missions, from atomic demolition munitions (ADMS), to artillery fired atomic projectiles (AFAPS), to short-range missiles such as Lance, to dual-capable aircraft (DCA), to the

longer-range Pershing II and ground launched cruise missile (GLCM) forces that were seen as an essential deterrent capability linking the United States to its European partners.

Many of these systems had their roots in the 1950s, when battlefield nuclear weapons were viewed as a substitute for conventional forces, and specifically, as a means to compensate for our conventional inferiority at an acceptable cost. Yet, even when the Alliance achieved conventional parity or at least near parity, and even though there were constant political pressures to reduce the stockpile, as we did in the context of the 1983 Montebello Decision accompanying the deployment of intermediate-range nuclear forces (INF), there was always a high value placed on nuclear weapons deployed forward — they were considered the most visible component of NATO's deterrent.

Arms control became a significant factor in shaping NATO's TNF posture, particularly in reducing the long-range, theater nuclear threat opposite the Alliance. This was the second track of the two-track INF decision. The outcome — the total and verifiable elimination of SS-20 missiles in exchange for the parallel elimination of the Pershing II and ground-launched cruise missile (GLCM) force — was considered a net gain in our security. While we did conduct a thorough review of the feasibility of follow-on SNF arms control, the findings did not support such an initiative. Not only were there practical obstacles identified — such as insurmountable verification problems — but there was also a sense that the potential benefits of such an approach would be outweighed by the risks.

Understandably, the most profound change in the Alliance TNF posture — as well as the U.S. posture globally — came with the end of the Soviet Union and the deterioration of the Red Army. These events fundamentally changed the political and military requirements for theater forces. As a result, the majority of nuclear roles have been eliminated altogether and the stockpile has been reduced by over 90 percent. Of the two remaining U.S. TNF systems, sea-launched cruise missiles

(SLCM) and dual-capable aircraft (DCA), only the latter are deployed in Europe.

Obviously, Russia is an entirely different story. Although its forward deployed theater forces have been withdrawn from former Warsaw Pact states, there is little if any evidence that the roles or numbers of these weapons have been reduced. In fact, the contrary seems to be the case. And the reasons are clear: as we have become more secure, Russia has felt less secure — in part because of the deterioration of its armed forces and because it has seen many of our policies as directed against it, such as NATO enlargement, and operations in Bosnia and Kosovo.

So, almost in a “back to the future” manner, Russia is today more reliant than ever on its nuclear forces, including its theater nuclear weapons. This is evident in its declaratory policy and defense planning. This is also reflected in its pursuit of new nuclear capabilities. For example, Moscow has announced the intention of developing and producing what it calls new “pin point” tactical nuclear weapons to compensate for its impoverished conventional capabilities. Even if President Putin’s recently reported decision holds to favor conventional forces over the Strategic Rocket Forces in terms of funding, this reliance on nuclear weapons will not be lessened.

Does Arms Control Have a Role?

The question then becomes, so what? Is there a theater nuclear weapons problem that needs to be addressed? If so, is arms control an appropriate tool for working this problem?

Given the large number of these weapons and the general substandard state of Russia’s security apparatus, there is in my view a legitimate safety and security issue related to its theater nuclear forces. If Russian nuclear forces are not adequately safeguarded from accidents or unauthorized use and, especially, if these weapons are not protected from theft, this poses a serious security problem for us. There is cause for

concern and a need for action on our part, but this is a problem best addressed by those types of activities included in the cooperative threat reduction program rather than by arms control negotiations.

Are there other problems associated with theater weapons that arms control can address? In the Cold War, arms control was considered useful in dealing with emerging instabilities stemming from quantitative and qualitative changes in the nuclear force postures of the United States and Soviet Union in the context of our then adversarial relationship. But are there any relevant stability issues today related to TNF? I think not.

In the past, our principal concern, and that of our allies, was Soviet expansion outward. Given the profound political and military changes of the past decade, and the end of the bipolar superpower competition, the possibility of an attack across the Fulda Gap is now a distant memory rather than an act to be deterred. From Moscow's perspective, while it may very well perceive the United States as the greatest external threat to its own security (indeed, it has said so emphatically and frequently in recent years), the threat of a deliberate military conflict is more remote than at any time in the past half century.

Russia's theater nuclear forces, even if modernized, will not give Moscow the capability to alter the strategic landscape. At least at the current overall levels of deployed nuclear weapons, Russia's theater forces are not, as we used to say in the Cold War, destabilizing. If our political relationship deteriorates even further, and if we reduce our own nuclear forces to very low levels, the imbalance in TNF does become potentially significant — but we are a long way from that point and we must work to ensure that we don't get there.

In the past, arms control was also valued for its contribution to our political relationship with the former Soviet Union. This argument was, in my view, always overstated by enthusiasts who asserted that the dialogue on arms reductions had substantial collateral benefits, as, for example, in opening up Soviet society and in promoting mutual understandings and

channels of communications that could be important in crisis and conflict. Whatever its past merit, this political argument has — or at least should have — little relevance for current U.S./Russian relations that, presumably, are not based on an adversarial footing. We can, if we choose, continue to treat each other as adversaries, as we have done for the past eight years in the context in the ABM Treaty negotiations, but this policy has proven a failure.

And the consequences of this approach in the ABM context are clear. Promoting mutual assured destruction as the center of our strategic relationship with Moscow — and that is what lies behind focus group phrases such as “cornerstone of strategic stability” — has only perpetuated suspicions and distrust and served to re-invent the Cold War. It has also served to give much greater value to nuclear weapons as the currency of our relations, especially for a Russia that cannot afford the alternatives. Perhaps this helps explain the failure of the Clinton Administration to achieve any further reductions.

The Consequences of TNF Arms Control

It may well be that the greatest potential problems associated with theater nuclear forces are those that could result from pursuing TNF arms control, especially if pursued as an end in itself. Four potential problems stand out.

First, given the inherent monitoring and verification limitations that would be associated with theater forces — from production to destruction — the outcome would not lead to high confidence in compliance. Moreover, Russia has shown no sign of accepting greater transparency in this field. But even if Moscow were to agree to an intrusive regime, this would still not ensure effective verification. So even under optimal circumstances, the agreement would likely lead to mutual accusations and acrimony. We have been there and done that, and we know from experience that a bad agreement is worse than no agreement.

Second, engaging in negotiations may well slow the process of realignment and reductions in Russian forces. This is perhaps

the only weapons category in which Russia holds an advantage. If we enter into negotiations, Moscow is sure to hoard every chip that it may later get paid for in terms of an agreement. As such, attempting to negotiate TNF levels could well be counterproductive.

Third, pursuing TNF arms control may undercut NATO's strategic posture, generating political pressure to withdraw the remaining weapons we have in Europe. Although Russian leaders are becoming increasingly vocal in their calls for the complete removal of U.S. nuclear weapons from Europe, there is little support today for such action. These weapons are seen by our allies as a valuable hedge against future uncertainties. In any negotiation, Moscow will almost certainly focus the spotlight on these weapons and seek their removal. This would be seen as one of the few things that the United States and its allies could give in the negotiations — negotiations in which most of the leverage would be with Russia, given the large disparity in numbers. The problem is that once removed from Europe, there are very few circumstances that would permit the re-introduction of NSNW to the continent.

Fourth, initiating TNF arms control would likely further undercut support for maintaining current TNF capabilities. Many are increasingly questioning the need to retain dual-capable aircraft and SLCMs. Most important, and almost a given, initiating TNF arms control would make problematic the development of new TNF capabilities that may be required to deter and defend against today's threats and, especially, for the deterrence of rogue states armed with weapons of mass destruction.

The Role of Nuclear Weapons in Regional Deterrence

The National Defense University (NDU) has undertaken several studies of deterrence in a regional context involving NBC-armed adversaries. The results suggest that, in fact, our nuclear weapons are a critical component of deterrence in this type of setting. One study examined deterrence of Iraqi use of chemical and biological weapons (CBW) in the Gulf War.

From our work on this real world case study, we have concluded that the Iraqi leadership believed a U.S. nuclear response to their CBW use was credible. This belief contributed to deterrence success. Other factors, such as our perceived advantages in CW passive defenses and the fear of Israeli retaliation, also contributed to deterrence, but U.S. nuclear weapons were central. Nuclear weapons also played a conscious role in U.S. deterrence thinking and helped to shape policy, even though most questioned the “feasibility” of actual employment.

Another effort that has provided insights into regional deterrence is an extensive gaming initiative that NDU has conducted over the past five years involving more than three thousand players. The game is very simple. We have the participants work together as an adversary planning cell, usually in groups of ten to twelve and usually in a Korean or Southwest Asian scenario. The planners are given chemical and biological capabilities similar to those we believe these countries possess, and they are told to develop a plan to achieve specific political or military objectives, such as breaking a coalition or disrupting the flow of US forces into theater.

At the end of the game, we ask the players what factors most influenced their willingness to use chemical and biological weapons and what capabilities on the U.S. side were the most effective deterrent to their use of these weapons. The data collected indicate a range of capabilities that work together to strengthen deterrence. These include: CBW detection and warning, improved protective equipment, superior intelligence, and theater and national missile defenses. But by far, the most important single capability that enhances deterrence of NBC use as cited by the participants is the U.S. nuclear force.

To ensure that we have the capability to meet our deterrent requirements in the future, we must retain a nuclear weapons infrastructure that is sufficiently adaptive to provide new capabilities when required. This will include both new platforms and, most likely, new warheads (for example, greater

penetration capabilities to strike deep underground targets). The United States is in the deterrence business for the long term and we must devote the required resources to develop and deploy the necessary capabilities.

The forces we require for today's deterrence and defense needs are different from those of the Cold War, both in terms of numbers and weapon characteristics. The massive counterforce capability we continue to maintain was clearly not designed for today's threat. Despite the counterproliferation initiative and the attention paid to the threat of weapons of mass destruction, very little thought has been given to the nuclear dimension of countering this threat — to declaratory policies and weapon capabilities tailored to deterring rogue states.

It would be the ultimate irony if the pursuit of TNF arms control impeded us not only from developing the new capabilities we need to deter and defend against contemporary threats, but also from moving away from Cold War force structures and lower levels of nuclear forces.

Conclusion

At least in hindsight, the deterrence dynamics of the Cold War now look simple — never mind that it took decades to develop strategic concepts, force postures and arms control policies that most of us became comfortable with, or at least comfortable enough to think that we generally had it right.

By comparison, the security setting today is extraordinarily complex. We face the prospect of terrorists armed with weapons of mass destruction and the certainty of hostile rogue states acquiring nuclear, chemical and biological weapons, and increasingly longer range ballistic missiles. We are confronted with tremendous strategic uncertainties about the future of Russia and China — uncertainties that will most likely increase in the next ten years.

In this new setting, we no longer have the luxury of a one-size-fits-all deterrent. And Cold War dogma, whether in the context of nuclear deterrence or arms control, is simply unsuited to meet the challenges and opportunities before us. Instead, it is essential to think through our strategy, or more accurately our strategies, taking into account the many dimensions that are involved, such as alliance, proliferation, and resource issues. But most of all, we must ensure that we develop and deploy the offensive and defensive requirements for deterrence and defense against contemporary threats. This was never easy in the past and it will demand even more effort and creativity in the future.

But we must not make this more difficult than it is. Not every element of this complex security environment is complex. In fact, some things are clear. This is the case with TNF, where old arms control notions — perhaps jazzed-up somewhat — represent nothing more than a problem masquerading as a solution.

Endnotes

¹ Ambassador Robert Joseph was on the faculty of the National Defense University at the time this chapter was written. His views do not necessarily represent the official position of the United States government.

CHAPTER 7

Verification Challenges on the Road to NSNW Arms Control

*Philip Foley*¹

The preceding chapters have discussed in some detail the international environment surrounding the problems and opportunities involving non-strategic nuclear weapons (NSNW). They have outlined certain goals and objectives and presented potential frameworks for agreement.

This chapter reviews multiple obstacles and challenges to effectively dealing with the problem of NSNW arms control. Specifically, could those obstacles be overcome and managed? And if so, how?

The chapter focuses on one significant aspect of this problem: verification. The ability to effectively verify any legally binding agreement dealing with this category of nuclear arms will determine to a great extent whether such an agreement would be beneficial to the United States.

The author is not advocating an arms control solution, but does believe that effective verification must be integral to any legally-binding solution to the problem. Moreover, the United States should consider whether verification should be included as part of any agreement or commitment on NSNW.

Perhaps it is better to state the challenge in this way: Could an arms control agreement on NSNW be effectively verified at all?

Some Basic Decisions Should Precede Negotiations

Before we engage in any serious negotiations on NSNW arms control, we need to decide upon the scope of the talks. Should they be bilateral or multilateral, and if the latter, which states should participate?

An obvious choice is to elect the bilateral route and begin with Russia, perhaps in association with the START process (since as overall numbers are reduced, the remaining arsenals of uncontrolled NSNW become more significant). A case could be made for including other nuclear powers and perhaps even India and Pakistan; however, the likelihood of their participation, at least initially, is not good.

One of the foremost decisions to be made is whether the objective of such negotiations should be limits or elimination. In this process consideration must be given to the incentives for so-called “states of concern” to build up their NSNW capabilities at the same time the United States and other participants are limiting or eliminating theirs.² Other potential participants will make similar determinations. Russian views will be of particular weight given their recent pronouncements on the utility of nuclear weapons, particularly tactical weapons, for their defensive needs.

I believe it is fair to assume that any negotiation on NSNW must include as a minimum the United States and Russia.

What Should be Limited or Eliminated?

One of the most significant policy issues that must be resolved in an agreement on NSNW is defining the class of weaponry that will be subject to its provisions.

To use the Intermediate-Range Nuclear Forces (INF) treaty as an example, the United States and Soviet Union agreed it was in their mutual interest to eliminate an entire class of weapons. These included ground launched ballistic missiles and ground launched cruise missiles with ranges between 500 and 5,500 kilometers. The two parties also agreed to construct an on-site inspection regime to verify their elimination. Because of the continuing production of the SS-25, which utilized a stage very similar to one used in the banned SS-20, the two sides also agreed to production monitoring. While the front sections of the missiles, including reentry vehicles and instrumentation

compartments, were eliminated, the nuclear warhead devices and guidance elements were not controlled.

In the Strategic Arms Reduction Treaties (START), the United States and Soviet Union agreed to limit deployed strategic delivery vehicles and warheads attributed to them to 1600 of the former and 6000 of the latter following a phased draw-down period of seven years. Note here that actual warheads are not directly controlled under START. START contains an intrusive inspection regime modeled on the INF Treaty, including inspections of reentry vehicles to verify attributed warhead numbers for intercontinental ballistic missiles (ICBMs) and submarine-launched ballistic missiles (SLBMs) and inspections of weapons storage areas for non-ALCM (air-launched cruise missile) heavy bombers to verify the absence of nuclear ALCMs.

The START II Treaty continued the process begun under START I. It established lower limits and used the START I verification regime, augmented to fit certain new provisions of START II. However, the fate of START II is uncertain and is likely to remain so until the Bush administration has had the opportunity to review and establish an arms control policy and plan.

Likewise, the current approach to the pending START III negotiations would essentially follow a similar path to lower limits. But there are other obstacles, namely national missile defense and the future of the Anti-Ballistic Missile (ABM) Treaty, standing in the way of serious negotiations.

Two significant lessons stand out from America's INF and START experiences:

- Treaty limited items have been delivery vehicles and their support equipment.
- Each contained a verification regime that depended upon interrelated measures involving national technical means of verification, declarations of items subject to the treaties, annual data exchanges, on-site inspections, limited suspect-

site inspections, limited production monitoring, geographic restrictions, and notifications.

Each of these is essential to effective verification, but none by itself is foolproof.

How Do We Attack the Verification Problem for NSNW?

A persuasive case can be made for starting slowly and building on initially modest foundations rather than attempting a more comprehensive global approach to NSNW verification.

The existing Presidential Nuclear Initiatives (PNI) arrangement could be made legally binding.³ If we elected to do this, we would create an obligation for verification. When one considers PNIs dealing with naval vessels and verifying the absence of such weapons on board, for example, access to ships is an imperative. Our Navy has always opposed any such measures as an unacceptable level of intrusiveness. It would be surprising for the Navy to change its position regarding on-board ship inspections.

Should we attempt to take another bite of the apple by limiting or eliminating another class of weaponry, such as ballistic missiles with ranges below 500 km? Would it be feasible to confine it to only nuclear capable missiles?

In the NSNW case, the verification obstacles are significant. Two key questions must be addressed: How is nuclear capability determined? What constraints must be placed on the actual warheads to give confidence that circumvention is not occurring?

Another class of weaponry that could be considered is dual capable aircraft (DCA). These are limited under the Conventional Forces in Europe (CFE) Treaty and have been a sore point in U.S.-USSR negotiations since SALT I. In the Russian view, NATO's DCA aircraft are forward based and capable of attacking Russian territory. Thus, they consider them to be strategic in mission.

Sea-launched cruise missiles (SLCMs) will surely come up in the discussions, as well. START took up that issue but was unable to resolve the myriad problems associated with SLCM verification. Consequently, the United States and the Soviet Union agreed to annual declarations of inventories. The verification challenges on SLCMs are well known, haven't changed, and are likely to be determined to be too intrusive to implement.

The Toughest Challenge

Of course, the critical issue in an NSNW agreement would be whether to seek either outright elimination or a declared limit on the number of warheads, including missile warheads and bombs, for theater nuclear forces.

Any agreement that includes inventory limits or outright total elimination will face a significant verification challenge. Limits or elimination would pose essentially the same problems.

In order to be confident of verifying declared limits or complete elimination, a party must have confidence in the baseline number declaration. For example, given the uncertainty in assumed numbers of Russian non-strategic nuclear warheads, assessed to be in the thousands, are there any measures that could enhance confidence and be considered verifiable?

National technical means would be of value in determining signatures associated with storage and production of warheads, but a complementary "anytime, anywhere" suspect site inspection regime would add teeth to the approach. However, as we have seen with the Chemical Weapons Convention, such a broad right to inspect creates significant issues regarding access to certain areas.

Another measure that would demand significant attention is the level of intrusiveness and size criteria. With warheads as the items of inspection, structures, containers, and vehicles large enough to contain (or to be) a warhead would all have to be considered.

A managed access regime similar in concept to that used in the CWC could be considered as a means to limit intrusiveness to highly suspect areas. However, any limits on locations for inspections creates an opportunity for circumvention that can be exploited by a Party not operating in good faith.

Technological measures would have to be part of any accord that seeks to eliminate or limit warheads so that inspections of containers declared to contain or not to contain warheads could be verified. We have some experience in START and INF with use of radiation detection equipment for specific purposes. Such equipment is effective but somewhat limited in application. Other technical devices exist that are more sophisticated in application, but agreement on their use would be problematic due to the potential for compromising sensitive design information.

Effective Verification

Finally, there is a statutory requirement for an assessment of the verifiability of arms control treaties, agreements, or commitments. That is the responsibility of the State Department's Bureau of Verification and Compliance and must accompany the submission of any treaty to the Senate for its advice and consent to ratification.

We should not underestimate the importance the Senate places on verification of arms control agreements in its approval process. One need only look back at the failed effort on the Comprehensive Test Ban Treaty (CTBT) to confirm this.

An assessment of a treaty's verifiability is based upon several inputs, including an assessment of the degree of confidence to which the provisions of any agreement can be monitored, and identification of plausible cheating scenarios. Moreover, it should include an analysis of the capability of the verification regime to deter cheating or be able to detect significant levels of cheating that could affect the military balance. However, our zeal has to be tempered by the fact that the level of intrusiveness

we seek must be balanced by the level of intrusiveness we are prepared to accept.

Without effective verification provisions, confidence that the provisions of a long-term arms control agreement on NSNW are being observed could be significantly eroded over time.

Potential for Managing the Verification Challenge

There is no clear-cut solution to these challenges. But there is a standard tool kit of verification measures that should be evaluated for applicability in any potential arms control negotiation on NSNW.

Verifiability must be considered as a key element from the beginning of negotiations and carried throughout to completion. The penalty for not doing so could be rejection of a hard fought agreement by the Senate. More significantly, the longer term impact of any agreement lacking strong verification measures could be a reduction in our national security.

This challenge is made more difficult by the requirement that, in order to reach agreement, we must also be prepared to set limits on our negotiating objectives, accept that reciprocity will be a key element, know when to compromise, be prepared for an extended negotiation, and recognize a bad deal.

Endnotes

¹ The views expressed herein are solely those of the author and do not represent the position of the U.S. Department of State or the United States government.

² States of concern were formerly called “rogue states.”

³ In 1991 President George Bush announced unilateral reductions in American NSNW and the elimination of all new NSNW programs. Soviet President Mikhail Gorbachev and Russian President Boris Yeltsin reciprocated in announcements in late 1991 and early 1992.

CHAPTER 8

Obstacles to NSNW Arms Control

Jack Mendelsohn

Any effort to limit U.S. and Russian non-strategic nuclear weapons (NSNW) involves attempting to balance asymmetric equities, asymmetric concerns, and asymmetric policies. In some instances, these asymmetries will clearly impede progress toward any agreement to place constraints on NSNW systems.

Why Limit NSNW?

Will establishing an arms control regime covering NSNW make a difference to U.S. security? A strong case can be made that limiting NSNW would enhance U.S. security for the following reasons.

First, NSNW limits would increase the overall transparency of, and reciprocal knowledge about, the arsenals, nuclear programs and practices of the other party or parties to any NSNW regime. Almost certainly, major steps in nuclear weapons arms control in the future will have to be accompanied by major improvements in access to and transparency of nuclear infrastructures.

Second, parties to an agreement on NSNW would be obliged to enhance the safety and security of their arsenals. This enhancement would result from the demands of the verification provisions (e.g., consolidation of storage sites and improved accounting) and from the generally increased focus on the care and management of an NSNW stockpile subject to international agreements.

Third, an NSNW regime coupled, as is likely, with strategic force agreements, would stabilize the overall size of the nuclear arsenal and decrease the potential for circumventing any strategic arms agreement calling for seriously lower levels (for example, less than 1,500) of deployed strategic warheads.

Finally, an NSNW regime would bestow on those nations party to the agreement a valuable political benefit by demonstrating that the nuclear weapons possessor states were still pursuing arms control. That recognition, in turn, would aid in sustaining the validity and vitality of the international non-proliferation regime.

To obtain these security benefits, however, a number of obstacles — in policy, operations and arms control — will have to be overcome. They are discussed in the following sections.

Policy Obstacles

War-Fighting Strategies

On the policy level, parties to an NSNW agreement would have to consider eliminating war-fighting strategies from current war plans. For example, to the degree that NSNW continue to be viewed as usable in response to regional challenges or threats, it will be difficult to impose controls on these systems. Russian policy regarding NSNW, for example, as included in its most recent national security policy document, calls for the nation to use “all forces and equipment at its disposal, including nuclear weapons, if it has to repel armed aggression if all other means of resolving the crisis have been exhausted or proved ineffective.”¹ This means, of course, that at present Moscow will be reluctant to constrain weapons that have a key role to play in ensuring homeland security.

The previous observations notwithstanding, most serious observers consider it highly unlikely that NSNW will be authorized for use by either a U.S. or Russian President in response to anything but a nuclear attack. If that is the case, then adjusting current nuclear weapons use policy to reflect that reality will ease a major obstacle to limiting NSNW.

First-Use Doctrine

Closely related to the issue of war-fighting strategies is the fact that the United States and Russia, as well as NATO, maintain a first-use policy for nuclear weapons. As with war-fighting strategies, some serious thinking needs to be done as to whether

NATO, the United States, or Russia requires a policy of nuclear first use.²

Maintaining such a policy increases the importance of NSNW and makes meaningful constraints on these systems more problematic. In addition, a first-use policy causes problems within the international Non-Proliferation Treaty (NPT) regime. The non-nuclear member states of the NPT, as a counterpart to their commitment not to acquire nuclear weapons, expect the major nuclear powers to respect (at least rhetorically) their 1995 negative security assurances (NSA) not to use nuclear weapons against them.³

National Security and Political Insecurity

For Russia, NSNW are seen as a useful means of assuaging national security and prestige concerns. They compensate for weakened conventional forces, reply to past and future NATO expansion, protect against NATO intervention in critical regions, and are a response to threats to the homeland from Central Asian or Middle Eastern rogue states and terrorists. As some Russian experts note, “Russia considers [NSNW] as an important political instrument to answer the U.S. and NATO’s efforts to attain military superiority. In particular [NSNW] is considered as an equalizer for NATO’s superiority in conventional weapons.”⁴

NSNW is also seen as a hedge against future developments in China, the majority of whose forces are short and intermediate-range and would have to be taken into account by Moscow in agreeing to any NSNW limits. Ultimately, NSNW are also seen as a potential counter to U.S. national missile defense (NMD) deployment.⁵

For Europeans, NSNW are seen as a response to political and security uncertainties, coupling the defense of Europe to the overall U.S. deterrent. The fear of many Europeans is that without this nuclear “link” — and their demonstrable willingness to preserve it — the United States will abandon the Europeans to their own fecklessness. On the other hand, the Europeans do not seem eager to insist on a continued American nuclear presence

on the continent if the United States is itself prepared to remove the weapons. This would be particularly true if the United States made it clear that in a major crisis it would be prepared to return NSNW to the continent.

Operational Obstacles

Verification

NSNW arms control present two major verification problems. First, NSNW are small and there are unlikely to be any meaningful limits on the systems capable of delivering NSNW weapons, such as artillery tubes and aircraft.

Second, in contradistinction to the strategic arsenal, where there are only so many spaces for missile warheads on a one-shot ICBM missile, dual-capable delivery systems will be essentially unlimited: virtually the entire NSNW arsenal can always be delivered. This means that in order to establish verifiable limits on NSNW, warheads — not delivery systems — will have to be the basic unit of account. As a result, parties to an NSNW treaty will at some point need to establish a NSNW warhead verification regime, probably quite intrusive and including on-site inspection, tagging, production/dismantlement monitoring, and so forth.

The scope and intensity of an NSNW verification regime will make its negotiation difficult. But if the United States and Russia are going to move ahead in arms control, comprehensive and intrusive verification will be the vanguard. As force levels decrease, concern about non-compliant behavior increases (because the significance of successful cheating is greater when arsenals are smaller). Additionally, parties to an NSNW agreement will require and seek greater confidence in their understanding about what is happening throughout the nuclear infrastructure of other players.

In short, greater transparency is not only desirable for NSNW but necessary if the United States and Russia are ever to agree to truly low overall levels of nuclear weapons.

Command and Control

Command and control is not so much an obstacle to NSNW arms control as it is a mutual concern of the nuclear possessor states. There are, for example, worrisome questions about old or non-existent permissive action links, pre-delegated launch authority, security practices at storage sites and during transport, and the possibility of theft or accounting mismanagement of man-portable systems.⁶

A thorough verification and transparency regime could help ameliorate some of the potential command and control problems. For example, a low level of permitted NSNW systems would most likely force older systems out of the arsenal. Additionally, in order to participate in an extensive on-site inspection regime it almost certainly would be necessary to strengthen and modernize accounting, storage and transportation practices.

Dual-Purpose Delivery Systems

Strategic nuclear delivery systems (ICBMs and SLBMs) are generally devoted solely to strategic forces. Conventionally-armed artillery tubes, aircraft and cruise missile air-frames, on the other hand, are all inherently NSNW-capable. This dual-capability does not mean that NSNW cannot be effectively limited but it does suggest that limiting delivery systems (which was the original approach to dealing with strategic weapons in SALT I and II) will not be the best approach to controlling NSNW.

Diversity of Weapon Types

NSNW vary widely in nature from atomic demolition munitions (ADMs) to artillery shells, torpedoes and SLCMs. This complicates devising a comprehensive NSNW arms control agreement but is not an insurmountable obstacle to limiting these weapons. It does suggest, however that NSNW weapons could be, and probably should be, disaggregated for purposes of arms control. This means that some types of NSNW might be banned (those most easily misappropriated like ADMS or artillery shells), some might be permitted under separate limits (such as SLCMs), and others (perhaps air-launched weapons, e.g. gravity bombs and ALCMs) might be subject to a numerical limit.

Another possible approach to limiting NSNW might be by basing mode. Air-delivered could be the only basing mode permitted; alternatively, it could be the only basing mode banned.⁷ In any case, if the United States and Russia are serious about instituting NSNW limits, the weapons will probably have to be disaggregated and weapons limited by systems/type/basing mode, rather than under one “equal aggregate” limit.

Diversity of Ranges

NSNW ranges vary from backpack (or “suitcase”) ADMs delivered to the target in person, to cruise missiles with the capability to destroy targets thousands of kilometers away. This diversity of ranges could complicate NSNW arms control if the weapons were to be constrained by delivery system. Range diversity would not have the same impact, however, if NSNW were limited by warhead number.

One sensitive aspect of the range issue is the definition of “non-strategic.” After all, one country’s “non-strategic” nuclear weapons may well be another nation’s strategic ones. As Russian commentators point out, “...during deep reductions of nuclear weapons the role of both long-range SLCMs and [NSNW] capable of reaching the territory of the other country grows significantly.”⁸ Again, it might be possible to avoid irresolvable philosophic discussions over strategic/non-strategic weapons if limits are based on warheads rather than on ranges or type of delivery system.

Diversity of Possessor States

In addition to the United States and Russia, NSNW possessor states (or entities) include China, France, India, Israel, Pakistan and NATO.⁹ Additionally, if potential proliferators such as Iraq, Iran or North Korea appear on the international scene, they are likely to develop or have access to weapons that the United States, at least, would consider NSNW.

Because “unfriendly” NSNW-possessor states are so numerous, Russia, for certain, will consider the impact of any negotiated NSNW arms control agreement in terms of its overall national

security environment. If major U.S.-Russian reductions (as opposed to high ceilings) were to be agreed, for example, Moscow would factor in the NSNW forces of NATO in arriving at an acceptable level. As NATO expands eastward, more of Russia becomes vulnerable to NSNW if deployed in the new member states. Similarly, as NATO expands, Russia's ability to hold NATO hostage with NSNW becomes more important – if not critical – to Russia's perception of its own security.

Russia could well seek from the outset to include China – whose NSNW could strike Russian territory — in any negotiations, but it is unlikely that Peking will be interested in entering the arms control arena through the NSNW door.¹⁰ In general, because of the wide variation in stockpile size and differing perceptions of vulnerability to NSNW, it is not likely third countries will seek to become involved in any NSNW negotiations (at least in the early stages).

The United States, on the other hand, faces no real threat to its homeland from foreign-based NSNW (although U.S. allies and expeditionary forces could be subject to NSNW threats).¹¹ However, short-range attacks by non-state actors using non-strategic nuclear weapons remain a potential, if perhaps unlikely, threat.

Smaller Arsenals Could Lead to Increased Reliance on NSNW

As the overall size of strategic nuclear forces decreases, the relevance of and reliance on NSNW could increase, particularly for Russia. If strategic forces are reduced to 1,500 or less, for example, the perception of the importance NSNW provides deterrence could be enhanced. Additionally, if the United States is perceived as attempting to neutralize Russian strategic forces with national missile defenses, Moscow's ability to hold U.S. expeditionary forces and NATO allies hostage with NSNW becomes a more attractive — if not the only — alternative to bolster confidence in its ability to deter the United States.

This same shift to increased reliance on NSNW might result, again in the Russian case, as conventional forces decrease in size or are perceived to be under-resourced, weak and demoralized.

Another development that might enhance the value of NSNW in Russian eyes would be the need to counter hard target capable U.S. precision-guided munitions (PGMs).

Sophistication of Conventional Capabilities:

The United States and Russia have different options for responding to non-nuclear challenges, including, in the case of the United States, precision-guided conventional munitions, real-time battlefield intelligence, significant force projection capabilities, and a degree of acceptance by the international community for interventionary activities. None of these assets is enjoyed by the Russians.

Russia seems particularly sensitive to the PGM issue. On the one hand, Russian commentators point out that “the inferiority of Russia in modern PGMs is...four-to-one compared to the United States alone and six-to-one compared to NATO as a whole.”¹² On the other hand, they maintain that “If the potential adversary acquires PGMs capable of an effective disarming strike, such a step becomes quite attractive because a PGM strike does not cause those negative consequences that a nuclear strike does. In this sense, improvements in the accuracy and effectiveness of conventional weapons are destabilizing factors.”¹³

These experts “believe the only possible way to solve this problem is the linkage of the reduction of strategic and tactical nuclear arms with the revision of the CFE Treaty [which calls for limits on conventional systems]. For example,...Russia has to seek limitations on deployment of tactical and auxiliary aviation... (tactical bombers, AWACs, reconnaissance drones)... We believe that PGM is a much bigger threat to Russia’s strategic arsenal than U.S. NMD.”¹⁴

Arms Control Obstacles

Discrepancy/Uncertainty in Numbers of NSNW

Some analysts believe there may be much as a 14 to 1 discrepancy in Russia’s favor in numbers of NSNW. Under START II, the U.S. operational stockpile of 5,000 strategic nuclear weapons will include approximately 1,000 non-strategic

nuclear weapons, and the hedge stockpile of 2,500 warheads will include some B61 and W80 warheads, which are normally considered NSNW. The inactive reserve of some 2,500 warheads will also include 400 NSNW warheads.¹⁵

According to open sources, in 1998 Russia had about 4,000 NSNW in service with 12,000 in reserve or awaiting elimination.¹⁶ Alexei Arbatov in 1999 estimated that Russia had 21,700 NSNW in 1991, would eliminate about 13,700 by the end of the decade, and the remaining 4,000 would be obsolete (at the end of their design lives) by 2003.¹⁷

A critical problem in pursuing NSNW arms control will be to establish a baseline from which to design an acceptable set of reductions, limitations and/or ceilings. This could be difficult and contentious, as the national security establishments in both the United States and Russia have demonstrated varying degrees of resistance to the highly intrusive forays into the nuclear infrastructure required for such transparency.

Change of Emphasis in Verification

Strategic nuclear force verification, as in the SALT and START treaties, involves, for the most part, delivery systems with attributed warheads on operational forces. This approach was possible because of the unique nature of most strategic nuclear delivery systems.

NSNW verification, on the other hand, would likely require cradle-to-grave tracking—production/storage/elimination—of actual warheads in the stockpile rather than attributed ones on delivery systems. This introduces a new level of intrusiveness required to deal with lower levels of smaller, dual-capable NSNW systems as well as lower levels of strategic weapons.

Aggregate or Disaggregate NSNW

One key question involving NSNW arms control is whether to limit non-strategic weapons as a group or to establish constraints on separate categories of NSNW. For example, if strategic forces are reduced to approximately 1,500 and all other NSNW

are constrained, should there continue to be separate, rather loose limits on SLCMs in the strategic nuclear forces agreements?

Another potential “aggregate/disaggregate” question involves nuclear air defense and ballistic missile defense (BMD) warheads which are still in the active Russian arsenal. There has been discussion at times of a combined offensive/defensive warhead limit for strategic forces.¹⁸ Should this approach be applied to NSNW weapons, and should air defense or BMD warheads count against NSNW limits?¹⁹

Aggregate or Disaggregate NSNW and Strategic Weapons

While aggregating NSNW and strategic warheads into a single overall nuclear arsenal limit has theoretical appeal, it is not likely to be a practical or acceptable real-world approach. Because of the existing asymmetries in force composition, an aggregate limit of NSNW and strategic warheads would probably result in unacceptable force tradeoffs for one party or another.

If, for example, the aggregate NSNW and strategic total were too low—say 2,000 nuclear weapons—Moscow would be at a considerable disadvantage with fewer NSNW weapons *vis-à-vis* its other potential strategic adversaries. If, on the other hand, the aggregate NSNW/strategic total were kept high to accommodate a larger number of Russian NSNW forces, this would prove an unattractive and costly option for the United States and would be perceived as a decision calculated to avoid a reduction in the size of nuclear forces.

Relevance of NSNW Limits to Third Countries

If aggregated, the combined level of NSNW and strategic warheads would be much too high to expect the involvement of third countries in any potential arms control agreement. If strategic and non-strategic weapons were disaggregated and the NSNW level set low, then states which possess mainly NSNW forces would perceive residual U.S. or Russian strategic weapons as even more threatening.

As a result, it is unlikely that third countries will choose to participate in NSNW discussions. In the U.S. case, the absence

of third countries should not present a problem. The Russians, on the other hand, may well believe they need to take Chinese nuclear forces into account, particularly as those forces are expected to expand and improve significantly in the next decade.

Are There Opportunities?

While the policy, operational, and arms control obstacles to limits on NSNW are clearly significant, they are by no means insurmountable. Moreover, the national and international security benefits would be considerable. It remains to be seen, however, whether a coincidence of political will and negotiating opportunity will be available in the next few years to deal with these issues.

Endnotes

¹ Russian National Security Concept, adopted January 10, 2000.

² See "NATO's Nuclear Weapons: The Rationale for 'No First Use'" by Jack Mendelsohn, *Arms Control Today*, July/August 1999 and "NATO's Nuclear Weapons Policy and the No-First-Use Option," Thomas Graham, Jr. and Jack Mendelsohn, *The International Spectator*, October-December 1999.

³ Under the Negative Security Assurances, the five declared nuclear powers commit not to use or threaten to use nuclear weapons against non-nuclear weapons states which are members in good standing of the NPT. Since only one non-nuclear nation does not belong to the NPT (Cuba), the NSA's are in effect a commitment not to use nuclear weapons against 180+ states.

⁴ "NATO Expansion and the Nuclear Reduction Process," Anatoli Diakov, Timur Kadyshchev, Eugene Miasnikov and Pavel Podvig, Center for Arms Control, Energy and Environmental Studies at MIPT, April 1999.

⁵ It is worth considering the possibility that U.S. NMD deployments could drive Russians to renounce meaningful qualitative constraints on most nuclear forces. INF and the 1991 unilateral initiatives are most relevant in this context, but so is the renunciation of the ban on MIRVs on land-based missiles (in START II) and the abandonment of some useful transparency measures. These decisions in the strategic arena

would make it more difficult to place meaningful constraints on NSNW.

⁶ This issue was dramatized by General Lebed's claim in 1997 that a number of "suitcase-sized" nuclear weapons had gone astray in Russia.

⁷ See for example, Stephen P. Lambert and David A. Miller, "Russia's Crumbling Tactical Nuclear Weapons Complex: An Opportunity for Arms Control," INSS Occasional Paper 12, USAF Institute for National Security Studies, April 1997.

⁸ Diakov, et. al.

⁹ The UK has retired and dismantled all its NSNW.

¹⁰ The overwhelming majority of China's land- and air-based nuclear weapons (ca. 400 out of 450) have ranges under 5500 km.

¹¹ NSNW in the hands of non-state actors presents another problem that cannot be dealt with through traditional arms control agreements.

¹² Nikolai Sokov, "Tactical Nuclear Weapons Elimination: Next Step for Arms Control," *The Nonproliferation Review*, Winter 1997.

¹³ Diakov, et. al.

¹⁴ *Ibid.*

¹⁵ "NRDC Nuclear Notebook," *The Bulletin of the Atomic Scientists*, July/August 1996.

¹⁶ See Harald Müller and Annette Schaper, PRIF, "Types, carriers and locations of tactical nuclear weapons." Draft dated April 20, 2000.

¹⁷ In *The Nuclear Turning Point*, Harold A. Feiveson editor, Brookings Institution Press, 1999, pp. 305-324.

¹⁸ See, for example, Sergei Rogov's statement on this subject in "The Last Arms Control Package," delivered at the Carnegie Endowment in December 2000: "A common ceiling for offensive missiles and ABM interceptor missiles could be established with no more than 600 launchers."

¹⁹ This approach would only work if BMD systems were of the traditional land- or sea-based launcher/interceptor type. It is unlikely a formula could be found that would aggregate directed energy weapons with nuclear warheads.

CHAPTER 9

Russia and Arms Control for Non-Strategic Nuclear Forces

*David S. Yost*¹

The question of whether Russian views and policies could present obstacles to arms control for non-strategic nuclear forces (NSNF) must be placed in the broader context of Russia's national security posture and competing views on the utility of nuclear weapons. This essay provides a brief overview of current debates in Russia on nuclear weapons before examining several factors that suggest that Moscow's interest in arms control arrangements affecting its NSNF is likely to be limited. Indeed, while Moscow has maintained its demands since the 1950s that all U.S. nuclear forces in Europe be removed, its willingness to retain existing arms control limits (such as the Intermediate-Range Nuclear Forces (INF) Treaty and less formal obligations such as the 1991-1992 unilateral commitments on NSNF) may be in decline. The prospects of Moscow endorsing new negotiated constraints on Russian NSNF therefore appear doubtful.

Three Current Debates on Nuclear Weapons in Russia

At least three debates appear to be underway in Russia today about how much importance — and what roles — to assign to nuclear weapons. The first concerns the revolution in military affairs (RMA). The Russians generally agree that a revolution in military affairs based on information systems and precision-strike weapons is underway. Marshal Sergeyev and others have warned that Russia may fall irretrievably behind in this competition. Part of the debate concerns to what extent nuclear weapons enable Russia to buy time, to hold its own while waiting for an economic recovery that would enable it to compete effectively. General Vladimir Slipchenko, among others, has argued that the current preoccupation with nuclear

weapons is leading Russia to focus on the last RMA rather than the new one.²

The second debate centers on the Kvashnin-Sergeyev power struggle over military policy, underway since 1997 and increasingly exposed to public view since July 2000. The Chief of the General Staff, General Anatoly Kvashnin, has been arguing for fairly radical cutbacks in strategic nuclear forces to support conventional force modernization; and he has been opposed by Marshal Sergeyev, the Defense Minister, with no clear and final outcome yet. Nikolai Sokov, one of the leading experts on Russia and nuclear weapons, has suggested that Kvashnin's victory would mean that it would be "highly unlikely that the increasingly popular plans to rely on tactical nuclear weapons vis-à-vis NATO conventional power" would be acted upon.³

It is possible, however, that Kvashnin has bureaucratic objectives in addition to — or perhaps even instead of — his substantive policy proposals. Mikhail Tsyarkin, an authority on decision-making in Russia's military establishment, has noted that the Russian Federation Security Council decisions in April 1999 to develop new NSNF went beyond the usual "conventional forces versus strategic nuclear forces" formulation of the Kvashnin-Sergeyev struggle, and may imply an advantage for Kvashnin: "The addition of tactical nuclear weapons to the conventional forces-strategic nuclear forces pairing possibly indicates that Sergeyev's doctrine has been found wanting."⁴ Despite various signs of Kvashnin's probable ascendancy (including, for example, his popularity after the June 1999 Pristina airport episode, and the removal during the summer of 2000 of many of Sergeyev's supporters from the senior ranks of the military), the actual consequences of a Kvashnin victory are speculative.⁵

The third debate has been characterized as the "maximalist-minimalist" argument. Nikolai Sokov has used these terms to characterize a divide between the currently predominant support in Russia for high reliance on nuclear weapons, including non-strategic or operational-tactical nuclear weapons, and the minority that appears unenthusiastic about them. In Sokov's

words, “the ‘minimalists’ display a rather ambiguous attitude toward tactical nuclear weapons. They seem to avoid public statements on this subject and rarely offer ideas on how exactly they could be used... Caution is easy to explain by the domestic political situation in Russia, as well as the uncertainty in its international situation; the enlargement of NATO has significantly increased the perceived value of tactical nuclear weapons, and arguing against them is ‘politically incorrect,’ to use a popular American expression.”⁶

Why is arguing against non-strategic nuclear weapons “politically incorrect” in Russia today? What explains the evidently high level of support for NSNF? Conversely, why are the Russians likely to display only limited interest in arms control for NSNF?

Four Reasons for Limited Interest in NSNF Arms Control

At least four factors explain why Russian interest in arms control for NSNF may be limited in the foreseeable future. The first is Russia’s conventional military weakness. This weakness is largely a function of the country’s economic problems, which are unlikely to be overcome for many years. Russian authorities have asserted that the military is in a “transitional” period of high reliance on nuclear forces, pending an economic turnaround that will enable Russia to compete in non-nuclear military capabilities, particularly advanced RMA systems.⁷ Marshal Sergeyev has tried to make a virtue of necessity in this regard. He has implied that going slow in the rebuilding of military strength could offer Moscow foreign policy advantages because a “sharp acceleration” of Russia’s military recovery “could be taken by other countries as a militarization.”⁸

The second factor is NATO’s conventional military superiority. In Russian eyes, the Atlantic Alliance’s military posture currently towers above other external security threats. As Alexei Arbatov, the vice chairman of the Defense Committee of the Duma, put it in a July 2000 paper, “During the next 10 years, in addition to holding a conventional superiority in Europe of approximately 2:1, or even 3:1, NATO will also possess a

substantial nuclear superiority in both tactical and strategic nuclear forces... However, due to the failures of Russian military reform from 1992-1997 and the chronic under-funding of Russian defense from 1997-1999 (in constant prices, during these 3 years, the military budget has fallen by 50 per cent), qualitative factors (training, combat readiness, command and control, troop morale, and technical sophistication of weapons and equipment, etc.) are presently even more favorable to NATO than pure numerical ratios might indicate.”⁹

The third reason looks beyond NATO’s capabilities to its perceived intentions. Russian officials have asserted that their country has grounds to fear NATO. As Defense Minister Sergeyev put it in an article in December 1999, “The fullest and most graphic significance of these threats to Russia’s national security manifested itself in the course of NATO’s expansion to the East and their aggression against Yugoslavia... From a military-political point of view, this war signified, in essence, the beginning of a new era of not just military, but also general history. An era of the open, military-force dictate of the U.S. in relation to other countries, to include its allies.”¹⁰

Since NATO conducted *Operation Allied Force* against the Federal Republic of Yugoslavia from March through June 1999, many Russians have speculated that Russia may become NATO’s next target. According to Arbatov, “For the first time since the mid-1980s, within operational departments of the General Staff and Armed Forces, the Security Council, and Foreign Ministry crisis management groups, and in closed sessions of the *Duma*, serious discussions took place concerning [potential] military conflict with NATO. All of a sudden the apocalyptic scenarios of a Third World War... which were presumed to have been permanently discarded with the end of the Cold War, returned to the table as practical policy making and military operational planning issues.”¹¹

Since *Operation Allied Force*, NATO has been widely perceived in Russia as having a high propensity to use force. Russians have described nuclear weapons as the main instrument that could inhibit U.S. or NATO interference in regional conflicts

involving Russia — notably in Chechnya or elsewhere in the Caucasus, or in the Caspian Sea area.

The fourth reason for a low level of interest in NSNF arms control is that Russian military doctrine and policy assign several important functions to Russia's nuclear weapons and to NSNF in particular. Indeed, depending on how they are counted, at least nine functions for Russia's NSNF have been discussed in the professional Russian military literature in recent years, and these discussions seem to have become more intense since early 1999 — that is, since NATO's intervention in the Kosovo crisis.

The general functions for nuclear weapons in Russian military doctrine are to deter aggression and, if that fails, to repel it. The most authoritative statements appear to be deliberately vague about the circumstances in which Russia might use nuclear weapons. In January 2000, the national security concept indicated that “The Russian Federation envisages the possibility of employing military force to ensure its national security based on the following principles: use of all available forces and assets, including nuclear weapons, in the event of need to repulse armed aggression, if all other measures of resolving the crisis situation have been exhausted and have proven ineffective.”¹²

In April 2000, the new military doctrine stated that “The Russian Federation reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and (or) its allies, as well as in response to large-scale aggression utilizing conventional weapons in situations critical to the national security of the Russian Federation.”¹³

Nine Functions Attributed to Russia's NSNF

Russian military authorities have in recent years attributed nine functions to the country's nuclear forces, including NSNF. Some of these functions and operational concepts are closely inter-related and overlap with others, but they all specify some type of utility.

The first is to deter external aggression. NATO has been explicitly named as a potential threat with nuclear relevance. “The presence and high level of combat readiness of nuclear weapons is the best guarantee that the U.S. and NATO will not try to establish their ‘order’ in our country as well, like the way it was done in Yugoslavia.”¹⁴ Colonel-General Leonid Ivashov explained the function of the nuclear portions of the military doctrine as follows: “We are sending warning signals, as it were, in response to the moves by NATO and the USA today: don’t push us.”¹⁵

Russia is also concerned about deterring proliferants armed with non-nuclear weapons of mass destruction (WMD). According to Sergey Rogov, Director of the USA and Canada Institute, “Nuclear weapons also can deter the use of other weapons of mass destruction [WMD], including by nonnuclear-weapon countries.”¹⁶ Three Russian military authors have looked beyond deterrence to operations: “Besides traditional deterrence of nuclear aggression through the threat of assured destruction, the use of nuclear weapons in regional conflicts is envisaged as a means for actively countering the possible use of not only nuclear weapons, but also other weapons of mass destruction and conventional weapons.”¹⁷

The second function is to serve as an “equalizer” or “counter-balance” to the conventional force superiority of potential adversaries. That is, NSNF might compensate for Russia’s conventional military shortcomings so that Russia’s armed forces would not be defeated in combat. “Under certain conditions the most effective regional deterrence can be ensured by means which on the one hand would be powerful enough to inflict significant damage on the aggressor and thereby to carry out the real threat, and on the other hand not so powerful that the effect of self-deterrence and of their nonuse arises. Therefore the importance of nonstrategic nuclear forces for our defense grows objectively under present conditions... The presence of nonstrategic nuclear means of destruction in the RF [Russian Federation] Armed Forces permits restoring the disturbed balance of general-purpose forces under present conditions.”¹⁸

Some Russian analysts have acknowledged, however, that the utility of Russia's NSNF could be limited in contests with NATO or China. With regard to NATO, some Russian military writers have concluded, the Alliance's conventional military superiority might prove to be insurmountable: "It is clear that by the end of this phase, the aggressor's overall superiority in relation to the known laws of armed combat, could only increase. This also would apply to non-strategic nuclear forces... From this it inevitably follows that, starting from such a position of a 'controlled' exchange with the enemy with 'selective' nuclear strikes against military targets, while continuing to use conventional weapons, Russia's Armed Forces inevitably will lose in this phase."¹⁹

With regard to China, Beijing's ability to tolerate losses might neutralize a Russian strategy relying on NSNF: "If we look at a potential Russian-Chinese conflict from this aspect, we will have to give up the illusion that the threat of employing tactical nuclear weapons definitely is capable of deterring the opponent. A high readiness for sacrifices will allow the Chinese side to raise the stakes in this nuclear poker game."²⁰

The third function is to help maintain the "combat stability" of forces engaged in an operation. According to Russian military authorities, "combat stability" enables forces to continue to conduct operations despite enemy actions. "Combat stability of troops (forces) is usually understood as their ability to accomplish the assigned missions under conditions of the enemy's counteraction."²¹

This concept seems at first glance to be similar to what Americans called "intra-war deterrence" during the Cold War. It should be noted, however, that Russian theorists see nuclear forces as simply contributing to "combat stability," not as furnishing it outright, and assign an even greater role in "combat stability" to conventional forces.²² Moreover, some Russian conceptions of "combat stability" see strategic and non-strategic nuclear forces as mutually reinforcing.²³

The fourth function of NSNF is to make possible the “de-escalation” of conventional conflicts. Rather than describing the use of nuclear weapons as a form of “escalation,” the customary metaphor in NATO countries, Russian military theorists suggest that Moscow’s NSNF use could provide for “de-escalation.” That is, Russian experts hypothesize that limited use of nuclear weapons would convince the adversary to reconsider his plans and to accept an end to the conflict without further combat. According to a 1999 article in the prominent journal *Military Thought*, “Fulfilling the de-escalation function is understood to mean actually using nuclear weapons both for showing resolve as well as for the immediate delivery of nuclear strikes against the enemy. It is advisable to execute this mission using non-strategic (above all operational-tactical) nuclear weapons, which can preclude an ‘avalanching’ escalation of the use of nuclear weapons right up to an exchange of massed nuclear strikes delivered by strategic assets. It seems to us that cessation of military operations will be the most acceptable thing for the enemy in this case.”²⁴

The uncertainties regarding escalation control and crisis management that were so prominent in NATO thinking about limited use of nuclear weapons during the Cold War are sometimes acknowledged by Russian military authorities,²⁵ as in the following example: “In the process of drawing up the nuclear deterrence plan, the question arises without fail about the aggressor’s response to the defending side’s limited use of tactical nuclear weapons and the expected results of an exchange of nuclear strikes. Therefore in the course of producing a decision, the need arises to assess expected results of nuclear strikes for each nuclear deterrence option *with consideration of enemy opposition.*”²⁶

The closely related fifth function of NSNF is to make it possible for Russia to conduct limited nuclear strikes in a regional (or theater) war while avoiding an escalation to intercontinental nuclear operations or any other geographical extension of the conflict. Russian analysts have suggested, for example, that NSNF could be used “in the course of military operations...to compensate for enemy superiority on individual strategic

(operational) axes without crossing the ‘threshold of activation’ of strategic nuclear weapons, the massive use of which is fraught with mutual destruction of opposing sides and even with the disappearance of mankind.”²⁷

The sixth function of Russia’s nuclear forces, including NSNF, is to inhibit the intervention of outside powers (such as the United States or NATO) in regional conflicts involving Russia. In a sense, this function amounts to a restatement of the first (deterrence of external aggression). Some Russians have nonetheless highlighted the imperative of ruling out any NATO intervention in the Chechnya conflict analogous to NATO’s actions in the Kosovo conflict: “Russia would make it clear that no one would be allowed to intervene in Russian domestic affairs. The West would be taught that Russia is not Yugoslavia. This is how Russia thinks today.”²⁸ (Incidentally, some Russians in late 1999 and early 2000 reported that “official representatives of the Defense Ministry” had been “hinting at the possibility of using low-yield tactical nuclear warheads in Chechnya.”²⁹ The speculation about possible use of NSNF in Chechnya led to Colonel-General Valeriy Manilov, Deputy Chief of the General Staff, explicitly ruling it out in February 2000: “Naturally this can’t be used as the scale and the character of such a threat does not require the use of nuclear weapons.”³⁰)

The seventh function of NSNF is to substitute for advanced long-range non-nuclear precision strike systems that, Russian authorities hold, “have begun to approach the role of nuclear weapons” in their significance.³¹ Indeed, some Russian military experts hold that “Precision weapons are coming close to and in some cases even surpass tactical nuclear weapons in terms of target kill effectiveness. The conditional barrier which separated nuclear and conventional weapons for a long time essentially already has been demolished.”³²

According to a Russian military analysis, “Modern day long-range, including non-nuclear, strike resources of the eventual enemy allow him to effectively accomplish a sufficiently wide range of offensive missions, including those like complete isolation of the theater of war, combating the second strategic

echelon, disorganizing and disrupting military production. Under these conditions, our natural argument in the battle for strategic initiative is still nuclear weaponry.”³³ Similarly, Alexei Arbatov has concluded that “development and deployment of sophisticated military capabilities, analogous to that of NATO’s massive, precision-guided, conventional air and naval potential, would for a long time be beyond Russia’s financial capacity. Therefore, the most probable Russian response, a response that is already taking shape, would be to place even greater emphasis on a robust nuclear deterrence, relying on enhanced strategic and tactical nuclear forces and their C3I systems.”³⁴

The eighth function of NSNF is to constitute assets for the high command to change the correlation of forces in specific theaters or sectors of military operations. This evidently overlaps with the function of compensating for conventional military inferiority. “The presence of non-strategic nuclear weapons in Russia’s Armed Forces provides an offset for the disruption of the balance of general-purpose forces, and their use in the course of military operations will nullify enemy superiority in particular strategic or operational sectors. A two-tier [strategic and non-strategic] system of nuclear deterrence increases the military security of the Russian Federation and enables a flexible response to changes in the military-strategic situation through the rational use of different components of nuclear forces in given situations.”³⁵

The ninth function of NSNF is to compensate, at least to some extent, for reductions in Russia’s strategic nuclear forces. “Against the background of continuing reductions in strategic nuclear weapons, the role of forces equipped with operational-tactical and tactical nuclear weapons is increasing.”³⁶

While the deterrence of external aggression stands out as the primary function of Russia’s nuclear forces, including NSNF, with “de-escalation” and other functions gaining greater relevance in war, various political roles have also been apparent. Moscow has relied on nuclear arms to uphold Russia’s status in international politics, to draw attention to Russia’s continuing

importance in Eurasia, and to serve as instruments for diplomatic gesticulation in crises. Russians have at times, for instance, sought to influence the decisions of other powers by pointing out that Moscow could withdraw from legal or political commitments affecting nuclear forces and/or re-deploy or reconfigure NSNF and other nuclear forces or even threaten nuclear strikes.

Other Indications of Utility for NSNF in Russia

The relevance of published military doctrine and the professional military literature may be limited and scenario-dependent, but there are at least five other forms of evidence that show the Russians attach great (and perhaps growing) importance to NSNF.

NATO-Russia Founding Act Negotiations

The first resides in the Russian preoccupations during the 1996-1997 negotiations about the NATO-Russia Founding Act, which included the Alliance's commitments about military arrangements affecting the new Allies. The Russians insisted that NATO's December 1996 "three no's" commitment about nuclear weapons deployments on the territory of new allies ("no intention, no plan, and no reason" for such deployments) be supplemented in the May 1997 NATO-Russia Founding Act by a "fourth no" excluding any NATO use of the former Warsaw Pact nuclear storage sites or any construction of new nuclear weapons storage facilities. The NATO allies therefore added that they had no need "to change any aspect of NATO's nuclear posture or nuclear policy — and do not foresee any future need to do so. This subsumes the fact that NATO has decided that it has no intention, no plan, and no reason to establish nuclear weapon storage sites on the territory of those members, whether through the construction of new nuclear storage facilities or the adaptation of old nuclear storage facilities."³⁷

The Russian Foreign Minister during the Founding Act negotiations, Yevgeny Primakov, made clear in his memoirs that these were important points for Moscow. Primakov praised Malcolm Rifkind, the British Foreign Secretary, for

understanding during the negotiations “that Russia had a right to be concerned about the prospect of nuclear weapons being located closer to its borders.”³⁸

This part of the Founding Act negotiations reveals that, despite the complete absence of any discernible interest in NATO in deploying nuclear weapons on the territory of new allies, Russia considered such NSNF deployments a genuine threat. This implies that the Russians may have attributed even more operational and political importance to NATO’s NSNF than did the NATO Allies themselves. If this was the predominant Russian view, it might have stemmed from the factors discussed earlier, including Russia’s conventional military weakness, and the many functions assigned to NSNF in Russian military analyses.

Some Russians have, moreover, expressed a lack of confidence in the enlargement-related military commitments in the Founding Act: “The Russia-NATO Founding Act includes the principle that NATO will refrain from deploying nuclear weapons and large military formations on the territory of new members. But no comforting illusions should be cherished on this score. In crisis situations the operational capabilities of NATO combined forces will be increased by the placing at their disposal of the military infrastructure of the countries of Central and Eastern Europe. Airfields, ports, arms depots and lines of communication will virtually make their territory a springboard for large-scale combat operations by the alliance against Russia. The bloc’s tactical aircraft may possibly be able to reach key civil and military-industrial targets in western Russia.”³⁹ This reference to NATO’s “tactical aircraft” could concern the Alliance’s conventional air capabilities, including precision-strike weapons, as well as its nuclear systems. The only U.S. NSNF remaining in NATO Europe are air-delivered weapons.

Military Exercises

The second form of evidence consists of exercises. The *Zapad 99* exercise in June 1999 was “the largest exercise since the creation of the Russian armed forces,” according to Defense Minister Sergeev.⁴⁰ *Zapad 99* assumed that NATO had

attacked the Kaliningrad oblast using forces and operational concepts similar to those it employed in *Operation Allied Force* against Yugoslavia. The Russian troops could not withstand NATO's offensive thrust with conventional means, so they used nuclear weapons "to 'repair' the situation. The simulated use of nuclear weapons included two Tu-95 [Bear] and two Tu-160 [Blackjack] heavy bombers launching nuclear ALCMs against Poland and the United States."⁴¹ As Marshal Sergeyev put it, "The exercise tested one of the provisions of Russia's military doctrine concerning a possible use of nuclear weapons when all other measures are exhausted, including the use of conventional forces. We did pursue such an option. All measures were exhausted, our defense proved to be ineffective, an enemy continued to push into Russia and that's when the decision to use nuclear weapons was made."⁴²

Subsequent exercises have reportedly also simulated the use of nuclear weapons — nuclear-armed cruise missiles launched from heavy bombers in a regional conflict. This circumstance underscores how artificial and arbitrary distinctions between strategic and non-strategic nuclear weapons can be. Although the professional military literature includes elaborate terminological discussions, with some authorities favoring the terms "theater nuclear weapons" and "operational-tactical nuclear weapons" instead of "tactical,"⁴³ the Russians evidently perceive no doctrinal obstacle to employing a nominally strategic weapon for a non-strategic (or theater or regional) mission.⁴⁴ It should be noted, however, that the Russians also report more extensive testing and employment in exercises of non-nuclear variations of air-launched cruise missiles that previously had only nuclear-armed versions on the Tu-95MS Bear H and Tu-160 Blackjack bombers.⁴⁵

NSNW Modernization

The third form of evidence consists of laws and policy decisions relating to nuclear weapons and NSNF in particular. As Alexei Arbatov has pointed out, "on March 18, 1999 a new law, On Financing the Defense Contract for Strategic Nuclear Forces, was adopted by the Duma and approved by the President. . . . Of equal importance, this law emphasizes tactical nuclear forces as

the prime candidate for first use against a large conventional attack. The Iskander, a new, tactical ballistic missile . . . and a new, naval tactical nuclear weapons system were specifically discussed as nuclear options.”⁴⁶

The next month, on 29 April 1999, the Security Council, chaired by Vladimir Putin, “decided to extend the service life of nuclear warheads for tactical delivery vehicles and, according to Putin’s briefing, discussed the concept for their use. A number of reports indicated that the Security Council decided to develop a new, low-yield nuclear warhead.”⁴⁷ According to Pavel Felgengauer, a well-informed journalist, “The program aims to make a limited nuclear war possible in theory. So that Russia can carry out precision low-yield ‘nonstrategic’ nuclear strikes anywhere in the world similarly to the way the United States is using cruise missiles and ‘smart bombs’ in Europe and Asia today...the new nuclear weapons’ main ‘appeal’ will be their ability to explode with an exceptionally low yield — from several tens of tonnes to 100 tonnes of TNT equivalent... It is being proposed to create up to 10,000 new low- and super-low-yield tactical nuclear weapons ‘to counter NATO expansion in Europe.’ . . . There is every indication that NATO’s strikes on Yugoslavia have helped the Ministry of Atomic Energy finally win official authorization to begin the practical implementation of its plans.”⁴⁸

What systems would be equipped with the new warheads? While many reports have suggested that the new warheads might be fitted on the Iskander missile or fired from the 320mm howitzer, some analysts have offered a different hypothesis. In view of the 1991-92 commitments about tactical land-based systems, Nikolai Sokov has suggested, “these new warheads — if, indeed, a decision to develop them has been made — are intended for strategic delivery vehicles (such as heavy bombers and/or ICBMs), which would then become usable in regional conflicts.”⁴⁹

Russian military analyses during and since NATO’s air campaign in the Kosovo conflict (March-June 1999) reveal a certain shift in preoccupations. Prior to NATO’s air campaign,

as during the negotiation of the NATO-Russia Founding Act in 1996-1997, the Russians displayed a relatively high level of concern about the hypothetical (and in fact nonexistent) prospect of NATO NSNF being deployed on the soil of new NATO allies. Since NATO's air campaign against the Federal Republic of Yugoslavia, concern about U.S. and Allied long-range non-nuclear precision-strike capabilities has displaced, to some extent, concern about NATO's NSNF.

Implementing the PNIs

The fourth form of evidence consists of Russia's lack of transparency about the implementation of the 1991-1992 commitments to withdraw and eliminate certain types of NSNF. On the official level, the Russians avoid specifics about numbers and related issues. In April 2000, for example, Igor Ivanov, the Russian Foreign Minister, said, "Russia also continues to consistently implement its unilateral initiatives related to tactical nuclear weapons. Such weapons have been completely removed from surface ships and multipurpose submarines, as well as from the land-based naval aircraft, and are stored at centralized storage facilities. One third of all nuclear munitions for the sea-based tactical missiles and naval aircraft has been eliminated. We are about to complete the destruction of nuclear warheads from tactical missiles, artillery shells and nuclear mines. We have destroyed half of the nuclear warheads for anti-aircraft missiles and for nuclear gravity bombs."⁵⁰

This statement, made at the NPT review conference in New York, was apparently no more informative than official Russian statements in the NATO-Russia Permanent Joint Council (PJC) and in other forums. In May 1998 it was reported that "At a recent meeting to exchange information on tactical nuclear weapons, the Russian delegation's presentation was 'extremely fuzzy' and failed to provide any illumination on the fate of some 10,000 to 12,000 of its tactical nuclear weapons, according to NATO participants."⁵¹ According to another account, "NATO officials said that they had hoped to learn how many [non-strategic] weapons the Russians still have and what safety procedures they use, but that the information presented by the Russians was extremely vague."⁵²

According to a NATO press release about a NATO-Russia PJC meeting in October 2000, "NATO and Russia continued their reciprocal exchanges on nuclear weapons issues, including doctrine and strategy."⁵³ Published accounts suggest that this was the first PJC meeting to deal with nuclear weapons issues since April 1998. There are no indications, however, that the Russian delegation was more forthcoming about Russia's NSNF posture than the Russian Foreign Minister was at the United Nations in April 2000.

The estimates of numbers of Russian NSNF vary widely in Russian and Western published sources. In 1998 experts associated with the Natural Resources Defense Council estimated that Russia had 4,000 deployed NSNF warheads, plus perhaps 12,000 in reserve or awaiting dismantlement.⁵⁴ In 1998 Nikolai Sokov estimated that Russia had a total of 8,400 NSNF warheads.⁵⁵ According to a July 2000 paper by Alexei Arbatov, in "the early 1980s" the Soviet Union had "10,000 strategic and 30,000 tactical nuclear weapons," while currently Russia's "Nuclear forces consist of 5,000 strategic and approximately 2,000 tactical warheads (which due to serial obsolescence will be reduced to around 1,000-1,500 in the next 10 years)."⁵⁶

Russia is believed to have made much less headway than the United States in dismantling NSNF in accordance with the 1991-1992 commitments, owing in part to resource limitations and the emphasis in U.S.-Russian Cooperative Threat Reduction activities on dismantling strategic nuclear delivery systems, and probably also owing to convictions about the potential future utility of NSNF for Russia. In February 1997 Walter Slocome, then the U.S. Under Secretary of Defense for Policy, testified as follows: "While Russia pledged in 1991 to make significant cuts in its non-strategic nuclear forces and has reduced its operational NSNF substantially, it has made far less progress thus far than the US, and the Russian non-strategic arsenal (deployed and stockpiled) is probably about ten times as large as ours."⁵⁷ In March 1998, Edward Warner, then U.S. Assistant Secretary of Defense for Strategy and Threat Reduction, repeated this estimate, adding that "Russian officials recently stated that the

1991-1992 NSNF pledges would be fully implemented by the year 2000, which would reduce the Russian advantage to about three or four to one.”⁵⁸ In February 1998, Alain Richard, the French Minister of Defense, said that Russia’s “stockpile of so-called tactical [nuclear] weapons...is estimated to be between 10,000 and 30,000 warheads, and we have only fragmentary information on their control.”⁵⁹

The Alliance has repeatedly noted, as in December 1996, that “At a time when NATO has vastly reduced its nuclear forces, Russia still retains a large number of tactical nuclear weapons of all types. We call upon Russia to bring to completion the reductions in these forces announced in 1991 and 1992, and to further review its tactical nuclear weapons stockpile with a view towards making additional significant reductions.”⁶⁰

There is little firm evidence, however, about what Russia has done to implement the 1991-1992 commitments. According to a 1997 report by the Congressional Research Service, “Russian officials contend that they have begun to dismantle warheads removed from these nonstrategic nuclear weapons and that they can do so at a rate of 2,000 warheads each year. The United States has little direct evidence to support Russia’s claims because U.S. officials have not observed the dismantlement process. Nevertheless, some have stated that Russia’s force of nonstrategic nuclear weapons may have declined by more than 25% from its peak of around 25,000 warheads in the late 1980s.”⁶¹

What do the Russian commitments amount to? In October 1991, Soviet President Mikhail Gorbachev declared that “All nuclear artillery munitions and nuclear warheads for tactical missiles shall be eliminated. Nuclear warheads for air defense missiles shall be withdrawn from the troops and concentrated in central bases, and a portion of them shall be eliminated. All nuclear mines shall be eliminated. All tactical nuclear weapons shall be removed from surface ships and multi-purpose submarines. These weapons, as well as nuclear weapons on land-based naval aviation, shall be stored in central storage sites and a portion shall be eliminated.”⁶²

In January 1992, Russian President Boris Yeltsin restated and slightly modified Gorbachev's commitment: "During the recent period, production has been stopped of nuclear warheads for land-based tactical missiles, and also production of nuclear artillery shells and nuclear mines. Stocks of such nuclear devices will be eliminated. Russia is eliminating one-third of sea-based tactical nuclear weapons and one-half of nuclear warheads for anti-aircraft missiles. Measures in this direction have already been taken. We also intend to halve stocks of air-launched tactical nuclear munitions."⁶³

Gorbachev and Yeltsin made similar commitments in that both promised to eliminate all nuclear artillery warheads, all warheads for land-based tactical missiles, and all nuclear mines. However, whereas Gorbachev said that "a portion" of the warheads for anti-aircraft missiles would be eliminated, Yeltsin said that "one-half" of them would be. Whereas Gorbachev said "a portion" of the warheads "from surface ships and multi-purpose submarines . . . as well as nuclear weapons on land-based naval aviation" would be eliminated, Yeltsin said "one-third of sea-based tactical nuclear weapons" would be eliminated. While introducing a vague precision regarding the Gorbachev-promised reductions in some weapons categories ("one-half" or "one-third" instead of "a portion"), Yeltsin offered an additional commitment that Gorbachev had not made: "to halve stocks of air-launched tactical nuclear munitions."

Gorbachev had proposed that "on the basis of reciprocity, it would be possible to withdraw from combat units on frontal (tactical) aviation, all nuclear weapons (gravity bombs and air-launched missiles) and place them in centralized storage bases."⁶⁴ In Yeltsin's version of this proposal, "The remaining tactical air-launched nuclear armaments could, on a reciprocal basis with the United States, be removed from combat units of the frontline tactical air force and placed in centralized storage bases."⁶⁵ Both versions of this proposal would have signified the elimination of the remaining U.S. nuclear weapons presence in Europe — that is, the fulfillment of one of Moscow's goals since the 1950s. The United States had ruled out such an arrangement

from the outset. In his September 1991 speech that preceded the Soviet and Russian commitments, U.S. President George Bush said, “We will, of course, ensure that we preserve an effective air-delivered nuclear capability in Europe. That is essential to NATO’s security.”⁶⁶

It should be noted that Ivanov’s April 2000 statement amounts to an assertion that the commitments as formulated by Yeltsin have been almost completely fulfilled. The publicly articulated commitments do not, however, include any information exchanges, verification measures, baseline numbers, or legally binding deadlines. The deadlines (or goals) for the completion of the NSNF reductions reside not in the public statements by Gorbachev and Yeltsin in 1991 and 1992, but in clarifications furnished by Moscow in high-level bilateral and multilateral meetings. This circumstance explains the wording of the communiqué issued in December 2000 by NATO’s Defense Planning Committee and Nuclear Planning Group: “We also recalled the drastic reductions of NATO’s nuclear forces in the new security environment, and renewed our call on Russia to complete the reductions in its non-strategic nuclear weapons stockpile, as pledged in 1991 and 1992 for implementation by the end of the year 2000.”⁶⁷ Russia’s NSNF commitments (like those of the United States) remain, however, simply political declarations of intentions, not legally binding treaty commitments.

The Future of Arms Control Agreements

This circumstance brings us to the fifth form of evidence: recurrent discussions in Russia about possibly abandoning the 1991-1992 commitments, the INF Treaty, and the first Strategic Arms Reduction Treaty (START I), because they may conflict with Russia’s national security requirements.

Several published examples can be found of Russians suggesting that, under certain threatening international circumstances, Russia might have to abandon, modify or renegotiate the 1991-1992 commitments — including one by Igor Rodionov when he was Defense Minister in 1996,⁶⁸ and one by Admiral Vladimir Kuroedov, Chief of the Navy, in 1998.⁶⁹ In 1997, an

unattributed article in a Russian military journal indicated that the NSNF “regime” nominally created by the 1991-1992 commitments by Russia and the United States would eventually have to be replaced or modified: “With respect to the substance of the resolution, the longer it is put off, the more likely it will be resolved in favor of tactical nuclear weapons. This is connected with a change of generations at key posts in the military department. In this case the Russian side will undertake to revise unilateral obligations on tactical nuclear weapons, at the very least with respect to dates of their implementation.”⁷⁰

According to Nikolai Sokov’s reading of the extensive Russian press coverage of the 29 April 1999 Security Council meeting devoted to nuclear weapons, it decided that “specific nuclear modernization decisions are postponed until the next year, 2000... This particularly concerns tactical nuclear weapons; in the year 2000 it will decide whether the 1991 informal regime limiting these weapons should be abandoned or not.”⁷¹ Sokov has reported that “Russia may want to revise the 1991-92 regime by allowing naval tactical nuclear weapons, possibly at the expense of gravity bombs, although no formal proposal to that effect has been made.”⁷² Russian interview sources suggest that there has been a fair amount of behind-the-scenes unofficial talk about abandoning the 1991-92 commitments, because gravity bombs are considered less useful than ground- and sea-launched missiles, among other non-strategic delivery systems.⁷³

Foreign Minister Ivanov’s April 2000 statement should be recalled in this regard: “We are about to complete the destruction of nuclear warheads from tactical missiles, artillery shells and nuclear mines.” Even though, according to Ivanov, these types of nuclear weapons will soon be eliminated from the Russian armed forces, professional military discussions simply assert that “operational-tactical” nuclear strikes could be conducted by “missile troops” and “artillery,” as if the 1991-1992 commitments about such nuclear forces did not exist — or perhaps may not apply in future circumstances.⁷⁴ The Russian armed forces have evidently continued to train, exercise, and evaluate units to maintain their readiness to employ NSNF, even when the warheads have been placed in central storage facilities.

According to Rose Gottemoeller's interview with a Russian naval official, "Our captains are still judged by how well their sailors are trained to handle nuclear weapons, even though nuclear weapons are no longer carried day to day."⁷⁵

Rather than assuming that the 1991-1992 commitments are a binding constraint on Russia's military options, Russian military analysts seem to ignore them. This pattern applies not only to NSNF nominally cut by "one-half" or "one-third," but also with regard to the nuclear mines, artillery, and tactical missiles that have ostensibly been nearly entirely eliminated. According to a 1999 article in *Military Thought*, "These operations will include nuclear strikes by missile troops, artillery and aviation and the use of nuclear landmines. . . . In accordance with the accepted classification of the scale of use of operational-tactical nuclear weapons, nuclear strikes are subdivided into single, multiple and massed."⁷⁶

Some Russians have advocated that Russia withdraw from the INF Treaty or seek its renegotiation, because of Russia's changed geostrategic situation, including NATO enlargement. The argument goes beyond asserting that deploying ground-based IRBMs (prohibited by the treaty) would bring about — to quote a Russian author — "a radical change in psychology of the leadership of NATO countries with respect to ideas of bloc enlargement and so on. An important role can be played even by a serious discussion of the idea of rejecting the INF Treaty in different variations, from total withdrawal from the Treaty under the new geopolitical conditions to its modernization, allowing us to have intermediate-range missiles with the obligation of basing the restored ballistic missiles exclusively on RF [Russian Federation] territory."⁷⁷

Although the INF Treaty originated as a U.S.-Soviet treaty, it has implications broader than that bilateral relationship. It obviously affects U.S. and Russian military options with regard to third parties. According to a Russian analysis, the INF Treaty "closes an opportunity for us to have such continental-class nuclear weapons which would reliably perform functions of ensuring Russia's security for the entire Eurasian spectrum of hypothetical

continental TVD's [theaters of military operations] (including Japan)."⁷⁸ It is reasonable to infer that "the entire Eurasian spectrum" also includes China. The artificiality of the "strategic" and "nonstrategic" categories is thus once again apparent in relation to the INF Treaty and potential Russian security requirements in East Asia. Rather than perceiving incentives for new NSNF arms control arrangements, some Russian analysts question the continued utility of the INF Treaty.

As for START I, this treaty prohibits the deployment of long-range nuclear-armed ALCMs on medium-range bombers.⁷⁹ Some Russian military analysts find this an unwelcome constraint on Russia's operational flexibility, because — to quote Nikolai Sokov's analysis of the Russian military literature on this point — "aircraft are versatile, being able to use both conventional and nuclear short-range missiles and air-launched cruise missiles (ALCMs). Even more important, even in a nuclear role they can be employed for substrategic missions, in line with the latest Military Doctrine, unlike the SRF [Strategic Rocket Forces] and the Navy."⁸⁰

In short, in the current context some Russians — particularly in military circles — find existing nuclear arms control constraints irksome. It nonetheless seems unlikely that Russia will withdraw from these constraints in the foreseeable future. At least in the immediate future, Russia is likely to wait to see what decisions the United States makes about the ABM Treaty and other arms control agreements. Partly because of Russia's limited capacity to pursue new military programs, owing to its economic weakness, and the perceived advantages of letting the United States bear the political onus of withdrawing from (or seeking modifications in) the ABM Treaty and/or other arms control accords, Russia may be influenced to some extent by U.S. choices. In Sokov's judgement, "To a large extent, the choice for or against deployment of sea- and/or land-based tactical nuclear weapons will be determined by the overall legal context of nuclear arms reductions. If the trend toward unilateralism in this area obtains, then Russia will probably choose the second option, especially if it turns out to be more cost-effective. If Russia and the United States remain within the

bounds of arms control regimes, then a withdrawal from the 1991 regime will be unlikely.”⁸¹

In the meantime, the Russians have evidently become cautious about accepting new arms control obligations that could further constrain their NSNF options.⁸² Moscow has always interpreted the 1992 Tashkent Treaty of the Commonwealth of Independent States (CIS) on Collective Security as a collective defense pact, particularly in view of the mutual-defense obligation specified in Article 4.⁸³ Russia now interprets its obligation to defend its CIS allies as entailing a potential requirement to deploy nuclear weapons on their soil in certain circumstances. According to William Potter, “This policy shift, evident after April 1999, is apparent in quiet but effective Russian diplomacy to weaken the Central Asian Nuclear-Weapons-Free Zone Treaty that is currently under negotiation.”⁸⁴

Conclusion

The point of this essay is not that the Russians have no incentives to pursue arms control for non-strategic nuclear forces, but that they have countervailing incentives to retain and improve their weapons in this category. It may therefore be difficult to engage them in successful negotiations affecting their NSNF — whether the goal is formalizing the 1991-92 commitments in a treaty and adding a verification regime,⁸⁵ or seeking further reductions in and/or the elimination of specific types of NSNF.

The incentives for the Russians to engage in arms control for NSNF extend beyond the usual theoretical advantages of arms control — transparency, predictability, stability, confidence-building, and so on. One of the chief Russian incentives to be interested in arms control for non-strategic nuclear forces no doubt remains one of the main goals of Moscow’s foreign policy since the 1950s: to get U.S. nuclear weapons out of Europe. Under Soviet and Russian rule, Moscow has made it clear in various negotiations — SALT, START, INF, etc. — that it regards the U.S. nuclear weapons presence as contrary to its interests. Russia has continued the Soviet tradition of arguing

for a unilateral withdrawal of the U.S. non-strategic nuclear force presence in Europe. In November 2000, Yuriy Kapralov, the head of the Russian Foreign Ministry's department for security and disarmament, told a news conference that "The Russian initiative to radically reduce nuclear arsenals also stipulates negotiations on a pullout of U.S. non-strategic nuclear weapons from Europe."⁸⁶

It is not clear that the United States and its allies will find a negotiation with Russia on NSNF in their interests. If such a negotiation took place, however, the remaining U.S. nuclear weapons in Europe would constitute one of America's most important means of leverage in bargaining with Moscow. If the U.S. nuclear presence was withdrawn from Europe unilaterally, the Russians would have fewer incentives to accept any arms control measures, including a verification and transparency regime.⁸⁷

Proposals for a unilateral withdrawal of the U.S. nuclear forces in Europe are sometimes associated with questionable assumptions. In April 2000, for example, William Potter and Nikolai Sokov argued that "it may be desirable for the United States to declare its intention unilaterally to return to U.S. territory all of its air-based TNW [tactical nuclear weapons] currently deployed in Europe. This pronouncement, which would lead to the elimination of all U.S. TNW in Europe, could go a long way toward dispelling Russian fears about NATO and could help to revive the spirit of the parallel 1991 initiatives."⁸⁸

The extent to which this initiative would "go a long way toward dispelling Russian fears about NATO" might be limited, however, for Russia's greatest misgivings about the Alliance concern its enduring political cohesion; its demographic, economic, and military potential, including the large U.S. and still significant British and French strategic nuclear arsenals; its policies such as an "open door" regarding further enlargement; and its advanced non-nuclear strike capabilities and demonstrated effectiveness in employing them. Indeed, in an effort to infer a rational basis for such an initiative on NATO's part, Russian analysts might well conclude that their hypothesis

that U.S. and Allied non-nuclear precision strike systems are approaching (or exceeding) the effectiveness of nuclear weapons would be vindicated by the U.S. withdrawal of the remaining NSNF in Europe. The Russian fears about NATO might, in other words, remain virtually unchanged or perhaps even be deepened.

It is nonetheless plausible that the Russians would be pleased if the United States unilaterally withdrew its remaining NSNF from Europe if they interpreted it as a lessening of U.S. will and commitment, a decrease in NATO's political-military capabilities, and the elimination of the "coupling" and "transatlantic link" and other political-military functions of U.S. NSNF in Europe. The Russians and key observers in NATO Europe might consider the withdrawal of the U.S. nuclear presence evidence of America's decreased willingness to defend its Allies with nuclear means. Moscow might then expect its European neighbors to become more deferential to Russia, in view of the perceived change in the balance of power and commitments, with unpredictable consequences. The withdrawal of U.S. NSNF could thus have counterproductive and even dangerous geopolitical consequences, because of the conclusions that could well be drawn in Russia and Europe about U.S. security commitments.

The risks and costs associated with a unilateral withdrawal of U.S. NSNF from Europe would therefore outweigh the putative gain of assuaging Russian anxieties and suspicions about NATO. Moscow's expressed fears are at any rate generally based on misperceptions and misrepresentations about NATO.⁸⁹ The withdrawal of the remaining U.S. NSNF could create an unstable situation in Europe by sending a message of U.S. disengagement and encouraging Russian great power aspirations and behavior. Unilateral withdrawal of U.S. NSNF would imply that Russian NSNF do not need to be balanced with even a minimum amount of comparable capabilities. This would be a huge misstatement about NATO's security interests and requirements. The Alliance would in effect be accepting Russian arguments that (despite NATO's conciliatory policies, non-aggressive record toward Russia, and structural need for laboriously achieved unanimity

among its 19 members for any operation other than self-defense) NATO is so inherently powerful via other means that it could give up U.S. NSNF in Europe — as if Russian perceptions of NATO as interventionist and hegemonic could only be diminished by this sacrifice of U.S. and Alliance capability and the severing of this transatlantic link.

Comparable problems burden other proposals for a withdrawal of U.S. NSNF. Lewis Dunn and Victor Alessi recently proposed that the United States withdraw its remaining NSNF from Europe in return for Moscow's agreement to "corral" its NSNF at central storage sites (thereby, it is argued, reducing the risk of diversion and narrowing Russian deployment and use options). Dunn and Alessi called for "coordinated unilateral actions" by Russia and the United States, rather than the purely unilateral U.S. action proposed by Potter and Sokov. However, one of the results would be the same: the elimination of the U.S. nuclear presence in Europe. As with the Potter-Sokov proposal, the Dunn-Alessi proposal is grounded in hopes that a U.S. NSNF withdrawal would elicit Russian restraint and transparency.⁹⁰ In practical terms, however, the U.S./Russian NSNF asymmetry in numbers would probably be magnified; reliable verification of the numbers of Russian NSNF inside (and outside) the "corrals" might well be impossible, especially in a crisis, when it would matter most; and NATO would have lost the political-military "coupling" and other security functions of U.S. NSNF in Europe.

Nor is it clear that a unilateral withdrawal of the remaining U.S. NSNF in Europe would, in the words of Potter and Sokov, "help to revive the spirit of the parallel 1991 initiatives." The spirit of the 1991-1992 initiatives was hopeful improvisation during a period of uncertainty and perceived urgency, in view of events in the Soviet Union and the difficulties in devising a formal NSNF arms control regime. In retrospect, Russians generally dismiss the hopefulness of the early 1990s regarding Russian cooperation with the United States and the West as a whole as "romantic" and "naive."⁹¹ In the intervening period, Russian conventional forces have drastically deteriorated, and the utility of NSNF in Russian eyes has correspondingly mounted. It is therefore doubtful whether a unilateral removal of the remaining U.S.

NSNF in Europe would somehow “jump-start” negotiations with Russia about its NSNF.

It is far more likely that the Russians would simply “pocket” the unilateral withdrawal of the U.S. NSNF as something they had always demanded. Under both Soviet and Russian rule, Moscow has considered the U.S. nuclear presence in Europe not simply threatening to its security, but politically illegitimate, a symbol of U.S. intrusion into Moscow’s rightful sphere of influence.⁹² From a Russian perspective, the unilateral withdrawal of the U.S. nuclear presence in Europe would be rectifying an old injustice and imposition, rather than offering a signal for Russian NSNF disarmament. For the Alliance, even if Russian NSNF numbers could thereby be numerically reduced, there would be little or no strategic gain. Russia would then hold a monopoly on NSNF from the Atlantic to the Chinese border. Moscow’s NSNF holdings would be unverifiable, but would probably remain in the thousands. If drastic reductions in NATO NSNF since 1991 have not led Moscow to resolve the massive uncertainties in the West about Russia’s NSNF, why should it be expected that complete withdrawal (entirely removing the Alliance’s leverage) would bring about a response that NATO could regard as satisfactory?

In other words, while the remaining U.S. NSNF in Europe constitute some of America’s most important means of bargaining leverage, their value in this regard is inescapably limited by Russia’s overriding national security priorities. To a significant extent, as indicated earlier, the Russians attribute utility to their NSNF for reasons other than NATO’s NSNF.⁹³ Russian interests in using NSNF to deter powers other than NATO (such as China), to substitute for advanced non-nuclear precision-strike systems, and to “de-escalate” regional conflicts (among other functions attributed to NSNF) would not be modified by a unilateral withdrawal of U.S. NSNF from Europe.

Endnotes

¹ David S. Yost is a Professor at the Naval Postgraduate School, Monterey, California. The views expressed are his alone and do not represent those of the Department of the Navy or any U.S. government agency. Special thanks are owed to those who commented on earlier drafts of this paper, though they naturally bear no responsibility for the views expressed: Bruce Ianacone, Rob Irvine, Jeff Larsen, Joseph Pilat, David Shilling, Bill Siegert, Nikolai Sokov, and Françoise Thom.

² “In this connection it should be noted that the RF Defense Council concept for RF Armed Forces reform and its option for optimizing the structure of branches and combat arms for the period up to 2005 clearly is directed toward the past war.” Major General Vladimir Ivanovich Slipchenko, *Future War* (Moscow: Moscow Social Science Foundation, Publishing Center for Scientific and Educational Programs, 1999), in FBIS, CEP20000313000001, p. 57 of translation.

³ Nikolai Sokov, “‘Denuclearization’ of Russia’s Defense Policy? Debate in the Russian MOD Hints at Policy Reversal,” July 2000, available at <http://www.cns.miis.edu/pubs/reports/denuke.htm>.

⁴ Mikhail Tsypkin, “Military Reform and Strategic Nuclear Forces of the Russian Federation,” *European Security*, Spring 2000, p. 37.

⁵ For background, see Steven J. Main, “*It’s The Thought Process That First Went to War*,” ADVAB 1122 (Camberley, England: Royal Military Academy Sandhurst, Conflict Studies Research Centre, September 2000). This paper consists of a translation and extended analysis of an article published in *Krasnaya Zvezda* on 4 May 2000 by General Kvashnin and General M. Gareyev, the President of the Academy of Military Science. Ostensibly a discussion of the USSR’s strategic leadership during World War II, the article actually represents a salvo in the continuing Kvashin-Sergeyev struggle.

⁶ Nikolai Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), p. 180.

⁷ “Nuclear equalizing of regional imbalances in conventional arms is for Russia just about the only possible, objectively forced measure for supporting the defense capability in the transitional period. Only overcoming the systemic crisis and achieving sufficiently steady paces of economic growth will allow us to place the emphasis on non-nuclear deterrence.” Colonel S.V. Kreydin, “Problems of Nuclear Deterrence: The Nuclear Potential’s Combat Stability,” *Voyennaya Mysl*, July-August 2000, in FBIS, CEP20000816000366.

⁸ Igor Sergeyev, “The Main Factors which Determine Russia’s Military-Technical Policy on the Eve of the 21st Century,” *Krasnaya Zvezda*, 9 December 1999, in FBIS, CEP19991208000053.

⁹ Alexei G. Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, Marshall Center Paper no. 2 (Garmisch-Partenkirchen, Germany: George C. Marshall Center, July 2000), pp. 5-6. The basis for Arbatov's reference to NATO's "substantial...superiority" in tactical nuclear forces is unclear. Arbatov himself attributes "approximately 2,000" NSNF warheads to Russia in this paper, and other sources (both Russian and Western) give much higher NSNF numbers for Russia. By comparison, unconfirmed published reports state that the number of remaining U.S. NSNF in Europe (gravity bombs for U.S. and allied aircraft) is in the range of 480 to 700. (For the lower number, see Robert S. Norris and William M. Arkin, "U.S. Nuclear Weapon Locations, 1995," *Bulletin of the Atomic Scientists*, November/December 1995, pp. 74-75; for the higher, see Alan Riding, "NATO Will Cut Atom Weapons for Aircraft Use," *New York Times*, 18 October 1991, p. A1.)

¹⁰ Igor Sergeev, "The Main Factors which Determine Russia's Military-Technical Policy on the Eve of the 21st Century," *Krasnaya Zvezda*, 9 December 1999, in FBIS, CEP19991208000053.

¹¹ Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, pp. 8-9.

¹² Russia's National Security Concept, *Nezavisimoye Voennoye Obozreniye*, 14 January 2000, in FBIS, FTS20000116000515.

¹³ Russian Federation Military Doctrine, approved by Russian Federation Presidential Edict of 21 April 2000, published in *Nezavisimaya Gazeta*, 22 April 2000, in FBIS, CEP20000424000171, section I, par. 8.

¹⁴ Major General Vladimir Grigoryev, Colonel Nikolay Radayev, and Lieutenant Colonel Yuri Protasov, "An 'Umbrella' Instead of a 'Shield' — Do Nuclear Weapons Have a Future?" *Armeyskiy Sbornik*, 1 February 2000, in FBIS, CEP 20000503000116.

¹⁵ Radio interview with Colonel-General Leonid Ivashov, head of the Russian Defense Ministry Directorate of International Cooperation, 8 February 2000, in FBIS, CEP 20000208000358.

¹⁶ Sergey Rogov, "How Much Do Lost Illusions Cost? Russia Must Not Reject Nuclear Deterrence," *Vek*, 28 July 2000, in FBIS, CEP20000727000425.

¹⁷ Colonel C.A. Ivasik, Colonel A. S. Pisyaukov, and Colonel A. L. Khryapin, "Nuclear Weapons and Russian Military Security," *Voyennoye Mysl*, July-August 1999, UKTRANS 00594.

¹⁸ Vladimir Sivolob and Mikhail Sosnovskiy, "A Reality of Deterrence: Algorithms for Nuclear Weapon Use Should Become a Component

Part of Military Doctrine,” *Nezavisimoye Voyennoye Obozreniye*, 22 October 1999, in FBIS, CEP 19991029000006.

¹⁹ Lieutenant Colonel E.N. Akhmerov, Colonel N.F. Kravchenko, and Colonel I.I. Sobchenko, “On the Direction of Regional Nuclear Deterrence,” *Voyennaya Mysl*, July-August 2000, in FBIS, CEP 20000816000369. These authors suggest that Russia could nonetheless achieve a stalemate without further escalation owing to NATO’s “heightened sensitivity to losses.” The authors conclude that conventional force improvements “would be much more expedient” than NSNF modernization.

²⁰ Andrey Piontkovskiy and Vitaliy Tsygichko, “A Holey Nuclear Umbrella,” *Segodnya*, 31 May 2000, in FBIS, CEP 20000531000257.

²¹ Colonel S.V. Kreydin, “Problems of Nuclear Deterrence: The Nuclear Potential’s Combat Stability,” *Voyennaya Mysl*, July-August 2000, in FBIS, CEP20000816000366.

²² “In contrast to ‘survivability,’ ‘combat stability’ is ensured not only and not so much by the nuclear forces themselves, as much as by the Armed Forces as a whole and by the general purpose forces in particular.” Colonel S.V. Kreydin, “Problems of Nuclear Deterrence: The Nuclear Potential’s Combat Stability,” *Voyennaya Mysl*, July-August 2000, in FBIS, CEP20000816000366.

²³ “What should the required level of nuclear escalation of defense be to guarantee its strategic stability? Would operational-tactical and tactical nuclear weaponry be sufficient, or would more powerful reserves of strategic nuclear forces be required? The dialectics here are such that nuclear resources in the TVD (operational-tactical and tactical nuclear weapons) would support the combat stability of the strategic nuclear forces, and if needed, the latter could support the former in the interests of supporting their own combat stability.” Colonel S.V. Kreydin, “Problems of Nuclear Deterrence: The Nuclear Potential’s Combat Stability,” *Voyennaya Mysl*, July-August 2000, in FBIS, CEP20000816000366.

²⁴ Major General V. I. Levshin, Colonel A.V. Nedelin, and Colonel M. Ye. Sosnovskiy, “Use of Nuclear Weapons To De-escalate Military Operations,” *Voyennaya Mysl*, May-June 1999, in FBIS, FTS19990602001557.

²⁵ For background, see David S. Yost, “The History of NATO Theater Nuclear Force Policy: Key Findings from the Sandia Conference,” *Journal of Strategic Studies*, vol. 15 (June 1992).

²⁶ Lt. Gen. P. I. Dubok and Colonel N.A. Zakaldayev, “On Some Issues of Command and Control of Missile Troops and Artillery in Accomplishing Regional Nuclear Deterrence,” *Voyennaya Mysl*,

November-December 1999, in FBIS, CEP19991210000001; emphasis in the original.

²⁷ Vladimir Sivolob and Mikhail Sosnovskiy, "A Reality of Deterrence: Algorithms for Nuclear Weapon Use Should Become a Component Part of Military Doctrine," *Nezavisimoye Voyennoye Obozreniye*, 22 October 1999, in FBIS, CEP 19991029000006.

²⁸ Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, p. 21.

²⁹ Viktor Sokirko, "The Face of National Security. Russia to Provide Itself with New Military Doctrine in the Next Few Days," *Moskovskiy Komsomolets*, 27 January 2000, in FBIS, FTS20000127000926. See also Andrei Piontkowsky, "Russia Goes Nuclear over Chechnya," *PRISM: A Biweekly on the Post-Soviet States*, vol. 5, issue 17 (24 September 1999).

³⁰ Colonel-General Valeriy Manilov, Deputy Chief of the General Staff, televised interview on 5 February 2000, in FBIS, FTS20000205000260.

³¹ "In this way, the main distinctive feature of the new phase of the revolution in military affairs lies in the sharp increase in the effectiveness of traditional [armaments] and the appearance of principally new types of non-nuclear armaments, to include those based on new physical principles. As a result, their role in the overall system of intergovernmental relations, as the events in the Balkans showed, in their significance have begun to approach the role of nuclear weapons." Igor Sergeev, "The Main Factors which Determine Russia's Military-Technical Policy on the Eve of the 21st Century," *Krasnaya Zvezda*, 9 December 1999, in FBIS, CEP19991208000053.

³² Major General Vladimir Ivanovich Slipchenko, *Future War* (Moscow: Moscow Social Science Foundation, Publishing Center for Scientific and Educational Programs, 1999), in FBIS, CEP20000313000001, p. 11 of translation.

³³ Colonel S.V. Kreydin, "Problems of Nuclear Deterrence: The Nuclear Potential's Combat Stability," *Voyennaya Mysl*, July-August 2000, in FBIS, CEP20000816000366.

³⁴ Alexei G. Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, Marshall Center Paper no. 2 (Garmisch-Partenkirchen, Germany: George C. Marshall Center, July 2000), p. 17.

³⁵ Ivasik.

³⁶ Ivasik.

³⁷ Founding Act on Mutual Relations, Cooperation and Security between the North Atlantic Treaty Organization and the Russian Federation, signed at Paris, 27 May 1997, p. 7.

³⁸ Yevgeny Primakov, *Years in Big Politics*, translated and abridged by J. B.K. Lough, report F70 (Camberley, England: Royal Military Academy Sandhurst, Conflict Studies Research Centre, June 2000), pp. 4, 13.

³⁹ Colonel Andrey Kulakov, "Russia: NATO's Geopolitical Ambitions," *Armeyskiy Sbornik*, November 1998, published in English as Andrey Kulakov, *NATO's Geopolitical Ambitions*, UK Translation 591 (Camberley, England: Royal Military Academy Sandhurst, Conflict Studies Research Centre, November 1998), pp. 2-3.

⁴⁰ Press Conference with Defense Minister Marshal Igor Sergeev, 9 July 1999, transcript by Federal News Service, Inc., p. 1.

⁴¹ Nikolai Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), p. 171.

⁴² Press Conference with Defense Minister Marshal Igor Sergeev, 9 July 1999, transcript by Federal News Service, Inc., p. 3.

⁴³ "In our view, use of the term 'tactical nuclear weapons' is illegitimate, inasmuch as it describes only one (and not the most important) aspect of employment — range of delivery of the nuclear warhead." Major General V. I. Levshin, Colonel A.V. Nedelin, and Colonel M. Ye. Sosnovskiy, "Use of Nuclear Weapons To De-escalate Military Operations," *Voyennaya Mysl*, May-June 1999, in FBIS, FTS19990602001557.

⁴⁴ For that matter, Western nuclear powers evidently also perceive few doctrinal obstacles in the nominal designations of particular weapons. Britain has assigned "strategic" and "sub-strategic" roles to its Trident SLBMs. France has since 1991 placed all its nuclear-armed aircraft previously given "prestrategic" designations under the command of the Strategic Air Forces (*Forces Aériennes Stratégiques*). U.S. B-61 bomb types have been considered both "strategic" and "non-strategic," depending on their mission and configuration.

⁴⁵ Piotr Butowski, "Russia's Strategic Bomber Fleet Achieves New Heights," *Jane's Intelligence Review*, 1 March 2000; and "Tactical Exercises Held to Prepare Strategic Aircraft for Use in Regional Conflicts," *Nezavisimoye Voyennoye Obozreniye*, 21 April 2000, in BBC Summary of World Broadcasts, 3 May 2000.

⁴⁶ Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, pp. 17-18.

⁴⁷ Nikolai Sokov, "Overview: The April 1999 Russian Federation Security Council Meeting on Nuclear Weapons," 29 June 1999, NIS Nuclear Profiles Database, Center for Nonproliferation Studies, Monterey Institute of International Studies.

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- ⁴⁸ Pavel Felgengauer, "Limited Nuclear War? Why Not! Russia's New Defense Concept Could Include Precision Use of Nuclear Weapons," *Segodnya*, 6 May 1999, in FBIS, FTS 19990506000851.
- ⁴⁹ Nikolai Sokov, "Overview: The April 1999 Russian Federation Security Council Meeting on Nuclear Weapons," 29 June 1999, NIS Nuclear Profiles Database, Center for Nonproliferation Studies, Monterey Institute of International Studies.
- ⁵⁰ Igor Ivanov, Russian Foreign Minister, statement at NPT Review Conference, New York, 25 April 2000; text available at www.basicint.org/nuclear/revcon2000/nuk_00revcon_gen_russia.htm.
- ⁵¹ William Drozdiak, "The Next Step for NATO: Handling Russia," *Washington Post National Weekly*, 11 May 1998, p. 15.
- ⁵² Michael R. Gordon, "Uneasy Friendship: Expanding NATO Courts Russia," *New York Times*, 28 May 1998, p. A12.
- ⁵³ Press Statement, PJC Ambassadorial Meeting, 30 October 2000, available at www.nato.int.
- ⁵⁴ W. M. Arkin, R. S. Norris, and J. Handler, *Taking Stock — Worldwide Nuclear Deployments 1998* (Washington, DC: Natural Resources Defense Council, 1998), p. 27, cited in Harald Müller and Annette Schaper, "Appendix: Types, Carriers and Locations of Tactical Nuclear Weapons," in Patricia Lewis, ed., *Tactical Nuclear Weapons: Preliminary Research Findings* (Geneva: United Nations Institute for Disarmament Research, April 2000), p. 33.
- ⁵⁵ Nikolai Sokov, "Estimate of Total Russian (Non-deployed) Substrategic Nuclear Weapons," Appendix of William C. Potter, "Update on Developments Regarding Tactical Nuclear Weapons Disarmament," Presentation to the UN Secretary-General's Advisory Board on Disarmament Matters, New York, 28-30 June 1999, cited in Harald Müller and Annette Schaper, "Appendix: Types, Carriers and Locations of Tactical Nuclear Weapons," in Patricia Lewis, ed., *Tactical Nuclear Weapons: Preliminary Research Findings* (Geneva: United Nations Institute for Disarmament Research, April 2000), p. 33.
- ⁵⁶ Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned from Kosovo and Chechnya*, pp. 4-5.
- ⁵⁷ Walter B. Slocombe, Under Secretary of Defense for Policy, statement before the Senate Governmental Affairs Subcommittee on International Security, Proliferation and Federal Services, Hearing on Nuclear Weapons and Deterrence, 12 February 1997, p. 4 of text furnished by the Department of Defense.
- ⁵⁸ Edward L. Warner III, Assistant Secretary of Defense (Strategy and Threat Reduction), statement before the Strategic Forces Subcommittee, Senate Armed Services Committee, Hearing on Nuclear

Deterrence, 31 March 1998, p. 4 of the text furnished by the Department of Defense.

⁵⁹ Alain Richard, Minister of Defense, speech at the Institut des Hautes Études de Défense Nationale, 10 February 1998, p. 5 of text furnished by the French Ministry of Defense. The high number given by M. Richard for Russian NSNF is exceptionally elevated. In 1997, when Senator Bertrand Delanoë sought a statement from the French Ministry of Defense on this subject, he declared in his question that there were 22,000 Russian tactical nuclear warheads, but the Ministry of Defense declined to confirm that number. The French Ministry of Defense made the following statement: “The return of the tactical nuclear weapons to the territory of the Russian Federation was apparently completed in 1992. Nonetheless, the information available does not permit us to affirm that these weapons were really destroyed. Moreover, the future of tactical nuclear weapons is not governed by any juridically constraining international agreement. Only the simultaneous declarations of the President of the United States and of the Secretary General of the Soviet Communist Party in 1991 mention the idea of a progressive dismantlement of these weapons. Finally, the proportion of deployed warheads in relation to those that are stockpiled or awaiting dismantlement cannot be determined with any precision.” *Journal Officiel de la République Française, Sénat*, 2 May 1997, pp. 1368-1369.

⁶⁰ Final Communiqué, Ministerial Meetings of the Defense Planning Committee and the Nuclear Planning Group, 17 December 1996, par. 9.

⁶¹ Amy F. Woolf and Kara Wilson, *Russia's Nuclear Forces: Doctrine and Force Structure Issues* (Washington, D.C.: Congressional Research Service, 23 May 1997), p. 9. The source for the “some have stated” observation is given as follows: “Russian Defense Budget Continues Downward Spiral, Says CIA, DIA,” *Arms Control Today*, vol. 24, September 1994, p. 27.

⁶² Televised announcement by Soviet President Mikhail S. Gorbachev, 5 October 1991, U.S. State Department translation in *SIPRI Yearbook 1992: World Armaments and Disarmament* (London: Oxford University Press for the Stockholm International Peace Research Institute, 1992), p. 87.

⁶³ Televised statement by Russian Federation President Boris N. Yeltsin, 29 January 1992, FBIS (Foreign Broadcast Information Service) translation in *SIPRI Yearbook 1992: World Armaments and Disarmament* (London: Oxford University Press for the Stockholm International Peace Research Institute, 1992), p. 90.

⁶⁴ Televised announcement by Soviet President Mikhail S. Gorbachev, 5 October 1991, U.S. State Department translation in *SIPRI Yearbook 1992: World Armaments and Disarmament* (London: Oxford University Press for the Stockholm International Peace Research Institute, 1992), p. 87.

⁶⁵ Televised statement by Russian Federation President Boris N. Yeltsin, 29 January 1992, FBIS (Foreign Broadcast Information Service) translation in *SIPRI Yearbook 1992: World Armaments and Disarmament* (London: Oxford University Press for the Stockholm International Peace Research Institute, 1992), p. 90.

⁶⁶ George Bush, "Address to the Nation on Reducing United States and Soviet Nuclear Weapons," 27 September 1991, in *Weekly Compilation of Presidential Documents*, vol. 27, no. 39, 30 September 1991, pp. 1349-1350.

⁶⁷ Final communiqué, Ministerial Meeting of the Defense Planning Committee and the Nuclear Planning Group, December 5, 2000, para. 10.

⁶⁸ "Rodionov declared that in the face of NATO enlargement, Russia 'might objectively face the task of increasing the number of tactical nuclear weapons at [its] borders.'" Nikolai Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), p. 180. Sokov cites the following source: Igor Rodionov, "Kakaya Oborona Nuzhna Rossii," *Oborona I Bezopasnost* 143 (2 December 1996), p. 4. It is, of course, possible that Rodionov had in mind a geographical redistribution (hence an increase in deployments near certain borders) in NSNF covered by the 1991-1992 commitments rather than any deviation from the rather vaguely worded commitments.

⁶⁹ Kuroedov quoted in *Russki Telegraph*, 11 June 1998, cited in Nikolai Sokov, "The Fate of Russian Nuclear Weapons: An Anticlimax on August 11," 14 August 2000, available at <http://www.cns.miis.edu/pubs/reports/denuke2.htm>. Kuroedov advocated returning non-strategic nuclear weapons to surface ships and submarines under "threatening international circumstances." See also Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), pp. 170-171.

⁷⁰ "Tactical Nuclear Weapons in Russia," *Voprosy Bezopasnosti*, December 1997, in FBIS, FTS19980226000574.

⁷¹ Nikolai Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), p. 164.

⁷² Nikolai Sokov, "The Tactical Nuclear Weapons Controversy," *Jane's Defence Weekly*, 31 January 2001.

⁷³ Other examples of Russians talking about possibly abandoning the 1991-1992 commitments have two characteristics: the context concerns developments deemed threatening to Russia, such as NATO enlargement or U.S. security cooperation with the Baltic states; and the abandonment of the commitments is usually implicit in the call for a buildup and/or more extensive deployment of NSNF. See, for example, Vladimir Belous, "Tactical Nuclear Weapons: A Half-Forgotten Reality," *Segodnya*, 23 June 1995, cited in Nikolai Sokov, "Tactical Nuclear Weapons Elimination: Next Step for Arms Control," *The Nonproliferation Review*, vol. 4, no. 2 (Winter 1997); Alexander Lyasko, "Although the Doctrine is New, It Resembles the Old One," *Komsomolskaya Pravda*, 29 September 1995, p. 2, translation furnished by the Conflict Studies Research Centre; Pavel Felgengauer, "Russian Generals Aren't Interested in NATO Countries' Good Intentions," *Segodnya*, 23 June 1996, in *Current Digest of the Post-Soviet Press*, 19 July 1996, p. 31; and "More Rigid Nuclear Policy Seen as Russia's Possible Reaction to U.S.-Baltic Charter," Baltic News Service, 16 January 1998. Anton Surikov, a close associate of Russian Communist party leaders, argued in 1995 for "restraining NATO with nuclear weapons" deployments in Belarus, Kaliningrad, Crimea, Abkhazia, Georgia, and Armenia and on ships in the Baltic, Black, and Barents Seas. Anton Surikov, Defense Research Institute, *Special Institute Staff Suggests Russia Oppose NATO and the USA*, October 1995, ADVAB 1017 (Sandhurst, England: Conflict Studies Research Centre, Royal Military Academy, April 1996), pp. 3, 5-7. This is a translation of the widely discussed article in *Segodnya* on 20 October 1995.

⁷⁴ It has been reported that Russian NSNF were recently moved to Kaliningrad. The Russian government has disputed the accuracy of such reports. See, among other sources, Bill Gertz, "Russia Transfers Nuclear Arms to Baltics," *Washington Times*, 3 January 2001, p. 1; and Bill Gertz, "Poland Wants Inspections in Kaliningrad," *Washington Times*, 5 January 2001, p. 1.

⁷⁵ Rose Gottemoeller, "Lopsided Arms Control," *Washington Post*, 7 December 2000, p. 37.

⁷⁶ Major General V. I. Levshin, Colonel A.V. Nedelin, and Colonel M. Ye. Sosnovskiy, "Use of Nuclear Weapons To De-escalate Military Operations," *Voyennaya Mysl*, May-June 1999, in FBIS, FTS19990602001557.

⁷⁷ Sergey T. Brezkun, "Pioners must be revived: Russia needs a new 'European' nuclear weapon," *Nezavisimoye Voyennoye Obozreniye*, 13

August 1999, in FBIS, 18 August 1999, FTS 19990818001156.
“Pioneer” is a Russian designation for a certain type of intermediate-range ballistic missile (IRBM).

⁷⁸ Brezkun, *ibid.*

⁷⁹ Under START I a medium-range bomber equipped with a long-range nuclear-armed ALCM becomes accountable as a heavy bomber. For START purposes, a long-range nuclear-armed ALCM has a range in excess of 600 km.

⁸⁰ Nikolai Sokov, “A New Old Direction in Russia’s Nuclear Policy,” *Disarmament Diplomacy*, no. 50 (September 2000).

⁸¹ Nikolai Sokov, “The Fate of Russian Nuclear Weapons: An Anticlimax on August 11,” 14 August 2000, available at <http://www.cns.miis.edu/pubs/reports/denuke2.htm>.

⁸² At the March 1997 US-Russian summit in Helsinki, President Clinton and President Yeltsin “agreed that in the context of START III negotiations their experts will explore, as separate issues, possible measures relating to nuclear long-range sea-launched cruise missiles and tactical nuclear systems, to include appropriate confidence-building and transparency measures.” The reference to “appropriate confidence-building and transparency measures” implies that either Russia or the United States (or both) may not be prepared to accept an intrusive verification regime for such systems. The future of the START process, including START III, is uncertain at the current juncture.

⁸³ Andrei Zagorski, “Regional Structures of Security Policy within the CIS,” in Roy Allison and Christoph Bluth, eds., *Security Dilemmas in Russia and Eurasia* (London: Royal Institute of International Affairs, 1998), p. 285.

⁸⁴ William C. Potter, “Reducing the Threat of Tactical Nuclear Weapons,” paper for the International Workshop on Nuclear Non-Proliferation and Disarmament, Tokyo, 27-29 August 2000, p. 5.

⁸⁵ In December 2000 the North Atlantic Council called for “an early conclusion of a START III agreement” and stated that, “Given the need to reduce the uncertainties surrounding substrategic nuclear weapons in Russia, we believe that a reaffirmation — and perhaps codification — of the 1991/92 Presidential Initiatives might be a first, but not exhaustive, step in this direction.” Final Communiqué, Ministerial Meeting of the North Atlantic Council, Brussels, 15 December 2000, par. 63. The North Atlantic Council also approved a proposal for “a reciprocal data exchange with Russia” in the NATO-Russia Permanent Joint Council “to enhance transparency and knowledge of the size of the U.S. and Russian stockpiles” of “sub-strategic nuclear forces.” See

the Report on Options for Confidence and Security Building Measures (CSBMs), Verification, Non-Proliferation, Arms Control and Disarmament (Brussels: NATO Press Communiqué M-NAC-2 (2000) 121, 14 December 2000), par. 95.

⁸⁶ Kapralov statement of 14 November 2000, quoted in Itar-Tass dispatch, 14 November 2000, in FBIS, CEP20001114000223.

⁸⁷ This essay is focused on Russian attitudes and policies, rather than the intrinsic problems of defining an arms control regime for NSNF, such as the baseline or initialization problem and the difficulties of verification and geographical scope. Nor does this essay examine the considerable damage to U.S. and NATO interests, including with respect to nonproliferation, that could be caused by a unilateral withdrawal of the remaining U.S. nuclear presence in Europe. For a discussion of these issues, see David S. Yost, *The US and Nuclear Deterrence in Europe*, Adelphi Paper no. 326 (London: Oxford University Press for the International Institute for Strategic Studies, March 1999), pp. 25-33, 49-52, and 57-61.

⁸⁸ William C. Potter and Nikolai Sokov, "Tactical Nuclear Weapons: The Nature of the Problem," in Patricia Lewis, ed., *Tactical Nuclear Weapons: Preliminary Research Findings* (Geneva: United Nations Institute for Disarmament Research, April 2000), p. 26.

⁸⁹ Some European experts on Russia judge that Moscow at times overstates its concerns about NATO to advance domestic political purposes and to seek concessions from European and NATO nations.

⁹⁰ According to Dunn and Alessi, "Russian readiness to consolidate its tactical-nuclear-weapons holdings is far from certain. . . . But realistically, there would be little Russian incentive to take this step unless the United States were prepared to withdraw its residual tactical nuclear weapons from Europe. The Russians might calculate that the political and military benefits of US withdrawals compensated for reduced Russian military flexibility. Not least, withdrawal of US tactical nuclear weapons from Europe would lessen concerns of Russian conservatives that NATO enlargement will eventually lead to nuclear deployments on the territory of former Warsaw Pact members." Lewis A. Dunn and Victor Alessi, "Arms Control By Other Means," *Survival*, vol. 42, no. 4 (Winter 2000-2001), p. 136.

⁹¹ Vladimir Shlapentokh, "'Old,' 'New' and 'Post' Liberal Attitudes Toward the West: From Love to Hate," a paper published in August 1998 by the Special Adviser for Central and Eastern European Affairs, NATO Secretariat.

⁹² In this respect the attitudes of many Russians in the country's political elite remain as a renowned British scholar characterized them during the Soviet period: "The Russians feel themselves to be not only

the most numerous but also the greatest of all European peoples. They believe, on these grounds and on ideological grounds, that the Soviet Union has the right to greater influence in all European affairs than she has now." Malcolm Mackintosh, "Moscow's View of the Balance of Power," *The World Today*, vol. 29 (March 1973), p. 111.

⁹³ As Nikolai Sokov himself has pointed out, "The persistence with which Russia continues to adhere to the view that tactical nuclear weapons are important for its security in spite of several years of insistence of the West that these weapons should be reduced, testifies to the relative independence of the country's policy in the area of nuclear weapons." Nikolai Sokov, *Russian Strategic Modernization: The Past and Future* (Lanham, Md.: Rowman and Littlefield Publishers, Inc., 2000), p. 200. Indeed, Sokov has commented as follows on proposals to convert the 1991-1992 commitments into a formal treaty regime, with verification provisions: "The task is not easy. Russia values tactical nuclear weapons more than the Soviet Union did in 1991 and its requirements for such a treaty are stiffer." Nikolai Sokov, "The Tactical Nuclear Weapons Controversy," *Jane's Defence Weekly*, 31 January 2001.

CHAPTER 10

China's Perspective on Non-Strategic Nuclear Weapons and Arms Control

Kenneth W. Allen

China has succeeded in building a modest-sized nuclear arsenal of impressive destructive power and technological sophistication. It consists of bombers and land- and sea-based ballistic missiles with fission and fusion weapons ranging from about 20 kilotons to 3.3 megatons in yield. We estimate that approximately 700 warheads of all types were produced from 1964 to 1992. About 300 are currently deployed with bomber and missile forces and another 150 are for tactical weapon systems.¹

Introduction

During the November 2000 conference on dealing with non-strategic nuclear weapons (NSNW), Brad Roberts challenged the participants to go beyond looking at the issue strictly through a U.S.-NATO-Russian lens.² He stressed, "If there is an arms control approach to NSNW, then it must encompass China and perhaps other countries in Asia."

Since the general focus of the conference (as with most arms control discussions) was on U.S.-Russian issues, the purpose of this paper is to discuss China's perspective on NSNW and arms control.³ This is a daunting task given the lack of transparency surrounding the People's Republic of China's (PRC) overall nuclear weapons program, Beijing's reluctance to discuss its nuclear forces, inconclusive open source information on Chinese NSNW, and the lack of a universal definition of NSNW. The China's People's Liberation Army (PLA) refers to NSNW as tactical nuclear weapons (TNW) or theater and tactical nuclear weapons. The PLA defines TNW (*zhanshu hewuqi*) as follows:⁴

Tactical nuclear weapons are used to support troops in combat, and to directly affect the enemy's actions. In general, TNW systems are less powerful nuclear weapons delivered from shorter ranges by air or ground launch systems and have a command and control organization. TNW systems include short-range surface-to-surface missiles, bombs dropped by tactical bombers, ship-to-ship and ship-air missiles, antisubmarine missiles, depth charges, artillery shells, and land mines.

For purposes of this paper, China's NSNW include all nuclear weapons excluding intercontinental ballistic missiles (ICBMs).⁵

This paper will address what is known about China's nuclear program to include the evolution of the PRC's nuclear doctrine, Beijing's arms control involvement, history of China's NSNW, the PLA's Second Artillery Corps, and potential scenarios where NSNW could be used. It will not address other Asian countries' views of China's NSNW and arms control.

Although the broad issues of human rights, trade, WMD and missile proliferation, and national and theater missile defense tend to dominate the headlines today, the United States has been concerned with China's secretive nuclear weapons program since the 1950s. General Douglas MacArthur advocated a nuclear attack on China during the early stages of the Korean war,⁶ and President Lyndon B. Johnson considered bombing China prior to the PRC's first nuclear detonation in October 1964 to stop the PRC from becoming a nuclear power.⁷ Since the 1960s, Beijing has consistently used its domestic development and proliferation of nuclear weapons and ballistic missile technology as a political lever against the United States, especially concerning the issue of Taiwan.⁸ Beijing's use of "missile diplomacy" against Taiwan in 1995-1996, the increased deployment of ballistic missiles opposite Taiwan since then, and allegations that China stole U.S. nuclear weapons secrets has significantly raised the level of concern about China's nuclear capabilities.

Although Beijing has become a participant in international arms control negotiations, China's strategic arms control focus has been on the arsenals of the United States and Russia. While China has become a signatory to several international nonproliferation treaties, China has not made public statement about the numbers or types of weapons in its arsenal; nor does it officially acknowledge possession of tactical weapons.⁹ Furthermore, Beijing has been reticent to include any discussion of, or limitations on, China's nuclear force. Over the past several years, Washington and Beijing have had "talks" and a formal dialogue on arms control and nonproliferation, but these have not been categorized as negotiations. These talks have routinely been interrupted by events like the errant bombing of China's embassy in Belgrade during the 1999 air war over Serbia.

China's Nuclear Doctrine

China's nuclear doctrine has evolved since the 1950s as part of the PRC's overall military doctrine. During a November 1999 conference on China's weapons of mass destruction (WMD), Bates Gill and James Mulvenon presented a paper on "The Chinese Strategic Rocket Forces: Transition to Credible Deterrence,"¹⁰ which reviewed China's nuclear doctrine and suggested that there are three separate components to Beijing's current strategy.

Gill and Mulvenon cite Iain Johnston's observations that "for about thirty years after China exploded its first nuclear weapon there was no coherent, publicly articulated nuclear doctrine."¹¹ In a similar vein, others have noted that China's nuclear weapons program "proceeded without strategic guidance" and that "until the early 1980s, there were no scenarios, no detailed linkage of the weapons to foreign policy objectives, and no serious strategic research."¹² While the Chinese began a more serious effort to develop a coherent nuclear doctrine and strategy from the mid-1980s, there remains today a paucity of knowledge about China's actual nuclear weapons doctrine, compelling analysts to glean deductively from China's publicly available statements, its internal military writings, and what is known about Chinese

nuclear weapon deployments and research programs and the purposes and intentions behind them.

Declaratory Policy

Gill and Mulvenon observe that three principal features stand out which help define the public face of Chinese nuclear weapons doctrine. First, public statements consistently reiterate the “defensive” purpose of Chinese nuclear weapons. China’s long-held “no-first-use” policy serves as the foundation of this aspect of China’s declared defensive nuclear posture.¹³ The second distinctive feature of China’s nuclear weapons doctrine has been the maintenance of a qualitatively and quantitatively “minimum deterrent,”¹⁴ characterized by slow and often problematic nuclear force modernization. Third, as to the targeting of nuclear weapons, China claims it will not use them against non-nuclear weapon states (negative security assurances),¹⁵ and probably would retaliate against countervalue targets.

Gill and Mulvenon point out, however, that there are a number of questions concerning China’s no-first-use pledge. First, such a pledge is highly symbolic, since it is not verifiable and any violation of the pledge would not be detected until it is too late. Second, over the years there have been some indications that China’s pledge may not be relevant to the first-use of nuclear weapons on Chinese soil. Faced with the threat of a conventional Soviet invasion in the 1980s, Beijing’s military strategists argued that the first-use of nuclear weapons on Chinese territory would not have violated its pledge. Although the former Soviet threat has gone, the idea that no-first-use does not apply to Chinese national territory causes concern in the context of Taiwan, which China considers an integral part of the mainland.

Of note, China has apparently changed its views recently on the use of nuclear weapons as a deterrent. The PRC’s October 2000 *Defense White Paper* states, “China maintains a small but effective nuclear counterattacking force in order to deter possible nuclear attacks by other countries.” Of the three white papers issued since 1995, this is the first time the Chinese have stated that their nuclear forces is for deterrence.¹⁶ The 1998 *Defense*

White Paper stated, “The major nuclear powers should abandon the nuclear deterrence policy.”¹⁷ The 2000 white paper does not make any mention about other countries’ deterrence policy.

Minimum Capability

Gill and Mulvenon state that the number and types of weapons China deploys, Chinese weapon development cycles, and new nuclear programs are areas where a considerable amount of open source data is available. In reviewing this empirical record, they point out that one of the most intriguing aspects of China’s nuclear weapons program has been its quantitatively and qualitatively limited nature over time. These limitations result in China’s traditional minimum deterrent characterized in practice by a relatively small number of warheads, technically and numerically limited delivery vehicles, persistent concerns over the arsenal’s survivability, reliability and penetrability, and a limited program of research, development and testing.

From the perspective of domestic politics, it is important to recognize first and foremost that in the critical decades that Chinese nuclear weapons were first developed, Chinese nuclear weapons decisions were firmly dominated by the views and statements of Mao Zedong and a small number of other leaders under the powerful political sway of Maoist political ideology and rhetoric. Mao’s own publicly expressed opinions about nuclear weapons served as the guiding principles for the development of the Chinese arsenal. Lewis and Xue have derived seven major principles from official Maoist statements in the 1960s and 1970s which helped define the future parameters of Chinese nuclear deployments and doctrine: 1) no-first-use; 2) no tactical nuclear weapons; 3) “small but better”; 4) “small but inclusive”; 5) minimum retaliation; 6) quick recovery; and 7) soft-target kill capability.¹⁸ A recent study by a Chinese missile scientist argues that many of these sayings continue to carry great weight in determining the fundamental quantitative and qualitative parameters of China’s nuclear weapons arsenal.¹⁹

Although the Chinese have not clearly defined their doctrine as such, Gill and Mulvenon postulate that for the future, the

doctrine and force structure of China's nuclear force must be analyzed at three distinct levels:

- A posture of credible minimum deterrence with regard to the continental United States and Russia;
- A more offensive-oriented posture of "limited deterrence" with regard to China's theater nuclear forces; and
- An offensively-configured, preemptive, counterforce warfighting posture of "active defense" or "offensive defense" for the PLA's conventional missile forces.

Based on discussions with other analysts, however, any move toward a counterforce (military targets) versus a countervalue (civilian targets) doctrine presupposes a greater quantity of more accurate missiles.

Tactical Nuclear Weapons Doctrine

While lots of attention has been paid to China's strategic nuclear force doctrine, less attention has been paid to tactical nuclear doctrine. Iain Johnston states in a 1995 *International Security* paper that Chinese strategists in the 1980s and 1990s have been relatively clear about their preference for theater and tactical nuclear weapons.²⁰ Initially in the 1970s and early 1980s, Chinese writings on TNW tended to argue that these capabilities were essential to stop a Soviet armored blitzkrieg across the northern and western borders, especially since the PLA Air Force's strike aircraft were incapable of delivering TNW against Soviet tanks. However, Chinese research on TNW was relatively underdeveloped among Chinese strategists and the PLA lacked training under nuclear conditions.

Johnston further states that China's emphasis since the early 1990s on local, limited wars under high-tech conditions has lent itself to further study of TNW. He cites various PLA analysts who have written, "Even if the war were a conventional one, it should still be considered a war under nuclear conditions, since nuclear weapons would help deter both conventional and, if the opponent was a nuclear state, nuclear escalation. Among the capabilities needed to fight limited border wars are theater and

tactical missiles, including both cruise and ballistic missiles.”²¹
These types of statements are what Paul Godwin has called
China’s “aspirational doctrine” versus “operational doctrine.”²²

In 1998, Mel Gurtov and Byong-Moo Hwang discussed China’s tactical nuclear doctrine following the Gulf War.²³ They cite one PLA analyst who wrote, “When manpower, firepower, and military equipment of conventional troops are short, or when they are reduced to inferiority, deployment or use of tactical or war-zone nuclear weapons can make up for and readjust conventional forces.” They note, however, disagreements among some analysts who advocate “China only wants to pursue a principle...to have what others have” and others who are opposed to the use of tactical nuclear weapons to make up for inferior PLA conventional forces.

According to Brad Roberts, the debate within China about how the PLA might use nuclear weapons has changed rather dramatically in the last couple of years, especially following the Kosovo War.²⁴ Now there are more voices participating than ever before, including many from outside the mainstream professional military, and their views of whether or how to use nuclear weapons are widely divergent. Furthermore, there is all sorts of speculation about how to use nuclear weapons to scare away America – or to defeat its conventional forces in the Taiwan Strait without inciting U.S. escalation.

Arms Control and Disarmament

There are differing views of China’s arms control and disarmament record, depending upon where one sets the baseline. On one hand, China has signed on to several international arms control treaties over the past decade, but on the other hand Beijing has been vague in discussions about reducing its own nuclear arsenal.

China’s Views of Arms Control

China’s involvement in multilateral arms control has been largely a reluctant response to international political pressure. Nevertheless, there is increasing support in Beijing for the view

that China obtains security benefits from participation in international arms control regimes. In formulating their arms control and nuclear modernization policies, the Chinese are reactive to China's perceived "threat environment," which includes Beijing's assessment of U.S. strategic intentions toward China.

Chinese views of strategic nuclear arms control have evolved significantly over the last three decades and are still in flux. In the 1970s, Beijing condemned the U.S.-Soviet Strategic Arms Limitations Talks as "sham disarmament" providing a cover for continuation of the U.S.-Soviet arms race.²⁵ The Chinese were especially concerned that the superpowers might collaborate against China, including possible joint strikes on Chinese nuclear weapons facilities, or that the United States might accommodate the Soviet Union's rising power, leaving the Russians free to increase military pressure on China. In the 1980s, the Chinese came to see advantages for Beijing in "free-riding" on arms control agreements that placed restrictions on other powers to China's benefit, including the various accords between Moscow and Washington on reductions of strategic nuclear forces, elimination of intermediate-range nuclear forces, and limitations on anti-ballistic missile systems.

According to Garrett and Glaser, China officially holds the position that it will eventually join in strategic nuclear arms reduction talks with the other declared nuclear powers.²⁶ However, the Chinese have intentionally left vague their position on the necessary preconditions for Chinese participation in five-power nuclear arms reductions talks. Beijing provided a general guidepost in January 1992 when a Chinese foreign ministry spokesman indicated that Beijing's requirements for joining five-power nuclear arms reductions talks was an undefined "parity" of nuclear forces. "China will naturally take part in the process of nuclear disarmament and join efforts for the complete destruction of nuclear weapons once the United States and Russia reduce their nuclear capacity to a level matching that of China."²⁷

Since the mid-1980s, the Chinese have recognized increasing political and security benefits from participation in multilateral nuclear arms control negotiations and agreements. In response to international concerns about the PRC's proliferation of WMD technology, Beijing has become progressively involved in several international nonproliferation agreements and has promulgated various domestic export control regulations. These agreements include the following:

- 1984: Joined the International Atomic Energy Agency (IAEA);
- 1992: Acceded to the Nuclear Nonproliferation Treaty (NPT);
- 1993: Signed and ratified the Chemical Weapons Convention (CWC);
- 1994: Statements on fissile material production;
- 1996: Statement on safeguarded nuclear transfers;
- 1996: Signed the Comprehensive Test Ban Treaty (CTBT);
- 1997: Joined the Zangger Committee.²⁸

Chinese leaders, officials, and foreign policy institute analysts still view the world in largely balance-of-power, *realpolitik* terms, including “self-help” in security. This orientation underlies China's foreign policy and military strategy in general and its nuclear weapons program in particular. The Chinese have learned from the United States and the Soviet Union that nuclear weapons enhance national prestige and bargaining leverage, deter pressure and threats, and can potentially influence the outcome of crises and diplomatic confrontations. They have also drawn the lesson from the history of U.S.-Soviet arms control negotiations in the 1970s and 1980s that continued arms competition and further qualitative enhancement of nuclear forces go hand-in-hand with arms control agreements. Finally, there is widespread support in China for the view that development of a strong military capability, including substantial nuclear forces, will enhance China's comprehensive national strength, thus enabling Beijing to assume its rightful place as a great power. Beijing is also realizing, and concerned, that India may have learned the same lessons.

Arms Control Transparency

Although China has made public statements about arms control and disarmament, uncertainty about Chinese nuclear weapons capabilities, strategic intentions, and the long-range goals of China's nuclear modernization program is exacerbated by Beijing's lack of transparency in the military sphere. While the PLA became more involved in multilateral meetings and international exchanges during the 1980s,²⁹ China's neighbors began pressing Beijing to provide more transparency on its national defense policy. Although some progress is being made in this area, China still lags behind some of its Asia-Pacific neighbors in providing military transparency through publication of defense white papers.³⁰

As tensions mounted in the Taiwan Strait in late 1995, Beijing issued its first *White Paper on Arms Control and Disarmament*. The twenty-page paper, released during the negotiating endgame of the Comprehensive Test Ban Treaty and while China was still conducting nuclear tests,³¹ attempted to defuse concerns about a "China Threat" and accusations that Beijing was supplying WMD or related technologies to some of its neighbors (i.e., Pakistan and Iran). In July 1998, Beijing published its first defense white paper, *China's National Defense*,³² followed by another in October 2000. Although these did not contain as much detailed information as some countries had hoped, they were a good first effort at providing more transparency.

U.S.-China NSNW Arms Control Discussions

Based on discussions with several analysts, the prospects of involving China in discussions on NSNW arms control in the near future are almost non-existent. As a starting point, China does not even acknowledge that it has non-ballistic missile tactical nuclear weapons. In addition, China is still unwilling to even discuss any reductions of its own ballistic missile force, while it continues to modernize its overall force qualitatively and quantitatively. According to one U.S. State Department arms control official,

There have been no bilateral negotiations on nuclear arms control between the U.S. and China, although the U.S. has proposed a regular “dialogue” on nuclear arms control issues to parallel the on-going dialogue on proliferation. Chinese officials have, at various times, indicated that the disparity between U.S. and Chinese strategic forces is so great that there is, in practice, nothing to negotiate until U.S. (and Russian) strategic nuclear inventories are significantly reduced. They have also emphasized their view that transparency, monitoring, or verification provisions that might be expected in such negotiations are not in China’s interest. They have also reiterated China’s own long-standing nuclear disarmament proposal, which calls on states to “abandon” nuclear deterrence, adopt a no-first-use policy, withdraw all nuclear weapons from other countries, halt missile defense research, and conclude a convention on the prohibition and destruction of nuclear weapons.³³

China’s Ballistic Missiles

Current Force

Beijing’s ballistic missile force consists overwhelmingly of short- and medium-range missiles that are either dual-capable or armed with conventional warheads,³⁴ backed up by China’s strategic nuclear doctrine that calls for a survivable long-range missile force that can hold a portion of the U.S. population at risk in a retaliatory strike.³⁵ China has the ability to use these tactical ballistic missiles against its neighbors and U.S. forward-deployed forces in the Asia-Pacific region.³⁶

There are three basic trends taking place within China’s overall missile force: 1) while the older medium-range ballistic missiles (MRBMs) and ICBMs use liquid propellants, the newer missiles, including short-range ballistic missiles (SRBMs), all use solid propellants; 2) conventional SRBMs are now being assigned to ground force group armies; and 3) China is developing and

deploying more sophisticated cruise missiles with its naval and air forces.

MRBMs

China began deploying its first MRBM, the DF-2/CSS-1 (range 1,250 km) in 1966, but all of these missiles were retired in 1989.³⁷ Based on their deployment location, they were most likely targeted against Japan and U.S. facilities in Japan. China began fielding its second generation MRBM, the DF-3/CSS-2 (range 2,800 km) in 1971.³⁸ The DF-3/CSS-2 is probably intended for relatively large population targets in central and eastern Russia.³⁹

After producing land-based MRBMs, China sought diversity and reliability by developing and fielding additional new systems in the mid-1980s. In 1985, China began fielding a mobile MRBM, the DF-21/CSS-5 (range 1,800 km). China is also analyzing a range of sophisticated missile defense countermeasures, including saturation, maneuvering reentry vehicles, shaping, stealth, decoys, on-board jammers, multi-axis attacks, and depressed trajectories to provide greater survivability for its MRBM force.⁴⁰ The U.S. intelligence community estimates that the PRC has 40 DF-3 and 35 to 50 DF-21 MRBMs, but all of the DF-3s are expected to be phased out by 2002.⁴¹

SRBMs

There have been various estimates about the size of China's current and future SRBM force opposite Taiwan. A 1999 National Intelligence Council (NIC) report emphasized that China is significantly improving its theater missile capabilities and is increasing the size of its SRBM force deployed opposite Taiwan.⁴² The current trend indicates an increase of about fifty missiles per year,⁴³ building on a base force of some 30 to 50 DF-15/M-9/CSS-6 (500 km) and DF-11/M-11/CSS-7 (280 km) SRBMs in 1995.⁴⁴ The primary factors that will influence the eventual size and composition of this force include the political situation (domestic, regional, and international), doctrinal considerations, strategic and tactical requirements, technology developments, production capacity, and the PLA's organizational structure. Any or all of these factors could cause

adjustments up or down in the size and deployment rate of the force over the next ten to fifteen years.⁴⁵

Non-Ballistic Missile Tactical Nuclear Weapons

The most important question in this paper is whether or not China has any non-ballistic missile tactical nuclear weapons. The answer is inconclusive, at least in open source material. Since the Chinese do not acknowledge having TNW and have not declared how many total nuclear weapons they have, Western analysts have had to speculate as to the number of non-ballistic missile tactical nuclear weapons in China's arsenal.

Speculation that China has tactical nuclear weapons has focused on PLA exercise scenarios that were conducted in a simulated tactical nuclear weapon environment and on the types of nuclear tests China has conducted. Some of the most notable exercises, including command post exercises, took place during the 1980s north of Beijing along the most likely Soviet invasion routes. Gurtov and Hwang have written that these exercises were conducted by the group armies, naval fleets, and the General Staff Department's Chemical Defense Department.⁴⁶

According to Garrett and Glaser, Chinese newspaper articles in 1979 and 1982 discussed the use of Chinese tactical nuclear weapons against a Soviet attack.⁴⁷ A 1979 *Liberation Army Daily* article analyzed the battlefield utility of TNW and suggested that the PLA could use TNW without triggering a massive Soviet attack on Chinese cities. The author, Xu Baoshan, argued that "international reaction would serve as a greater constraint on escalation from TNW to strategic weapons than from conventional weapons to TNW," but he noted that PLA planning had been based on the opposite assumption. Xu also noted, "given the current situation, the PLA should make emotional as well as material preparation for Soviet use of TNW in the initial stages of a future war." In June 1982, the PLA held its first publicly acknowledged maneuvers involving the use of TNW. In retaliating against Soviet first-use of TNW, a *Ningxia Daily* article said, "Our troops' nuclear strike capability zeroed in on the targets, took the enemy by surprise and dealt his

artillery positions and reserve forces a crushing blow. The exercise was characterized as implementing our army's new task in organizing training under modern conditions." The article did not specify the exact types of TNW used.

The most often quoted source of data on China's TNW is *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons* written in 1994 by Robert S. Norris, Andrew S. Burrows, and Richard W. Fieldhouse.⁴⁸ Almost every article since 1994 that mentions the number and types of China's TNW can be traced back to the information in this book. Based on their calculations, China had at that time "approximately 700 warheads, including about 300 deployed with bomber and missile forces and another 150 for tactical weapon systems, including artillery shells and atomic demolition munitions." They based their estimate partly on the fact that China had conducted several nuclear tests with yields below 20 kilotons and conducted the military exercises noted above in which Beijing reportedly simulated the use of tactical nuclear weapons. In addition, some of the nuclear devices had been air dropped by H-6 bombers and A-5 ground attack aircraft.⁴⁹ Although China has used its H-6 bombers during nuclear testing and has devoted some effort to developing a nuclear bomber capability, its bombers are few in number, aged, and highly vulnerable to air defenses.⁵⁰

The authors cite a 1984 Defense Intelligence Agency handbook on the PLA which claimed that "China may be considering the feasibility of supplementing its strategic nuclear arsenal with tactical nuclear weapons."⁵¹ China appears to have embarked on the development of distinctly tactical nuclear weapon systems, such as short-range missiles and artillery, but the evidence is very sketchy and it is impossible to pinpoint the types or numbers. Several weapon systems, such as SRBMs and attack aircraft with nuclear bombs, can be used in tactical nuclear roles if China so chooses. Even so, other authors have stated that there is no firm evidence that China has deployed non-ballistic missile tactical nuclear weapons today.⁵²

Although the *Nuclear Weapons Databook* remains the most quoted source on China's TNW, one of the authors, Robert S. Norris, provided the following assessment update in November 2000,

Information about China's tactical nuclear weapons is limited and contradictory, and *there is no official evidence of their existence*. China's interest in tactical weapons may have been spurred by worsening relations with the Soviet Union in the 1960s and 1970s. Several low-yield nuclear tests in the late 1970s—and a large military exercise in June 1982 simulating the use of tactical nuclear weapons—suggests that they may have been developed.⁵³

Command and Control

One of the key issues that has not been addressed in open source material for China's TNW is command and control. While it is common knowledge that the Second Artillery Corps' nuclear weapons come directly under the control of the Chinese Communist Party Central Committee's Military Commission (CMC),⁵⁴ there is little or no open source material on the command and control aspects of China's non-ballistic missile TNW (i.e. artillery and air dropped weapons). If China does in fact have tactical nuclear weapons assigned to its ground and air forces, then these weapons and the units that employ them would most likely be controlled directly by the CMC. Furthermore, these weapons would most likely be housed in special facilities under tight security near the units, and there would be more indications that the PLA has conducted simulated training with them since the early 1980s. This is not to say that this is not the case, but there has been no open source reporting on this type of activity.

Cruise Missiles

Besides ballistic missiles, the PLA is acquiring stand-off weapons such as antiship cruise missiles (ASCMs), long-range land-attack cruise missiles (LACMs), and air launched cruise missiles (ALCMs) that would be useful in countering potential adversaries operating on naval platforms, from bases in the East

and South China Seas, or from Taiwan.⁵⁵ China's LACM program appears to have a relatively high development priority and is being aided by an aggressive effort to acquire foreign cruise missile technology and subsystems, particularly from Russia.⁵⁶ The first LACM to enter production probably would be air-launched and could be operational in the next few years. There are no indications that these weapons will carry a nuclear warhead.⁵⁷

Theater Missile Defense

At the same time China has continued to modernize its SRBM and MRBM force over the past few years, Beijing has actively tried to persuade Washington, Japan, and Taiwan from deploying ballistic missile defenses that could counter China's missile force. Ambassador Sha Zukang, Director General of the PRC's Department of Arms Control & Disarmament in the Ministry of Foreign Affairs, has repeatedly noted, "Theater missile defense (TMD) will have negative impacts on regional strategic stability. If a country, in addition to its offensive power, seeks to develop advanced TMD in an attempt to attain absolute security and unilateral strategic advantage for itself, other countries will be forced to develop more advanced offensive missiles."⁵⁸

China has objected most vigorously against the deployment of TMD in Taiwan. From Beijing's perspective, the transfer of any TMD systems to Taiwan is objectionable for six major reasons:⁵⁹

- TMD transfers would be a harmful intrusion on internal Chinese affairs and as a violation of the three Joint Communiqués governing U.S.-Chinese relations;⁶⁰
- TMD transfers to Taiwan would be steps toward the re-establishment of a U.S. military alliance with Taiwan;
- TMD transfers to Taiwan could lead to a joint Northeast Asia missile defense network including the United States, Japan, and South Korea;
- TMD transfers would complicate China's military options and reduce the military effectiveness of China's missile forces;
- TMD transfers would encourage those who seek independence within Taiwan; and

- TMD transfers of technology to Taiwan would help Taipei develop offensive ballistic missile programs of its own.

In late 2000, a report co-sponsored by the Council on Foreign Relations, National Defense University, and the Institute for Defense Analyses, entitled *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*, concluded that China will continue to modernize its ballistic missile force for the foreseeable future, but the ultimate shape of the force remains an open question.⁶¹ While the report focused primarily on China's strategic missile force, especially in terms of its relationship to U.S. national missile defense, the same conclusions can logically be applied to the PRC's SRBMs and MRBMs in relation to the U.S. theater missile defense program.

PLA Second Artillery Corps

The largest and most important leg of China's nuclear triad is the Second Artillery Corps (strategic rocket forces). The other legs include one nuclear-powered ballistic missile submarine, a Xia-class SSBN, and an undetermined number of H-6 (Tu-16) medium-range bombers with "little or no intercontinental capability."⁶² Unlike the situation for the PLA's conventional ground, naval, and air forces, there is very little substantive information about the organizational structure of the Second Artillery Corps, which was established in July 1966 and placed under the direct control of the Central Military Committee. Today, the Second Artillery Corps, with an estimated 90,000 personnel, consists of headquarters elements,⁶³ six division-level launch bases, an engineering design academy, four research institutes, two command academies, and possibly an early warning unit.⁶⁴ As the key operational strike units, brigades are likely only assigned one type of missile to facilitate command and logistics.

According to Mark Stokes, China's six missile bases have at least thirteen brigades, which are usually structured by the type of missiles.⁶⁵ The PLA's theater missiles will be deployed in at least seven of the brigades. In addition, the PLA is now

beginning to replace some of its conventional artillery pieces with M-11 conventional SRBMs within the two ground force group armies in the Nanjing Military Region opposite Taiwan.⁶⁶ These missiles will belong to the military region commander, not to the Second Artillery.

A close review of the PLA's organizational structure for the Second Artillery Corps provides valuable clues to the future structure of China's ballistic missile force. According to a 1997 Department of Defense report, "China probably will have the industrial capacity, though not necessarily the intent, to produce a large number, perhaps as many as a thousand, new missiles within the next decade."⁶⁷ This report did not clarify the types of missiles. However, if China were to increase the number of missiles as suggested in this report and by others,⁶⁸ the Second Artillery would have to increase the number of bases, increase the number of brigades per base, increase the number of battalions per brigade, and/or increase the number of reserve missiles.

Possible Employment Scenarios

Theoretically, the PRC could become involved in conflicts with any of its neighbors in the future, including Russia,⁶⁹ India, Japan, and Korea, as well as with Taiwan. Depending upon the situation, the United States could become involved. This section will deal with only two of these possible scenarios – Taiwan and India.

Taiwan

Admiral Dennis Blair, Commander of U.S. forces in the Pacific, pointed out during a visit to Hong Kong in July 2000 that the current Asian flashpoints involve a series of distinct regional disputes, including the Taiwan Strait.⁷⁰ Analysts throughout the region surmise that the most likely scenario whereby the United States could be engaged in a nuclear exchange with China is over Taiwan. Beijing's ultimate goal in intimidating Taiwan through military means is to achieve Taiwan's reunification with the mainland⁷¹ The immediate task, however, has been to keep

Taiwan from moving further along the path toward independence and to force Taipei to accept the “one-China” principle.

The PLA’s acquisition of M-9/11 SRBMs over the past decade, coupled with repeated statements that “China will not commit itself not to resort to force,” have emphasized Beijing’s willingness to try to intimidate Taiwan.⁷² While China has had MRBMs and ICBMs deployed since the early 1980s, the equanimity with which the United States and U.S. friends and allies in Asia viewed Beijing’s missile capabilities and belligerence toward Taiwan changed in 1995 and 1996, when the PLA launched ten SRBMs to impact points near Taiwan in a provocative attempt to influence the democratic presidential elections there. The possibility of a nuclear exchange was raised in July 1995, when a Hong Kong newspaper reported, “According to a military source on the mainland, two military exercises within a month conducted by the PLA were designed to make preparations for using small tactical nuclear weapons in actual battles at sea, as well as to suppress the appeal for Taiwan independence.”⁷³ These actions by Beijing have directly attributed to Taiwan’s desire to acquire a TMD capability.

Stokes states that the PLA’s missile attack strategy would include conventional SRBMs and LACMs against critical facilities, such as key airfields and command, control, communication, computer, and intelligence (C4I) nodes, and naval facilities.⁷⁴ PLA writings indicate a requirement for three raids, including about 400 theater missiles (a mix of SRBMs, possibly MRBMs, and/or LACMs) in the opening stages of a conflict. Following each launch, the launchers would be moved to a different location. The remaining theater missiles would be held in reserve. This targeting strategy would greatly complicate Taiwan’s ability to conduct military operations. The Pentagon concludes that China could, however, encounter problems coordinating missile firings with other concurrent military operations, such as air and maritime engagements.⁷⁵

U.S. Involvement

During the early 1990s, Chinese analysts were split about possible U.S. involvement in a conflict with Taiwan, based on

the “Somalia analogy,” whereby they postulated the United States did not have the resolve to fight a war that risked losing American lives.⁷⁶ However, following U.S. intervention in Kosovo, the PLA today assumes the U.S. military will definitely be involved in any future conflict with Taiwan.⁷⁷

During a speech in October 2000, General Zhang Wannian, vice-chairman of the CMC, reportedly stated,

During the period of the 10th Five-Year Plan [2001-2005], it is certain that war will break out in the Taiwan Strait. To ensure victory in the war, the PLA will strike the first blow. It will first paralyse the power installations and the combat ability of Taiwan’s fighter jets. The PLA possesses some weapons that can kill and wound soldiers who are using weapons or hiding in buildings without destroying the weapons, equipment or buildings. This will minimize the damage on Taiwan.⁷⁸

The newspaper report further stated, “Zhang did not reveal whether the weapons used to paralyse the power installation were similar to graphite bombs used by the U.S. troops to attack Yugoslavia, or neutron bombs that can harm people without destroying buildings. At present, the mainland possesses these two kinds of weapons.” In reference to the 1999 Cox Report’s assertion that China stole plans for the neutron bomb from the United States, Zhao Qizheng, Director of the State Council’s Information Office, said, “China has mastered in succession the neutron bomb design technology and the nuclear weapon miniaturization technology as early as in 1970s and 1980s.”⁷⁹ While the Cox report and Zhao’s statement indicate China has developed a neutron bomb,⁸⁰ there are no open source reports about the actual deployment of this type of weapon.

Although China’s overall military equipment is still inferior to that of the United States, analysts in both countries have written about China’s growing asymmetrical warfare capabilities. Specifically, China’s modernizing navy, with its Russian-built Kilo-class submarines and Sovremenny-class destroyers armed

with nuclear-capable SS-N-22 supersonic cruise missiles,⁸¹ and the increasing number of SRBMs, have strengthened Beijing's area denial capability versus the U.S. Navy. Unlike the situation during the Gulf War and the Kosovo War where the United States had bases from which to prosecute the war, the United States military is hampered in the Pacific by what the U.S. Pacific Command calls "the tyranny of distance" and the lack of a significant number of permanent and deployment bases.

As Peter Rodman of the Nixon Center states, "China does not have to defeat the United States in a war in order to seize Taiwan. It merely must prevent the United States from intervening. China's new weapons alone are enough to increase the inhibitions of an American president who contemplates getting involved in a Taiwan crisis."⁸² The issue of China's area denial or anti-access strategy has become a focal point for analyzing the current military situation in the region.

While most scenarios involve a conventional weapons conflict across the Taiwan Strait, there is always the possibility of Beijing escalating to the use of nuclear weapons. One of the most likely scenarios that could lead China to use its TNW is if an attack on Taiwan was failing to the point that the situation threatened the communist regime itself. Over the years, the Party's leaders have shown their concern about spontaneous demonstrations against them, including the 1989 Tiananmen massacre, 1996 demonstrations against Japan regarding the Diaoyu Islands,⁸³ the crackdown on the Falun Gong that began in early 1999, and demonstrations against the U.S. Embassy in Beijing following the inadvertent bombing of the Chinese Embassy in Belgrade in May 1999.⁸⁴

Since two U.S. aircraft carrier battle groups were dispatched to the Pacific near Taiwan in 1996, one of the most discussed scenarios in Western writings is a possible Chinese nuclear attack on aircraft carriers assisting Taiwan. This type of attack could come in the opening stage of a conflict to keep the U.S. from coming to Taiwan's aid, or after the U.S. had already become engaged in active support for Taiwan. The likelihood of

this type of attack would depend on many variables, including the overall political atmosphere at the time.

India

In New Delhi, where perception often seems to become reality, there is little question about whether China has tactical nuclear weapons. On May 11 and 13, 1998, India's new coalition government detonated several nuclear devices.⁸⁵ One week before the tests, George Fernandes, India's outspoken Defense Minister, stated that China was "encircling" India, was India's "potential threat number one," and "China's nuclear weapons were stockpiled in Tibet right along India's borders." Some newspapers reported this statement as "China has deployed missiles with nuclear warheads in Tibet targeting India." Former Indian Foreign Secretary J.N. Dixit, in a 5 May 1998 op-ed article in *The Hindu*, even stated, "We have been generally aware of the 'tactical' missiles in Tibet."⁸⁶

Pravin K Sawhney, an Indian security analyst, sums up India's views in a 1 August 2000 *Jane's Intelligence Review* article, where he states,⁸⁷

Within China's nuclear arsenal of nearly 500 warheads, 200 are strategic and the rest tactical.⁸⁸ These nuclear weapons are deployed at about twenty locations, including the Tibet Autonomous Region.⁸⁹ The PLA has conducted military exercises simulating the use of tactical weapons and has recently claimed to have mastered the technology to produce neutron bombs. The threat of China incorporating tactical nuclear weapons as part of its warfighting doctrine is greater than ever. Indian planners assume that the PLA could employ low-yield tactical nuclear weapons without fear of collateral damage in the disputed Himalayan ranges. Moreover, China's no-first-use policy does not clarify whether this doctrine applies to disputed territories that China considers its own.

Conclusion

The evidence available in open source material is not conclusive that China has tactical nuclear weapons beyond those for delivery by ballistic missiles. This does not mean, however, that countries like India do not believe China has TNW. Most of the open source references can be traced to as single source, the 1994 *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons*. Although China conducted nuclear tests consistent with low yields for tactical nuclear weapons and the PLA conducted simulated exercises under TNW conditions during the early 1980s, there is a lack of information about the actual deployment of these weapons in the PLA. Deployment with the ground, naval, and air forces would entail special command and control structures and weapons handling facilities, which have not been reported in open source material – but this does not mean they do not exist.

The PRC is faced with various dilemmas concerning its nuclear doctrine. While Beijing is on a path toward greater involvement in international arms control and disarmament, China is being confronted with new challenges on its borders, including India's nuclear capabilities, increasing tensions with Taiwan that could lead to a war with the United States, and the presence of American theater and national missile defense systems. These challenges have led to a vigorous debate within China on the issue of their no-first-use doctrine.⁹⁰

During the 1980s, the PLA conducted exercises focusing on the use of tactical nuclear weapons during a Soviet armored thrust toward Beijing. Although that threat no longer exists, China has been building up its SRBM and MRBM capability with conventional warheads geared toward a Taiwan conflict scenario involving the United States. Whether or not Beijing would turn to nuclear weapons in a Taiwan conflict is strictly scenario dependent. The PLA is also in the process of shifting its MRBM and ICBM force from fixed-site, liquid-fueled missiles to mobile, solid-fuel missiles to enhance their survivability. The PRC is also adding flexibility by developing the next generation of cruise missiles that could utilize nuclear warheads. These

changes have led to discussions about changing from a minimum deterrence to a limited deterrence posture.

Regardless of the specific doctrine Beijing chooses to ascribe to, the United States is now confronting a China with an increasing nuclear capability and an unwillingness to discuss arms control limitations for its own forces. Recent transcripts about the Chinese decision-making process that led to the PLA crushing peaceful demonstrators in Beijing in June 1984 show that regime maintenance is a fundamental principle for China's leaders when faced with the possibility of losing their grip on power.⁹¹ Therefore, it is not inconceivable that China's leaders would resort to the use of nuclear weapons if the situation warranted.

Endnotes

¹ Robert S. Norris, Andrew S. Burrows, Richard W. Fieldhouse, *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons* (New York: Westview Press, 1994), 324.

² This theme is emphasized in Robert Manning, Ronald Montaperto, and Brad Roberts, *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*, Chairmen's Report on a roundtable jointly sponsored by the Council on Foreign Relations, the National Defense University, and the Institute for Defense Analysis (New York: Council on Foreign Relations, 2000).

³ The author would like to thank Brad Roberts, Iain Johnston, Bates Gill, James Mulvenon, Evan Medeiros, Paul Godwin, Bonnie Glaser, Banning Garrett, Dunbar Lockwood, Peter Almquist, and Stan Norris for their assistance and permission to use lengthy portions of material they have previously published on this complicated subject.

⁴ *Zhongguo Junshi Baike Quanshu* [Chinese Military Encyclopedia], Beijing, Academy of Military Science Publishers, July 1997, Vol 6-1107. Besides providing the definition of TNW, the encyclopedia discusses the history of U.S. and Soviet TNW systems. Unlike the article on strategic nuclear weapons which acknowledges that China has them, there is no mention of the PLA having TNW or of China developing these weapons.

⁵ There is a lack of consistency in Western reporting, including testimony on Capitol Hill, on whether some of China's missiles are medium-range or intermediate-range. This paper refers only to medium-range ballistic missiles. See Shirley A. Kan, "China: Ballistic

and Cruise Missiles,” Congressional Research Service Report for Congress, 97-391F, Updated 28 September 1998. The U.S. classification of ballistic missiles states SRBMs have a range of 70-1000 km (43-620 miles), MRBMs 1001-3000 km (621-1860 miles), IRBMs 3001-5000 km (1861-3100 mi), and ICBMs 5001+ km (3101+ miles).

⁶ William Manchester, *American Caesar: Douglas MacArthur 1880-1964* (New York: Laurel Books, 1982). Sheila Tefft, “China Tests Nuclear Device – As Well As World’s Resolve,” *The Christian Science Monitor*, 16 May 1995.

⁷ Jim Mann, “U.S. Considered ‘64 Bombing to Keep China Nuclear-Free,” *Los Angeles Times*, 27 September 1998. According to Major General Wu Jianguo, former associate professor and dean of the PLA’s Antichemical Warfare Academy, President Eisenhower ordered the Pentagon to formulate a nuclear program aimed at China, and Soviet President Brezhnev considered initiating a nuclear attack on China during the 1969 border conflict to attempt to ruin China’s nuclear facilities. See Wu Jianguo, “Nuclear Shadows on High-Tech Warfare,” in Michael Pillsbury, ed., *Chinese Views on Future Warfare*, National Defense University Press, September 1998, 142-143. According to Joseph C. Anselmo, in 1996 the head of U.S. Strategic Command [Air Force General Eugene Habiger] said the U.S. had threatened to use nuclear weapons on five occasions, including 1969 when the Russians asked the United States if it would join them in an attack against the Chinese. Others cited President Eisenhower’s threat to use tactical nuclear weapons in 1953, which was apparently aimed at getting China and North Korea to agree to a Korean War cease-fire, and 1954 and 1958 to deter communist China from invading Quemoy and Matsu, offshore islands held by Chinese nationalist forces. See Anselmo, “U.S. General: Nuclear Deterrence Offsets Need for Missile Defense,” *Aviation Week and Space Technology*, 2 September 1996, Vol. 145, No. 10; Pg. 68; James Pringle writes that in 1969, on Damanski island (Zhenbao in Chinese) in the Ussuri River, there was a fight between Chinese and Russian troops that started with fists, graduated to small arms, escalated to tank and artillery fire, and might have ended with a nuclear war had not Richard Nixon warned Leonid Brezhnev that the United States would not remain indifferent to a Soviet attack on China. Next to the Cuban missile crisis, many observers believe, this was the moment the world came closest to nuclear war. Brezhnev believed Chinese armies were poised to invade from Manchuria. Mao Tse-tung, expecting a Soviet nuclear strike, ordered the Chinese population in Harbin, capital of China’s northernmost province of Heilongjiang, and

in Peking itself to dig deep tunnels and store grain. Pringle, "Closed Minds Prevail on Open Frontier," *The Times*, 6 July 1996.

⁸ In this context, missiles include complete systems, technology, or components.

⁹ Manning, Montaperto, and Roberts, *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*, 17-18.

¹⁰ Bates Gill and James Mulvenon, "The Chinese Strategic Rocket Forces: Transition to a Credible Deterrence," *China and Weapons of Mass Destruction: Implications for the United States*, National Intelligence Council, Conference Report, 5 November 1999.

¹¹ Alastair Iain Johnston, "Prospects for Chinese Nuclear Force Modernization: Limited Deterrence Versus Multilateral Arms Control," *China Quarterly*, June 1996: 552.

¹² John Wilson Lewis and Hua Di, "China's Ballistic Missile Programs: Technologies, Strategies, Goals," *International Security*, Fall 1992, 6-7.

¹³ China's no-first-use pledge: "China undertakes not to be the first to use nuclear weapons at any time or under any circumstances." China's National Statement On Security Assurances, 5 April 1995.

¹⁴ Some authors call this "minimal deterrent."

¹⁵ China's negative security assurances: "China undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon States or nuclear-weapon-free zones at any time or under any circumstances. This commitment naturally applies to non-nuclear-weapon States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons or non-nuclear-weapon States that have undertaken any comparable internationally binding commitments not to manufacture or acquire nuclear explosive devices." China's National Statement On Security Assurances, 5 April 1995.

¹⁶ "China's National Defense in 2000," *Xinhua*, 16 October 2000.

¹⁷ *China's National Defense*, (Beijing: Information Office of the State Council of the People's Republic of China, July 1998).

¹⁸ Lewis and Xue, *China's Strategic Seapower*, 232-33.

¹⁹ Hua Hongxun, "China's Strategic Missile Programs: Limited Aims, Not 'Limited Deterrence,'" *Nonproliferation Review*, Winter 1998, 60-68.

²⁰ Alastair Iain Johnston, "China's New 'Old Thinking': The Concept of Limited Deterrence," *International Security*, Winter 1995/96, 26-29.

²¹ *Ibid.*

²² Paul H.B. Godwin, "From Continent to Periphery: PLA Doctrine, Strategy, and Capabilities Toward 2000," in David S. Shambaugh and Richard H. Yang, eds. *China's Military in Transition* (Oxford: Clarendon Press, 1997), 284-312.

²³ Mel Gurtov and Byong-Moo Hwang, *China's Security: The New Roles of the Military* (Boulder: Lynne Rienner Publishers, 1998), 128-129.

²⁴ Correspondence with Brad Roberts, December 2000.

²⁵ For an analysis of Chinese views of the U.S.-Soviet strategic arms negotiations in the early 1970s, see Michael Pillsbury, *Salt on the Dragon: Chinese Views of the Soviet-American Strategic Balance*, Rand study P-5374 (Santa Monica: Rand Corporation, February 1975).

²⁶ Banning N. Garrett and Bonnie S. Glaser, "Chinese Perspectives on Nuclear Arms Control," *International Security*, Winter 1995/96, 43-78. The Chinese have waffled since 1981 in their official position on terms for Chinese participation in strategic nuclear arms reductions talks with the other four declared nuclear powers. See Alastair Iain Johnston, "Learning Versus Adaptation: Analyzing Change in Chinese Arms Control Policy," paper prepared for American Political Science Association Annual Conference, New York, September 1994, pp. 42-43 and footnote 33 on p. 43.

²⁷ Zhongguo Xinwen She, January 30, 1992, cited in "China-U.S.-CIS: Beijing Defines Nuclear Disarmament Conditions," FBIS-Trends, FB TM 92-005, February 5, 1992, p. 46. In June 1994, Australian Deputy Prime Minister Brian Howe during a visit to Beijing said he was told by Chinese officials that the ball was in the court of the other nuclear powers to reduce their stocks to achieve "a situation of parity." AFP June 13, 1994, FBIS-CHI-94-114, June 14, 1994, p. 15.

²⁸ The Vienna-based Zangger committee, founded in 1971 and consisting of thirty-three nuclear or nuclear-related export countries, is the first international organization formed to control nuclear technology. The committee's goal is to strengthen consultation and cooperation on issues of nuclear nonproliferation and export control under the principles of the NPT.

²⁹ See Kenneth Allen and Eric McVadon, *China's Foreign Military Relations*, The Henry L. Stimson Center, October 1999, p. 25-25, for a discussion of the PLA's role in arms control.

³⁰ Japan has published its *Defense of Japan* white paper annually for over two decades, South Korea began publishing an annual *Defense White Paper* in 1988, Taiwan has published its *National Defense Report* every two years since 1992, and Mongolia issued its first *Defense White Paper* in 1997. Other countries in Southeast Asia have also published their own white papers.

³¹ China conducted 45 nuclear tests between October 1964 and July 1996. Information provided by Evan Medeiros at the Monterey Institute of International Studies.

³² *China's National Defense*, 32-34. The 1998 defense white paper was not Beijing's first attempt at military transparency. In 1985, the PLA began publishing the *Shijie Junshi Nianjian* [World Military Yearbook], which provided an overview of militaries around the world. The section on the PLA was only seventeen pages and provided almost no useful information. Each subsequent yearbook has provided greater amounts of detail on matters like organization and training. The Academy of Military Science has also published journals with numerous papers on military trends and how they affect the PLA.

³³ Interview in January 2001.

³⁴ Manning, Montaperto, and Roberts, *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*, 2. Although the monograph states China has intermediate-range ballistic missiles, this paper consistently uses medium-range ballistic missiles.

³⁵ "Statement for the Record to the Senate Subcommittee on International Security, Proliferation, and Federal Services on The Ballistic Missile Threat to the United States," Robert D Walpole, National Intelligence Officer for Strategic and Nuclear Programs, 9 February 2000.

³⁶ The PLA has additional nuclear warheads in storage. China is not currently believed to be producing fissile material for nuclear weapons, but it has a stockpile of fissile material sufficient to increase or improve its weapon inventory. Office of the Secretary of Defense, *Proliferation: Threat and Response 1997*, 25 November 1997.

³⁷ *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons*, 324-358.

³⁸ Shirley A. Kan, "China: Ballistic and Cruise Missiles," Congressional Research Service Report for Congress, 97-391F, Updated 28 September 1998. Although some media reports state that China has IRBMs, this is not the case. China only has SRBMs, MRBMs, and ICBMs.

³⁹ *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons*, 324-358. China shocked the world in 1988 by exporting 30-35 DF-3/CSS-2 missiles to Saudi Arabia in 1988. For the origins of the DF-3 sale see Lu Ning, *The Dynamics of Foreign-Policy Decision-making in China*, (Boulder, CO: Westview Press, 1997), 113-117; and John W. Lewis, Hua Di, and Xue Litai, "Beijing's Defense Establishment: Solving the Arms-Export Enigma," *International Security*, Spring 1991.

⁴⁰ Mark Stokes, "Weapons of Precise Destruction: PLA Space and Theater Missile Development," *China and Weapons of Mass Destruction: Implications for the United States*, Conference Report, 5 November 1999, 203-205.

⁴¹ “Ballistic Missile Threat Evolves,” *International Defense Review*, 1 October 2000.

⁴² National Intelligence Council, “Foreign Missile Developments and the Ballistic Missile Threat to the United States through 2015,” September 1999.

⁴³ “U.S. Calls in China’s Ambassador over Taiwan,” *Agence France Presse*, 16 March 2000. A full copy of his speech given at the Carnegie Endowment for International Peace can be found at <http://www.pacom.mil/ref/2000/sst/CARNEG.htm>.

⁴⁴ Tony Walker and Stephen Fidler, “China builds up missile threat: Deployment against Taiwan poses policy headache as Clinton prepares to meet premier Zhu,” *Financial Times*, 10 February 1999. Bill Gertz, “China strengthens position near Taiwan,” *Washington Times*, 26 February 1999. These articles cited unnamed U.S. intelligence sources who said Beijing plans to increase the number of SRBMs opposite Taiwan to 650 missiles by 2005. See “China’s Strategic Arsenal,” *Jane’s Intelligence Review*, 1 December 1999, for the missile designators and ranges.

⁴⁵ Prepared Testimony of Vice Admiral Thomas R. Wilson Director, Defense Intelligence Agency Before the Senate Intelligence Committee, *Federal News Service*, 2 February 2000. Vice Admiral Wilson told the Senate Intelligence Committee that by 2015, Chinese forces will be much better equipped, possessing more than a thousand theater-range missiles. This figure most likely includes MRBMs as well as SRBMs.

⁴⁶ Mel Gurtov and Byong-Moo Hwang, *China’s Security: The New Roles of the Military* (Boulder: Lynne Rienner Publishers, 1998), 129.

⁴⁷ Banning N. Garrett and Bonnie S. Glaser, *War and Peace: The Views from Moscow and Beijing*, Policy Papers in International Affairs Number 20, Institute of International Studies, University of California, Berkeley, 1984, 124-126. Xu Baoshan, “We Must Be Prepared to Fight Nuclear War in the First Stages of any Future War,” *Jiefangjun Bao*, 16 September 1979; and “The Might of Helan Shan Shakes,” *Ningxia Ribao*, 29 June 1982, FBIS-China, 3 August 1982. The *Ningxia Daily* reported the exercise and published a photograph of a mushroom cloud with the caption, “An ‘atomic bomb’ exploding deep in the ranks of the ‘enemy’.” Associated Press, “China Simulates Atomic Blast in War Games Aimed at Soviet,” *The New York Times*, 14 July 1982. The NYT article cited Western military sources who said the exercise was held in the remote Ningxia region, 435 miles south of the border of Soviet-allied Mongolia, and involved several hundred thousand men.

⁴⁸ *Nuclear Weapons Databook, Volume V: British, French, and Chinese Nuclear Weapons*, 324.

⁴⁹ The H-6 is a Chinese copy of the Soviet Tu-16 bomber, and A-5 (aka Q-5) is a Chinese variant of the Soviet Mig-19.

⁵⁰ Robert G. Sutter, *Chinese Nuclear Weapons and Arms Control Policies: Implications and Options for the United States*, CRS Report 94-422S, Washington, D.C., Congressional Research Service, March 25, 1994.

⁵¹ *Handbook of the Chinese People's Liberation Army*, Washington, D.C., Defense Intelligence Agency, DDB-2680-32-84, November 1984, 69. DIA's July 1976 *Handbook on the Chinese Armed Forces* (p. 3-15), states there was not confirmed nuclear doctrine and that China did not have tactical nuclear weapons at that time. The U.S. Department of Defense has produced the following reports for Congress since 1997 on Chinese missile capabilities, none of which address tactical nuclear weapons: "Selected Military Capabilities of the People's Republic of China," Report to Congress Pursuant to Section 1305 of the Fiscal Year 1997 National Defense Authorization Act, April 1997; "Report to Congress on Theater Missile Defense Architecture Options in the Asia-Pacific Region," 14 April 1999; and Department of Defense, "Report to Congress Pursuant to the FY99 Appropriations Bill," 1 March 1999. This report addresses Taiwan's ability to defend against current and emerging PLA capabilities. See also Secretary of Defense, "Report on the Current and Future Military Strategy of the People's Republic of China," Report to Congress Pursuant to the FY2000 National Defense Authorization Act, 23 June 2000, in an update of the 1999 report.

⁵² Gurtov and Hwang, *China's Security: The New Roles of the Military*, 129.

⁵³ Robert S. Norris and William M Arkin, "Chinese Nuclear Forces, 2000," *Bulletin of the Atomic Scientists*, 1 November 2000, 78. Whereas the 1994 Databook indicated that all of China's bombers (H-5, H-6, and H-7) and A-5 ground attack aircraft were included as tactical nuclear weapons carriers, the 2000 article states, "Bombers. China's bomber force is antiquated, based on Chinese-produced versions of outdated Soviet aircraft. With retirement of the Hong-5—a redesign of the Soviet Il-28 Beagle medium-range bomber—the main bomber is the Hong-6, based on the 1950s-vintage Soviet Tu-16 Badger medium-range bomber. Under a licensing agreement the Chinese began producing the H-6 in the 1960s. It was used to drop live weapons in two nuclear tests: a fission bomb in May 1965, and a multi-megaton bomb in June 1967. For more than a decade China has been developing

a supersonic fighter-bomber – the Hong-7 (or FB-7) – at the Xian Aircraft Company. The plane is not thought to have a nuclear mission.”

⁵⁴ *Shijie Junshi Nianjian* [World Military Yearbook], published by PLA Press, Beijing, 1988, 5. The Navy and Air Force also come under the control of the CMC, but their chain-of-command goes through the General Staff Department.

⁵⁵ Department of Defense, “Report to Congress Pursuant to the FY99 Appropriations Bill,” 1 March 1999.

⁵⁶ *Ibid.*

⁵⁷ Dennis J. Blasko, “Chinese Military Modernization: An Assessment,” *News World Communications*, 1 October 1999.

⁵⁸ Ambassador Sha Zukang’s speech at The Carnegie Endowment for International Peaces 7th International Non-Proliferation Conference, January 1999.

⁵⁹ Sha Zukang, “U.S. Missile Defence Plans: China’s View,” *Disarmament Diplomacy*, Issue No 43. Luo Jie and Ye Bian, “U.S. Missile Defense Will Bring No End of Trouble for the Future: Sha Zukang on Topics Including International Disarmament Situation and TMD,” *Beijing Shijie Zhishi*, No 13, 1 July 1999, p. 8-9, (FTS19990717000027, 19 July 1999).

⁶⁰ The three joint communiqués are: the February 28, 1972 Joint Communiqué (commonly known as the Shanghai Communiqué) which established liaison offices in the United States and China; the January 1, 1979 “Joint Communiqué on the Establishment of Diplomatic Relations between the United States and the People’s Republic of China”; and the August 17, 1982 “United States-China Joint Communiqué on United States Arms Sales to Taiwan.” On April 10, 1979, the U.S. Congress passed the Taiwan Relations Act (Public Act 96-8).

⁶¹ Manning, Montaperto, and Roberts, *China, Nuclear Weapons, and Arms Control: A Preliminary Assessment*, 2.

⁶² *Ibid.*, 2. Although the H-6 was used during several nuclear tests, there are no open source indications that the H-6 is a serious part of the PRC’s nuclear delivery program today.

⁶³ There is very little information available about the administrative structure for the Second Artillery Corps. However, prior to 1998, there were four first-level departments: Headquarters, Political, Logistics, and Technical Equipment. The latter was responsible for equipment research and development, maintenance, repair, and procurement. Following the creation of the General Equipment Department in 1998, the Technical Equipment Department changed its name to the Equipment Department (*zhuangbeibu*). *Shijie Junshi Nianjian* [World Military Yearbook], PLA Press, Beijing, 1987-1999.

⁶⁴ Mark Stokes, "Weapons of Precise Destruction: PLA Space and Theater Missile Development," *China and Weapons of Mass Destruction: Implications for the United States*, Conference Report, 5 November 1999, 203-205. Bases are located at Shenyang (80301 Unit); Huangshan (80302 Unit); Kunming (80303 Unit); Luoyang (80304 Unit); Huaihua (80305 Unit); and Xining (80306 Unit). The Second Artillery has one engineering design academy and four research institutes to solve problems associated with operations, TELs, and logistics (First Institute), command automation, targeting, and mapping (Third Institute), and missile and warhead engineering design (Academy of Engineering Design). The Second Artillery's Command College in Wuhan prepares officers for leadership positions within headquarters elements and launch brigades. The Engineering College in Xian educates technicians associated with equipment and technology departments at various headquarters and field units. General Second Artillery organizational information is drawn from numerous sources, to include open and internal (*junnei*) Chinese publications and from discussions while assigned as the assistant air attaché in Beijing, China from 1992-1995. Also see *PLA Directory of Personalities*, USDLO Hong Kong, 1996, pp. 48-51; Bill Gertz, "New Chinese Missiles Target All of East Asia," *Washington Times*, 10 Jul 97, p. 1; Hisashi Fujii, "Facts Concerning China's Nuclear Forces," *Gunji Kenkyu*, Nov 95, in FBIS-CHI-96-036; "Guangrong Bang" (Outstanding Units), *Flying Eagle (Changying)*, 3 Nov 93; "Guangrong Bang" (Outstanding Units), *Flying Eagle*, May 1992; Lewis and Xue, p. 213footnote; and Nuclear Weapons Databook, Vol. 5, pp. 324-335. Among sources, *Flying Eagle*, one of a handful of Second Artillery-associated publications, is most useful in piecing together the organizational structure. Second Artillery organizational issues are also discussed in author's *Strategic Modernization* monograph.

⁶⁵ Stokes, "Weapons of Precise Destruction: PLA Space and Theater Missile Development," 215-217.

⁶⁶ Bill Gertz, "China Targets Taiwan with 2nd Missile Base; Can Now Hit All Military Posts on the Island, Pentagon Says," *The Washington Times*, 8 December 1999. China began deploying SRBMs at two new bases, Yongan and Xianyou, opposite Taiwan in 1999. Media reports have not clarified whether these bases belong to a group army or to the Second Artillery Corps. Taiwan sources familiar with the PLA believe that the 300-kilometer DF-11 has already been fielded by at least two PLA ground force group armies. In addition, a 29 March 1999 edition of *Jiefangjun Bao* discusses the conversion of an unidentified Nanjing Military Region artillery unit to an SRBM brigade. The conversion began in early 1997.

⁶⁷ U.S. Department of Defense, “Selected Military Capabilities of the People’s Republic of China,” report to Congress pursuant to Section 1305 of the FY97 National Defense Authorization Act, April 1997. Found in Bates Gill and James Mulvenon, “The Chinese Strategic Rocket Forces: Transition to a Credible Deterrence,” *China and Weapons of Mass Destruction: Implications for the United States*, Conference Report, 5 November 1999, 46-48.

⁶⁸ In an interview in July 2000, one Taiwan military official indicated China could have as many as 120 ICBMs by 2010.

⁶⁹ One of the most discussed scenarios that could lead to a future conflict with Russia is China’s expansion into the Russian Far East. Zhores A. Medvedev has written about the decreasing Russian population and the increasing Chinese population in the Russian Far East and concern that “the district does not become a Chinese republic.” He states that since 1990 approximately one million Russians, about five per cent of the population, have left the Far East. While they have been leaving, traders, workers and farmers from the PRC have entered the southern districts of Russia’s eastern regions – both legally and illegally. No one knows exactly how many Chinese live in Russia. Spring 1994 estimates presented to the Duma varied from 300,000 to two million people. If the trend continues, the Chinese could form the majority of the population in the regions bordering China (Chitinskaya, Amurskaya, Khabarovskaya and the Maritime province) within twenty years. Zhores A. Medvedev, “Sino-Russian Borders: Perspective,” *The Times Higher Education Supplement*, 13 January 1995.

⁷⁰ Robert Keatley, “Navigating a Course of Peace,” *South China Morning Post*, 24 July 2000.

⁷¹ Information on China-Taiwan relations is taken in part from “Theater Missile Defenses in the Asia-Pacific Region,” The Henry L. Stimson Center Working Group Report, June 2000. Ken Allen was the lead author for this study.

⁷² *White Paper on China’s National Defense* (Beijing: Information Office of the State Council of the People’s Republic of China, July 1998).

⁷³ Ma Tien-lung, “Further Military Exercise in the East China Sea is Designed to Test Small Tactical Nuclear Weapons,” *British Broadcasting Corporation*, 19 August 1995, from *Hong Kong Ping Kuo Jih Pao*, 18 July 1995.

⁷⁴ Mark A. Stokes, “China’s Strategic Modernization: Implications for the United States,” U.S. Army Strategic Studies Institute, September 1999; and Mark A. Stokes, “PLA Strategic Warfighting in the 21st Century: Space and Theater Missile Development,” a paper presented

at the Conference on the People's Liberation Army, September 1999. Stokes is currently Country Director for China and Mongolia, Office of the Assistant Secretary of Defense for International Security Affairs, and served as the Assistant Air Attaché in Beijing from 1992-1995.

⁷⁵ Department of Defense, "Report to Congress Pursuant to the FY99 Appropriations Bill," 1 March 1999. This report addresses Taiwan's ability to defend against current and emerging PLA capabilities. The report addresses PLA and Taiwan force planning, strategy, and doctrine; and projected PLA and Taiwan capabilities in 2005.

⁷⁶ Richard K. Betts and Thomas J. Christensen, "China: Getting the Questions Right," *The National Interest*, Winter 2000/2001.

⁷⁷ Richard Halloran, "China a Long Shot in Taiwan Attack; Military Experts Say Beijing Not Ready for Battle," *The Washington Times*, 3 September 1999.

⁷⁸ "Chinese Military Commission Official Predicts War with Taiwan within Five Years: The PLA Possesses Neutron Bombs and Graphite Bombs," *British Broadcasting Corporation*, Summary of World Broadcasts, 21 November 2000, *Tung Fang Jih Pao* web site, 19 November 2000.

⁷⁹ "China Further Refutes Cox Report," *Xinhua*, 15 July 1999.

⁸⁰ William J. Broad, "Spies vs. Sweat: The Debate Over China's Nuclear Advance," *The New York Times*, 7 September 1999.

⁸¹ There are no indications Russia has transferred the nuclear-capable version of the SS-N-22.

⁸² Kenneth R. Timmerman, "Q: Has Clinton's China Policy Put U.S. National Security at Risk? Yes: Under Lax Export Controls and Reckless Sharing of Information, Clinton/Gore Have Armed a New Enemy," *Insight on the News*, 6 November 2000.

⁸³ David Aikman, "China Nationalism Replaces Communism as a Reason to Worry," *The American Spectator*, December 1996. China's Authorities were surprised by the outburst of nationalist feeling expressed in September 1996 by Hong Kong Chinese over the sovereignty of the Diaoyu Islands, which are uninhabited yet claimed by both China and Japan. In mid-October, Chinese cities were told not to permit any further demonstrations in support of the nation's Diaoyu claims. Universities and colleges were also instructed to prohibit anti-Japanese protests. Officials feared an "uncontrollable accident" in circumstances of emotional expression – a euphemism for the possibility that demonstrations might turn into anti-government protests at the weaknesses of China's foreign policy itself.

⁸⁴ "Chinese Anger at NATO Bombing Being Channeled by Communist Leadership," *Agence France Presse*, 9 May 1999.

⁸⁵ Kenneth W. Allen, "Nuclear Weapons and Sino-Indian Relations," News Advisory, Henry L. Stimson Center, 1 June 15, 1998.

⁸⁶ Fernandes' comments concerning Chinese nuclear missiles "in Tibet" have considerable credibility in India, which considers "historical" Tibet to include the Tibetan Autonomous Region and Qinghai Province (located between Tibet and Xinjiang).

⁸⁷ Pravin K Sawhney, "Evolving nuclear environment moulds India's military strategy," *Jane's Intelligence Review*, Vol. 12; No. 8, 1 August 2000.

⁸⁸ The article did not cite the source for this information, but it is most likely an extrapolation of the information from the 1994 volume noted above.

⁸⁹ On May 11 and 13, 1998, India's new coalition government detonated several nuclear devices. In a letter to President Bill Clinton on May 13, Prime Minister Atal Bihari Vajpayee asserted that India's nuclear tests were justified due to a deterioration in India's security environment. Without naming China specifically, he stated "We have an overt nuclear weapon state on our borders, a state which committed armed aggression against India in 1962." One week before the tests, George Fernandes, India's outspoken Defense Minister stated that China was "encircling" India, was India's "potential threat number one," and "China's nuclear weapons were stockpiled in Tibet right along India's borders." Some newspapers reported this statement as "China has deployed missiles with nuclear warheads in Tibet targeting India." Fernandes' comments concerning Chinese nuclear missiles "in Tibet" have considerable credibility in India, which considers "historical" Tibet to include the Tibetan Autonomous Region and Qinghai Province (located between Tibet and Xinjiang). For example, former Indian Foreign Secretary J.N. Dixit, in a 5 May 1998 op-ed article in *The Hindu*, stated that "we have been generally aware of the 'tactical' missiles in Tibet."

⁹⁰ Interview with Chinese military and arms control officials.

⁹¹ Andrew J. Nathan and Perry Link, ed., *Tiananmen Papers: The Chinese Leadership's Decision to Use Force Against Their Own People – In Their Own Words*, Public Affairs, 9 January 2001.

CHAPTER 11

Diplomatic Solutions to the “Problem” of Non-Strategic Nuclear Weapons

*Linton F. Brooks*¹

Recently, analysts and military officers have once again become concerned over so-called non-strategic nuclear weapons,² those designed for theater nuclear conflict. Existing bilateral nuclear arms control agreements leave these weapons uncontrolled except for the limited case of intermediate-range weapons covered by the Intermediate-Range Nuclear Forces (INF) Treaty and the reciprocal unilateral, informal restrictions (with no verification provisions) that were agreed to by Presidents Bush, Gorbachev, and Yeltsin in the Presidential Nuclear Initiatives (PNIs) of 1991-92. The prospect of deep reductions under a hypothetical third Strategic Arms Reduction Treaty (START III) has caused some to fear that a continued Russian advantage in non-strategic nuclear weapons could put the United States at a significant overall strategic disadvantage.

The problem is exacerbated by the great uncertainty over the number, location, and condition of many of the Russian weapons. While there is near-universal agreement that the Russian inventory far exceeds that of the United States, estimates of the number of theater nuclear weapons in the Russian nuclear inventory vary widely.³ Whatever that number, those weapons could, in the minds of many, pose a direct threat to the interests of the United States, to our European allies, to U.S. forces deployed in Europe, or to the U.S. ballistic missile submarine force. Some estimate of the degree of concern can be judged from the convening document of the November 2000 Airlie House Conference on Dealing with Non-strategic Nuclear Weapons, on which this volume is based:

First, many of them pose a direct threat to the continental United States. Russian long-range theater nuclear strike aircraft, cruise-missile-armed surface

combatants, and cruise missile submarines can attack important military and political targets along the coasts and deep inside the United States. Second, Russian nuclear-armed anti-submarine warfare aircraft, submarines, and ships threaten the U.S. ballistic missile submarine force, undermining the U.S. deterrent.... Non-strategic nuclear weapons are an important emerging national security policy issue.... [that] could affect perceptions of the U.S.-Russian nuclear balance, progress on nuclear arms control, and perceptions of nuclear proliferation's risk. [They] pose policy, planning, and operational challenges [that].... are likely to grow worse with time.⁴

Even those who doubt that there is a military threat question the safety, security, and accountability of Russian theater nuclear weapons. The lack of any verification associated with the Presidential Nuclear Initiatives and the continued doubt over how much progress Russia has made in implementing those initiatives only heighten the concern.

What is the Real Concern?

This chapter surveys diplomatic or negotiated options for dealing with the problems posed by Russian non-strategic nuclear weapons. The premise of the Airlie House conference was that Russian non-strategic weapons present a "problem" to be solved. This is obviously true in terms of safety and security, but less certain in pure military terms. Russian non-strategic weapons pose little threat to the United States and its allies. Most systems do not allow weapons to be delivered beyond Russian borders. In some ways, their retention is a mystery.

A look at Russian formal security policy quickly solves this mystery, however. Russian nuclear weapons are being maintained in a desperate attempt to compensate for Russian conventional inferiority. The Russian military doctrine makes this clear. It reads: "The Russian Federation reserves the right to use nuclear weapons in response to...large-scale aggression

using conventional weapons in situations critical to the national security of the Russian Federation.”⁵

Official Russian statements don't distinguish between strategic and non-strategic nuclear weapons. The Russian doctrine obviously is intended to refer to both, just as U.S. and NATO doctrine referred to both strategic and tactical weapons in the days when we feared Soviet conventional superiority. Thus non-strategic nuclear weapons are important to Russia primarily, maybe exclusively, as part of a hedge against conventional inferiority.⁶

Compensating for conventional inferiority was important to the United States during the Cold War. It is no longer necessary for America in a world in which it is the single military superpower. For Russia, however, the situation is quite different. Russia sees itself as vulnerable to conventional attack both by NATO and, in the more distant future, by China.⁷ This is the basis for renewed Russian interest in nuclear weapons. They are a sign of weakness, not strength.

The conference paper referred to above suggested several specific threats from non-strategic nuclear weapons. Few of them are persuasive. For example, the paper suggests a direct threat to the continental United States from theater strike aircraft (presumably Backfires) or from cruise-missile-armed surface ships and submarines. But the Russian Navy is in such dire straits—witness the disastrous loss of *Kursk*, one of the newest and most capable ships in the Russian arsenal—that at most we see a single ship in each ocean make periodic deployments. One or two ships would add little to Russian strategic capability even if the ships involved could survive in wartime to reach launch positions. Thus, while at-sea redeployment of non-strategic nuclear weapons would matter in political terms, it wouldn't matter militarily. After all, if the Russians want to threaten the U.S. homeland, they already can do so with intercontinental ballistic missiles (ICBMs) and, to a lesser extent, submarine-launched ballistic missiles (SLBMs).

The conference paper also suggested that Russian tactical nuclear weapons pose a threat to U.S. nuclear ballistic missile

submarines (SSBNs). But the problem in countering SSBNs is locating them, and there is no evidence the Russians have solved, or are likely to solve, this problem. Indeed, Russia's ability to threaten U.S. submarines is almost certainly less than it was during the Cold War.

Only the third issue—safety and security of non-strategic weapons—seems worth worrying about. Concerns with “loose nukes” arise almost entirely from fears over the security of Russian inventories of tactical weapons. The problem would become more acute if the Russians were to re-deploy these weapons to operational units. This is why the United States should worry about the Presidential Nuclear Initiative of 1991-2 unraveling.

The First Approach: Concentrate on Safety and Security

The security of Russian weapons is important, but is not best dealt with through traditional arms control. At its most fundamental level, improving security requires reducing Russian perceptions of the external threat, hastening Russia's integration into Western political and economic institutions, and reviving the Russian economy so that Russia can afford both adequate protection for nuclear weapons and a strong enough conventional force to lessen the perceived need to depend on nuclear weapons.

Pending these improvements, the Russian non-strategic nuclear weapons problem is best dealt with through the Cooperative Threat Reduction (CTR) program. Sustaining and, if possible, expanding that program is more important than any arms control measures. In this regard it would be an important step if the administration and Congress were to eliminate the current practice of limiting CTR funding to implementing formal agreements, so that the United States could fund safety and security improvements for tactical weapons.⁸

So the first possible “solution” is to be clear about the problem and to focus on what really matters, which is safety and security.

A Second Approach: Traditional Arms Control Options

Many, including the Joint Chiefs of Staff,⁹ disagree with my analysis that Russian non-strategic nuclear weapons pose a safety and security problem but not a military one. Those who take this point of view will find it attractive to try to reduce the threat posed by Russian weapons through more or less traditional arms control measures. Can such options be negotiated? The question presupposes that an agreement that can be negotiated can be both verified and ratified. Neither is certain.

Verification cannot be assessed until specific proposals are crafted, but the United States has no experience in verification at the warhead level. A verification regime for non-strategic nuclear weapons is likely to be both highly intrusive and marginally effective (although verification of warhead destruction would be somewhat easier).¹⁰

Ratification of any future agreement cannot be assured, especially if the agreement becomes captured in the ongoing congressional debate over national missile defense and the Anti-Ballistic Missile (ABM) Treaty. Verification difficulties will also translate into ratification problems. The discussion that follows will *assume* that a verifiable and ratifiable agreement is possible, but readers should be aware that this might not be the case.

The simplest approach is a stand-alone negotiation of some type. Options range from codifying the Presidential Nuclear Initiatives of 1991-2 to making more ambitious efforts to reduce the imbalance between numbers of U.S. and Russian non-strategic nuclear weapons.

Codifying the Presidential Nuclear Initiatives has considerable merit. Such codification could make it easier to implement Nunn-Lugar assistance, in which case it would be a good thing. Codification might also include some form of verification, or at least of increased transparency. Verification or transparency improvements would reduce the current uncertainty over the status of the Russian nuclear weapons affected by the Presidential Nuclear Initiatives.

But seeing codification as the entire “solution” to the “problem” of non-strategic nuclear weapons assumes that it is the uncertainty over Russian compliance that bothers the United States. That may not be correct. Those who worry about the “imbalance” in non-strategic weapons are unlikely to be satisfied by having their suspicions of imbalance formally confirmed. Thus, standing alone, codification is unlikely to resolve the issues that led to the convening of the Airlie workshop or to the continuing concern of the Joint Chiefs of Staff.

Unfortunately, while codification may be possible as a stand-alone effort, negotiation of actual reductions is not. There seems little chance of more than symbolic agreements covering non-strategic nuclear weapons. Russia has a huge advantage in numbers of these weapons, and the United States has few incentives to offer Russia to reduce that imbalance. We could agree to eliminate nuclear Tomahawk Land-Attack Missiles (TLAM/N)¹¹ or to remove the remaining nuclear weapons from Europe. Eliminating TLAM/N would pose little problem, but our NATO allies might have significant problems with the United States withdrawing nuclear weapons from Europe.¹² Although the military rationale for these weapons no longer exists, they continue to play an important symbolic and political role.

Even if we decide the NATO problem can be overcome, it is difficult to see how that buys much, given the renewed importance of nuclear weapons in Russian doctrine, especially if the conventional wisdom is correct and tactical weapons have become more important in Russia as the ultimate deterrent against invasion or coercion by NATO or, in the future, China. If Russian tactical nuclear weapons are a counter not to U.S. tactical weapons but to U.S. conventional forces, reducing U.S. tactical nuclear deployments won't provide much incentive for Russia to reduce its own capabilities.

Slightly more promising is a formal integration of non-strategic nuclear weapons into a future START III Treaty negotiation. This was the Clinton administration's approach to future arms control discussions involving non-strategic nuclear weapons. Its

essence was set forth in the Clinton-Yeltsin Helsinki joint summit statement of March 1997:

The Presidents also agreed that in the context of START III negotiations their experts will explore, *as separate issues*, possible measures relating to nuclear long-range sea-launched cruise missile and tactical nuclear systems... [emphasis added]¹³

There is, however, a significant problem with this approach. It assumes that there is a viable START III process. But there was not such a process as of early 2001, and is unlikely there will be one for some time, if ever. Despite significant efforts by the Clinton administration and an almost unending series of meetings, no progress has been made. The United States had thought that the replacement of Boris Yeltsin with Vladimir Putin as Russia's President might offer new opportunities (previously there was no effective Russian interagency process and no one to negotiate with). This hasn't proven true.¹⁴

The reason for Russian intransigence is, of course, national missile defense. Arms control in the waning days of the Clinton administration was dominated by a totally unsuccessful attempt to find some formula to allow modification of the ABM Treaty to allow minimal deployment of a ground-based ABM system.

The extremely modest U.S. proposal would not even have allowed deployment of the second ABM site called for in the administration's plans. Despite this, the Russians totally rejected the U.S. approach. The degree of Russian opposition became clear when the U.S. position was posted on the *Bulletin of Atomic Scientists* web site.¹⁵

The impasse on the ABM Treaty and national missile defense has also blocked any progress toward START III. Russian Foreign Minister Ivanov made this clear in late 2000 when he wrote in *Foreign Affairs*, "Lifting the ban on deployment would deprive the [ABM] Treaty of its essence.... Further nuclear arms reductions will not happen without the ABM Treaty."¹⁶

America's One Available Negotiating Coin

Even if the issues surrounding national missile defense could be resolved, the United States still might not be able to make any progress on the core issues of START III, let alone expand START III to cover non-strategic weapons. As a practical matter, the United States has only one concession to make in strategic arms control negotiations: it can meet the Russian demands to set strategic force levels well below the Helsinki agreed-upon level of 2,000-2,500 strategic nuclear warheads. In essence, we have one coin to spend. With this coin, we want to buy agreement to ABM deployment, new bomber counting rules, rejection of all Russian attempts to limit conventional forces, constraints on non-strategic nuclear weapons, improved transparency and warhead destruction, and simplification of verification in order to save money.

Thus far, however, the United States has not been willing to spend that coin at all, let alone to choose which of the competing objectives to spend it on. Spurred by concerns from the Joint Chiefs of Staff and, especially, the Commander-in-Chief of the U.S. Strategic Command, the U.S. government has determined that it cannot accept levels of strategic warheads below those agreed to at Helsinki without first conducting a formal review of U.S. targeting strategy.¹⁷ The congressionally mandated Nuclear Posture Review¹⁸ will provide an opportunity to conduct this review. Reducing strategic offensive arms to the level of 1,500 warheads, as many Russians suggest, will almost certainly require changes in the targeting approach that the United States has followed for the past two decades. It is clear that such changes are possible; the question is whether they will be acceptable to the political leadership.

Further, if modifying the ABM Treaty to permit limited deployment of national missile defense remains a key objective of U.S. arms control policy, then that objective will probably preclude any progress on non-strategic nuclear weapon reductions. If our only leverage is accepting Russian-proposed strategic force levels, there is a limit to what we can extract for that concession, especially since in most other areas we are the *demandeur*. To return to the coin metaphor, if the United States has only one coin to spend, we may be able to buy limited NMD agreement, but we can't buy much else. Therefore, the second

broad approach—traditional arms control—probably won't work.

The Third Approach: External Trade-Offs

Thus far I have argued that stand-alone negotiations on non-strategic nuclear weapons won't work and that combined negotiations probably won't either. Are there other approaches? One possibility is to seek some other form of trade-off. In principle, future trade-offs need not be limited to the nuclear arena but could include reductions in Russian non-strategic nuclear weapons in return for, say, U.S. economic assistance or help with the environmental cleanup of nuclear facilities.¹⁹

This idea is superficially attractive, but there are no historical examples of such a trade-off in the Russian-American context.²⁰ Further, if Russians see tactical nuclear weapons as crucial to compensate for conventional inferiority, they may be unwilling to reduce them in any case. Finally, it could prove politically very difficult to obtain approval for such an approach in either the United States or Russia. Still, this is an interesting option that deserves further study. Strong Presidential leadership on both sides would be necessary to overcome the bureaucratic obstacles.

A variant to this idea of external trade-offs is a suggestion made by Sergey Rogov, Director of the Institute of the USA and Canada of the Russian Academy of Sciences. Rogov suggested that Russian concessions on arms control issues might be accompanied by concessions from the International Monetary Fund to Russia or by agreement to reschedule or forgive Soviet-era (and perhaps even Russian) debt. It seems very difficult to see how such an arrangement might work; the bureaucratic and procedural obstacles appear insurmountable, even assuming—as is far from clear—that political conditions in the United States and Russia made it attractive.

The final possibility is to look for trade-offs in conventional forces. Although the Helsinki agreement promised to discuss only nuclear forces, the Russians clearly want to discuss all sea-launched and air-launched conventional cruise missiles. Russian

Navy leaders have stated a concern in unofficial dialogues that conventional strikes could destroy their fragile command and control system for communicating with ballistic missile submarines. Similarly, some Russians advocate various types of restrictions on, for example, anti-submarine warfare, as a way of protecting their strategic forces. More generally, Russians are exceptionally concerned with advanced conventional weapons. They would welcome limits on such weapons.²¹

The United States has always resisted suggestions for limits on conventional military technology and should probably continue to do so. The United States depends on conventional high-technology weapons and unrestricted freedom of the seas in meeting its worldwide responsibilities. Whatever the benefits of new limits on tactical nuclear weapons, they don't appear to be worth constraining these conventional capabilities. Certainly the very limited military threat from non-strategic nuclear forces is insufficient to justify such a major change in U.S. policy.

It is theoretically possible that some form of NATO agreement to limit placing conventional forces on the territory of the new NATO members could play a role in a complex agreement involving non-strategic nuclear forces, but the negotiating complexities and NATO policy issues are daunting. Still, if non-strategic nuclear forces are as important as some claim, this option too may be worth pursuing.

Conclusion

To solve any problem, we must first be clear on what the problem is. If the problem with Russian non-strategic nuclear weapons is that we fear they will fall into the wrong hands, then the solution is straightforward in principle, although difficult in practice. First, the United States and NATO must continue to build a cooperative relationship with the Russian Federation to reduce Russian perceptions of the threat from the West. Otherwise, these perceptions, combined with the weakness of Russian conventional forces, may cause Russia to re-deploy its non-strategic nuclear weapons to tactical units. Second, the United States should continue to expand efforts under the Cooperative Threat Reduction program to strengthen safety and

security and to assist in dismantlement. Formal agreements have only a modest role to play in these endeavors.

If, however, as suggested by the organizers of the Airlie House conference, the problem is that we want to reduce actual Russian military capability through diplomatic means, then the situation is more complex and there may be no solution. This essay has assumed that there may still be a role for traditional East- West arms control, but it is an open question whether any such role remains. It may be time to simply abandon the process. The United States has no affirmative, achievable goals in a hypothetical START III except to preserve the regime of the ABM Treaty while allowing deployment of national missile defense. This may not be possible in a way that allows anything more than an extremely minimal NMD deployment. Abandoning traditional East-West arms control would free us to seek a fundamentally new relationship between the United States and the Russian Federation. Many have called for such a step,²² although there is no good model for such a new relationship.

But even if traditional arms control continues, it probably can't play a significant role in capturing Russian non-strategic weapons. One of the biggest myths in Washington is that the ability to identify a problem proves there must be a solution. This case is an example of that myth: the "solution" of a traditional arms control arrangement may seem attractive, but it is unlikely to solve the "problem" of Russian non-strategic nuclear weapons. Some things really are too hard.

Endnotes

¹ This essay has been adapted from remarks made at the U.S. Air Force-sponsored November 2000 Airlie House Conference on Dealing with Non-strategic Nuclear Weapons. The views expressed are the author's and not those of the Center for Naval Analyses; its parent, The CNA Corporation; or any component of the Department of Defense. I am grateful to my CNA colleagues Daniel Whiteneck and Richard Weitz for their helpful comments on this draft.

² The distinction between strategic and other nuclear weapons has almost certainly lost whatever utility it may once have had. By any

rational definition, all nuclear weapons are “strategic.” Despite this, I will use the term “non-strategic nuclear weapons” in this chapter to mean those weapons not covered by the various START treaties.

³ For an excellent, non-alarmist summary of various estimates of Russian inventories, see Chapter 12 by William C. Potter. Although Potter estimates that there are only a few thousand Russian weapons, others estimate that close to 20,000 such weapons exist.

⁴ Untitled and undated paper (September 2000) provided by the U.S. Air Force Directorate for Nuclear and Counterproliferation as part of the registration package for the November 2-3, 2000 Airlie House Conference on Dealing with Non-Strategic Nuclear Weapons.

⁵ *Military Doctrine of the Russian Federation*, approved by a presidential decree dated April 21, 2000, published in Russian newspaper *Nezavisimaya Gazeta* on April 22, 2000.

⁶ For a more robust description of the role of Russian non-strategic nuclear weapons, see Chapter 9 by David S. Yost, “Russia and Arms Control for Non-Strategic Nuclear Forces.” While Yost identifies more roles for Russian non-strategic weapons than simply countering conventional inferiority, his broad conclusion is consistent with those in this chapter: Russia sees many disincentives to negotiated reductions in non-strategic nuclear weapons.

⁷ Americans tend to dismiss Russian concerns over a potential NATO attack, assuming that the Russians cannot be serious. This is probably a mistake. For at least some Russians, nuclear coercion by NATO—and even actual attack—is a genuine fear.

⁸ The CTR Program (also referred to as the Nunn-Lugar Program after its sponsors in the U.S. Senate) is managed by the Defense Threat Reduction Agency and helps Russia dismantle excess nuclear warheads and improve the safety and security of those that remain. It is thus the ideal vehicle for dealing with safety and security concerns. For additional information, see www.dtra.mil/ctr/ctr_index.html.

⁹ For an indication of military concern, see the testimony of the Joint Chiefs of Staff and the Commander-in-Chief, U.S. Strategic Command on “U.S. Strategic Nuclear Force Requirements,” delivered May 23, 2000 before the Senate Armed Services Committee.

¹⁰ For additional details on the challenges posed by warhead verification, see Chapter 7 by Philip (Tony) Foley.

¹¹ TLAM/N is a nuclear-armed cruise missile originally designed for launch from U.S. Navy surface ships and attack submarines. All TLAM/N were removed and stored ashore under the Presidential Nuclear Initiative of late 1991. Subsequently the United States abandoned the capability to re-deploy these missiles on surface ships, while retaining the ability for submarine deployment.

¹² Because the United States and NATO do not make public the number of weapons in Europe, reductions in that number (generally already assumed to be relatively low) would probably have little diplomatic impact and give the United States little leverage in negotiations with Russia.

¹³ “Joint Statement on Parameters on Future Reductions in Nuclear Forces,” The White House, Office of the Press Secretary, Helsinki, Finland, March 21, 1997.

¹⁴ START II approval by the Russian Duma is, of course, a good sign, but because of the relations with national missile defense and the ABM Treaty it really doesn’t move us very far. There is no near-term chance of U.S. Senate ratification of START II, because of ABM Treaty issues.

¹⁵ See

www.bullatomsci.org/issues/2000/mj00/treaty_doc.html#ANCHOR1.

¹⁶ Igor Ivanov, “The Missile Defense Mistake: Undermining Strategic Stability and the ABM Treaty,” *Foreign Affairs*, September/October 2000, pp. 16, 18.

¹⁷ See the May 23, 2000 testimony cited above (footnote 9) for a public example of this position.

¹⁸ Mandated by Section 1041 of the Fiscal Year 2001 National Defense Authorization Act. The Congress explicitly calls for an assessment of “the levels and composition of the nuclear delivery systems” that will be required for implementing U.S. strategy.

¹⁹ I am indebted to Richard Weitz for suggesting this possible approach.

²⁰ The early 1990s agreement that the United States would purchase 500 metric tons of highly enriched uranium from Russian weapons for blending and subsequent re-sale as commercial reactor fuel may be an exception.

²¹ These conclusions on Russian attitudes are based on a number of private and seminar discussions with Russia military officers, government officials, and academics that I have conducted over the past several years.

²² Among them: then-candidate George W. Bush, who said that the current situation calls for “nothing short of a new strategic relationship” with Russia. See www.georgebush.com/issues/foreignpolicy.html.

CHAPTER 12

Practical Steps for Addressing the Problem of Non-Strategic Nuclear Weapons

*William C. Potter*¹

This chapter outlines a number of steps one could take to try to move the arms control process forward with respect to non-strategic nuclear weapons (what I refer to out of habit as tactical nuclear weapons or TNW). These recommendations are based on two key assumptions: (1) there is a real threat posed to U.S. national security by Russian TNW; and (2) the threat is likely to increase significantly in the future due to the fragility of the informal 1991/92 TNW arms control regime and because of the growing pressure in Russia to modernize its TNW force. I do not think the conference upon which this book is based adequately came to grips with the nature of the threat for which my practical steps are supposed to cope.

In this chapter I begin by making the case for the immediacy of the Russian TNW threat and the inadequacy of the current, informal TNW regime. I then review the recent, post-Helsinki history of TNW deliberations between the United States and Russia. I make four basic points that will include a number of practical recommendations for advancing the TNW arms control process: (1) transparency measures should be pursued, but not within the context of the next Strategic Arms Reduction Treaty (START III); (2) the principal, immediate objective for formal negotiations in the realm of TNW should be codification of the 1991/92 parallel, unilateral declarations; (3) withdrawal of U.S. TNW in Europe may be a useful catalyst to jump-start such negotiations, but it is mistaken to assume, as have most of the previous chapters, that this is the most important concern for Russian arms control policymakers; and (4) there may be several useful ways to pursue Lewis Dunn's notion of a "mix and match" strategy by expanding the Cooperative Threat Reduction Program to include TNW dismantlement and by seeking to make TNW an issue in the context of the NPT Review Process.

The Nature of the Threat

Tactical nuclear weapons are the category of American and Russian nuclear arsenals least regulated by arms control agreements. They are only subject to an informal regime created by unilateral, parallel declarations made by George Bush and Mikhail Gorbachev in the autumn of 1991, the latter of which subsequently was affirmed and expanded upon by Boris Yeltsin in January 1992. Since then, TNW have not figured prominently in the bilateral United States-Russian arms control and disarmament agenda.

This lack of attention to TNW is unfortunate and dangerous given their large number, the risks of early and/or unauthorized use, and their vulnerability to theft. The regime itself is increasingly precarious since it is not legally binding, does not provide for data exchanges, and lacks a verification mechanism. As such, it is poorly equipped to withstand increasing challenges, such as the deterioration in US-Russian political relations; the growing skepticism in both countries about the role of arms control treaties in providing for their national security; the revival of interest in TNW in both Russia and, to a lesser extent, in the United States; growing pressure in Russia to re-manufacture and/or modernize its TNW force as the existing stocks near the end of their service life; and finally, the renewed interest in TNW in South Asia following the nuclear detonations by India and Pakistan in 1998.

The dangers of TNW relate to their physical properties and the policies for their deployment and employment. More specifically, these threats include:

- *Vulnerability to theft and unauthorized use.* The relatively small size of TNW and the absence among older warhead generations of electronic locks or Permissive Action Links (PALs) make them more attractive targets for theft than warheads for strategic delivery vehicles. TNW also are often stored separately from their delivery vehicles, which may be dual-use and thus are more susceptible to theft than their

strategic counterparts, which are more likely to be “mated” to missile delivery systems.

- *Forward-basing.* The intended use of TNW in battlefield and theater-level operations encourages their forward-deployment, especially during international crises. This forward-basing increases the risk of the weapons’ use at an early stage of a conflict and may actually provoke a preemptive strike by the other side.
- *Pre-delegation of launch authority.* An orientation toward the employment of TNW in conjunction with conventional forces and a concern about their survivability argues for the pre-delegation of launch authority to lower level commanders in the theater, especially once hostilities commence. This might result in diminished control by the political leadership over TNW.
- *Trends in modernization.* Nuclear weapons designers in both the United States and Russia display increasing enthusiasm for creating new, low or variable yield nuclear warheads. Low yield warheads for deployment as TNW are perceived as more usable in a broad range of conflict scenarios, a development that would lower the nuclear threshold. These pressures will be hard to resist as long as TNW exist.
- *Attractiveness to potential proliferators.* In addition to their relatively small size, TNW are attractive to potential proliferators because of the dual-use nature of many of their delivery systems. These systems tend to be much more readily available on the international market than are those for strategic weapons.
- *Russian safeguards.* In Russia, the security of TNW also is compromised by the lack of adequate storage facilities to handle the influx of warheads pending elimination and by the continuing turmoil, economic hardship, and general malaise within the armed forces. TNW for aircraft pose special risks since they are not kept at central storage sites and are supposed to be available for rapid deployment. A potentially serious but under-appreciated security problem involves the growing number of retired officers who previously guarded nuclear weapon sites. Many of these individuals continue to live within the storage site’s outer

perimeter since they are entitled to housing by law, even though they work elsewhere. There have been cases in which such retirees have assisted local criminal elements to penetrate several layers of security at nuclear storage sites, although the target of these activities appear to have been conventional rather than nuclear arms.

The Parallel Unilateral Declarations

The aforementioned properties of TNW, policies for their deployment and use, and the peculiarities of the current Russian domestic scene, increase the risk of nuclear weapons proliferation and reduce strategic stability. Moreover, to the extent that the two leading nuclear powers appear to consider these weapons essential and “usable,” others may well emulate their example.

These risks were only partially addressed by the 1991/92 parallel unilateral declarations on TNW. These parallel declarations provided for the elimination of the entire U.S. world-wide inventory of ground-launched theater nuclear weapons; the removal of all nuclear Tomahawk cruise missiles from U.S. surface ships and submarines, as well as nuclear bombs aboard aircraft carriers; the dismantling and destruction of many of these warheads, and the securing of the remainder in central storage areas in the United States. The Soviet Union, in turn, pledged (and Russia subsequently reaffirmed) its intent to eliminate all nuclear warheads on land-based tactical missiles, as well as nuclear artillery munitions and mines; to withdraw nuclear warheads for air defense systems and to store them at central bases, to remove all tactical weapons from surface ships, submarine, and land-based naval aviation; and to secure those TNW that were not eliminated at central storage sites in Russia. The redeployment in central storage and/or elimination of TNW as a function of the 1991/92 parallel unilateral declarations measured in the thousands of nuclear charges. As a disarmament measure these steps surpassed all the negotiated agreements between the United States and the Soviet Union/Russia.

Notwithstanding the significant accomplishments of the parallel, unilateral declarations, the informal regime suffers from a number of serious deficiencies:

- Unilateral statements are not legally binding. They can be disavowed without prior notification.
- The parallel, unilateral declarations do not provide a mechanism for their mutual modification.
- The 1991/92 informal regime does not provide for data exchange or any verification and transparency measures. It is, therefore, impossible to have confidence in the implementation of the declarations and to ascertain the status of the remaining TNW.
- Reductions under the unilateral statements were conceived in terms of the percentage of the arsenal rather than with respect to agreed ceilings. No reference was made to the total number of TNW at the time of the statements and there is no indication of the numbers to be reduced. Neither the United States nor Russia has released official public information regarding the number or location of their TNW.

Recent Developments Regarding the Reduction of TNW

Neither Russia nor the United States paid much attention to TNW arms control and disarmament following the 1991/92 declarations. The United States made no serious effort to supplement the informal regime, and Russia preferred to ignore the issue of further TNW controls. The international community, with the notable exceptions of Norway, Sweden, Finland, and Kyrgyzstan, also remained silent until very recently about the risks posed by TNW and the need for further reductions and/or legally binding agreements replete with verification provisions. Indeed, efforts by Sweden and Norway in 1996 to generate international support for codifying the existing declarations into a legally binding treaty generated no response from the United States, Russia, or other countries, and as late as 1997 only Finland and Kyrgyzstan had raised the issue of TNW arms control and disarmament in the Nuclear Non-Proliferation Treaty (NPT) forum.

The issue of TNW did not resurface on the U.S.-Russian arms control agenda until 1997. During a Clinton-Yeltsin summit in Helsinki, Russia proposed that START III should address sea-launched cruise missiles. The United States responded with a counterproposal to simultaneously address all TNW. There were then several rounds of consultations in 1997 and 1998 about the future of START III in which both sides entertained the possibility of creating a single limit on all of their nuclear weapons that would combine both strategic and tactical warheads.

In early 2000 the United States tabled a draft of START III, whose transparency provisions explicitly covered warheads for non-strategic delivery vehicles. Russia, in turn, incorporated in its START III proposal an element from its position in the late 1960s, which called for the application of the treaty's coverage to all nuclear weapons capable of reaching the territory of the other side (including, obviously, U.S. TNW in Europe). Since then, neither side has responded positively to the proposal of the other. Although there appears to be little prospect in the near-term for progress in addressing TNW within the strategic arms control negotiating arena, shortly after the conclusion of the 2000 NPT Review Conference the United States did formally propose to Russia to reaffirm the 1991 parallel declarations. Russia did not respond directly to that proposal, but reiterated its position that the United States withdraw its TNW from Europe.

Practical Steps for Advancing TNW Arms Control

Transparency Measures

In Chapter 5 Bob Gromoll and Dunbar Lockwood make the case for pursuing an approach to negotiated TNW arms control that emphasizes transparency measures. I agree that it makes sense to focus on TNW transparency because the 1991/92 informal regime has no provisions for data exchanges or verification. Given the wide range of estimates about Russian TNW (see Appendix One for alternative figures), it would be very useful to exchange data on the number of TNW stocks by category (i.e., deployed, reserve/long-term storage, slated for elimination). It

also would be useful to exchange data on the pace of TNW reductions since 1991 and the distribution of remaining TNW by region.

Where I disagree with the current U.S. approach to TNW arms control is the attempt to link TNW transparency to the START process. Even if one is very optimistic and assumes that there is some prospect for movement in START III with respect to strategic nuclear weapons, I cannot imagine any progress being made if one burdens an already halting process with the problem of TNW transparency. In fact, it is the transparency provisions of the current U.S. proposal that Moscow finds most objectionable.

How then might one proceed? One approach would be to initiate a separate negotiation on TNW that is not linked to START III.

Formalization of the 1991/92 Declarations.

A separate negotiation on TNW should have as its principal objective codification or formalization of the 1991/92 parallel unilateral declarations. At the initial stage, formalization of the informal TNW regime would only require conversion of the existing texts of the relevant unilateral statements into legally binding language. Data exchange on TNW also could be included. These steps could be accomplished in the form of an executive agreement. The immediate arms control objective would be to solidify those TNW reductions already accomplished. At a later stage, the more difficult task of negotiating verification measures and possible deeper reductions could be undertaken.

A variant of this proposal, which might be more attractive to Moscow, would be to revise partially the coverage of the 1991 regime in a codified, legally-binding fashion. More specifically, Russia probably would prefer the option to deploy a limited number of land-based or sea-based TNW at the expense of air-based TNW.

Additional Unilateral Initiatives

I am not a great fan of unilateral initiatives, which can be disavowed almost as readily as they are pronounced. The new U.S. administration, however, should seriously review the political rationale for continued deployment of TNW in Europe and contemplate their unilateral removal.

It is hard to believe that after 50 years of cooperation it is the presence of a few hundred TNW in Europe—a military force for which there is no military mission—that remains the glue of the alliance.² In short, it is time to rethink first principles and to do so at the highest political level. The arguments often expressed in this book, that one should forego such reassessment because TNW arms control will weaken NATO and/or deprive the United States of its principal “bargaining chip” vis à vis Russia, are unpersuasive.

First, it should be noted that a number of NATO states recently have been among the most forceful advocates of further TNW reductions. The so-called “NATO-5,” for example, were leading proponents of TNW disarmament at the 2000 NPT Review Conference.³ Among them, Norway was especially effective in making the case for negotiated and verifiable TNW reductions.⁴ Portugal, on behalf of the European Union (EU), also specifically underlined the importance the EU attached to “addressing non-strategic nuclear weapons in the framework of nuclear arms reduction efforts” and urged “the Review Conference to encourage the Nuclear Weapon States which possess such weapons, and in the first instance the United States and Russia, to explore ways to bring those weapons within future nuclear reduction and disarmament arrangements, with *the objective of their reduction and eventual complete elimination.*”⁵ Canada occasionally has been even more direct in calling for unilateral action by NATO in this regard, as evident in Lloyd Axworthy’s May 2000 address to the North Atlantic Council meeting in Florence. The Canadian Foreign Minister asked:

Can we not be more transparent about how many nuclear gravity bombs we have left, and where they are located? Can NATO not unilaterally reduce the

number of remaining bombs further, and call for a proportional parallel action by the Russian Federation? Could we not take these sorts of measures to increase confidence with others, especially Russia, in order to pave the way for greater Russian openness on their huge sub-strategic stockpiles? Could we not encourage a codification of the 1991-1992 Russia-U.S. commitments regarding the reduction and dismantlement of sub-strategic weapons?⁶

These and other recent pronouncements indicate that very senior officials in many NATO states not only do not fear that a reassessment of TNW policy will lead the U.S. to disengage from Europe—the so-called “slippery slope of disengagement”—but indeed view TNW arms control and disarmament as a means to strengthen NATO and their own countries’ security.

Just as opponents of TNW reductions in Europe exaggerate opposition to the idea on the part of policymakers in NATO states, they also overestimate the significance Russian officials attach to the small number of TNW that remain in Europe. Although these weapons have considerable symbolic importance and their removal could make it easier for Moscow to accept negotiations on TNW transparency and/or codification of the informal regime, they are not regarded by Russian officials as posing a serious military threat or providing NATO with a significant bargaining chip. Indeed, they are of much less concern than are some advanced conventional weapons in Europe, especially long-range SLCMs.

Finally, it is worth reiterating that one should not equate TNW arms control with going to zero in Europe. Although the withdrawal of U.S. TNW from Europe might be a useful means to jump-start TNW negotiations with Russia, the most important immediate objective should be to codify the 1991/92 parallel, unilateral declarations. That significant

accomplishment would not necessarily entail further TNW reductions.

Mix and Match Approach

Lewis Dunn has suggested that one may be able to reinforce the informal TNW regime by selectively supporting a variety of related activities outside of the formal U.S.-Russian arms control negotiation arena. Perhaps the best example of such an approach, also noted by Linton Brooks, would be to expand the activities of the Cooperative Threat Reduction (CTR) program to include the protection and dismantlement of tactical nuclear weapons.

CTR funds currently are not designated to assist the safeguarding and dismantlement of TNW in Russia, although that objective is not inconsistent with the goals of the original Nunn-Lugar program. Among the potential gains from an expansion of the CTR mandate would be accelerating the process of securing TNW and their consolidation at fewer facilities, accelerating the pace of TNW dismantlement, greater likelihood of Russian receptivity to further arms reductions involving TNW, increased transparency (a part of the CTR process) for TNW dismantlement, and more safeguards for the fissile material byproducts of the dismantlement process. Given the growing interest on the part of a number of countries in TNW disarmament, it would be highly desirable for other states to join the United States in this expanded CTR effort.

Another arena in which U.S. action could usefully reinforce the informal TNW regime is the NPT Review Process. A broad and diverse group of NPT states parties now supports further reductions of TNW, a new development reflected in the final document of the 2000 NPT Review Conference. Although the Russian Federation was able to weaken substantially the language of the declaration, it nevertheless stipulates that nuclear weapon states will take steps “in a way that promotes international stability and based on the principle of undiminished security for all” toward “the further reduction of non-strategic weapons, based on unilateral

initiatives and as an integral part of the nuclear arms reduction and disarmament process.”⁷ The 2000 NPT Review Conference declaration is the first time an NPT review conference agreed upon language regarding TNW disarmament, a development that should make it easier in the future to utilize the review process to promote stronger language on negotiated and verifiable TNW reductions. U.S. support for that objective would likely be endorsed by the overwhelming majority of NPT states parties.

Priority Measures

The current, informal TNW regime, one of the most significant arms control and disarmament accomplishments of the 1990s, is particularly vulnerable to the impact of both new Russian thinking about nuclear weapons and possible U.S. withdrawal from the Anti-Ballistic Missile (ABM) Treaty. A high priority should be given to reinforcing the regime and erecting a retaining wall to prevent its erosion and collapse.

Among the most important steps that should be taken are (1) the reaffirmation by the United States and Russia in a joint statement of their continued commitment to the 1991 parallel, unilateral statements, or (preferably) (2) signing an executive agreement to that effect. Ideally, action of this sort should be taken at an early U.S.-Russian presidential summit meeting, before Russia commits to new TNW production or deployments. It could, but would not necessarily need to be, part of a larger deal involving the issues of ABM Treaty modification and START III.

It also would be highly desirable, although much more difficult politically, to codify the existing declarations into a legally binding treaty, preferably with data exchange and verification provisions. Concerted efforts should be made to reach an early agreement on the initiation of negotiations on TNW reductions.

The two presidents could start by converting the existing texts of the relevant unilateral statements into a legally binding executive agreement and exchange at least basic data. They could also agree to begin negotiations on verification measures and/or

deeper reductions. Although verification of a TNW regime would be extremely complex, it should not be insurmountable and would be facilitated by the procedures already in place for the START, INF, and CFE treaties.

The goal of securing effective verification provisions should be especially attractive to the United States, which to date has had little success in promoting transparency with respect to Russian TNW. Russia, for its part, is likely to be wary of increased transparency, but under certain circumstances might be receptive to a legally binding accord because of the greater predictability it would afford. Of special interest to Moscow in this regard are the limitations on sea-launched cruise missiles and the preclusion of rapid US redeployments of TNW in Europe. These concerns were reportedly among the factors behind a bold proposal restricting sub-strategic nuclear forces that was prepared in the summer of 1991 by the Russian Foreign Ministry and endorsed by the General Staff, but preempted by President Bush's September 1991 unilateral declaration.

One can identify logical reasons why Russia should be interested in codifying the 1991 initiatives. Nevertheless, Russian concerns about a U.S./NATO advantage in conventional (and especially advanced conventional) forces, as well as fears in Moscow about further NATO enlargement and preparations by the United States for possible deployment of a National Missile Defense system, means that the impetus for strengthening the informal TNW regime will have to come from the United States. This initiative should be supported strongly by European allies of the United States who have the most to gain by reinforcing the existing regime and who should welcome, rather than fear, the consequences of greater transparency with respect to TNW.

Conclusion

One should not underestimate the difficulty of implementing any of the aforementioned proposals. Recent international developments, however, demonstrate that the situation with respect to TNW is serious and requires immediate and concerted action. The United States should take the lead in devising and

promoting TNW arms control. To do so will require considerable political courage, creativity, and perseverance. To ignore the issue, however, is to accept the probability of the unraveling of one of the most successful disarmament accomplishments and the emergence of a new tactical nuclear arms race.

Appendix

*Russian Tactical Nuclear Weapons Arsenal*⁸

Although the actual number of deployed Russian tactical nuclear weapons is not known, it is possible to estimate the range within which the actual number should be located. The term “deployed” means warheads kept at Air Force bases that are readily deployable on aircraft (warheads for all other delivery vehicles have either been eliminated or are kept at central storage facilities).

The “high end” of the estimate can be deduced from the share of the 1991 stockpile that should have remained after implementation of the 1991 initiatives (column 7 in Table One); this is the total of deployed and non-deployed warheads. The low end is the number of warheads that can be delivered by aircraft in a single launch (Table Three); the actual number should be higher because Russia may have more than one load of warheads per aircraft. The most likely number is based on the number of warheads subject to elimination due to expiration of warranty periods (column 3 in Table One).

Based on these calculations, the number of deployed TNW warheads in Russia should be between 2,500 and 8,400; most likely nearer the low end of this range.

TABLE ONE

Category	(1) Total in 1991	(2) Subject to elimination under 1991/92 initiatives	(3) Subject to elimination by 1997	(4) Share eliminated by January 1998	(5) Total Warheads by January 1998	(6) Share eliminated by the spring of 2000	(7) Total in the spring of 2000
Land-based missiles	4,000	4,000	4,000	80%	800	~100%	~0
Artillery shells	2,000	2,000	2,000	80%	400	~100%	~0
Mines	700	700	500	80%	140	~100%	~0
Air Defense	3,000	1,500	2,400	½ (100% implementation)	1,500	1/2	1,500
Air Force	7,000	3,500	6,000	½ (100% implementation)	3,500	1/2	3,500
Navy	5,000	2,000	3,000	1/3 (100% implementation)	3,400	1/3	3,400
Total	21,700	13,700	17,900		9,740		~8,400

Sources:

- (1), (2), and (3): Alexei Arbatov, "Sokrashchenie Nestrategicheskikh Yadernykh Vooruzhenii" (Reduction of Non-Strategic Nuclear Weapons), in Alexei Arbatov, ed., *Yadernye Vooruzheniya i Bezopasnost Rossii (Nuclear Weapons and Russia's Security)*, (Moscow: IMEMO, 1997), p. 56. The figures in (3) represent a combination of reductions required by the 1991/92 initiatives and those mandated by technical considerations (expiration of warranty).
- (4) Adapted from "Summary of Russian Delegation Paper at the Nuclear Experts Meeting at NATO on 25 February 1998". The figures represent the share of the 1991 totals (the totals themselves remained undisclosed).
- (5) Amounts calculated using columns (1) and (4).
- (6) Statement by H.E. Grigory Berdennikov at the 3d session of the Preparatory Committee for the 2000 Review Conference of the NPT, May 10, 1999; National Report on the Implementation of the Nuclear

Nonproliferation Treaty by the Russian Federation, April 25, 2000. Elimination of warheads for land-based missiles, artillery shells, and mines was defined as "nearing completion;" their numbers are therefore assumed to be close to zero.

(7) Calculated using columns (5) and (6). Figures for land-based missiles, artillery shells, and mines are and approximation derived from column (6). The total of 4,500 was probably reached by the end of 1999.

Other estimates of Russian substrategic nuclear weapons:

TABLE TWO.

Anatoli Dyakov's estimate of deployed and non-deployed warheads:

Category	(1) Total in 1991	(2) Deployed warheads in 1998	(3) Total stockpile in 1998
Land-based missiles		-0-	
Artillery shells		-0-	
Mines		-0-	
Air Defense		1,250	
Air Force		2,060	
Navy		2,400	
Total	17,100	5,710	8,560

Source: Anatoli Dyakov, *Sokrashchenie Yadernykh Vooruzhenii i Voprosy Transparentnosti* ("Reduction of Nuclear Weapons and the Transparency Issue"), report at a seminar at PIR Center, Moscow, October 8, 1998.

TABLE THREE. Estimates of deployed warheads by the Natural Resources Defense Council for 1998:

<u>Category</u>	<u>Number</u>
ABM + Air Defense	1,200 (100 + 1,100)
Air Force (except Air Defense)	1,000
Navy	1,200
Total	3,400 (~4,000 in the NRDC table) (2,500)

Source:

William Arkin, Robert Norris, and Joshua Handler, *Taking Stock: Worldwide Nuclear Deployments 1998* (Washington: Natural Resources Defense Council, 1998), p. 27.

Note: Apparently, the NRDC data includes 900 "extra" warheads. The 100 warheads for ABM missiles and 800 warheads for the Navy (SLCMs-presumably short range-and anti-submarine weapons) should have been either eliminated or transferred into the non-deployed category. According to the "Summary of Russian Delegation Paper at the Nuclear Experts Meeting at NATO on 25 February 1998" elimination of ABM and Air Defense warheads mandated by the 1991/92 initiatives has been completed, which should mean that the 100 warheads for the ABM missiles no longer exist. According to the Chief of the Navy Adm. Vladimir Kuroedov, there are no tactical nuclear weapons for surface ships and submarines on the Baltic or the Black Seas, including none on the naval bases; all of these are in central storage facilities. If all this is true, it would leave Russia with only 2,500 deployed warheads.

Endnotes

¹ Portions of this presentation draw upon William Potter and Nikolai Sokov, "Tactical Nuclear Weapons: The Nature of the Problem," a paper prepared for a seminar on tactical nuclear weapons organized by the United Nations Institute for Disarmament Research and held in Geneva, May 21-22, 2000.

² William Arkin, Robert Norris, and Joshua Handler, *Taking Stock: Worldwide Nuclear Developments 1998* (Washington: Natural Resources Defense Council, 1998), p. 24.

³ See, for example, the Working Paper submitted by Belgium, Germany, Italy, the Netherlands, and Norway, complementary to the European Union Common Position for Subsidiary Body 1, NPT Review Conference, May 4, 2000.

⁴ See, for example, Statement by H.E. Mr. Thorbjørn Jagland, Minister of Foreign Affairs, 2000 NPT Review Conference, New York, April 26, 2000.

⁵ See Statement by Ambassador Filipe de Albuquerque, Delegation of Portugal, on Behalf of the European Union, Main Committee One, 2000 NPT Review Conference, New York, April 26, 2000.

⁶ Notes for an Address by the Honorable Lloyd Axworthy, Minister of Foreign Affairs, to the North Atlantic Council Meeting, Florence, Italy, May 24, 2000.

⁷ *Final Document, 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons*, New York, May 25, 2000.

⁸ The tables in the Appendix were prepared by Dr. Nikolai Sokov of the Monterey Institute of International Studies.

CHAPTER 13

Controlling Non-Strategic Nuclear Forces

*Joseph F. Pilat*¹

Nearly a decade after the Presidential Nuclear Initiatives (PNIs) that removed the impetus for negotiations on nonstrategic nuclear forces (NSNF), the disproportionately large NSNF inventory retained by the Russian Federation is a concern in the United States and elsewhere. Concerns over “loose nukes” that followed the collapse of the Soviet Union, and a growing sense that the Russians have not fulfilled their pledges, have kept tactical nuclear weapons on the political agenda. Moreover, their large numbers raise questions about their impact on the strategic nuclear reduction process. Some of these tactical weapons can probably be mounted on strategic delivery systems, thus frustrating efforts to negotiate equal low strategic warhead levels.

To address these issues, many participants and observers have called for NSNF arms control negotiations. One approach put forward would revisit the idea of placing overall ceilings on nuclear warheads, with freedom to mix strategic and NSNF forces below this level. The Russians are likely to reply that they require larger overall numbers to provide deterrence against a larger number of nuclear-armed potential adversaries. Another approach advocated is a separate limit or ban on NSNF. However, both sides still see the need for limited numbers of tactical weapons (NATO is not likely to abandon its “last resort” reliance on nuclear deterrence anytime soon) and, to date, the Russians have not been willing to engage seriously on NSNF talks. Moreover, any agreement would have to deal with weapons rather than delivery systems, raising the issue of monitoring reductions and limits on warheads.

In this context, this chapter explores the issues surrounding possible NSNF arms control. The following discussion will address the PNIs of 1991–1992; renewed concerns leading to the

1997 Helsinki Summit language on NSNF negotiations; proposals for NSNF negotiations; possible elements of an NSNF negotiating framework; NSNF issues and verification challenges, particularly for warheads; and some preliminary conclusions.

Earlier Interest in NSNF Negotiations

Following the conclusion of the Intermediate-Range Nuclear Forces (INF) Treaty in 1987, and in a climate marked by warmer relations between East and West, the impending unification of Germany, and an ambitious Soviet arms control agenda presided over by Mikhail Gorbachev, there was considerable interest in addressing short-range nuclear forces, especially those deployed in Europe. As the political momentum for an agreement built, the United States and NATO began to develop their negotiating positions.

In the final declaration of the NATO Summit held in London on July 5-6, 1990, the leaders of the Atlantic Alliance stated that: “New negotiations between the United States and the Soviet Union on the reduction of short-range nuclear forces should begin shortly after a CFE [Conventional Armed Forces in Europe] agreement is signed. The Allies concerned will develop a framework for these negotiations which takes into account our requirements for far fewer nuclear weapons, and the diminished need for sub-strategic nuclear systems of the shortest range.”² This commitment to NSNF negotiations reaffirmed earlier NATO calls in the spring of 1989 and 1990. By the time of the summit, changes in Europe, especially the impending unification of Germany, appeared to make NSNF talks inevitable. Following the signing of the CFE treaty at the Paris Summit in November 1990, many observers expected NSNF negotiations to begin no later than mid-1991.³

Unilateral, Reciprocal Approaches to NSNF

Before outstanding issues were resolved, and negotiations begun, interest was eclipsed by unilateral cuts in NSNF offered by U.S. President George Bush and reciprocated by Soviet President Mikhail Gorbachev and, shortly thereafter, by Russian President

Boris Yeltsin. These unilateral, reciprocal cuts are known as the Presidential Nuclear Initiatives. On September 17, 1991, President Bush offered to eliminate the entire worldwide U.S. inventory of ground-launched theater nuclear weapons, and to destroy all nuclear artillery shells and land mines, as well as the warheads for short-range ballistic missiles and for no-longer-deployed air-defense missiles. The President also pledged to withdraw all tactical nuclear weapons from U.S. surface ships, attack submarines, and land-based naval aircraft, and to dismantle and destroy many of these warheads, while centrally storing the rest.

President Bush called on the Soviet President to reciprocate, and Gorbachev pledged to do so in the waning days of the Soviet Union on October 5, 1991. His offer stated, *inter alia*, that all nuclear artillery and warheads for tactical nuclear missiles would be destroyed; that nuclear warheads for anti-aircraft missiles would be removed from the Army and placed in central storage, with some to be destroyed; that all nuclear mines would be eliminated; and that all tactical nuclear weapons from surface ships, multi-purpose submarines, and ground-based naval aviation would be stored, with some destroyed. In addition to these reciprocal pledges, Gorbachev also seemed intent on prodding the United States to remove and destroy naval tactical nuclear weapons and to remove and store air-delivered theater nuclear systems. After the Soviet Union collapsed and Gorbachev lost power, Russian President Yeltsin reaffirmed the Gorbachev pledges on January 29, 1997. He also clarified them to some extent, declaring that Russia would eliminate one-half of the warheads for air-launched tactical systems and air-defense missiles, and one-third of sea-based tactical systems. Although these unprecedented pledges removed the impetus for NSNF negotiations that had been building for some years, neither the reductions nor the destruction of systems was subject to verification.

Renewed Concerns and the Helsinki Joint Statement

Dramatic changes in the international security environment since the PNIs were put forward, particularly the growing concern

over the proliferation of weapons of mass destruction (WMD) makes action in this realm imperative. Even though the withdrawal of forces from Eastern Europe has reduced the Russian nuclear threat to NATO, large numbers of Russian NSNF under uncertain security remains a concern to NATO states and beyond. Indeed, proponents from European countries, especially Scandinavia, have been in the forefront on arms control proposals regarding NSNF in recent years. U.S. internal deliberations have reportedly reflected these concerns, at least to some extent.

These concerns were partly responsible for the U.S. and Russian Presidents at the Helsinki Summit expressing a political commitment to NSNF discussions. In a joint statement, the Presidents of the United States and the Russian Federation agreed to explore possible measures relating to long-range nuclear submarine-launched cruise missiles (SLCMs) and tactical nuclear weapons. Discussions on these systems are to take place in the context of, but separate from, the negotiations on a third agreement on reducing strategic nuclear arms, which was the focus of this joint statement.⁴

The Helsinki language reflected growing concern about NSNF, at least on the part of the United States, and raised the prospect that negotiations on these forces will once again appear on the arms control agenda. The Helsinki pledge is vague about whether a negotiated settlement is desired and, given the lack of action since the summit, there is the possibility that there will be no NSNF negotiations.

NSNF Proposals

There have been a series of recent proposals for NSNF negotiations.⁵ Some of these proposals contemplate further rounds of unilateral, reciprocal reductions, and possibly unilateral moves. In this context, a broadening of the scope of earlier unilateral moves and possibly some transparency measures are called for. "Corrals," or the secure storage of NSNF, whether informal or formal, should also be considered.

Both of these concepts may be early measures in a multi-phase process.

Negotiations to formalize or consolidate earlier PNIs are also called for. In most cases this means making them legally-binding and verifiable. Some also see value in broadening the scope of the original PNIs in this process, in order to address residual arsenal asymmetries.

Other negotiation options might lead to numerical or geographical limits. In the former case, there are calls for reductions to some agreed level, or even the elimination of NSNF. Geographical limits (global or regional) have involved proposals to end overseas deployments; to end European deployments (or at least a legally-binding commitment not to deploy NSNF on new NATO members' territories); nuclear-weapon-free zones (e.g., in Central-Eastern Europe); and even a global ban on air-delivered warheads. Negotiations involving a merger with the strategic arms reduction process and an overall ceiling on *all* nuclear warheads have been suggested, as well.

In addition to negotiated and non-negotiated arms control options, some have proposed no arms control at all. Instead, they suggest defense security cooperation modeled on the Cooperative Threat Reduction (CTR) or Lab-to-Lab programs. In effect, the approaches put forward in this context, and at least some of the issues they raise, may be identical to those in the arms control realm. The difference is in the process, and the belief that the models being considered have been far more effective than traditional negotiated arms control.

Prospects

What are the prospects of reaching agreement on NSNF, whether negotiated or non-negotiated? A first-order response must address the objectives of the participants. Only U.S. and Russian objectives will be considered below, but third party states are important and their perspectives will need to be addressed, too.

The primary objectives of NSNF negotiations, from the U.S. perspective, would be the elimination of redundant NSNF warheads in order to prevent their acquisition by so-called “states of concern,” terrorists, and others; the promotion of strategic arms control to ensure that Strategic Arms Reduction Talks (START) agreements are effective (i.e., not undermined by unregulated NSNF); and the promotion of European security by cooperation and confidence building, as well as by limiting the future reintroduction of large numbers of Russian NSNF into the European security calculus if relations with Russia take a downturn. Alliance management will be critical, and challenged by the pursuit of an NSNF agreement. Would the United States and its NATO allies be willing to pay for a reduction or elimination of this threat by ending U.S. nuclear deployments in Europe?

On the basis of these considerations, in any negotiated NSNF agreement, U.S. interests and requirements suggest the need to:

- Ensure the security of Russian NSNF, including the elimination of large numbers of these weapons;
- Remove potential problems for the START process and deeper non-strategic cuts that derive from a large and uncertain Russian NSNF stockpile;
- Ensure these systems do not pose a military threat to U.S. forces or change the U.S.-Russian nuclear balance;
- Protect some number of remaining air-launched systems and conventional missile capabilities (in other words, avoid a total NSNF ban);
- Protect U.S. NSNF deployments in Europe; and
- Avoid any negative impacts on NATO and European security, while promoting an improved European security environment.

The U.S. objectives strongly suggest the desirability of warhead controls, which the United States favors.

There is a perception that the United States has a stronger interest in the goals listed above than does the Russian

Federation, despite historical Soviet interest in inclusion of some NSNF in strategic arms control. One of Russia's primary interests in an NSNF agreement would be the elimination of the U.S. nuclear forces deployed in Europe, especially in light of the Russian Federation's declared concerns about NATO expansion. A tradeoff of NSNF and sea-launched cruise missiles might also be attractive to the Russians, as suggested by the Helsinki Summit language. Precisely because of the U.S.-Russian NSNF and SLCM asymmetries, and the sensitive issues involved with SLCMs, a deal may seem beneficial to the Russians.

With these considerations in mind, it is not clear the Russians will be interested in NSNF controls. Even if they were, they would undoubtedly seek to:

- Preserve Russian capabilities at some level as a counter to U.S. and NATO conventional capabilities;
- Eliminate the last U.S. nuclear forces in Europe or, if this proves impossible, secure a legally binding commitment to preclude deployments in new NATO member States;
- Limit U.S. SLCMs, the U.S. upload "hedge," and possibly other U.S. strategic capabilities; and
- Place limits on third party states.

Unlike the U.S. objectives, these objectives are not intrinsically connected to warhead controls. There is reason to believe that the Russians would not favor warheads as units of account; they would prefer to look to delivery systems or non-deployment (nuclear-free) zones to realize their objectives.

Possible Incentives for an NSNF Deal

From the perspective of U.S. and Russian objectives, then, there are stark differences between the two states. The United States is seen as the principal proponent of NSNF arms control, and is recognized as the state that needs to take the initiative if anything is to be done. A key question is whether the United States will do so. If so, there are some doubts as to whether the Russians will be enticed. On this point, arguments put forward include the belief that because the Russians have accepted asymmetric

reductions before, they will do so again. Also, it is argued that Russian interest in NSNF is not rational, that no threats justify these systems, and that they are unusable, counterproductive and costly. Accordingly, despite Russian rhetoric, an agreement is possible, in this view, if the Russians can be shown the error of their ways.

Such arguments may be correct in the end, but they do not appear particularly compelling at present. More compelling is the recognition that the Russian NSNF stockpile is becoming obsolescent and more costly, creating an opportunity for the United States to accelerate those naturally occurring reductions.

If this is the case, what are possible incentives for the Russians? The United States could, in principle, address such Russian security concerns as:

- NATO enlargement;
- The U.S. nuclear presence in Europe;
- Conventional force disparities of the Russian Federation in Europe and globally);
- Theater and national missile defense (T/NMD) issues;
- U.S. strategic forces (including the upload hedge and sea-launched cruise missiles); and
- French, Chinese, and other third party forces.

Can these concerns be met? It would be difficult at best, and not fully in any case. Can other Russian needs, for example, environmental issues, be addressed? Possibly, but their role in an NSNF accord is vague. What of other incentives, including financial assistance and cooperation with the West? Such incentives must be part of any package, and are doable. Are they enough by themselves? Probably not.

Establishing a Negotiating Framework

Ultimately then, the differences between the United States and Russia are glaring, and it is not clear that divergent interests and objectives can be bridged. Nonetheless, however one judges the prospects for an agreement, it is useful to consider what steps are

necessary in order to proceed. If a unilateral reciprocal or other informal approach is desired, the path ahead may be difficult but should be clear. However, if there are to be any formal negotiations, before they can begin key framework issues will need to be resolved. If a negotiated agreement remains a political requirement, decisions on the issues of scope, systems, and units of account are critical, and have far reaching implications.

Scope

Geographically, the scope of the talks could be global or limited to Europe. There is probably a desire on the part of the United States to consider global reductions, if the objective is to formalize the PNIs of 1991-1992, which were global in scope. Russia might be more interested in eliminating systems in Europe than pursuing global reductions but, if this objective is deemed not achievable, a formalization of the earlier pledges might be acceptable. European states may have widely different views, depending in part on whether or not they are NATO members. If a European scope were to be decided, for whatever reason, Japan, China, and other states would likely press for a global ban, as they did during the INF negotiations.

Systems and Units of Account

Systems to be reduced or eliminated could include:

- Missiles with ranges of less than 500 kilometers;
- Artillery shells; and
- Bombs and tactical air-to-surface missiles.

The unit of account for the negotiations could be these systems, or it could be:

- Missile launchers;
- Dual-capable artillery; or
- Warheads and, perhaps, special nuclear material (SNM).

Dual-capable aircraft would not, presumably, fall into any range limitations for NSNF, but because they are a potential means of

delivering NSNF there would likely be pressures for their inclusion in the talks by Russia.

What is new in these framework issues is the possibility, recognized in the Helsinki Summit language, of addressing warheads as the unit of account. If NSNF negotiations include warheads as the unit of account, and if the storage or disposition of warheads is intrusively monitored, the implications are immense. The U.S. Government has not included warheads in the scope of previous negotiations on nuclear arms (except marginally in the Intermediate-Range Nuclear Forces (INF) treaty, where the aeroshells from warheads were crushed) both because warheads without delivery systems are virtually unusable, and because of the difficulty of effectively verifying the disposition of warheads. Even in the historic strategic nuclear warhead dimension of START III, the framework of which was decided in Helsinki, controls over and accounting for warheads seem to have been accorded an ancillary role.

Despite interest in addressing warheads, then, to do so poses significant and perhaps unsolvable problems. An NSNF agreement, in principle, could provide for addressing warheads and their disposition in subsequent talks. While this outcome is possible, to leave this issue for later consideration would complicate already vexing problems because the pressures to resolve these issues could lead to unworkable solutions. With these points in mind, let us consider the issues and implications of warhead controls in more detail.

Issues and Implications of Addressing Warheads and Materials

The Russian Federation, and possibly the United States, is virtually certain to continue to reduce its NSNF stockpiles, pursuant either to unilateral decisions or negotiated agreements. A political imperative for rapid action persists because of concerns about “loose nukes,” illicit trafficking in nuclear warheads, and the like. U.S. nonproliferation goals reinforce this imperative. The character of these reductions – whether unilateral actions, cooperative steps, or negotiated agreements

associated with START III – will pose lesser or greater demands on U.S. policy makers and technologists. Negotiated warhead reductions will be difficult to conclude, as illustrated by recent U.S. experience with less sensitive negotiations such as Cooperative Threat Reduction, materials protection, control, and accounting (MPC&A) activities, the highly enriched uranium transparency agreement, and so on.

If a deal seems possible, the issue of warhead arms control might still create difficulties. The United States is interested, and the U.S. arms control and national security communities realize that strategic warhead controls make no sense without controls on NSNF warheads. Although the Russians do not appear to favor warhead controls, they might be induced to accept them. The difficulties are immense. However, even though any agreement which used warheads as a unit of account would create serious verification and other problems and raise concerns about the release of classified or sensitive information, there may be no good alternative.

An NSNF agreement that used warheads as its unit of account could incorporate warhead monitoring, which could involve monitoring production, deployment, storage, and elimination (dismantlement or other disposition) as part of its verification measures. All of these possibilities are beset with serious technical, resource, security and political implications. Negotiated reductions will pose especially thorny issues and problems.

Transparency/Verification of Warhead Reductions

Verification of an NSNF agreement truly would be challenging under any circumstances, but especially so if warheads were units of account. Various approaches to an NSNF agreement that covered warheads could be very intrusive. However, a verification regime that protects design and other information (which is essential on grounds of law, policy and security) may not be sufficiently intrusive to ensure verification of noncompliance. Verifying warhead storage is easier than verifying the disposition of materials, but it too is difficult at levels of intrusiveness that would allow sufficient confidence.

Beyond the intrinsic challenges of warhead verification, uncertainties about Russian warhead and special nuclear material stockpiles, and the prospect of clandestine production, would undermine confidence in any negotiated option if not addressed.

Reflecting the difficulties of verifying warheads, perhaps, the Helsinki language refers to transparency measures. But transparency is as yet undefined in this context. In addition to warheads there is also a reference in the Helsinki joint statements to considering transparency on materials (presumably of weapon-origin). This might be pursued in an NSNF agreement in addition to a host of bilateral and multilateral initiatives in materials verification or transparency. The challenges are formidable.

With these considerations in mind, depending upon the provisions that are agreed, the monitoring of classified or sensitive items could pose technical problems not confronted before. Both sides also have experience in dismantling nuclear warheads safely and accountably, but they have very limited experience in providing transparency and verification of warhead elimination. The United States can likely develop techniques and technologies to provide a degree of bilateral transparency for warhead reductions in a manner that preserves other essential interests (for example, the protection of design information). But if they are to provide real verification of the elimination of warheads or materials, the United States and Russia would have to develop new and innovative monitoring approaches, and perhaps new technologies.

Technical verification issues also surround the storage or other disposition of special nuclear materials removed from dismantled warheads. While specific verification requirements depend upon the disposition option or options chosen, the United States has valuable, relevant experience with International Atomic Energy Agency (IAEA) safeguards. But applying multilateral experience and technologies to a bilateral regime, or bringing in the IAEA in a multilateral approach to bilateral warhead elimination activities, would raise additional political and technical issues. For example, a multilateral verification

approach would have increased proliferation dangers which would need to be addressed. The United States and Russia have also gained important insights and worked together effectively to develop and apply technologies for the Russian MPC&A program and other cooperative activities. This also provides a base for further monitoring improvements. Assuring that the various options for storage are safe, secure and environmentally benign is difficult, and it is complicated by the politics of plutonium use. New technical solutions to the problems of ensuring safety and security may be required, especially if dealing with materials rather than weapons.

Security

Security in the sense of protecting classified and sensitive information should be a manageable problem for the less ambitious approaches to warhead reduction. Security should be achieved for unilateral options, but could be extremely difficult to assure for negotiated options that require high-confidence verification or even elaborate transparency measures. Both parties will be anxious to protect nuclear weapon design information, classified national security information, and other sensitive information. If the parties are able to negotiate an agreement to share some classified information, it should then be possible to devise monitoring schemes that provide increased confidence while still protecting the most sensitive information. However, such systems have yet to be fully developed or carefully considered. The use of “red-teaming” should help to identify potential vulnerabilities, and to understand the implications of uncertainties about initial inventories of warheads and special nuclear materials.

Human and Material Resources

The storage or elimination of warheads will require resources, including those dedicated to personnel, facilities, and possible start-up and operating costs. Storing complete warheads is probably the least expensive immediate approach. Another relatively inexpensive approach is to partly disassemble warheads and store their components. Both the United States and Russia eventually dismantle their retired warheads. If the fissile components can be stored safely for long periods (which may not

be the case with Russian designs), the chief costs here might be for expanded storage facilities and the monitoring systems associated with them.

Approaches involving dismantling components and converting materials, then storing or otherwise disposing of them, are likely to be much more expensive. They could seriously drain weapon-complex funding and capabilities if paid for from current budgets. The refitting of nuclear facilities that may be required for specific tasks, such as devising separate monitored disassembly facilities or material conversion processes, would be costly. It also might prove necessary to redesign facilities or cease operations for extended periods to protect sensitive and classified information during inspections, imposing further costs. Since Russia is likely to be unable and unwilling to pay for an elaborate NSNF warhead elimination regime, the United States might need to consider funding Russian disarmament. This would be contentious both in Russia and the United States.

Other Issues

Other issues complicate these monitoring and verification questions, including the large size and uncertainties about warhead and SNM stockpiles of the former Soviet Union, significant asymmetries between the weapon complexes and practices of the United States and Russia, and the need to address the prospect of clandestine future production, however unlikely. Any of these issues could undermine confidence in negotiated options.

Conclusion

The U.S. Government has yet to make decisions on the scope of the NSNF talks, nor has it determined verification requirements (which are dependent on the scope). From a U.S. perspective, as the more likely initiator of a negotiated or non-negotiated accord, what problems and issues require a solution? Alliance management requirements aside, it seems the US will desire to do a number of things:

- Promote the reduction of nuclear security concerns in the Russian Federation.⁶
- Promote strategic arms control and ensure effective and viable agreements.⁷
- Promote cooperative security and confidence-building in Europe.

In addition, there are military-operational concerns, put forward primarily by the Pentagon, that may become national goals, including a desire to reduce Russian capabilities and to maintain some level of U.S. capability.

If these are the “problems,” what, if any, NSNF actions might constitute a “solution?” Can these problems and issues effectively be addressed? In practice, no obvious solutions appear politically or technically feasible. Certainly formal negotiations—however configured—are not a silver bullet.

The only way to get a real handle on NSNF security, and the relationship of these weapons to strategic arms control and the real military threats they pose (while maintaining some capability) is the warhead control route.⁸ Specifically, U.S. goals can best be realized through global warhead reductions (albeit without a zero option), elimination of reduced arms, and monitoring of materials derived therefrom. However, this only holds if these steps can be verified effectively or opened to adequate transparency measures.

Such an approach probably only makes sense in connection with strategic arms, that is, in the context of overall ceilings of strategic and tactical weapons. It may not require a full-blown negotiated agreement, but it does need a transparency and verification element. The defense security cooperation model, based on such successful programs as CTR and Lab-to-Lab, may be appropriate. The Russian Federation is clearly not interested in such an approach now. Even if the Russians were interested, we cannot meet all the relevant challenges today, whether an agreement were negotiated or not.

As no agreement is likely for the foreseeable future, there is now time to address the monitoring and verification challenges that would arise from agreement on the reduction and elimination of NSNF warheads and/or materials. An early step is to identify the best technologies for accomplishing the actual verification of warhead elimination and, perhaps, materials disposition. Key needs will be systems to confirm that real warheads, perhaps specific kinds of warheads, are being introduced into the dismantlement process (chain-of-custody, tags and seals, radiation measurements, etc.); confirmation of dismantlement itself (perhaps even observation of dismantlement); identification of components resulting from dismantlement in the output stream (including both uranium and plutonium parts); monitoring of long-term storage of components and/or fissile materials; and monitoring of the ultimate disposition or use of the resulting materials.

All of the technical options remaining on the table would have different advantages and disadvantages, and the difficulty of determining the most acceptable approach in light of political and technical uncertainties is daunting. The changes in the international security environment have significantly altered the status of these matters from the perspective of the United States, for the first time opening a window to their being addressed and possibly resolved. Creating the grounds for an effective NSNF warhead agreement is an important goal. In turn, an NSNF agreement would provide experience with these systems and procedures which could frame needs for verification of deeper, and riskier, reductions in the strategic sphere.

Endnotes

¹ The views expressed are the author's own and not those of Los Alamos National Laboratory, the University of California, the U.S. Department of Energy or any other U.S. Government Agency. The author expresses gratitude to Steven A. Maaranen, with whom he has worked closely on warhead and material controls.

² "London Declaration on a Transformed North Atlantic Alliance," issued by Heads of State and Government participating in the meeting of the North Atlantic Council, London, July 5–6, 1990, para. 17.

³ Divisive NATO framework decisions and bilateral U.S.-Soviet talks were expected. Issues left open as NATO developed a framework for the negotiations included the following: the systems to be included as treaty limited items (TLIs) were not determined; the unit of account was not determined; the geographical scope of the talks was not determined; and verification provisions, which would have been dependent on TLI, units of account, and scope decisions were not determined. All of these issues were understood to be contentious within the Alliance, and with the Soviets. While agencies of the U.S. government did not have a clear idea of Soviet negotiating objectives and approaches, it was assumed that the Soviet Union would attempt to include tactical air-to-surface missiles in the NSNF negotiations, to continue to press for the inclusion of British and French forces in the negotiations, and to have as their goal elimination rather than the reduction of NSNF.

⁴ “Joint Statement on Parameters on Future Reductions in Nuclear Forces,” The White House, Office of the Press Secretary, Helsinki, Finland, March 21, 1997.

⁵ See, for example, the following: William C. Potter, “Unsafe at Any Size,” *The Bulletin of the Atomic Scientists* (May/June 1997), pp. 25–27, 61; Nikolai Sokov, “Tactical Nuclear Weapons Elimination: Next Steps for Arms Control,” *The Nonproliferation Review* (Winter 1997), pp. 17–27; Stephen P. Lambert and David A. Miller, *Russia’s Crumbling Tactical Nuclear Weapons Complex: An Opportunity for Arms Control*, INSS Occasional Paper 12, Institute for National Security Studies, U.S. Air Force Academy, April 1997; George Lewis and Andrea Babbittas, with additional commentary by Edward Rowny and John Woodworth, *What Should Be Done About Tactical Nuclear Weapons?* The Atlantic Council of the United States, Occasional Paper, March 1999; and Lewis A. Dunn and Victor Alessi, “Arms Control By Other Means,” *Survival*, Winter 2000–2001, pp. 129–140.

⁶ A primary concern is loose nukes in scenarios of decline or collapse of the Russian Federation. The United States fears the loss of central control, and the increased vulnerability of these systems to theft, sabotage, unauthorized use, terrorism and proliferation. However, Russian NSNF are assumed to be in storage, under adequate security. The Russians deny any problem officially, and view the charge as offensive.

⁷ The concern is the impact of large, uncertain numbers of NSNF on “deep cuts,” an impact which increases as strategic numbers go down.

⁸ In the longer term it is inevitable that we will need to think about warhead controls. In the near term, it may very well be that either we pursue this path or we accomplish nothing.

CONCLUSION

Non-Strategic Nuclear Weapons and Arms Control: Implications for the United States Air Force

*James M. Smith*¹

This book represents the results of a unique and valuable exercise for the United States government. Rather than reacting to a problem or policy initiative, as is usually the case in Washington, the conference upon which this book is based was held in response to a series of “what if” questions regarding the future of non-strategic nuclear weapons (NSNW). The result is a range and depth of thinking not often encountered in the “in-box driven” security policy community in and around the government. The ideas and options developed here are, by definition, “out of the box,” as no formal set of policy parameters has yet defined what it is that constitutes NSNW arms control. Thus, the work represents a degree of reflection and examination truly rare in security policy formulation. The sponsors and participants in this effort deserve great credit for taking the time and trouble to encourage and to structure this look ahead into the myriad possibilities for the future of non-strategic nuclear weapons.

NSNW and Arms Control

The book presents both reflective and prospective thinking on non-strategic nuclear weapons and their control, whether through formal arms control mechanisms or by other means. That effort has addressed the issues revolving around defining this category of weapons and framing their control as a policy issue. It has then sought to navigate the shoals of United States, allied, and Russian objectives—objectives often at odds with each other—that would establish the foundation for any weapons control effort or process. It examines many of the obstacles standing before such efforts. And it presents contending visions for the optimal path that United States policy should take in

confronting—or choosing not to confront—this arena of arms reduction or control.

Defining the non-strategic nuclear weapons issue area and framing it within the context of arms control is the first-order priority for any approach to this topic. Definitions must be addressed first because the definition categorizes the issue into the existing arms control framework, or creates a new adjunct framework within which it will be addressed. This bounds the scope of the process and delimits the possible solution set. In short, the definition elevates some options to the top of the pile while at the same time eliminating others from even being considered as viable possibilities. All subsequent discussion of objectives and obstacles, of potential or preferred solution sets, rests on how we categorize and approach the issue.

The definition problem is particularly significant with NSNW, for as the discussion in Part I of this book describes, there exists no consensus as to even what to call this category of weapons, let alone how to characterize them within any existing arms control framework. Are they battlefield, sub-strategic, non-strategic, intermediate-range, tactical, or theater weapons? Do we define them by yield, range, target sets, or ownership? Are they in fact qualitatively distinct today from what we have traditionally considered “strategic” nuclear weapons? We must decide what we are dealing with before we can formulate a policy approach to addressing the issue. The discussion in this book has not “solved” the definition problem. Rather, it has highlighted its importance while addressing the possibilities and their implications in detail, presenting a comprehensive overview of the first step that must be taken in any attempt to address formal or informal NSNW controls.

Closely linked to defining NSNW as an arms control issue is the question of the United States’ national objectives for NSNW. What corresponding objectives would be appropriate within an arms control context? If arms control is at essence an exercise in diplomacy aimed at enhancing national security, then it is crucial to specify the role that non-strategic nuclear weapons play—now and into at least the near-term future—in military efforts to

ensure America's security. Only then can one focus and formulate an appropriate approach to replace the weapons as security guarantors of those objectives, and determine an appropriate process to provide acceptable verification of compliance by all who affect those objectives. Here again this book, through the discussions in Part II, has explored the range of objectives and issues involved in setting NSNW within both the U.S. national security and international arms control contexts. The discussion has ranged from the national role of NSNW to a review of their role within the context of the NATO alliance and theater security. It has also addressed these weapons as a particularly difficult issue in U.S.-Russian relations, and it has considered the special role NSNW could play in regional counterforce options against states and non-state actors holding weapons of mass destruction. This set of national security roles and their associated objectives poses a broad and difficult agenda for framing any tailored approach to an NSNW arms control effort capable of ensuring adequate security across this entire range. In examining the question of objectives with this wider lens, this book has highlighted the full extent of the task at hand rather than simply zero in on one smaller set of finite options or recommendations.

The wide scope of objectives that are indicated for NSNW, and any viable effort to incorporate them into the arms control framework, points immediately to a number of significant obstacles that sit in the path of that effort. The discussion in Part III provides an excellent overview of how the problems of definitions and objectives make the determination of counting rules and verification—always the difficult but essential heart of effective arms controls—even more important and vexing. The discussion indicates that there is not one apparent agenda for the effort, but multiple and seemingly incompatible approaches. It highlights the added complexity created by the divergence of perspectives and objectives that the United States, its NATO allies, Russia, and China bring to the table. NSNW must be placed fully within national, alliance, bilateral, and multilateral contexts if they are to be fully addressed in relation to U.S. national security and arms control. Navigating through the cross-currents of these varied agendas and positions will pose

perhaps insurmountable problems for a traditional arms control process, necessitating innovative approaches to NSNW.

Thus, Part IV's discussion of "solutions" to the NSNW issue is as much a debate over varied interpretations of definitions and objectives, and of diverse approaches to apparent obstacles, as it is a detailed specification of options and recommendations. The positions presented vary from writing off NSNW as a non-issue for arms control, to elevating it high on the agenda for real-time attention and resolution. Here again, given this unique opportunity to forecast policy actions rather than simply react to time-constrained tasking, the true value of the discussion reflects that variety of perspectives. Future arms control efforts—or decisions specifically not to undertake such efforts—will be much more informed after reading the arguments and convictions presented here. Perhaps the most immediate value of this discussion of solutions is the range of suggestions for substantive steps that can and should be initiated now, either to prepare the ground for future arms control or to better manage this class of weapons in the continuing absence of arms control. This last point is even more salient given the consensus of most of this book's authors that the prospects for NSNW arms control in the near term are not particularly high. For the reasons they have presented, and for the many problems they have identified as yet to be resolved, NSNW arms control is perhaps not yet ready for formal interstate negotiations.

This book, then, has presented a detailed and wide-ranging analysis of NSNW and of the prospects and problems to be expected in addressing such weapons within traditional and non-traditional arms control contexts. Its biggest contribution has been to capitalize on the luxury of foresight to define the many pieces that must fit together to develop a meaningful vision of national security via arms control in the arena within which NSNW apply. Given that the departure point for this analysis has been from a decidedly macro-policy level and the perspective of the United States government, however, one more step remains. That step is to take the excellent ideas and analysis from Parts I through IV down one level; to address their

implications at the operational level of the United States Air Force.

NSNW and the U.S. Air Force: Operational Factors and Implications

Why focus on the United States Air Force (USAF)? At a recent workshop seeking to define and implement some systematic assessment mechanisms to better rationalize Department of Defense (DoD) arms control decisions, a senior USAF officer long involved in nuclear strategy and arms control stated “If we do what is best for United States national security, the Air Force will be OK.” While his statement directly addressed strategic nuclear strategy and arms control, it holds for non-strategic nuclear weapons and controls, as well. Regarding NSNW, however, we need to stand his statement on its head. For NSNW, the USAF must take the lead in acting in the best interest of the nation—and it must do so in the absence of clear articulation of national positions and priorities until definitive guidance is issued. Why specifically, must the Air Force take charge? Simply because it is the military service that maintains these weapons, and the service that would be tasked to employ the great majority of the nation’s NSNW arsenal. Without firm decisions on the long-term disposition of these weapons, the USAF is the only possible advocate to ensure the safety, security, and operational viability of this category of weapons. The answer to the question “Why the USAF?” is quite simple: If not the Air Force, who else?

How, then, do we address NSNW from an Air Force perspective? We suggest that we first define and frame this category of weapons within their operational context, addressing their roles and the operational objectives for their maintenance and potential employment. This should be done from both a DoD and USAF perspective. Against that background we can then suggest some short-, mid-, and long-term issues that the US Air Force can and should address to best prepare for future tasking for NSNW sustainment, or for USAF involvement in a future NSNW arms control effort. Just as this book’s forward look has helped prepare the United States government for future

actions to address NSNW, it has also provided a “heads-up” that the USAF should seize upon in order to best prepare for its part in that future.

Operational Context

A first step in setting the operational context of NSNW is to recognize that these weapons have both operational and political utility, and that these two dimensions are inseparable in defining and framing any approach to their continued sustainment or their eventual withdrawal. Thus, while the Air Force is charged only with the operational side of the equation, it needs to remember that every operational decision and action will have political implications. USAF policy makers must balance operational imperatives within political realities, and they must advocate their operational decisions within a larger interagency forum. The Air Force must be fully cognizant and engaged if it is to be successful in effectively sustaining and operationalizing this category of weapons. This is a tall order if the service identifies itself as simply the “last resort” caretaker of NSNW. It must understand and embrace these weapons and their mission in order to perform effective advocacy of a national asset until such time as national decisionmakers determine some other disposition for these weapons.

Understanding the continuing “utility” of these weapons is a prerequisite to effective advocacy, and that utility lies in the multiple deterrent functions those weapons provide. NSNW contribute to deterrence in three primary ways. First, they are a central component of NATO’s deterrence and defense plans for Western Europe. While this role has **recently** fallen to a much lower tier in NATO thinking and planning, it remains (at least on paper) as a key mission for the Alliance. Today, following the release of Russia’s 1999 military doctrine and subsequent exercises in which that doctrine’s tenet of early use of NSNW in regional conflicts has been tested, the NATO theater role for NSNW must be re-emphasized. For Russia today (and for the near-term future) nuclear weapons—particularly NSNW, of which Russia inherited a vast Soviet inventory—are the “poor man’s substitute” for modern and effective conventional forces. The continuing utility of a viable NATO nuclear capability as a

deterrent, particularly given today's precision conventional capabilities, must be addressed. Of course, the political/military coupling within the NATO alliance between the United States and its European allies will be an important factor in determining if there are to be any changes to NATO's traditional theater NSNW role. The U.S. Air Force must continue to be a strong voice in determining and refining operational requirements in Europe.

The theater deterrence role in NATO is mirrored in other theaters, particularly the Central Command (CENTCOM) and Pacific Command areas of responsibility. NSNW and their deterrent effects would seem to have continuing relevance in regional defense and security planning for each of those regions. Not only do they play a role in general conflict deterrence and in planning for the most serious theater contingencies, but they also have a distinct role in counterforce planning to deter weapons of mass destruction (WMD) attacks on United States or coalition forces in the theater. WMD deterrence and potential force protection employment are significant modern additions to the traditional range of NSNW "utility."

Providing the foundation for credible and effective deterrence in each of these three dimensions requires the Air Force to maintain a safe, secure, and reliable NSNW stockpile; to clearly plan, train, and exercise its use in these tailored and limited roles; and to demonstrate the capability and resolve to rapidly deploy and employ these weapons if necessary. Forward basing is both a tangible and significant signal of that capability and resolve, and NATO forward basing serves both the NATO and Middle East theaters in this regard. Forward basing requires a combination of economic, operational, and political commitment, and the Air Force must be an active player in crafting that commitment by establishing the operational foundation upon which political decisions will be made. Therefore, the Air Force needs to formulate an action plan to sustain its NSNW stockpile and basing arrangements, and to enhance NSNW operational deterrent effects through deliberate, semi-transparent planning and exercises, while at the same time developing contingency

plans for unilateral or formalized controls. Some suggestions for that effort follow.

Short-Term: Sustainment, Planning, and Advocacy

The first imperative in any USAF action plan must be the sustainment of the weapons and the capability they represent. Sustainment includes maintaining and securing the existing stockpile of NSNW, but it also implies continued simulation and testing—within prescribed limits—as well as planning for refurbishment and replacement via improved design and technological advancement. This effort has high costs both in terms of monetary commitment and human investment. It requires a significant physical infrastructure, extensive training investments, dedicated research and development efforts and facilities, and large security forces. In addition, there are indirect “costs” in terms of the institutional USAF commitment—in tangible form—to the men and women investing their careers in the nuclear components of the force. They cannot be forgotten or marginalized, but must be rewarded and valued for their continuing contributions to the service. All of this broad sustainment effort is imperative since the credibility of the force and its resultant deterrent effect is anchored in a reliable, believable capability.

A second short-term requirement for the Air Force is realistic and semi-transparent planning and exercises. Planning need not be so detailed as to rival the Single Integrated Operations Plan of the Cold War strategic nuclear force, but it should include clear roles and at least notional, categorical designation of appropriate target types for theater and counterforce applications. These plans must also be tested via realistic operational training and exercises to fulfill the capability and multiply the deterrent effect conveyed to potential adversaries. At best, these exercises would include both intra- and interservice dimensions to clearly signal national support for USAF efforts, as well as to familiarize the other services with the Air Force’s capabilities and operational options.

The success of these short-term efforts, again, depends on USAF advocacy for NSNW—not championing their use, but advocacy

in the legal sense: ensuring full, fair, and equitable accounting and consideration of these weapons and their operationalization in the DoD's planning and resourcing processes. The US Air Force is obviously the default advocate here—and perhaps not by choice. But it is the primary stakeholder and must accept its institutional responsibility to the Defense Department, the nation, and its allies and coalition partners. The Air Force must argue on behalf of this arm of deterrence unless and until a viable non-nuclear alternative is fielded.

Mid-Term: Preparation for a Potential Drawdown in NATO

Earlier authors in this book have highlighted the political and operational roles that NSNW play within the NATO alliance. The Air Force, fully cognizant of the arguments that favor continuing NATO deployment of these weapons, and of the forward basing implications beyond NATO, must still be prepared for the eventuality of a political decision to draw down or withdraw weapons from the NATO deployment. The USAF action plan must include quiet yet deliberate planning for withdrawal, as well as drawdown planning as an alternative to complete withdrawal. This planning should establish a minimum number of weapons that could be sustained given realistic manning and infrastructure requirements at any one location, as well as a minimum number of weapons required to fulfill immediate taskings for theater engagement plans. These minimums would be very important to contingency planning for partial withdrawal. The planning must also incorporate realistic options and timelines for introducing conventional precision-guided weapons capable of substituting for some or all of the operational roles envisioned for NSNW. This is particularly true in regional counterforce and WMD deterrence roles outside of NATO.

This planning requires very careful advocacy and contingency considerations, particularly given the political sensitivity of NSNW among some members of NATO. There can be no appearance of a decreasing U.S. Air Force or United States commitment to the NSNW force until plans are made and political decisions are finalized. For at least the mid-term, and perhaps for a long-term continuing future, full sustainment and

credible, reliable operational planning within NATO remain essential.

Long-Term: Preparation for Formal Arms Control Initiatives

Finally, while most authors in this book see the prospects for traditional arms control of NSNW on the horizon as slim, the US Air Force must begin to prepare for at least the active discussion and consideration of that eventuality. It must also include a realistic assessment and prepare for non-traditional arms controls in the form of multilateral, unilateral, and/or cooperative efforts. This preparation should fully address the variety of definitional options and their associated counting rules to flesh out the issues and complexities these would raise, particularly with regard to any verification regimes or mechanisms under consideration. Many of the definitions and counting rules discussed here and elsewhere could have unintended consequences for other weapons systems and USAF capabilities, and those considerations must be addressed before final plans are implemented. This will require careful advocacy within DoD to ensure that the Air Force's concerns are raised in the interagency process prior to the final determination of United States negotiating positions or unilateral initiatives.

A Challenge to the U.S. Air Force

The charge to the US Air Force, then, is to accept the role of NSNW advocate within the Department of Defense, and to adopt an action plan toward short-term sustainment, planning, and informed advocacy. It extends to include mid-term planning for the possible drawdown or elimination of NSNW currently forward-based in NATO, with special attention to the incorporation of conventional capabilities to replace traditional reliance on NSNW. This portion of the action plan is particularly sensitive due to the political dimension of the NATO NSNW presence. And the Air Force's action plan must also look to the long-term possibility of either traditional or non-traditional arms control applied to this category of weapons. Great care is needed here to ensure a full examination and vetting of all primary and secondary effects of such controls, not only to NSNW, but also to other systems and capabilities. This

is a plan involving actions that the USAF might not seek on its own, but these actions are essential to the security of the nation and to ensure America's ability to fulfill its commitments to allies and partners. These actions fall to the US Air Force as holder of the great majority of these weapons and responsibility for the lion's share of the NSNW stockpile's safety, security, reliability, and credibility. The USAF should step up to its responsibilities by design, not just by default.

The unprecedented end of a half-century of nuclear-based deterrence has opened many doors and raised many expectations for the deliberate reduction in the scores of nuclear weapons that simultaneously protect and threaten our planet. The prospect for the denuclearization of national security, or at least for significant steps down that path, is perhaps most attractive to those of us who have come to know those weapons "up close and personal." We in the United States military, and particularly in the United States Air Force, have the most deep-seated appreciation for nuclear weapons, both strategic and non-strategic, and hold the highest stakes in their disposition. It is directly incumbent upon us to prepare fully and intelligently for their continued sustainment, operational deployment, possible employment, and eventual withdrawal from active service, all under well-constructed control provisions. Today the Air Force has the unprecedented luxury of time to think, plan, and act in a deliberate manner to ensure survival and security in alternative futures with or without non-strategic nuclear weapons. It owes it to the nation to seize that opportunity and make the best of it. This book offers an exceptional series of thoughtful analyses upon which to launch that effort. It is now up to each of us to follow through and act upon this foundation.

Endnotes

¹ The views expressed in this chapter are the author's own, and do not necessarily reflect the official views or positions of the United States Air Force, the U.S. Government, or any government agency.

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Appendix A

NPG Montebello Decision, 1983*

The Montebello Decision on Reductions of Nuclear Forces announced by the Nuclear Planning Group in Ministerial Session

Annex to the Final Communiqué of the Autumn Ministerial Meeting, 27 October 1983

At Montebello, Nuclear Planning Group (NPG) Ministers declared that the policy of the Alliance is to preserve the peace through the maintenance of forces at the lowest level capable of deterring the Warsaw Pact threat.

Consistent with this policy the Alliance since 1977 has been conducting analyses aimed at assuring that nuclear weapons in NATO's armoury are held to the minimum number necessary for deterrence, taking account of developments in conventional as well as nuclear forces. On the basis of the initial results of these analyses, the Alliance decided in December 1979 that, unless obviated by successful negotiation with the Soviet Union, the deployment of longer-range weapons (Pershing II and cruise missiles) was essential to restoring the balance and maintaining the integrity of NATO's deterrent posture. The Alliance remains committed to the dual-track decision and its implementation. (1)

At the same time Ministers decided to reduce the NATO stockpile by 1,000 warheads. This withdrawal has been completed. Moreover, Ministers mandated further analysis to determine whether the withdrawal of weapons beyond the 1,000 then decided could be accomplished safely, in a manner consistent with the maintenance of deterrence at the lowest possible level of weapons.

With the Alliance analysis now complete, the Nuclear Planning Group has decided on 27th October, 1983 to withdraw 1,400 warheads during the next several years. This Ministerial decision, taken together with the already accomplished withdrawal of 1,000 warheads will bring to 2,400 the total number of warheads to be removed from Europe since 1979. Moreover, this reduction will not be affected by any deployment

* Text from the NATO on-line library at <http://www.nato.int/docu/basicxt/b831027a.htm>.

of Longer-Range INF (LRINF) since one warhead will be removed for each Pershing II or Ground-Launched Cruise Missile (GLCM) warhead deployed.

The detailed implementation of this decision as to the precise composition of the stockpile is a matter for the responsible military authorities to determine and a programme to effect this will be worked out and implemented over the next five to six years. In this context, appropriate consideration will be given to short-range systems. NATO's military authorities should report their findings at a future NPG meeting.

Recognizing that for this minimum level stockpile to make the most effective contribution to deterrence, both the delivery systems and the warheads must be survivable, responsive and effective, Ministers accordingly identified a range of possible improvements. Ministers established broad criteria which will remain valid for the next decade, including the continuing importance of strengthening conventional forces. The Alliance must, however, take account at all times of changes to Soviet capabilities during this period.

Contrary to the impression that NATO has been fuelling an arms build-up by adding to its nuclear armoury, this sustained programme of reductions will have reduced NATO's nuclear stockpile to the lowest level in over 20 years. Ministers urged the Soviet Union to follow the example set by the Alliance, to halt and reverse its build-up of nuclear forces, and to join NATO in the search for a safer future.

Footnote:

- (1) Greece has expressed its views in the minutes of the NPG at Montebello.

Appendix B

1990 London Declaration*

Declaration on a transformed North Atlantic Alliance issued by the Heads of State and Government participating in the meeting of the North Atlantic Council ("The London Declaration")

London, 6 July 1990

1. Europe has entered a new, promising era. Central and Eastern Europe is liberating itself. The Soviet Union has embarked on the long journey towards a free society. The walls that once confined people and ideas are collapsing. Europeans are determining their own destiny. They are choosing freedom. They are choosing economic liberty. They are choosing peace. They are choosing a Europe whole and free. As a consequence, this Alliance must and will adapt.
2. The North Atlantic Alliance has been the most successful defensive alliance in history. As our Alliance enters its fifth decade and looks ahead to a new century, it must continue to provide for the common defence. This Alliance has done much to bring about the new Europe. No-one, however, can be certain of the future. We need to keep standing together, to extend the long peace we have enjoyed these past four decades. Yet our Alliance must be even more an agent of change. It can help build the structures of a more united continent, supporting security and stability with the strength of our shared faith in democracy, the rights of the individual, and the peaceful resolution of disputes. We reaffirm that security and stability do not lie solely in the military dimension, and we intend to enhance the political component of our Alliance as provided for by Article 2 of our Treaty.
3. The unification of Germany means that the division of Europe is also being overcome. A united Germany in the Atlantic Alliance of free democracies and part of the growing political and economic integration of the European Community will be an indispensable factor of stability, which is needed in the heart of Europe. The

* Text from NATO on-line library at
<http://www.nato.int/docu/basicxt/b900706a.htm>.

move within the European Community towards political union, including the development of a European identity in the domain of security, will also contribute to Atlantic solidarity and to the establishment of a just and lasting order of peace throughout the whole of Europe.

4. We recognise that, in the new Europe, the security of every state is inseparably linked to the security of its neighbours. NATO must become an institution where Europeans, Canadians and Americans work together not only for the common defence, but to build new partnerships with all the nations of Europe. The Atlantic Community must reach out to the countries of the East which were our adversaries in the Cold War, and extend to them the hand of friendship.
5. We will remain a defensive alliance and will continue to defend all the territory of all our members. We have no aggressive intentions and we commit ourselves to the peaceful resolution of all disputes. We will never in any circumstance be the first to use force.
6. The member states of the North Atlantic Alliance propose to the member states of the Warsaw Treaty Organisation a joint declaration in which we solemnly state that we are no longer adversaries and reaffirm our intention to refrain from the threat or use of force against the territorial integrity or political independence of any state, or from acting in any other manner inconsistent with the purposes and principles of the United Nations Charter and with the CSCE Final Act. We invite all other CSCE member states to join us in this commitment to non- aggression.
7. In that spirit, and to reflect the changing political role of the Alliance, we today invite President Gorbachev on behalf of the Soviet Union, and representatives of the other Central and Eastern European countries to come to Brussels and address the North Atlantic Council. We today also invite the governments of the Union of Soviet Socialist Republics, the Czech and Slovak Federal Republic, the Hungarian Republic, the Republic of Poland, the People's Republic of Bulgaria and Romania to come to NATO, not just to visit, but to establish regular diplomatic liaison with NATO. This will make it possible for us to share with them our thinking and deliberations in this historic period of change.
8. Our Alliance will do its share to overcome the legacy of decades of suspicion. We are ready to intensify military contacts, including those of NATO Military Commanders, with Moscow and other Central and Eastern European capitals.
9. We welcome the invitation to NATO Secretary General Manfred WoÈrner to visit Moscow and meet with Soviet leaders.
10. Military leaders from throughout Europe gathered earlier this year in Vienna to talk about their forces and doctrine. NATO proposes

- another such meeting this Autumn to promote common understanding. We intend to establish an entirely different quality of openness in Europe, including an agreement on "Open Skies".
11. The significant presence of North American conventional and US nuclear forces in Europe demonstrates the underlying political compact that binds North America's fate to Europe's democracies. But, as Europe changes, we must profoundly alter the way we think about defence.
 12. To reduce our military requirements, sound arms control agreements are essential. That is why we put the highest priority on completing this year the first treaty to reduce and limit conventional armed forces in Europe (CFE) along with the completion of a meaningful CSBM package. These talks should remain in continuous session until the work is done. Yet we hope to go further. We propose that, once a CFE Treaty is signed, follow-on talks should begin with the same membership and mandate, with the goal of building on the current agreement with additional measures, including measures to limit manpower in Europe. With this goal in mind, a commitment will be given at the time of signature of the CFE Treaty concerning the manpower levels of a unified Germany.
 13. Our objective will be to conclude the negotiations on the follow-on to CFE and CSBMs as soon as possible and looking to the follow-up meeting of the CSCE to be held in Helsinki in 1992. We will seek through new conventional arms control negotiations, within the CSCE framework, further far-reaching measures in the 1990s to limit the offensive capability of conventional armed forces in Europe, so as to prevent any nation from maintaining disproportionate military power on the continent. NATO's High Level Task Force will formulate a detailed position for these follow-on conventional arms control talks. We will make provisions as needed for different regions to redress disparities and to ensure that no one's security is harmed at any stage. Furthermore, we will continue to explore broader arms control and confidence-building opportunities. This is an ambitious agenda, but it matches our goal: enduring peace in Europe.
 14. As Soviet troops leave Eastern Europe and a treaty limiting conventional armed forces is implemented, the Alliance's integrated force structure and its strategy will change fundamentally to include the following elements:
 - NATO will field smaller and restructured active forces. These forces will be highly mobile and versatile so that Allied leaders will have maximum flexibility in deciding how to respond to a crisis. It will rely increasingly on multinational corps made up of national units.

- NATO will scale back the readiness of its active units, reducing training requirements and the number of exercises.
 - NATO will rely more heavily on the ability to build up larger forces if and when they might be needed.
15. To keep the peace, the Alliance must maintain for the foreseeable future an appropriate mix of nuclear and conventional forces, based in Europe, and kept up to date where necessary. But, as a defensive Alliance, NATO has always stressed that none of its weapons will ever be used except in self-defence and that we seek the lowest and most stable level of nuclear forces needed to secure the prevention of war.
 16. The political and military changes in Europe, and the prospects of further changes, now allow the Allies concerned to go further. They will thus modify the size and adapt the tasks of their nuclear deterrent forces. They have concluded that, as a result of the new political and military conditions in Europe, there will be a significantly reduced role for sub-strategic nuclear systems of the shortest range. They have decided specifically that, once negotiations begin on short-range nuclear forces, the Alliance will propose, in return for reciprocal action by the Soviet Union, the elimination of all its nuclear artillery shells from Europe.
 17. New negotiations between the United States and the Soviet Union on the reduction of short-range forces should begin shortly after a CFE agreement is signed. The Allies concerned will develop an arms control framework for these negotiations which takes into account our requirements for far fewer nuclear weapons, and the diminished need for sub-strategic nuclear systems of the shortest range.
 18. Finally, with the total withdrawal of Soviet stationed forces and the implementation of a CFE agreement, the Allies concerned can reduce their reliance on nuclear weapons. These will continue to fulfil an essential role in the overall strategy of the Alliance to prevent war by ensuring that there are no circumstances in which nuclear retaliation in response to military action might be discounted. However, in the transformed Europe, they will be able to adopt a new NATO strategy making nuclear forces truly weapons of last resort.
 19. We approve the mandate given in Turnberry to the North Atlantic Council in Permanent Session to oversee the ongoing work on the adaptation of the Alliance to the new circumstances. It should report its conclusions as soon as possible.
 20. In the context of these revised plans for defence and arms control, and with the advice of NATO Military Authorities and all member states concerned, NATO will prepare a new Allied military

strategy moving away from "forward defence" where appropriate, towards a reduced forward presence and modifying "flexible response" to reflect a reduced reliance on nuclear weapons. In that connection NATO will elaborate new force plans consistent with the revolutionary changes in Europe. NATO will also provide a forum for Allied consultation on the upcoming negotiations on short-range nuclear forces.

21. The Conference on Security and Cooperation in Europe (CSCE) should become more prominent in Europe's future, bringing together the countries of Europe and North America. We support a CSCE Summit later this year in Paris which would include the signature of a CFE agreement and would set new standards for the establishment, and preservation, of free societies. It should endorse, inter alia:
 - CSCE principles on the right to free and fair elections;
 - CSCE commitments to respect and uphold the rule of law;
 - CSCE guidelines for enhancing economic cooperation, based on the development of free and competitive market economies; and
 - CSCE cooperation on environmental protection.
22. We further propose that the CSCE Summit in Paris decide how the CSCE can be institutionalised to provide a forum for wider political dialogue in a more united Europe. We recommend that CSCE governments establish:
 - a programme for regular consultations among member governments at the Heads of State and Government or Ministerial level, at least once each year, with other periodic meetings of officials to prepare for and follow up on these consultations;
 - a schedule of CSCE review conferences once every two years to assess progress toward a Europe whole and free;
 - a small CSCE secretariat to coordinate these meetings and conferences;
 - a CSCE mechanism to monitor elections in all the CSCE countries, on the basis of the Copenhagen Document;
 - a CSCE Centre for the Prevention of Conflict that might serve as a forum for exchange of military information, discussion of unusual military activities, and the conciliation of disputes involving CSCE member states; and
 - a CSCE parliamentary body, the Assembly of Europe, to be based on the existing parliamentary assembly of the Council of Europe in Strasbourg, and include representatives of all CSCE member states.

The sites of these new institutions should reflect the fact that the newly democratic countries of Central and Eastern Europe form part of the political structures of the new Europe.

23. Today, our Alliance begins a major transformation. Working with all the countries of Europe, we are determined to create enduring peace on this continent.

Appendix C

U.S. Presidential Nuclear Initiative, 1991*

Address to the Nation on Reducing United States and Soviet Nuclear Weapons

President George H.W. Bush

September 27, 1991

Good evening.

Tonight I'd like to speak with you about our future and the future of the generations to come.

The world has changed at a fantastic pace, with each day writing a fresh page of history before yesterday's ink has even dried. And most recently, we've seen the peoples of the Soviet Union turn to democracy and freedom, and discard a system of government based on oppression and fear.

Like the East Europeans before them, they face the daunting challenge of building fresh political structures, based on human rights, democratic principles, and market economies. Their task is far from easy and far from over. They will need our help, and they will get it.

But these dramatic changes challenge our Nation as well. Our country has always stood for freedom and democracy. And when the newly elected leaders of Eastern Europe grappled with forming their new governments, they looked to the United States. They looked to American democratic principles in building their own free societies. Even the leaders of the U.S.S.R. Republics are reading *The Federalist Papers*, written by America's founders, to find new ideas and inspiration.

Today, America must lead again, as it always has, as only it can. And we will. We must also provide the inspiration for lasting peace. And we will do that, too. We can now take steps in response to these dramatic developments, steps that can help the Soviet peoples in their quest for peace and prosperity. More importantly, we can now take steps to make the world

* Text from the archives of the George Bush Presidential Library and Museum at <http://bushlibrary.tamu.edu/papers/1991/91092704.html>.

a less dangerous place than ever before in the nuclear age.

A year ago, I described a new strategy for American defenses, reflecting the world's changing security environment. That strategy shifted our focus away from the fear that preoccupied us for 40 years, the prospect of a global confrontation. Instead, it concentrated more on regional conflicts, such as the one we just faced in the Persian Gulf.

I spelled out a strategic concept, guided by the need to maintain the forces required to exercise forward presence in key areas, to respond effectively in crises, to maintain a credible nuclear deterrent, and to retain the national capacity to rebuild our forces should that be needed.

We are now moving to reshape the U.S. military to reflect that concept. The new base force will be smaller by half a million than today's military, with fewer Army divisions, Air Force wings, Navy ships, and strategic nuclear forces. This new force will be versatile, able to respond around the world to challenges, old and new.

As I just mentioned, the changes that allowed us to adjust our security strategy a year ago have greatly accelerated. The prospect of a Soviet invasion into Western Europe, launched with little or no warning, is no longer a realistic threat. The Warsaw Pact has crumbled. In the Soviet Union, the advocates of democracy triumphed over a coup that would have restored the old system of repression. The reformers are now starting to fashion their own futures, moving even faster toward democracy's horizon.

New leaders in the Kremlin and the Republics are now questioning the need for their huge nuclear arsenal. The Soviet nuclear stockpile now seems less an instrument of national security, and more of a burden. As a result, we now have an unparalleled opportunity to change the nuclear posture of both the United States and the Soviet Union.

If we and the Soviet leaders take the right steps -- some on our own, some on their own, some together -- we can dramatically shrink the arsenal of the world's nuclear weapons. We can more effectively discourage the spread of nuclear weapons. We can rely more on defensive measures in our strategic relationship. We can enhance stability and actually reduce the risk of nuclear war. Now is the time to seize this opportunity.

After careful study and consultations with my senior advisers and after considering valuable counsel from Prime Minister Major, President Mitterrand, Chancellor Kohl, and other allied leaders, I am announcing today a series of sweeping initiatives affecting every aspect of our nuclear forces on land, on ships, and on aircraft. I met again today with our Joint

Chiefs of Staff, and I can tell you they wholeheartedly endorse each of these steps.

I will begin with the category in which we will make the most fundamental change in nuclear forces in over 40 years, nonstrategic or theater weapons. Last year, I cancelled U.S. plans to modernize our ground-launched theater nuclear weapons. Later, our NATO allies joined us in announcing that the alliance would propose the mutual elimination of all nuclear artillery shells from Europe, as soon as short-range nuclear force negotiations began with the Soviets. But starting these talks now would only perpetuate these systems, while we engage in lengthy negotiations. Last month's events not only permit, but indeed demand swifter, bolder action.

I am therefore directing that the United States eliminate its entire worldwide inventory of ground-launched short-range, that is, theater nuclear weapons. We will bring home and destroy all of our nuclear artillery shells and short-range ballistic missile warheads. We will, of course, ensure that we preserve an effective air-delivered nuclear capability in Europe. That is essential to NATO's security.

In turn, I have asked the Soviets to go down this road with us, to destroy their entire inventory of ground-launched theater nuclear weapons: not only their nuclear artillery, and nuclear warheads for short-range ballistic missiles, but also the theater systems the U.S. no longer has, systems like nuclear warheads for air-defense missiles, and nuclear land mines.

Recognizing further the major changes in the international military landscape, the United States will withdraw all tactical nuclear weapons from its surface ships and attack submarines, as well as those nuclear weapons associated with our land-based naval aircraft. This means removing all nuclear Tomahawk cruise missiles from U.S. ships and submarines, as well as nuclear bombs aboard aircraft carriers. The bottom line is that under normal circumstances, our ships will not carry tactical nuclear weapons.

Many of these land and sea-based warheads will be dismantled and destroyed. Those remaining will be secured in central areas where they would be available if necessary in a future crisis.

Again, there is every reason for the Soviet Union to match our actions: by removing all tactical nuclear weapons from its ships and attack submarines; by withdrawing nuclear weapons for land-based naval aircraft; and by destroying many of them and consolidating what remains at central locations. I urge them to do so.

No category of nuclear weapons has received more attention than those in our strategic arsenals. The Strategic Arms Reduction Treaty, START, which President Gorbachev and I signed last July was the culmination of almost a decade's work. It calls for substantial stabilizing reductions and effective verification. Prompt ratification by both parties is essential.

But I also believe the time is right to use START as a springboard to achieve additional stabilizing changes.

First, to further reduce tensions, I am directing that all United States strategic bombers immediately stand down from their alert posture. As a comparable gesture, I call upon the Soviet Union to confine its mobile missiles to their garrisons, where they will be safer and more secure.

Second, the United States will immediately stand down from alert all intercontinental ballistic missiles scheduled for deactivation under START. Rather than waiting for the treaty's reduction plan to run its full 7 year course, we will accelerate elimination of these systems, once START is ratified. I call upon the Soviet Union to do the same.

Third, I am terminating the development of the mobile Peacekeeper ICBM as well as the mobile portions of the small ICBM program. The small single-warhead ICBM will be our only remaining ICBM modernization program. And I call upon the Soviets to terminate any and all programs for future ICBM's with more than one warhead, and to limit ICBM modernization to one type of single warhead missile, just as we have done.

Fourth, I am canceling the current program to build a replacement for the nuclear short-range attack missile for our strategic bombers.

Fifth, as a result of the strategic nuclear weapons adjustments that I've just outlined, the United States will streamline its command and control procedures, allowing us to more effectively manage our strategic nuclear forces.

As the system works now, the Navy commands the submarine part of our strategic deterrent, while the Air Force commands the bomber and land-based elements. But as we reduce our strategic forces, the operational command structure must be as direct as possible. And I have therefore approved the recommendation of Secretary Cheney and the Joint Chiefs to consolidate operational command of these forces into a U.S. strategic command under one commander with participation from both services.

Since the 1970's, the most vulnerable and unstable part of the U.S. and Soviet nuclear forces has been intercontinental missiles with more than one

warhead. Both sides have these ICBM's in fixed silos in the ground where they are more vulnerable than missiles on submarines.

I propose that the U.S. and the Soviet Union seek early agreement to eliminate from their inventories all ICBM's with multiple warheads. After developing a timetable acceptable to both sides, we could rapidly move to modify or eliminate these systems under procedures already established in the START agreement. In short, such an action would take away the single most unstable part of our nuclear arsenals.

But there is more to do. The United States and the Soviet Union are not the only nations with ballistic missiles. Some 15 nations have them now, and in less than a decade that number could grow to 20. The recent conflict in the Persian Gulf demonstrates in no uncertain terms that the time has come for strong action on this growing threat to world peace.

Accordingly, I am calling on the Soviet leadership to join us in taking immediate concrete steps to permit the limited deployment of nonnuclear defenses to protect against limited ballistic missile strikes, whatever their source, without undermining the credibility of existing deterrent forces. And we will intensify our effort to curb nuclear and missile proliferation. These two efforts will be mutually reinforcing. To foster cooperation, the United States soon will propose additional initiatives in the area of ballistic missile early warning.

Finally, let me discuss yet another opportunity for cooperation that can make our world safer.

During last month's attempted coup in Moscow, many Americans asked me if I thought Soviet nuclear weapons were under adequate control. I do not believe that America was at increased risk of nuclear attack during those tense days. But I do believe more can be done to ensure the safe handling and dismantling of Soviet nuclear weapons. Therefore, I propose that we begin discussions with the Soviet Union to explore cooperation in three areas: First, we should explore joint technical cooperation on the safe and environmentally responsible storage, transportation, dismantling, and destruction of nuclear warheads. Second, we should discuss existing arrangements for the physical security and safety of nuclear weapons and how these might be enhanced. And third, we should discuss nuclear command and control arrangements, and how these might be improved to provide more protection against the unauthorized or accidental use of nuclear weapons.

My friend, French President Mitterrand, offered a similar idea a short while ago. After further consultations with the alliance and when the leadership in

the USSR is ready, we will begin this effort.

The initiatives that I'm announcing build on the new defense strategy that I set out a year ago, one that shifted our focus away from the prospect of global confrontation. We're consulting with our allies on the implementation of many of these steps which fit well with the new post-Cold War strategy and force posture that we've developed in NATO.

As we implement these initiatives we will closely watch how the new Soviet leadership responds. We expect our bold initiatives to meet with equally bold steps on the Soviet side. If this happens, further cooperation is inevitable. If it does not, then an historic opportunity will have been lost. Regardless, let no one doubt we will still retain the necessary strength to protect our security and that of our allies and to respond as necessary.

In addition, regional instabilities, the spread of weapons of mass destruction, and as we saw during the conflict in the Gulf, territorial ambitions of power-hungry tyrants, still require us to maintain a strong military to protect our national interests and to honor commitments to our allies.

Therefore, we must implement a coherent plan for a significantly smaller but fully capable military, one that enhances stability but is still sufficient to convince any potential adversary that the cost of aggression would exceed any possible gain.

We can safely afford to take the steps I've announced today, steps that are designed to reduce the dangers of miscalculation in a crisis. But to do so, we must also pursue vigorously those elements of our strategic modernization program that serve the same purpose. We must fully fund the B - 2 and SDI program. We can make radical changes in the nuclear postures of both sides to make them smaller, safer, and more stable. But the United States must maintain modern nuclear forces including the strategic triad and thus ensure the credibility of our deterrent.

Some will say that these initiatives call for a budget windfall for domestic programs. But the peace dividend I seek is not measured in dollars but in greater security. In the near term, some of these steps may even cost money. Given the ambitious plan I have already proposed to reduce U.S. defense spending by 25 percent, we cannot afford to make any unwise or unwarranted cuts in the defense budget that I have submitted to Congress. I am counting on congressional support to ensure we have the funds necessary to restructure our forces prudently and implement the decisions that I have outlined tonight.

Twenty years ago when I had the opportunity to serve this country as Ambassador to the United Nations. I once talked about the vision that was in the minds of the UN's founders, how they dreamed of a new age when the great powers of the world would cooperate in peace as they had as allies in war.

Today I consulted with President Gorbachev. And while he hasn't had time to absorb the details, I believe the Soviet response will clearly be positive. I also spoke with President Yeltsin, and he had a similar reaction, positive, hopeful.

Now, the Soviet people and their leaders can shed the heavy burden of a dangerous and costly nuclear arsenal which has threatened world peace for the past five decades. They can join us in these dramatic moves toward a new world of peace and security.

Tonight, as I see the drama of democracy unfolding around the globe, perhaps we are closer to that new world than every before. The future is ours to influence, to shape, to mold. While we must not gamble that future, neither can we forfeit the historic opportunity now before us.

It has been said, "Destiny is not a matter of chance. It is a matter of choice. It is not a thing to be waited for. It's a thing to be achieved." The United States has always stood where duty required us to stand. Now let them say that we led where destiny required us to lead, to a more peaceful, hopeful future. We cannot give a more precious gift to the children of the world.

Thank you, good night, and God bless the United States of America.

[Note: President George H.W. Bush spoke at 8:02 p.m. in the Oval Office at the White House. In his remarks, he referred to Prime Minister John Major of the United Kingdom; President Francois Mitterrand of France; Chancellor Helmut Kohl of Germany; Secretary of Defense Dick Cheney; President Mikhail Gorbachev of the Soviet Union; and President Boris Yeltsin of the Republic of Russia.]

Appendix D

Soviet and Russian Responses to the Bush Initiative

*I. Text of President Gorbachev's Televised Statement on Nuclear Weapons**

October 5, 1991, Saturday, Moscow

Dear compatriots:

A week ago, U.S. President George Bush put forward an important initiative on nuclear weapons. This initiative confirms that new thinking has been widely supported by the world community. George Bush's proposals continue the drive started in Reykjavik. This is my opinion. I know that Boris Yeltsin and leaders of other republics share this opinion.

In this statement, I will announce our reciprocal steps and countermeasures.

First: The following steps will be made as regards tactical nuclear weapons:

- All nuclear artillery ammunition and nuclear warheads for tactical missiles will be destroyed.
- Nuclear warheads of anti-aircraft missiles will be removed from the army and stored in central bases. Part of them will be destroyed. All nuclear mines will be eliminated.
- All tactical nuclear weapons will be removed from surface ships and multipurpose submarines. These weapons, as well as weapons from ground-based naval aviation, will be stored. Part of them will be destroyed.

Thus, the Soviet Union and the United States are taking reciprocal radical measures leading to the elimination of tactical weapons. Moreover, we propose that the United States remove on a reciprocal basis from the Navy and destroy tactical nuclear weapons. Also on a reciprocal basis, we could remove from active units of front (tactical) aviation all nuclear ammunition (bombs and aircraft missiles) and store

* As carried by the Tass news agency: Reprinted from U.P.I. (copyright 1991).

them. The Soviet Union urges other nuclear powers to join these far-reaching Soviet-U.S. measures as regards tactical weapons.

Second: Like the U.S. president, I call for the earliest possible ratification of the treaty on strategic offensive weapons. This issue will be discussed by the first session of the new Soviet Supreme Soviet. Taking into account the unilateral steps on strategic offensive weapons announced by President George Bush, we will take the following measures:

- Our heavy bombers, like U.S. ones, will be removed from alert, and their nuclear weapons will be stored.
- We will stop work on a new modified short-range missile for Soviet heavy bombers.
- The Soviet Union will stop work on a mobile small-size intercontinental ballistic missile.
- We will scrap plans to make new launchers for intercontinental ballistic missiles on rail cars and modernize them. Thus, the number of mobile intercontinental ballistic missiles with multiple individually targeted warheads will not increase.
- All our intercontinental ballistic missiles on rail cars will be returned to their storage.
- We will remove from day-to-day alert status 503 intercontinental ballistic missiles, including 134 intercontinental ballistic missiles with multiple individually targeted warheads.
- We have already removed from active forces three nuclear missile submarines with 44 launchers for submarine-based ballistic missiles and three more submarines with 48 launchers are now being removed.

Third: We will make more radical cuts in our strategic offensive weapons than the treaty on strategic offensive weapons envisages. As a result, in seven years, we will have 5,000 nuclear warheads instead of 6,000 envisaged by the treaty. We would welcome reciprocal steps by the United States.

We propose that immediately after the ratification of the treaty, the United States and the Soviet Union begin negotiations on further radical cuts in strategic offensive weapons, approximately by 50 percent. We are ready to discuss U.S. proposals on non-nuclear anti-aircraft systems.

We propose to study the possibility of creating joint systems to avert nuclear missile attacks with ground- and space-based elements.

Fourth: We declare an immediate one-year unilateral moratorium on nuclear weapons tests. We hope other nuclear powers will follow this

path toward the earliest possible and full cessation of nuclear testing. We hope to reach an agreement with the United States on a controlled cessation of the production of all fissionable materials for weapons.

Fifth: We are ready to begin a detailed dialogue with the United States on the development of safe and ecologically clean technologies to store and transport nuclear warheads, as well as methods to utilize nuclear explosive devices and increase nuclear safety. To increase the safety of nuclear arms control, we put all strategic nuclear weapons under single control and include strategic defensive systems into a single armed service.

Sixth: We hope that eventually other nuclear powers will follow the example of the United States and the Soviet Union. I believe the time has come for all nuclear powers to make a joint statement to keep them from making a first nuclear strike. The Soviet Union has long adhered to this principle. I am convinced the United States will take a vital step by making such a commitment.

Seventh: We welcome the U.S. plans to reduce its armed forces by 500,000 people. We plan to reduce our armed forces by 700,000 people.

In conclusion, I would like to stress that by taking unilateral and bilateral steps and holding negotiations, we push forward the process of disarmament, approaching the goal proclaimed in early 1986 — a nuclear-free, safer and more stable world. The governments, experts and departments will have much to do in this field. It will be a new stage of international development on one of its major directions.

Therefore, a question about a new Soviet-U.S. summit meeting may naturally emerge. I have just had a conversation with U.S. President George Bush and told him about our reply to his initiative. We had a good discussion. The U.S. president gave a positive assessment of our proposals and expressed satisfaction with our approach toward solving key problems in world politics.

Thank you. All the best to you.

*II. Statement by the President of the Russian Federation, Boris Yeltsin, "On Russia's Policy in the Field of Limiting and Reducing Armaments"**

January 29, 1992, Wednesday

Esteemed citizens of Russia,

My address today is devoted to a question which is of vital importance, namely the practical measures taken by Russia in the field of limiting and reducing armaments. Our position of principle consists in that all nuclear weapons and other mass annihilation weapons in the world must be eliminated. Naturally, this should be carried out gradually and on a parity basis. In this vitally important business we are open to cooperation with all states and international organizations, including cooperation within the United Nations framework.

The measures which I am going to present have been prepared on the basis of regular interaction and coordination with the CIS member states and in line with the agreements reached at the meetings of their leaders in Minsk, Alma-Ata and Moscow. Russia considers itself to be the legal successor of the USSR insofar as responsibility for its international obligations is concerned. We reaffirm all the commitments under bilateral and multilateral agreements on arms limitations and reductions and on disarmament which have been signed by the Soviet Union and are currently in force. The leadership of Russia reaffirms its adherence to the course towards a radical reduction of nuclear armaments, ensuring the maximum security of nuclear weapons and of all objects and installations connected with their development, production and operation. Russia comes out with the initiative to set up an international agency to monitor the reduction of nuclear weapons. Subsequently this agency could gradually extend its control over the entire nuclear cycle — from the extraction of uranium to the production of deuterium and tritium and the burial of nuclear waste.

The measures we are undertaking in the sphere of disarmament do not in any way undermine or weaken the defense capacity of Russia or the CIS member states. We are talking about a reasonable, minimal sufficiency of nuclear and conventional weapons. This is our

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overriding principle in building and maintaining our armed forces. Its implementation will allow us to save considerable resources, which will be channeled towards civilian projects, to address social issues and to implement reforms.

Today conditions have arisen which make it possible to take a number of new major steps towards cutting armaments, some of which we are undertaking unilaterally and others on a reciprocal basis. We are going to take the following steps as a matter of priority.

First. In the field of strategic offensive armaments. A treaty on strategic offensive armaments cuts has been submitted to the Supreme Soviet of the Russian Federation for ratification. The ratification process has already gone under way in the United States. I believe that the enactment of this major document, including its approval by Belarus, Kazakhstan and Ukraine, must be carried out as soon as possible. But already, prior to the strategic offensive weapons reduction treaty going into effect, Russia has undertaken a number of large-scale measures designed to curtail its strategic arsenals. Thus, approximately 600 strategic ballistic ground- and sea-based missiles, or nearly 1,250 nuclear warheads, have been taken off high alert status. Furthermore, 130 underground inter-continental ballistic missile launching sites have been liquidated or are about to be liquidated. Preparations have been made to dismantle missile launching installations at 6 nuclear submarines. Programs of developing and modernizing several strategic offensive armaments types have been stopped. The strategic nuclear weapons located in Ukraine will be dismantled within a shorter time span than was planned originally. Corresponding agreements have already been reached.

I should like to stress that we are not just talking about our unilateral disarmament. Parallel steps, on a goodwill basis, are being simultaneously taken by the United States of America. Now, however, it is possible and necessary to go still further down this path. Lately a number of relevant decisions has been adopted. We are stopping the production of heavy TU-160 and Tu-95MC bombers and the production of long-range air-based cruise missiles of corresponding types. We are ready, on a mutual basis with the USA, to stop the development and production of new types of these missiles. We are also stopping production of corresponding types of sea-based nuclear cruise missiles. At the same time we are ready, on a reciprocal basis, to liquidate all the existing nuclear long-range sea-based cruise missiles. We are stopping military exercises involving a large number of heavy bombers, which means that not more than 30 such bombers can be engaged in such exercises. The number of nuclear submarines carrying

ballistic missiles on high alert status has been halved and will be reduced still further. We are ready, on a reciprocal basis, to renounce the practice of using such submarines for combat patrol missions. Within a three-year period, instead of the original seven years, Russia will reduce the number of strategic offensive armaments down to a number envisioned under the existing agreement. We shall thus reach a level stipulated by a corresponding treaty four years ahead of schedule. If mutual agreement is reached with the USA, we could move in this direction still further. We propose that strategic offensive armaments that Russia and the USA will have left at their disposal after the reductions, not be targeted at corresponding installations and objects in Russia and the USA. Within the next few days important talks will be held with Western leaders. Proposals have been prepared for new deep cuts of strategic offensive armaments, several-fold, by 2,000-2,500 warheads on each side respectively. We also hope that the other nuclear powers — China, France, Great Britain — will join the process of real nuclear arms reductions.

Second. Tactical nuclear weapons. Large-scale measures for their deep cuts have already been taken, simultaneously with the USA. Lately the production of ground-based nuclear missile warheads has been stopped and also the production of nuclear artillery shells and nuclear mines. The stocks of such nuclear armaments will be destroyed. Russia will eliminate one-third of its sea-based tactical nuclear weapons, and one-half of ground-to-air missile warheads. Steps in this direction have already been taken. We are also determined to halve the stocks of air-borne tactical nuclear weapons. The remaining air-borne tactical nuclear weapons could be, on a mutual basis with the USA, withdrawn and taken out of service from tactical air force units and located at centralized storage depots.

Third. Missile defense and outer space. Russia reaffirms its adherence to the air defense treaty. It is an important factor of maintaining strategic stability in the world. We are ready to continue an objective discussion of the US proposal on reducing non-nuclear air defense systems. Our principle is well known. If this strengthens strategic stability in the world as well as Russia's security, we definitely support this approach. We also announce our readiness to eliminate anti-satellite systems, on a parity basis with the USA, and ban the production of armaments designed to kill satellites. We are ready to work out and operate a joint global defense system in place of the SDI.

Fourth. Nuclear testing and production of fissionable materials for nuclear armaments. Russia is strongly in favor of banning all nuclear tests. Russia adheres to the one-year moratorium on nuclear tests,

announced in October 1991, and we hope that other nuclear powers will also refrain from conducting nuclear tests. The atmosphere of mutual restraint would contribute to reaching agreements on non-conduct of such tests in general, possibly by reducing the number of nuclear tests gradually, on a step-by-step basis. In the interests of ultimately resolving this task we are proposing to the USA to resume bilateral relations on further cuts of nuclear tests. Russia is determined to go ahead with the program of stopping the production of plutonium for nuclear weapons. Industrial plutonium-producing facilities will be shut down before the year 2000, some of them ahead of schedule, already in 1993. We reaffirm our proposal to the USA to reach agreement on stopping the production of fissionable materials for nuclear weapons, subject to mutual monitoring and control.

Fifth. Non-proliferation of mass destruction weapons and their delivery vehicles. Russia reaffirms its commitments under the nuclear non-proliferation treaty, among other things, as its depository. We hope that Belarus, Kazakhstan and Ukraine will join the nuclear non-proliferation treaty, as non-nuclear states, together with the other CIS member states. Russia declares its full support for the activity of international atomic energy commission and it favors the necessity of strengthening the effectiveness of its guarantees. We are taking additional steps in order to prevent our exports leading to the proliferation of mass destruction weapons. Work is now under way for Russia to become part of the international atomic commission's comprehensive guarantees system, as a precondition for our exports of nuclear materials for peaceful purposes. Russia is determined to accede to the international missile and missile technology non-proliferation regime, as an equal partner. We support the efforts of the Australia Group to monitor chemical exports. The Russian Federation intends to pass internal legislation regulating the export from Russia of materials, equipment and technologies of dual application which could be used to create nuclear chemical or biological weapons or combat missiles. A comprehensive state monitoring and control system is being created to supervise such exports. We shall be working in close coordination and cooperation with all CIS member states on these matters. Russia supports the basic principles regulating weapons sales, adopted in London in October 1991.

Sixth. Conventional armaments. The conventional forces in Europe treaty has been presented to the Russian Parliament for approval. Other CIS member states whose territory is covered by this treaty also attach great importance to its immediate ratification. Russia reaffirms its intention to reduce, jointly with other CIS member states, the Armed Forces of the former USSR by 700,000 men. Russia attaches great

importance to the negotiations currently under way in Vienna on reductions of military personnel and confidence-building measures and also to new negotiations on cooperation and security in Europe. The latter could become a standing all-European forum in searching for ways of creating a collective European security system. Russia, in collaboration with Kazakhstan, Kyrgyzstan and Tajikistan, will work towards reaching agreement with China in within the framework of negotiations on reductions of armed forces and armaments in border areas. A decision has been adopted not to conduct in 1992 large-scale military exercises involving more than 13,000 personnel, not only in the European but also in the Asian part of the CIS territory. We also hope that there is a good opportunity to sign an open skies agreement within the very near future.

Seventh. Chemical weapons. We are in favor of a speedy global convention on banning chemical weapons being signed, already in 1992. It is necessary in order to close off all channels to acquisition of chemical weapons without any detriment to the legitimate economic interests of its signatories. Russia adheres to the agreement signed with the USA in 1990 on non-production and elimination of chemical weapons. However it is necessary to somewhat correct and adjust the time frame for their elimination envisioned under this treaty. All the nuclear weapons of the former USSR are currently located in Russia's territory, and Russia assumes full responsibility for their destruction. We are preparing a corresponding state program. We are open to cooperation in this sphere with the USA and other countries concerned.

Eighth. Biological weapons. Russia supports a strict implementation of the 1972 convention on banning biological weapons and the creation on a multilateral basis of respective monitoring and supervisory mechanisms and confidence-building measures. Taking into account the fact that there is a certain lagging behind in the implementation of this convention, I hereby state that Russia abandons that part of reservations that concerned the possibility of retaliatory uses of biological weapons. They were made by the USSR to the 1925 Geneva Protocol on banning chemical and bacteriological weapons in warfare.

Ninth. The defense budget. Russia will continue its line towards drastic reductions of its military budget, orienting it towards civilian purposes and needs. In 1990-1991 defense expenditures, in comparable prices, were already reduced by 20 percent, including a 30 percent cut in expenditures for procurement of armaments and military equipment. In 1992 we are planning to cut our military budget by another 10 percent, in 1991 prices, while the volume of weapons procurement in 1992, in comparison with the previous year, will be nearly halved.

Tenth. Conversion. Russia welcomes international cooperation in the field of converting military production to civilian purposes, and it comes out in favor of expanding this cooperation. For our part we shall encourage this cooperation by providing most favorable conditions and granting tax exemptions and other privileges to corresponding joint ventures and projects.

Esteemed citizens of Russia. I have just outlined a plan of action of the Russian Federation in the field of arms reductions and disarmament. I hope that it will receive your support and approval and that it will also meet with the understanding of all peoples of the Commonwealth of Independent States. I am convinced that it fully corresponds to the interests of this country and the interests of other states in the world. If we implement it, our life will become not only more secure and tranquil, but also more beneficial in material terms.

Just a few hours ago the President of the United States Mr. Bush has delivered his State of the Union message to the American people, proposing to cut nuclear potentials. We have been working in constant contact and consultation with the United States on these matters, and we are also conducting dialogue on the practical implementation of this line and the proposed initiatives. The positions of both sides are very close. Hence lies the guarantee of success in further progress down the path of nuclear arms reductions. Thank you very much.

Appendix E

NATO's New Strategic Concept, 1991*

The Alliance's Strategic Concept agreed by the Heads of State and Government participating in the meeting of the North Atlantic Council

Rome, 8 November 1991

At their meeting in London in July 1990, NATO's Heads of State and Government agreed on the need to transform the Atlantic Alliance to reflect the new, more promising, era in Europe. While reaffirming the basic principles on which the Alliance has rested since its inception, they recognised that the developments taking place in Europe would have a far-reaching impact on the way in which its aims would be met in future. In particular, they set in hand a fundamental strategic review. The resulting new Strategic Concept is set out below.

Part I - the Strategic Context

The new strategic environment

1. Since 1989, profound political changes have taken place in Central and Eastern Europe which have radically improved the security environment in which the North Atlantic Alliance seeks to achieve its objectives. The USSR's former satellites have fully recovered their sovereignty. The Soviet Union and its Republics are undergoing radical change. The three Baltic Republics have regained their independence. Soviet forces have left Hungary and Czechoslovakia and are due to complete their withdrawal from Poland and Germany by 1994. All the countries that were formerly adversaries of NATO have dismantled the Warsaw Pact and rejected ideological hostility to the West. They have, in varying degrees, embraced and begun to implement policies aimed at achieving pluralistic democracy, the rule of law, respect for human rights and a market economy. The political division of Europe that was the source of the military confrontation of the Cold War period has thus been overcome.
2. In the West, there have also been significant changes. Germany has been united and remains a full member of the Alliance and of European

* Text from NATO on-line library at
<http://www.nato.int/docu/basicxt/b911108a.htm>.

institutions. The fact that the countries of the European Community are working towards the goal of political union, including the development of a European security identity, and the enhancement of the role of the WEU are important factors for European security. The strengthening of the security dimension in the process of European integration, and the enhancement of the role and responsibilities of European members of the Alliance are positive and mutually reinforcing. The development of a European security identity and defence role, reflected in the strengthening of the European pillar within the Alliance, will not only serve the interests of the European states but also reinforce the integrity and effectiveness of the Alliance as a whole.

3. Substantial progress in arms control has already enhanced stability and security by lowering arms levels and increasing military transparency and mutual confidence (including through the Stockholm CDE agreement of 1986, the INF Treaty of 1987 and the CSCE agreements and confidence and security-building measures of 1990). Implementation of the 1991 START Treaty will lead to increased stability through substantial and balanced reductions in the field of strategic nuclear arms. Further far-reaching changes and reductions in the nuclear forces of the United States and the Soviet Union will be pursued following President Bush's September 1991 initiative. Also of great importance is the Treaty on Conventional Armed Forces in Europe (CFE), signed at the 1990 Paris Summit; its implementation will remove the Alliance's numerical inferiority in key conventional weapon systems and provide for effective verification procedures. All these developments will also result in an unprecedented degree of military transparency in Europe, thus increasing predictability and mutual confidence. Such transparency would be further enhanced by the achievement of an Open Skies regime. There are welcome prospects for further advances in arms control in conventional and nuclear forces, and for the achievement of a global ban on chemical weapons, as well as restricting de-stabilising arms exports and the proliferation of certain weapons technologies.

4. The CSCE process, which began in Helsinki in 1975, has already contributed significantly to overcoming the division of Europe. As a result of the Paris Summit, it now includes new institutional arrangements and provides a contractual framework for consultation and cooperation that can play a constructive role, complementary to that of NATO and the process of European integration, in preserving peace.

5. The historic changes that have occurred in Europe, which have led to the fulfillment of a number of objectives set out in the Harmel Report, have significantly improved the overall security of the Allies. The monolithic, massive and potentially immediate threat which was the principal concern of the Alliance in its first forty years has disappeared.

On the other hand, a great deal of uncertainty about the future and risks to the security of the Alliance remain.

6. The new Strategic Concept looks forward to a security environment in which the positive changes referred to above have come to fruition. In particular, it assumes both the completion of the planned withdrawal of Soviet military forces from Central and Eastern Europe and the full implementation by all parties of the 1990 CFE Treaty. The implementation of the Strategic Concept will thus be kept under review in the light of the evolving security environment and in particular progress in fulfilling these assumptions. Further adaptation will be made to the extent necessary.

Security challenges and risks

7. The security challenges and risks which NATO faces are different in nature from what they were in the past. The threat of a simultaneous, full-scale attack on all of NATO's European fronts has effectively been removed and thus no longer provides the focus for Allied strategy. Particularly in Central Europe, the risk of a surprise attack has been substantially reduced, and minimum Allied warning time has increased accordingly.

8. In contrast with the predominant threat of the past, the risks to Allied security that remain are multi-faceted in nature and multi-directional, which makes them hard to predict and assess. NATO must be capable of responding to such risks if stability in Europe and the security of Alliance members are to be preserved. These risks can arise in various ways.

9. Risks to Allied security are less likely to result from calculated aggression against the territory of the Allies, but rather from the adverse consequences of instabilities that may arise from the serious economic, social and political difficulties, including ethnic rivalries and territorial disputes, which are faced by many countries in central and eastern Europe. The tensions which may result, as long as they remain limited, should not directly threaten the security and territorial integrity of members of the Alliance. They could, however, lead to crises inimical to European stability and even to armed conflicts, which could involve outside powers or spill over into NATO countries, having a direct effect on the security of the Alliance.

10. In the particular case of the Soviet Union, the risks and uncertainties that accompany the process of change cannot be seen in isolation from the fact that its conventional forces are significantly larger than those of any other European State and its large nuclear arsenal comparable only with that of the United States. These capabilities have to be taken into account if stability and security in Europe are to be preserved.

11. The Allies also wish to maintain peaceful and non- adversarial relations with the countries in the Southern Mediterranean and Middle East. The stability and peace of the countries on the southern periphery of Europe are important for the security of the Alliance, as the 1991 Gulf war has shown. This is all the more so because of the build-up of military power and the proliferation of weapons technologies in the area, including weapons of mass destruction and ballistic missiles capable of reaching the territory of some member states of the Alliance.

12. Any armed attack on the territory of the Allies, from whatever direction, would be covered by Articles 5 and 6 of the Washington Treaty. However, Alliance security must also take account of the global context. Alliance security interests can be affected by other risks of a wider nature, including proliferation of weapons of mass destruction, disruption of the flow of vital resources and actions of terrorism and sabotage. Arrangements exist within the Alliance for consultation among the Allies under Article 4 of the Washington Treaty and, where appropriate, coordination of their efforts including their responses to such risks.

13. From the point of view of Alliance strategy, these different risks have to be seen in different ways. Even in a non-adversarial and cooperative relationship, Soviet military capability and build-up potential, including its nuclear dimension, still constitute the most significant factor of which the Alliance has to take account in maintaining the strategic balance in Europe. The end of East-West confrontation has, however, greatly reduced the risk of major conflict in Europe. On the other hand, there is a greater risk of different crises arising, which could develop quickly and would require a rapid response, but they are likely to be of a lesser magnitude.

14. Two conclusions can be drawn from this analysis of the strategic context. The first is that the new environment does not change the purpose or the security functions of the Alliance, but rather underlines their enduring validity. The second, on the other hand, is that the changed environment offers new opportunities for the Alliance to frame its strategy within a broad approach to security.

Part II - Alliance Objectives and security functions

The purpose of the Alliance

15. NATO's essential purpose, set out in the Washington Treaty and reiterated in the London Declaration, is to safeguard the freedom and security of all its members by political and military means in accordance with the principles of the United Nations Charter. Based on common values of democracy, human rights and the rule of law, the Alliance has worked since its inception for the establishment of a just

and lasting peaceful order in Europe. This Alliance objective remains unchanged.

The nature of the Alliance

16. NATO embodies the transatlantic link by which the security of North America is permanently tied to the security of Europe. It is the practical expression of effective collective effort among its members in support of their common interests.

17. The fundamental operating principle of the Alliance is that of common commitment and mutual cooperation among sovereign states in support of the indivisibility of security for all of its members. Solidarity within the Alliance, given substance and effect by NATO's daily work in both the political and military spheres, ensures that no single Ally is forced to rely upon its own national efforts alone in dealing with basic security challenges. Without depriving member states of their right and duty to assume their sovereign responsibilities in the field of defence, the Alliance enables them through collective effort to enhance their ability to realise their essential national security objectives.

18. The resulting sense of equal security amongst the members of the Alliance, regardless of differences in their circumstances or in their national military capabilities relative to each other, contributes to overall stability within Europe and thus to the creation of conditions conducive to increased cooperation both among Alliance members and with others. It is on this basis that members of the Alliance, together with other nations, are able to pursue the development of cooperative structures of security for a Europe whole and free.

The fundamental tasks of the Alliance

19. The means by which the Alliance pursues its security policy to preserve the peace will continue to include the maintenance of a military capability sufficient to prevent war and to provide for effective defence; an overall capability to manage successfully crises affecting the security of its members; and the pursuit of political efforts favouring dialogue with other nations and the active search for a cooperative approach to European security, including in the field of arms control and disarmament.

20. To achieve its essential purpose, the Alliance performs the following fundamental security tasks:

- (i) To provide one of the indispensable foundations for a stable security environment in Europe, based on the growth of democratic institutions and commitment to the peaceful resolution of disputes, in which no country would be able to intimidate or coerce any European nation or to impose hegemony through the threat or use of force.

- (ii) To serve, as provided for in Article 4 of the North Atlantic Treaty, as a transatlantic forum for Allied consultations on any issues that affect their vital interests, including possible developments posing risks for members' security, and for appropriate coordination of their efforts in fields of common concern.
- (iii) To deter and defend against any threat of aggression against the territory of any NATO member state.
- (iv) To preserve the strategic balance within Europe.

21. Other European institutions such as the EC, WEU and CSCE also have roles to play, in accordance with their respective responsibilities and purposes, in these fields. The creation of a European identity in security and defence will underline the preparedness of the Europeans to take a greater share of responsibility for their security and will help to reinforce transatlantic solidarity. However the extent of its membership and of its capabilities gives NATO a particular position in that it can perform all four core security functions. NATO is the essential forum for consultation among the Allies and the forum for agreement on policies bearing on the security and defence commitments of its members under the Washington Treaty.

22. In defining the core functions of the Alliance in the terms set out above, member states confirm that the scope of the Alliance as well as their rights and obligations as provided for in the Washington Treaty remain unchanged.

Part III - A broad approach to security

Protecting peace in a new Europe

23. The Alliance has always sought to achieve its objectives of safeguarding the security and territorial integrity of its members, and establishing a just and lasting peaceful order in Europe, through both political and military means. This comprehensive approach remains the basis of the Alliance's security policy.

24. But what is new is that, with the radical changes in the security situation, the opportunities for achieving Alliance objectives through political means are greater than ever before. It is now possible to draw all the consequences from the fact that security and stability have political, economic, social, and environmental elements as well as the indispensable defence dimension. Managing the diversity of challenges facing the Alliance requires a broad approach to security. This is reflected in three mutually reinforcing elements of Allied security policy; dialogue, cooperation, and the maintenance of a collective defence capability.

25. The Alliance's active pursuit of dialogue and cooperation, underpinned by its commitment to an effective collective defence capability, seeks to reduce the risks of conflict arising out of misunderstanding or design; to build increased mutual understanding and confidence among all European states; to help manage crises affecting the security of the Allies; and to expand the opportunities for a genuine partnership among all European countries in dealing with common security problems.

26. In this regard, the Alliance's arms control and disarmament policy contributes both to dialogue and to cooperation with other nations, and thus will continue to play a major role in the achievement of the Alliance's security objectives. The Allies seek, through arms control and disarmament, to enhance security and stability at the lowest possible level of forces consistent with the requirements of defence. Thus, the Alliance will continue to ensure that defence and arms control and disarmament objectives remain in harmony.

27. In fulfilling its fundamental objectives and core security functions, the Alliance will continue to respect the legitimate security interests of others, and seek the peaceful resolution of disputes as set forth in the Charter of the United Nations. The Alliance will promote peaceful and friendly international relations and support democratic institutions. In this respect, it recognises the valuable contribution being made by other organisations such as the European Community and the CSCE, and that the roles of these institutions and of the Alliance are complementary.

Dialogue

28. The new situation in Europe has multiplied the opportunities for dialogue on the part of the Alliance with the Soviet Union and the other countries of Central and Eastern Europe. The Alliance has established regular diplomatic liaison and military contacts with the countries of Central and Eastern Europe as provided for in the London Declaration. The Alliance will further promote dialogue through regular diplomatic liaison, including an intensified exchange of views and information on security policy issues. Through such means the Allies, individually and collectively, will seek to make full use of the unprecedented opportunities afforded by the growth of freedom and democracy throughout Europe and encourage greater mutual understanding of respective security concerns, to increase transparency and predictability in security affairs, and thus to reinforce stability. The military can help to overcome the divisions of the past, not least through intensified military contacts and greater military transparency. The Alliance's pursuit of dialogue will provide a foundation for greater cooperation throughout Europe and the ability to resolve differences and conflicts by peaceful means.

Cooperation

29. The Allies are also committed to pursue cooperation with all states in Europe on the basis of the principles set out in the Charter of Paris for a New Europe. They will seek to develop broader and productive patterns of bilateral and multilateral cooperation in all relevant fields of European security, with the aim, inter alia, of preventing crises or, should they arise, ensuring their effective management. Such partnership between the members of the Alliance and other nations in dealing with specific problems will be an essential factor in moving beyond past divisions towards one Europe whole and free. This policy of cooperation is the expression of the inseparability of security among European states. It is built upon a common recognition among Alliance members that the persistence of new political, economic or social divisions across the continent could lead to future instability, and such divisions must thus be diminished.

Collective Defence

30. The political approach to security will thus become increasingly important. Nonetheless, the military dimension remains essential. The maintenance of an adequate military capability and clear preparedness to act collectively in the common defence remain central to the Alliance's security objectives. Such a capability, together with political solidarity, is required in order to prevent any attempt at coercion or intimidation, and to guarantee that military aggression directed against the Alliance can never be perceived as an option with any prospect of success. It is equally indispensable so that dialogue and cooperation can be undertaken with confidence and achieve their desired results.

Management of crisis and conflict prevention

31. In the new political and strategic environment in Europe, the success of the Alliance's policy of preserving peace and preventing war depends even more than in the past on the effectiveness of preventive diplomacy and successful management of crises affecting the security of its members. Any major aggression in Europe is much more unlikely and would be preceded by significant warning time. Though on a much smaller scale, the range and variety of other potential risks facing the Alliance are less predictable than before.

32. In these new circumstances there are increased opportunities for the successful resolution of crises at an early stage. The success of Alliance policy will require a coherent approach determined by the Alliance's political authorities choosing and coordinating appropriate crisis management measures as required from a range of political and other measures, including those in the military field. Close control by the political authorities of the Alliance will be applied from the outset and

at all stages. Appropriate consultation and decision making procedures are essential to this end.

33. The potential of dialogue and cooperation within all of Europe must be fully developed in order to help to defuse crises and to prevent conflicts since the Allies' security is inseparably linked to that of all other states in Europe. To this end, the Allies will support the role of the CSCE process and its institutions. Other bodies including the European Community, Western European Union and United Nations may also have an important role to play.

Part IV - Guidelines for defence

Principles of Alliance Strategy

34. The diversity of challenges now facing the Alliance thus requires a broad approach to security. The transformed political and strategic environment enables the Alliance to change a number of important features of its military strategy and to set out new guidelines, while reaffirming proven fundamental principles. At the London Summit, it was therefore agreed to prepare a new military strategy and a revised force posture responding to the changed circumstances.

35. Alliance strategy will continue to reflect a number of fundamental principles. The Alliance is purely defensive in purpose: none of its weapons will ever be used except in self-defence, and it does not consider itself to be anyone's adversary. The Allies will maintain military strength adequate to convince any potential aggressor that the use of force against the territory of one of the Allies would meet collective and effective action by all of them and that the risks involved in initiating conflict would outweigh any foreseeable gains. The forces of the Allies must therefore be able to defend Alliance frontiers, to stop an aggressor's advance as far forward as possible, to maintain or restore the territorial integrity of Allied nations and to terminate war rapidly by making an aggressor reconsider his decision, cease his attack and withdraw. The role of the Alliance's military forces is to assure the territorial integrity and political independence of its member states, and thus contribute to peace and stability in Europe.

36. The security of all Allies is indivisible: an attack on one is an attack on all. Alliance solidarity and strategic unity are accordingly crucial prerequisites for collective security. The achievement of the Alliance's objectives depends critically on the equitable sharing of roles, risks and responsibilities, as well as the benefits, of common defence. The presence of North American conventional and US nuclear forces in Europe remains vital to the security of Europe, which is inseparably linked to that of North America. As the process of developing a European security identity and defence role progresses, and is reflected

in the strengthening of the European pillar within the Alliance, the European members of the Alliance will assume a greater degree of the responsibility for the defence of Europe.

37. The collective nature of Alliance defence is embodied in practical arrangements that enable the Allies to enjoy the crucial political, military and resource advantages of collective defence, and prevent the renationalisation of defence policies, without depriving the Allies of their sovereignty. These arrangements are based on an integrated military structure as well as on cooperation and coordination agreements. Key features include collective force planning; common operational planning; multinational formations; the stationing of forces outside home territory, where appropriate on a mutual basis; crisis management and reinforcement arrangements; procedures for consultation; common standards and procedures for equipment, training and logistics; joint and combined exercises; and infrastructure, armaments and logistics cooperation.

38. To protect peace and to prevent war or any kind of coercion, the Alliance will maintain for the foreseeable future an appropriate mix of nuclear and conventional forces based in Europe and kept up to date where necessary, although at a significantly reduced level. Both elements are essential to Alliance security and cannot substitute one for the other. Conventional forces contribute to war prevention by ensuring that no potential aggressor could contemplate a quick or easy victory, or territorial gains, by conventional means. Taking into account the diversity of risks with which the Alliance could be faced, it must maintain the forces necessary to provide a wide range of conventional response options. But the Alliance's conventional forces alone cannot ensure the prevention of war. Nuclear weapons make a unique contribution in rendering the risks of any aggression incalculable and unacceptable. Thus, they remain essential to preserve peace.

The Alliance's new force posture

39. At the London Summit, the Allies concerned agreed to move away, where appropriate, from the concept of forward defence towards a reduced forward presence, and to modify the principle of flexible response to reflect a reduced reliance on nuclear weapons. The changes stemming from the new strategic environment and the altered risks now facing the Alliance enable significant modifications to be made in the missions of the Allies' military forces and in their posture.

The missions of Alliance Military Forces

40. The primary role of Alliance military forces, to guarantee the security and territorial integrity of member states, remains unchanged. But this role must take account of the new strategic environment, in which a single massive and global threat has given way to diverse and

multi-directional risks. Alliance forces have different functions to perform in peace, crisis and war.

41. In peace, the role of Allied military forces is to guard against risks to the security of Alliance members; to contribute towards the maintenance of stability and balance in Europe; and to ensure that peace is preserved. They can contribute to dialogue and cooperation throughout Europe by their participation in confidence-building activities, including those which enhance transparency and improve communication; as well as in verification of arms control agreements. Allies could, further, be called upon to contribute to global stability and peace by providing forces for United Nations missions.

42. In the event of crises which might lead to a military threat to the security of Alliance members, the Alliance's military forces can complement and reinforce political actions within a broad approach to security, and thereby contribute to the management of such crises and their peaceful resolution. This requires that these forces have a capability for measured and timely responses in such circumstances; the capability to deter action against any Ally and, in the event that aggression takes place, to respond to and repel it as well as to re-establish the territorial integrity of member states.

43. While in the new security environment a general war in Europe has become highly unlikely, it cannot finally be ruled out. The Alliance's military forces, which have as their fundamental mission to protect peace, have to provide the essential insurance against potential risks at the minimum level necessary to prevent war of any kind, and, should aggression occur, to restore peace. Hence the need for the capabilities and the appropriate mix of forces already described.

Guidelines for the Alliance's force posture

44. To implement its security objectives and strategic principles in the new environment, the organisation of the Allies' forces must be adapted to provide capabilities that can contribute to protecting peace, managing crises that affect the security of Alliance members, and preventing war, while retaining at all times the means to defend, if necessary, all Allied territory and to restore peace. The posture of Allies' forces will conform to the guidelines developed in the following paragraphs.

45. The size, readiness, availability and deployment of the Alliance's military forces will continue to reflect its strictly defensive nature and will be adapted accordingly to the new strategic environment including arms control agreements. This means in particular:

- that the overall size of the Allies' forces, and in many cases their readiness, will be reduced;

- that the maintenance of a comprehensive in-place linear defensive posture in the central region will no longer be required. The peacetime geographical distribution of forces will ensure a sufficient military presence throughout the territory of the Alliance, including where necessary forward deployment of appropriate forces. Regional considerations and, in particular, geostrategic differences within the Alliance will have to be taken into account, including the shorter warning times to which the northern and southern regions will be subject compared with the central region and, in the southern region, the potential for instability and the military capabilities in the adjacent areas.

46. To ensure that at this reduced level the Allies' forces can play an effective role both in managing crises and in countering aggression against any Ally, they will require enhanced flexibility and mobility and an assured capability for augmentation when necessary. For these reasons:

- Available forces will include, in a limited but militarily significant proportion, ground, air and sea immediate and rapid reaction elements able to respond to a wide range of eventualities, many of which are unforeseeable. They will be of sufficient quality, quantity and readiness to deter a limited attack and, if required, to defend the territory of the Allies against attacks, particularly those launched without long warning time.
- The forces of the Allies will be structured so as to permit their military capability to be built up when necessary. This ability to build up by reinforcement, by mobilising reserves, or by reconstituting forces, must be in proportion to potential threats to Alliance security, including the possibility - albeit unlikely, but one that prudence dictates should not be ruled out - of a major conflict. Consequently, capabilities for timely reinforcement and resupply both within Europe and from North America will be of critical importance.
- Appropriate force structures and procedures, including those that would provide an ability to build up, deploy and draw down forces quickly and discriminately, will be developed to permit measured, flexible and timely responses in order to reduce and defuse tensions. These arrangements must be exercised regularly in peacetime.
- In the event of use of forces, including the deployment of reaction and other available reinforcing forces as an instrument of crisis management, the Alliance's political authorities will, as before, exercise close control over their

employment at all stages. Existing procedures will be reviewed in the light of the new missions and posture of Alliance forces.

Characteristics of conventional forces

47. It is essential that the Allies' military forces have a credible ability to fulfil their functions in peace, crisis and war in a way appropriate to the new security environment. This will be reflected in force and equipment levels; readiness and availability; training and exercises; deployment and employment options; and force build-up capabilities, all of which will be adjusted accordingly. The conventional forces of the Allies will include, in addition to immediate and rapid reaction forces, main defence forces, which will provide the bulk of forces needed to ensure the Alliance's territorial integrity and the unimpeded use of their lines of communication; and augmentation forces, which will provide a means of reinforcing existing forces in a particular region. Main defence and augmentation forces will comprise both active and mobilisable elements.

48. Ground, maritime and air forces will have to cooperate closely and combine and assist each other in operations aimed at achieving agreed objectives. These forces will consist of the following:

- Ground forces, which are essential to hold or regain territory. The majority will normally be at lower states of readiness and, overall, there will be a greater reliance on mobilisation and reserves. All categories of ground forces will require demonstrable combat effectiveness together with an appropriately enhanced capability for flexible deployment.
- Maritime forces, which because of their inherent mobility, flexibility and endurance, make an important contribution to the Alliance's crisis response options. Their essential missions are to ensure sea control in order to safeguard the Allies' sea lines of communication, to support land and amphibious operations, and to protect the deployment of the Alliance's sea-based nuclear deterrent.
- Air forces, whose ability to fulfil their fundamental roles in both independent air and combined operations - counter-air, air interdiction and offensive air support - as well as to contribute to surveillance, reconnaissance and electronic warfare operations, is essential to the overall effectiveness of the Allies' military forces. Their role in supporting operations, on land and at sea, will require appropriate long-distance airlift and air refuelling capabilities. Air defence forces, including modern air command and control systems, are required to ensure a secure air defence environment.

49. In light of the potential risks it poses, the proliferation of ballistic missiles and weapons of mass destruction should be given special consideration. Solution of this problem will require complementary approaches including, for example, export control and missile defences.

50. Alliance strategy is not dependent on a chemical warfare capability. The Allies remain committed to the earliest possible achievement of a global, comprehensive, and effectively verifiable ban on all chemical weapons. But, even after implementation of a global ban, precautions of a purely defensive nature will need to be maintained.

51. In the new security environment and given the reduced overall force levels in future, the ability to work closely together, which will facilitate the cost effective use of Alliance resources, will be particularly important for the achievement of the missions of the Allies' forces. The Alliance's collective defence arrangements in which, for those concerned, the integrated military structure, including multinational forces, plays the key role, will be essential in this regard. Integrated and multi-national European structures, as they are further developed in the context of an emerging European Defence Identity, will also increasingly have a similarly important role to play in enhancing the Allies' ability to work together in the common defence. Allies' efforts to achieve maximum cooperation will be based on the common guidelines for defence defined above. Practical arrangements will be developed to ensure the necessary mutual transparency and complementarity between the European security and defence identity and the Alliance.

52. In order to be able to respond flexibly to a wide range of possible contingencies, the Allies concerned will require effective surveillance and intelligence, flexible command and control, mobility within and between regions, and appropriate logistics capabilities, including transport capacities. Logistic stocks must be sufficient to sustain all types of forces in order to permit effective defence until resupply is available. The capability of the Allies concerned to build up larger, adequately equipped and trained forces, in a timely manner and to a level appropriate to any risk to Alliance security, will also make an essential contribution to crisis management and defence. This capability will include the ability to reinforce any area at risk within the territory of the Allies and to establish a multinational presence when and where this is needed. Elements of all three force categories will be capable of being employed flexibly as part of both intra-European and transatlantic reinforcement. Proper use of these capabilities will require control of the necessary lines of communication as well as appropriate support and exercise arrangements. Civil resources will be of increasing relevance in this context.

53. For the Allies concerned, collective defence arrangements will rely increasingly on multinational forces, complementing national

commitments to NATO. Multinational forces demonstrate the Alliance's resolve to maintain a credible collective defence; enhance Alliance cohesion; reinforce the transatlantic partnership and strengthen the European pillar. Multinational forces, and in particular reaction forces, reinforce solidarity. They can also provide a way of deploying more capable formations than might be available purely nationally, thus helping to make more efficient use of scarce defence resources. This may include a highly integrated, multinational approach to specific tasks and functions.

Characteristics of nuclear forces

54. 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 fulfil an essential role by ensuring uncertainty in the mind of any aggressor about the nature of the Allies' response to military aggression. They demonstrate that aggression of any kind is not a rational option. The supreme guarantee of the security of the Allies is provided by the strategic nuclear forces of the Alliance, particularly those of the United States; the independent nuclear forces of the United Kingdom and France, which have a deterrent role of their own, contribute to the overall deterrence and security of the Allies.

55. A credible Alliance nuclear posture and the demonstration of Alliance solidarity and common commitment to war prevention continue to require widespread participation by European Allies involved in collective defence planning in nuclear roles, in peacetime basing of nuclear forces on their territory and in command, control and consultation arrangements. Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and the North American members of the Alliance. The Alliance will therefore maintain adequate nuclear forces in Europe. These forces need to have the necessary characteristics and appropriate flexibility and survivability, to be perceived as a credible and effective element of the Allies' strategy in preventing war. They will be maintained at the minimum level sufficient to preserve peace and stability.

56. The Allies concerned consider that, with the radical changes in the security situation, including conventional force levels in Europe maintained in relative balance and increased reaction times, NATO's ability to defuse a crisis through diplomatic and other means or, should it be necessary, to mount a successful conventional defence will significantly improve. The circumstances in which any use of nuclear weapons might have to be contemplated by them are therefore even more remote. They can therefore significantly reduce their sub-strategic nuclear forces. They will maintain adequate sub-strategic forces based in Europe which will provide an essential link with strategic nuclear

forces, reinforcing the trans-Atlantic link. These will consist solely of dual capable aircraft which could, if necessary, be supplemented by offshore systems. Sub-strategic nuclear weapons will, however, not be deployed in normal circumstances on surface vessels and attack submarines. There is no requirement for nuclear artillery or ground-launched short-range nuclear missiles and they will be eliminated.

Part V - Conclusion

57. This Strategic Concept reaffirms the defensive nature of the Alliance and the resolve of its members to safeguard their security, sovereignty and territorial integrity. The Alliance's security policy is based on dialogue; cooperation; and effective collective defence as mutually reinforcing instruments for preserving the peace. Making full use of the new opportunities available, the Alliance will maintain security at the lowest possible level of forces consistent with the requirements of defence. In this way, the Alliance is making an essential contribution to promoting a lasting peaceful order.

58. The Allies will continue to pursue vigorously further progress in arms control and confidence-building measures with the objective of enhancing security and stability. They will also play an active part in promoting dialogue and cooperation between states on the basis of the principles enunciated in the Paris Charter.

59. NATO's strategy will retain the flexibility to reflect further developments in the politico-military environment, including progress in the moves towards a European security identity, and in any changes in the risks to Alliance security. For the Allies concerned, the Strategic Concept will form the basis for the further development of the Alliance's defence policy, its operational concepts, its conventional and nuclear force posture and its collective defence planning arrangements.

Appendix F

Helsinki Agreement on START III, 1997*

Joint Statement on Parameters on Future Reductions in Nuclear Forces

Helsinki, Finland, 21 March 1997

Presidents Clinton and Yeltsin underscore that, with the end of the Cold War, major progress has been achieved with regard to strengthening strategic stability and nuclear security. Both the United States and Russia are significantly reducing their nuclear forces. Important steps have been taken to de-target strategic missiles. The Start I Treaty has entered into force, and its implementation is ahead of schedule. Belarus, Kazakhstan and Ukraine are nuclear weapon free. The Nuclear Non Proliferation Treaty was indefinitely extended on May 11, 1995 and the Comprehensive Nuclear Test Ban Treaty was signed by both the United States and Russia on September 24, 1996.

In another historic step to promote international peace and security, President Clinton and President Yeltsin hereby reaffirm their commitment to take further concrete steps to reduce the nuclear danger and strengthen strategic stability and nuclear security. The Presidents have reached an understanding on further reductions in and limitations on strategic offensive arms that will substantially reduce the roles and risks of nuclear weapons as we move forward into the next century. Recognizing the fundamental significance of the ABM Treaty for these objectives, the Presidents have, in a separate joint statement, given instructions on demarcation between ABM systems and theater missile defense systems, which will allow for deployment of effective theater missile defenses and prevent circumvention of the ABM Treaty.

With the foregoing in mind, President Clinton and President Yeltsin have reached the following understandings.

- Once Start II enters into force, the United States and Russia will immediately begin negotiations on a Start III agreement, which will include, among other things, the following basic components:
- Establishment, by December 31, 2007, of lower aggregate levels of 2,000 2,500 strategic nuclear warheads for each of the parties.

* Text from the Arms Control Association at <http://www.armscontrol.org/ACT/MARCH/js.html>.

- Measures relating to the transparency of strategic nuclear warhead inventories and the destruction of strategic nuclear warheads and any other jointly agreed technical and organizational measures, to promote the irreversibility of deep reductions including prevention of a rapid increase in the number of warheads.
- Resolving issues related to the goal of making the current START treaties unlimited in duration.
- Placement in a deactivated status of all strategic nuclear delivery vehicles which will be eliminated under START II by December 31, 2003, by removing their nuclear warheads or taking other jointly agreed steps. The United States is providing assistance through the Nunn Lugar program to facilitate early deactivation.

The Presidents have reached an understanding that the deadline for the elimination of strategic nuclear delivery vehicles under the START II Treaty will be extended to December 31, 2007. The sides will agree on specific language to be submitted to the Duma and, following Duma approval of START II, to be submitted to the United States Senate.

In this context, the Presidents underscore the importance of prompt ratification of the START II Treaty by the State Duma of the Russian Federation.

The Presidents also agreed that in the context of START III negotiations their experts will explore, as separate issues, possible measures relating to nuclear long range sea launched cruise missiles and tactical nuclear systems, to include appropriate confidence building and transparency measures.

Taking into account all the understandings outlined above, and recalling their statement of May 10, 1995, the Presidents agreed the sides will also consider the issues related to transparency in nuclear materials.

Appendix G

NATO's New Strategic Concept, 1999*

The Alliance's Strategic Concept

**Approved by the Heads of State and Government
participating in the meeting
of the North Atlantic Council in Washington D.C.
on 23rd and 24th April 1999**

Introduction

1. At their Summit meeting in Washington in April 1999, NATO Heads of State and Government approved the Alliance's new Strategic Concept.
2. NATO has successfully ensured the freedom of its members and prevented war in Europe during the 40 years of the Cold War. By combining defence with dialogue, it played an indispensable role in bringing East-West confrontation to a peaceful end. The dramatic changes in the Euro-Atlantic strategic landscape brought by the end of the Cold War were reflected in the Alliance's 1991 Strategic Concept. There have, however, been further profound political and security developments since then.
3. The dangers of the Cold War have given way to more promising, but also challenging prospects, to new opportunities and risks. A new Europe of greater integration is emerging, and a Euro-Atlantic security structure is evolving in which NATO plays a central part. The Alliance has been at the heart of efforts to establish new patterns of cooperation and mutual understanding across the Euro-Atlantic region and has committed itself to essential new activities in the interest of a wider stability. It has shown the depth of that commitment in its efforts to put an end to the immense human suffering created by conflict in the Balkans. The years since the end of the Cold War have also witnessed important developments in arms control, a process to which the Alliance is fully committed. The Alliance's role in these positive developments has been underpinned by the comprehensive adaptation of its approach to security and of its procedures and structures. The last ten years

* Text from NATO on-line library at
<http://www.nato.int/docu/pr/1999/p99-065e.htm>.

have also seen, however, the appearance of complex new risks to Euro-Atlantic peace and stability, including oppression, ethnic conflict, economic distress, the collapse of political order, and the proliferation of weapons of mass destruction.

4. The Alliance has an indispensable role to play in consolidating and preserving the positive changes of the recent past, and in meeting current and future security challenges. It has, therefore, a demanding agenda. It must safeguard common security interests in an environment of further, often unpredictable change. It must maintain collective defence and reinforce the transatlantic link and ensure a balance that allows the European Allies to assume greater responsibility. It must deepen its relations with its partners and prepare for the accession of new members. It must, above all, maintain the political will and the military means required by the entire range of its missions.
5. This new Strategic Concept will guide the Alliance as it pursues this agenda. It expresses NATO's enduring purpose and nature and its fundamental security tasks, identifies the central features of the new security environment, specifies the elements of the Alliance's broad approach to security, and provides guidelines for the further adaptation of its military forces.

Part I - The Purpose and Tasks of the Alliance

6. NATO's essential and enduring purpose, set out in the Washington Treaty, is to safeguard the freedom and security of all its members by political and military means. Based on common values of democracy, human rights and the rule of law, the Alliance has striven since its inception to secure a just and lasting peaceful order in Europe. It will continue to do so. The achievement of this aim can be put at risk by crisis and conflict affecting the security of the Euro-Atlantic area. The Alliance therefore not only ensures the defence of its members but contributes to peace and stability in this region.
7. The Alliance embodies the transatlantic link by which the security of North America is permanently tied to the security of Europe. It is the practical expression of effective collective effort among its members in support of their common interests.
8. The fundamental guiding principle by which the Alliance works is that of common commitment and mutual co-operation among sovereign states in support of the indivisibility of security for all of its members. Solidarity and cohesion within the Alliance, through daily cooperation in both the political and military spheres, ensure that no single Ally is forced to rely upon its own national efforts alone in dealing with basic security challenges. Without

depriving member states of their right and duty to assume their sovereign responsibilities in the field of defence, the Alliance enables them through collective effort to realise their essential national security objectives.

9. The resulting sense of equal security among the members of the Alliance, regardless of differences in their circumstances or in their national military capabilities, contributes to stability in the Euro-Atlantic area. The Alliance does not seek these benefits for its members alone, but is committed to the creation of conditions conducive to increased partnership, cooperation, and dialogue with others who share its broad political objectives.
10. To achieve its essential purpose, as an Alliance of nations committed to the Washington Treaty and the United Nations Charter, the Alliance performs the following fundamental security tasks:
 - Security: To provide one of the indispensable foundations for a stable Euro-Atlantic security environment, based on the growth of democratic institutions and commitment to the peaceful resolution of disputes, in which no country would be able to intimidate or coerce any other through the threat or use of force.
 - Consultation: To serve, as provided for in Article 4 of the Washington Treaty, as an essential transatlantic forum for Allied consultations on any issues that affect their vital interests, including possible developments posing risks for members' security, and for appropriate co-ordination of their efforts in fields of common concern.
 - Deterrence and Defence: To deter and defend against any threat of aggression against any NATO member state as provided for in Articles 5 and 6 of the Washington Treaty.And in order to enhance the security and stability of the Euro-Atlantic area:
 - Crisis Management: To stand ready, case-by-case and by consensus, in conformity with Article 7 of the Washington Treaty, to contribute to effective conflict prevention and to engage actively in crisis management, including crisis response operations.
 - Partnership: To promote wide-ranging partnership, cooperation, and dialogue with other countries in the Euro-Atlantic area, with the aim of increasing transparency, mutual confidence and the capacity for joint action with the Alliance.
11. In fulfilling its purpose and fundamental security tasks, the Alliance will continue to respect the legitimate security interests of others, and seek the peaceful resolution of disputes as set out in the Charter of the United Nations. The Alliance will promote peaceful and friendly international relations and support democratic

institutions. The Alliance does not consider itself to be any country's adversary.

Part II - Strategic Perspectives

The Evolving Strategic Environment

12. The Alliance operates in an environment of continuing change. Developments in recent years have been generally positive, but uncertainties and risks remain which can develop into acute crises. Within this evolving context, NATO has played an essential part in strengthening Euro-Atlantic security since the end of the Cold War. Its growing political role; its increased political and military partnership, cooperation and dialogue with other states, including with Russia, Ukraine and Mediterranean Dialogue countries; its continuing openness to the accession of new members; its collaboration with other international organisations; its commitment, exemplified in the Balkans, to conflict prevention and crisis management, including through peace support operations: all reflect its determination to shape its security environment and enhance the peace and stability of the Euro-Atlantic area.
13. In parallel, NATO has successfully adapted to enhance its ability to contribute to Euro-Atlantic peace and stability. Internal reform has included a new command structure, including the Combined Joint Task Force (CJTF) concept, the creation of arrangements to permit the rapid deployment of forces for the full range of the Alliance's missions, and the building of the European Security and Defence Identity (ESDI) within the Alliance.
14. The United Nations (UN), the Organisation for Security and Cooperation in Europe (OSCE), the European Union (EU), and the Western European Union (WEU) have made distinctive contributions to Euro-Atlantic security and stability. Mutually reinforcing organisations have become a central feature of the security environment.
15. The United Nations Security Council has the primary responsibility for the maintenance of international peace and security and, as such, plays a crucial role in contributing to security and stability in the Euro-Atlantic area.
16. The OSCE, as a regional arrangement, is the most inclusive security organisation in Europe, which also includes Canada and the United States, and plays an essential role in promoting peace and stability, enhancing cooperative security, and advancing democracy and human rights in Europe. The OSCE is particularly

active in the fields of preventive diplomacy, conflict prevention, crisis management, and post-conflict rehabilitation. NATO and the OSCE have developed close practical cooperation, especially with regard to the international effort to bring peace to the former Yugoslavia.

17. The European Union has taken important decisions and given a further impetus to its efforts to strengthen its security and defence dimension. This process will have implications for the entire Alliance, and all European Allies should be involved in it, building on arrangements developed by NATO and the WEU. The development of a common foreign and security policy (CFSP) includes the progressive framing of a common defence policy. Such a policy, as called for in the Amsterdam Treaty, would be compatible with the common security and defence policy established within the framework of the Washington Treaty. Important steps taken in this context include the incorporation of the WEU's Petersberg tasks into the Treaty on European Union and the development of closer institutional relations with the WEU.
18. As stated in the 1994 Summit declaration and reaffirmed in Berlin in 1996, the Alliance fully supports the development of the European Security and Defence Identity within the Alliance by making available its assets and capabilities for WEU-led operations. To this end, the Alliance and the WEU have developed a close relationship and put into place key elements of the ESDI as agreed in Berlin. In order to enhance peace and stability in Europe and more widely, the European Allies are strengthening their capacity for action, including by increasing their military capabilities. The increase of the responsibilities and capacities of the European Allies with respect to security and defence enhances the security environment of the Alliance.
19. The stability, transparency, predictability, lower levels of armaments, and verification which can be provided by arms control and non-proliferation agreements support NATO's political and military efforts to achieve its strategic objectives. The Allies have played a major part in the significant achievements in this field. These include the enhanced stability produced by the CFE Treaty, the deep reductions in nuclear weapons provided for in the START treaties; the signature of the Comprehensive Test Ban Treaty, the indefinite and unconditional extension of the Nuclear Non-Proliferation Treaty, the accession to it of Belarus, Kazakhstan, and Ukraine as non-nuclear weapons states, and the entry into force of the Chemical Weapons Convention. The Ottawa Convention to ban anti-personnel landmines and similar agreements make an important contribution to alleviating human suffering. There are welcome prospects for further advances in

arms control in conventional weapons and with respect to nuclear, chemical, and biological (NBC) weapons.

Security challenges and risks

20. Notwithstanding positive developments in the strategic environment and the fact that large-scale conventional aggression against the Alliance is highly unlikely, the possibility of such a threat emerging over the longer term exists. The security of the Alliance remains subject to a wide variety of military and non-military risks which are multi-directional and often difficult to predict. These risks include uncertainty and instability in and around the Euro-Atlantic area and the possibility of regional crises at the periphery of the Alliance, which could evolve rapidly. Some countries in and around the Euro-Atlantic area face serious economic, social and political difficulties. Ethnic and religious rivalries, territorial disputes, inadequate or failed efforts at reform, the abuse of human rights, and the dissolution of states can lead to local and even regional instability. The resulting tensions could lead to crises affecting Euro-Atlantic stability, to human suffering, and to armed conflicts. Such conflicts could affect the security of the Alliance by spilling over into neighbouring countries, including NATO countries, or in other ways, and could also affect the security of other states.
21. The existence of powerful nuclear forces outside the Alliance also constitutes a significant factor which the Alliance has to take into account if security and stability in the Euro-Atlantic area are to be maintained.
22. The proliferation of NBC weapons and their means of delivery remains a matter of serious concern. In spite of welcome progress in strengthening international non-proliferation regimes, major challenges with respect to proliferation remain. The Alliance recognises that proliferation can occur despite efforts to prevent it and can pose a direct military threat to the Allies' populations, territory, and forces. Some states, including on NATO's periphery and in other regions, sell or acquire or try to acquire NBC weapons and delivery means. Commodities and technology that could be used to build these weapons of mass destruction and their delivery means are becoming more common, while detection and prevention of illicit trade in these materials and know-how continues to be difficult. Non-state actors have shown the potential to create and use some of these weapons.
23. The global spread of technology that can be of use in the production of weapons may result in the greater availability of sophisticated military capabilities, permitting adversaries to acquire highly capable offensive and defensive air, land, and sea-

borne systems, cruise missiles, and other advanced weaponry. In addition, state and non-state adversaries may try to exploit the Alliance's growing reliance on information systems through information operations designed to disrupt such systems. They may attempt to use strategies of this kind to counter NATO's superiority in traditional weaponry.

24. Any armed attack on the territory of the Allies, from whatever direction, would be covered by Articles 5 and 6 of the Washington Treaty. However, Alliance security must also take account of the global context. Alliance security interests can be affected by other risks of a wider nature, including acts of terrorism, sabotage and organised crime, and by the disruption of the flow of vital resources. The uncontrolled movement of large numbers of people, particularly as a consequence of armed conflicts, can also pose problems for security and stability affecting the Alliance. Arrangements exist within the Alliance for consultation among the Allies under Article 4 of the Washington Treaty and, where appropriate, co-ordination of their efforts including their responses to risks of this kind.

Part III - The Approach to Security in the 21st Century

25. The Alliance is committed to a broad approach to security, which recognises the importance of political, economic, social and environmental factors in addition to the indispensable defence dimension. This broad approach forms the basis for the Alliance to accomplish its fundamental security tasks effectively, and its increasing effort to develop effective cooperation with other European and Euro-Atlantic organisations as well as the United Nations. Our collective aim is to build a European security architecture in which the Alliance's contribution to the security and stability of the Euro-Atlantic area and the contribution of these other international organisations are complementary and mutually reinforcing, both in deepening relations among Euro-Atlantic countries and in managing crises. NATO remains the essential forum for consultation among the Allies and the forum for agreement on policies bearing on the security and defence commitments of its members under the Washington Treaty.
26. The Alliance seeks to preserve peace and to reinforce Euro-Atlantic security and stability by: the preservation of the transatlantic link; the maintenance of effective military capabilities sufficient for deterrence and defence and to fulfil the full range of its missions; the development of the European Security and Defence Identity within the Alliance; an overall capability to manage crises successfully; its continued openness to new

members; and the continued pursuit of partnership, cooperation, and dialogue with other nations as part of its co-operative approach to Euro-Atlantic security, including in the field of arms control and disarmament.

The Transatlantic Link

27. NATO is committed to a strong and dynamic partnership between Europe and North America in support of the values and interests they share. The security of Europe and that of North America are indivisible. Thus the Alliance's commitment to the indispensable transatlantic link and the collective defence of its members is fundamental to its credibility and to the security and stability of the Euro-Atlantic area.

The Maintenance Of Alliance Military Capabilities

28. The maintenance of an adequate military capability and clear preparedness to act collectively in the common defence remain central to the Alliance's security objectives. Such a capability, together with political solidarity, remains at the core of the Alliance's ability to prevent any attempt at coercion or intimidation, and to guarantee that military aggression directed against the Alliance can never be perceived as an option with any prospect of success.

29. Military capabilities effective under the full range of foreseeable circumstances are also the basis of the Alliance's ability to contribute to conflict prevention and crisis management through non-Article 5 crisis response operations. These missions can be highly demanding and can place a premium on the same political and military qualities, such as cohesion, multinational training, and extensive prior planning, that would be essential in an Article 5 situation. Accordingly, while they may pose special requirements, they will be handled through a common set of Alliance structures and procedures.

The European Security And Defence Identity

30. The Alliance, which is the foundation of the collective defence of its members and through which common security objectives will be pursued wherever possible, remains committed to a balanced and dynamic transatlantic partnership. The European Allies have taken decisions to enable them to assume greater responsibilities in the security and defence field in order to enhance the peace and stability of the Euro-Atlantic area and thus the security of all Allies. On the basis of decisions taken by the Alliance, in Berlin in 1996 and subsequently, the European Security and Defence

Identity will continue to be developed within NATO. This process will require close cooperation between NATO, the WEU and, if and when appropriate, the European Union. It will enable all European Allies to make a more coherent and effective contribution to the missions and activities of the Alliance as an expression of our shared responsibilities; it will reinforce the transatlantic partnership; and it will assist the European Allies to act by themselves as required through the readiness of the Alliance, on a case-by-case basis and by consensus, to make its assets and capabilities available for operations in which the Alliance is not engaged militarily under the political control and strategic direction either of the WEU or as otherwise agreed, taking into account the full participation of all European Allies if they were so to choose.

Conflict Prevention And Crisis Management

31. In pursuit of its policy of preserving peace, preventing war, and enhancing security and stability and as set out in the fundamental security tasks, NATO will seek, in cooperation with other organisations, to prevent conflict, or, should a crisis arise, to contribute to its effective management, consistent with international law, including through the possibility of conducting non-Article 5 crisis response operations. The Alliance's preparedness to carry out such operations supports the broader objective of reinforcing and extending stability and often involves the participation of NATO's Partners. NATO recalls its offer, made in Brussels in 1994, to support on a case-by-case basis in accordance with its own procedures, peacekeeping and other operations under the authority of the UN Security Council or the responsibility of the OSCE, including by making available Alliance resources and expertise. In this context NATO recalls its subsequent decisions with respect to crisis response operations in the Balkans. Taking into account the necessity for Alliance solidarity and cohesion, participation in any such operation or mission will remain subject to decisions of member states in accordance with national constitutions.
32. NATO will make full use of partnership, cooperation and dialogue and its links to other organisations to contribute to preventing crises and, should they arise, defusing them at an early stage. A coherent approach to crisis management, as in any use of force by the Alliance, will require the Alliance's political authorities to choose and co-ordinate appropriate responses from a range of both political and military measures and to exercise close political control at all stages.

Partnership, Cooperation, And Dialogue

33. Through its active pursuit of partnership, cooperation, and dialogue, the Alliance is a positive force in promoting security and stability throughout the Euro-Atlantic area. Through outreach and openness, the Alliance seeks to preserve peace, support and promote democracy, contribute to prosperity and progress, and foster genuine partnership with and among all democratic Euro-Atlantic countries. This aims at enhancing the security of all, excludes nobody, and helps to overcome divisions and disagreements that could lead to instability and conflict.
34. The Euro-Atlantic Partnership Council (EAPC) will remain the overarching framework for all aspects of NATO's cooperation with its Partners. It offers an expanded political dimension for both consultation and cooperation. EAPC consultations build increased transparency and confidence among its members on security issues, contribute to conflict prevention and crisis management, and develop practical cooperation activities, including in civil emergency planning, and scientific and environmental affairs.
35. The Partnership for Peace is the principal mechanism for forging practical security links between the Alliance and its Partners and for enhancing interoperability between Partners and NATO. Through detailed programmes that reflect individual Partners' capacities and interests, Allies and Partners work towards transparency in national defence planning and budgeting; democratic control of defence forces; preparedness for civil disasters and other emergencies; and the development of the ability to work together, including in NATO-led PfP operations. The Alliance is committed to increasing the role the Partners play in PfP decision-making and planning, and making PfP more operational. NATO has undertaken to consult with any active participant in the Partnership if that Partner perceives a direct threat to its territorial integrity, political independence, or security.
36. Russia plays a unique role in Euro-Atlantic security. Within the framework of the NATO-Russia Founding Act on Mutual Relations, Cooperation and Security, NATO and Russia have committed themselves to developing their relations on the basis of common interest, reciprocity and transparency to achieve a lasting and inclusive peace in the Euro-Atlantic area based on the principles of democracy and co-operative security. NATO and Russia have agreed to give concrete substance to their shared commitment to build a stable, peaceful and undivided Europe. A strong, stable and enduring partnership between NATO and Russia is essential to achieve lasting stability in the Euro-Atlantic area.

37. Ukraine occupies a special place in the Euro-Atlantic security environment and is an important and valuable partner in promoting stability and common democratic values. NATO is committed to further strengthening its distinctive partnership with Ukraine on the basis of the NATO-Ukraine Charter, including political consultations on issues of common concern and a broad range of practical cooperation activities. The Alliance continues to support Ukrainian sovereignty and independence, territorial integrity, democratic development, economic prosperity and its status as a non-nuclear weapons state as key factors of stability and security in central and eastern Europe and in Europe as a whole.
38. The Mediterranean is an area of special interest to the Alliance. Security in Europe is closely linked to security and stability in the Mediterranean. NATO's Mediterranean Dialogue process is an integral part of NATO's co-operative approach to security. It provides a framework for confidence building, promotes transparency and cooperation in the region, and reinforces and is reinforced by other international efforts. The Alliance is committed to developing progressively the political, civil, and military aspects of the Dialogue with the aim of achieving closer cooperation with, and more active involvement by, countries that are partners in this Dialogue.

Enlargement

39. The Alliance remains open to new members under Article 10 of the Washington Treaty. It expects to extend further invitations in coming years to nations willing and able to assume the responsibilities and obligations of membership, and as NATO determines that the inclusion of these nations would serve the overall political and strategic interests of the Alliance, strengthen its effectiveness and cohesion, and enhance overall European security and stability. To this end, NATO has established a programme of activities to assist aspiring countries in their preparations for possible future membership in the context of its wider relationship with them. No European democratic country whose admission would fulfil the objectives of the Treaty will be excluded from consideration.

Arms Control, Disarmament, And Non-Proliferation

40. The Alliance's policy of support for arms control, disarmament, and non-proliferation will continue to play a major role in the achievement of the Alliance's security objectives. The Allies seek to enhance security and stability at the lowest possible level of forces consistent with the Alliance's ability to provide for

collective defence and to fulfil the full range of its missions. The Alliance will continue to ensure that - as an important part of its broad approach to security - defence and arms control, disarmament, and non-proliferation objectives remain in harmony. The Alliance will continue to actively contribute to the development of arms control, disarmament, and non-proliferation agreements as well as to confidence and security building measures. The Allies take seriously their distinctive role in promoting a broader, more comprehensive and more verifiable international arms control and disarmament process. The Alliance will enhance its political efforts to reduce dangers arising from the proliferation of weapons of mass destruction and their means of delivery. The principal non-proliferation goal of the Alliance and its members is to prevent proliferation from occurring or, should it occur, to reverse it through diplomatic means. The Alliance attaches great importance to the continuing validity and the full implementation by all parties of the CFE Treaty as an essential element in ensuring the stability of the Euro-Atlantic area.

Part IV - Guidelines for the Alliance's Forces

Principles Of Alliance Strategy

41. The Alliance will maintain the necessary military capabilities to accomplish the full range of NATO's missions. The principles of Allied solidarity and strategic unity remain paramount for all Alliance missions. Alliance forces must safeguard NATO's military effectiveness and freedom of action. The security of all Allies is indivisible: an attack on one is an attack on all. With respect to collective defence under Article 5 of the Washington Treaty, the combined military forces of the Alliance must be capable of deterring any potential aggression against it, of stopping an aggressor's advance as far forward as possible should an attack nevertheless occur, and of ensuring the political independence and territorial integrity of its member states. They must also be prepared to contribute to conflict prevention and to conduct non-Article 5 crisis response operations. The Alliance's forces have essential roles in fostering cooperation and understanding with NATO's Partners and other states, particularly in helping Partners to prepare for potential participation in NATO-led PfP operations. Thus they contribute to the preservation of peace, to the safeguarding of common security interests of Alliance members, and to the maintenance of the security and stability of the Euro-Atlantic area. By deterring the use of NBC weapons, they

- contribute to Alliance efforts aimed at preventing the proliferation of these weapons and their delivery means.
42. The achievement of the Alliance's aims depends critically on the equitable sharing of the roles, risks and responsibilities, as well as the benefits, of common defence. The presence of United States conventional and nuclear forces in Europe remains vital to the security of Europe, which is inseparably linked to that of North America. The North American Allies contribute to the Alliance through military forces available for Alliance missions, through their broader contribution to international peace and security, and through the provision of unique training facilities on the North American continent. The European Allies also make wide-ranging and substantial contributions. As the process of developing the ESDI within the Alliance progresses, the European Allies will further enhance their contribution to the common defence and to international peace and stability including through multinational formations.
43. The principle of collective effort in Alliance defence is embodied in practical arrangements that enable the Allies to enjoy the crucial political, military and resource advantages of collective defence, and prevent the renationalisation of defence policies, without depriving the Allies of their sovereignty. These arrangements also enable NATO's forces to carry out non-Article 5 crisis response operations and constitute a prerequisite for a coherent Alliance response to all possible contingencies. They are based on procedures for consultation, an integrated military structure, and on co-operation agreements. Key features include collective force planning; common funding; common operational planning; multinational formations, headquarters and command arrangements; an integrated air defence system; a balance of roles and responsibilities among the Allies; the stationing and deployment of forces outside home territory when required; arrangements, including planning, for crisis management and reinforcement; common standards and procedures for equipment, training and logistics; joint and combined doctrines and exercises when appropriate; and infrastructure, armaments and logistics cooperation. The inclusion of NATO's Partners in such arrangements or the development of similar arrangements for them, in appropriate areas, is also instrumental in enhancing cooperation and common efforts in Euro-Atlantic security matters.
44. Multinational funding, including through the Military Budget and the NATO Security Investment Programme, will continue to play an important role in acquiring and maintaining necessary assets and capabilities. The management of resources should be guided by the military requirements of the Alliance as they evolve.

45. The Alliance supports the further development of the ESDI within the Alliance, including by being prepared to make available assets and capabilities for operations under the political control and strategic direction either of the WEU or as otherwise agreed.
46. To protect peace and to prevent war or any kind of coercion, the Alliance will maintain for the foreseeable future an appropriate mix of nuclear and conventional forces based in Europe and kept up to date where necessary, although at a minimum sufficient level. Taking into account the diversity of risks with which the Alliance could be faced, it must maintain the forces necessary to ensure credible deterrence and to provide a wide range of conventional response options. But the Alliance's conventional forces alone cannot ensure credible deterrence. Nuclear weapons make a unique contribution in rendering the risks of aggression against the Alliance incalculable and unacceptable. Thus, they remain essential to preserve peace.

The Alliance's Force Posture

The Missions of Alliance Military Forces

47. The primary role of Alliance military forces is to protect peace and to guarantee the territorial integrity, political independence and security of member states. The Alliance's forces must therefore be able to deter and defend effectively, to maintain or restore the territorial integrity of Allied nations and - in case of conflict - to terminate war rapidly by making an aggressor reconsider his decision, cease his attack and withdraw. NATO forces must maintain the ability to provide for collective defence while conducting effective non-Article 5 crisis response operations.
48. The maintenance of the security and stability of the Euro-Atlantic area is of key importance. An important aim of the Alliance and its forces is to keep risks at a distance by dealing with potential crises at an early stage. In the event of crises which jeopardise Euro-Atlantic stability and could affect the security of Alliance members, the Alliance's military forces may be called upon to conduct crisis response operations. They may also be called upon to contribute to the preservation of international peace and security by conducting operations in support of other international organisations, complementing and reinforcing political actions within a broad approach to security.
49. In contributing to the management of crises through military operations, the Alliance's forces will have to deal with a complex and diverse range of actors, risks, situations and demands, including humanitarian emergencies. Some non-Article 5 crisis response operations may be as demanding as some collective defence missions. Well-trained and well-equipped forces at

adequate levels of readiness and in sufficient strength to meet the full range of contingencies as well as the appropriate support structures, planning tools and command and control capabilities are essential in providing efficient military contributions. The Alliance should also be prepared to support, on the basis of separable but not separate capabilities, operations under the political control and strategic direction either of the WEU or as otherwise agreed. The potential participation of Partners and other non-NATO nations in NATO-led operations as well as possible operations with Russia would be further valuable elements of NATO's contribution to managing crises that affect Euro-Atlantic security.

50. Alliance military forces also contribute to promoting stability throughout the Euro-Atlantic area by their participation in military-to-military contacts and in other cooperation activities and exercises under the Partnership for Peace as well as those organised to deepen NATO's relationships with Russia, Ukraine and the Mediterranean Dialogue countries. They contribute to stability and understanding by participating in confidence-building activities, including those which enhance transparency and improve communication; as well as in verification of arms control agreements and in humanitarian de-mining. Key areas of consultation and cooperation could include inter alia: training and exercises, interoperability, civil-military relations, concept and doctrine development, defence planning, crisis management, proliferation issues, armaments cooperation as well as participation in operational planning and operations.

Guidelines for the Alliance's Force Posture

51. To implement the Alliance's fundamental security tasks and the principles of its strategy, the forces of the Alliance must continue to be adapted to meet the requirements of the full range of Alliance missions effectively and to respond to future challenges. The posture of Allies' forces, building on the strengths of different national defence structures, will conform to the guidelines developed in the following paragraphs.
52. The size, readiness, availability and deployment of the Alliance's military forces will reflect its commitment to collective defence and to conduct crisis response operations, sometimes at short notice, distant from their home stations, including beyond the Allies' territory. The characteristics of the Alliance's forces will also reflect the provisions of relevant arms control agreements. Alliance forces must be adequate in strength and capabilities to deter and counter aggression against any Ally. They must be interoperable and have appropriate doctrines and technologies. They must be held at the required readiness and deployability, and

be capable of military success in a wide range of complex joint and combined operations, which may also include Partners and other non-NATO nations.

53. This means in particular:
 - a. that the overall size of the Allies' forces will be kept at the lowest levels consistent with the requirements of collective defence and other Alliance missions; they will be held at appropriate and graduated readiness;
 - b. that the peacetime geographical distribution of forces will ensure a sufficient military presence throughout the territory of the Alliance, including the stationing and deployment of forces outside home territory and waters and forward deployment of forces when and where necessary. Regional and, in particular, geostrategic considerations within the Alliance will have to be taken into account, as instabilities on NATO's periphery could lead to crises or conflicts requiring an Alliance military response, potentially with short warning times;
 - c. that NATO's command structure will be able to undertake command and control of the full range of the Alliance's military missions including through the use of deployable combined and joint HQs, in particular CJTF headquarters, to command and control multinational and multiservice forces. It will also be able to support operations under the political control and strategic direction either of the WEU or as otherwise agreed, thereby contributing to the development of the ESDI within the Alliance, and to conduct NATO-led non-Article 5 crisis response operations in which Partners and other countries may participate;
 - d. that overall, the Alliance will, in both the near and long term and for the full range of its missions, require essential operational capabilities such as an effective engagement capability; deployability and mobility; survivability of forces and infrastructure; and sustainability, incorporating logistics and force rotation. To develop these capabilities to their full potential for multinational operations, interoperability, including human factors, the use of appropriate advanced technology, the maintenance of information superiority in military operations, and highly qualified personnel with a broad spectrum of skills will be important. Sufficient capabilities in the areas of command, control and communications as well as intelligence and surveillance will serve as necessary force multipliers;
 - e. that at any time a limited but militarily significant proportion of ground, air and sea forces will be able to react as rapidly as

necessary to a wide range of eventualities, including a short-notice attack on any Ally. Greater numbers of force elements will be available at appropriate levels of readiness to sustain prolonged operations, whether within or beyond Alliance territory, including through rotation of deployed forces. Taken together, these forces must also be of sufficient quality, quantity and readiness to contribute to deterrence and to defend against limited attacks on the Alliance;

- f. that the Alliance must be able to build up larger forces, both in response to any fundamental changes in the security environment and for limited requirements, by reinforcement, by mobilising reserves, or by reconstituting forces when necessary. This ability must be in proportion to potential threats to Alliance security, including potential long-term developments. It must take into account the possibility of substantial improvements in the readiness and capabilities of military forces on the periphery of the Alliance. Capabilities for timely reinforcement and resupply both within and from Europe and North America will remain of critical importance, with a resulting need for a high degree of deployability, mobility and flexibility;
- g. that appropriate force structures and procedures, including those that would provide an ability to build up, deploy and draw down forces quickly and selectively, are necessary to permit measured, flexible and timely responses in order to reduce and defuse tensions. These arrangements must be exercised regularly in peacetime;
- h. that the Alliance's defence posture must have the capability to address appropriately and effectively the risks associated with the proliferation of NBC weapons and their means of delivery, which also pose a potential threat to the Allies' populations, territory, and forces. A balanced mix of forces, response capabilities and strengthened defences is needed;
- i. that the Alliance's forces and infrastructure must be protected against terrorist attacks.

Characteristics of Conventional Forces

- 54. It is essential that the Allies' military forces have a credible ability to fulfil the full range of Alliance missions. This requirement has implications for force structures, force and equipment levels; readiness, availability, and sustainability; training and exercises; deployment and employment options; and force build-up and mobilisation capabilities. The aim should be to achieve an optimum balance between high readiness forces capable of beginning rapidly, and immediately as necessary, collective

defence or non-Article 5 crisis response operations; forces at different levels of lower readiness to provide the bulk of those required for collective defence, for rotation of forces to sustain crisis response operations, or for further reinforcement of a particular region; and a longer-term build-up and augmentation capability for the worst case -- but very remote -- scenario of large scale operations for collective defence. A substantial proportion of Alliance forces will be capable of performing more than one of these roles.

55. Alliance forces will be structured to reflect the multinational and joint nature of Alliance missions. Essential tasks will include controlling, protecting, and defending territory; ensuring the unimpeded use of sea, air, and land lines of communication; sea control and protecting the deployment of the Alliance's sea-based deterrent; conducting independent and combined air operations; ensuring a secure air environment and effective extended air defence; surveillance, intelligence, reconnaissance and electronic warfare; strategic lift; and providing effective and flexible command and control facilities, including deployable combined and joint headquarters.
56. The Alliance's defence posture against the risks and potential threats of the proliferation of NBC weapons and their means of delivery must continue to be improved, including through work on missile defences. As NATO forces may be called upon to operate beyond NATO's borders, capabilities for dealing with proliferation risks must be flexible, mobile, rapidly deployable and sustainable. Doctrines, planning, and training and exercise policies must also prepare the Alliance to deter and defend against the use of NBC weapons. The aim in doing so will be to further reduce operational vulnerabilities of NATO military forces while maintaining their flexibility and effectiveness despite the presence, threat or use of NBC weapons.
57. Alliance strategy does not include a chemical or biological warfare capability. The Allies support universal adherence to the relevant disarmament regimes. But, even if further progress with respect to banning chemical and biological weapons can be achieved, defensive precautions will remain essential.
58. Given reduced overall force levels and constrained resources, the ability to work closely together will remain vital for achieving the Alliance's missions. The Alliance's collective defence arrangements in which, for those concerned, the integrated military structure plays the key role, are essential in this regard. The various strands of NATO's defence planning need to be effectively coordinated at all levels in order to ensure the preparedness of the forces and supporting structures to carry out the full spectrum of

their roles. Exchanges of information among the Allies about their force plans contribute to securing the availability of the capabilities needed for the execution of these roles. Consultations in case of important changes in national defence plans also remain of key importance. Cooperation in the development of new operational concepts will be essential for responding to evolving security challenges. The detailed practical arrangements that have been developed as part of the ESDI within the Alliance contribute to close allied co-operation without unnecessary duplication of assets and capabilities.

59. To be able to respond flexibly to possible contingencies and to permit the effective conduct of Alliance missions, the Alliance requires sufficient logistics capabilities, including transport capacities, medical support and stocks to deploy and sustain all types of forces effectively. Standardisation will foster cooperation and cost-effectiveness in providing logistic support to allied forces. Mounting and sustaining operations outside the Allies' territory, where there may be little or no host-nation support, will pose special logistical challenges. The ability to build-up larger, adequately equipped and trained forces, in a timely manner and to a level able to fulfil the full range of Alliance missions, will also make an essential contribution to crisis management and defence. This will include the ability to reinforce any area at risk and to establish a multinational presence when and where this is needed. Forces of various kinds and at various levels of readiness will be capable of flexible employment in both intra-European and transatlantic reinforcement. This will require control of lines of communication, and appropriate support and exercise arrangements.
60. The interaction between Alliance forces and the civil environment (both governmental and non-governmental) in which they operate is crucial to the success of operations. Civil-military cooperation is interdependent: military means are increasingly requested to assist civil authorities; at the same time civil support to military operations is important for logistics, communications, medical support, and public affairs. Cooperation between the Alliance's military and civil bodies will accordingly remain essential.
61. The Alliance's ability to accomplish the full range of its missions will rely increasingly on multinational forces, complementing national commitments to NATO for the Allies concerned. Such forces, which are applicable to the full range of Alliance missions, demonstrate the Alliance's resolve to maintain a credible collective defence; enhance Alliance cohesion; and reinforce the transatlantic partnership and strengthen the ESDI

within the Alliance. Multinational forces, particularly those capable of deploying rapidly for collective defence or for non-Article 5 crisis response operations, reinforce solidarity. They can also provide a way of deploying more capable formations than might be available purely nationally, thus helping to make more efficient use of scarce defence resources. This may include a highly integrated, multinational approach to specific tasks and functions, an approach which underlies the implementation of the CJTF concept. For peace support operations, effective multinational formations and other arrangements involving Partners will be valuable. In order to exploit fully the potential offered by multinational formations, improving interoperability, inter alia through sufficient training and exercises, is of the highest importance.

Characteristics of Nuclear Forces

62. 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 fulfil an essential role by ensuring uncertainty in the mind of any aggressor about the nature of the Allies' response to military aggression. They demonstrate that aggression of any kind is not a rational option. The supreme guarantee of the security of the Allies is provided by the strategic nuclear forces of the Alliance, particularly those of the United States; the independent nuclear forces of the United Kingdom and France, which have a deterrent role of their own, contribute to the overall deterrence and security of the Allies.
63. A credible Alliance nuclear posture and the demonstration of Alliance solidarity and common commitment to war prevention continue to require widespread participation by European Allies involved in collective defence planning in nuclear roles, in peacetime basing of nuclear forces on their territory and in command, control and consultation arrangements. Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and the North American members of the Alliance. The Alliance will therefore maintain adequate nuclear forces in Europe. These forces need to have the necessary characteristics and appropriate flexibility and survivability, to be perceived as a credible and effective element of the Allies' strategy in preventing war. They will be maintained at the minimum level sufficient to preserve peace and stability.
64. The Allies concerned consider that, with the radical changes in the security situation, including reduced conventional force levels in Europe and increased reaction times, NATO's ability to defuse a crisis through diplomatic and other means or, should it be

necessary, to mount a successful conventional defence has significantly improved. The circumstances in which any use of nuclear weapons might have to be contemplated by them are therefore extremely remote. Since 1991, therefore, the Allies have taken a series of steps which reflect the post-Cold War security environment. These include a dramatic reduction of the types and numbers of NATO's sub-strategic forces including the elimination of all nuclear artillery and ground-launched short-range nuclear missiles; a significant relaxation of the readiness criteria for nuclear-armed forces; and the termination of standing peacetime nuclear contingency plans. NATO's nuclear forces no longer target any country. Nonetheless, NATO will maintain, at the minimum level consistent with the prevailing security environment, adequate sub-strategic forces based in Europe which will provide an essential link with strategic nuclear forces, reinforcing the transatlantic link. These will consist of dual capable aircraft and a small number of United Kingdom Trident warheads. Sub-strategic nuclear weapons will, however, not be deployed in normal circumstances on surface vessels and attack submarines.

Part V - Conclusion

65. As the North Atlantic Alliance enters its sixth decade, it must be ready to meet the challenges and opportunities of a new century. The Strategic Concept reaffirms the enduring purpose of the Alliance and sets out its fundamental security tasks. It enables a transformed NATO to contribute to the evolving security environment, supporting security and stability with the strength of its shared commitment to democracy and the peaceful resolution of disputes. The Strategic Concept will govern the Alliance's security and defence policy, its operational concepts, its conventional and nuclear force posture and its collective defence arrangements, and will be kept under review in the light of the evolving security environment. In an uncertain world the need for effective defence remains, but in reaffirming this commitment the Alliance will also continue making full use of every opportunity to help build an undivided continent by promoting and fostering the vision of a Europe whole and free.

Appendix H

Russia's New National Security Concept, 2000*

I. Russia in the World Community

The situation in the world is characterized by a dynamic transformation of the system of international relations. Following the end of the bipolar confrontation era, two mutually-exclusive trends took shape. The first of these trends shows itself in the strengthened economic and political positions of a significant number of states and their integrative associations and in improved mechanisms for multilateral management of international processes. Economic, political, science and technological, environmental and information factors are playing an ever-increasing role. Russia will facilitate the formation of an ideology of establishing a multipolar world on this basis. The second trend shows itself in attempts to create an international relations structure based on domination by developed Western countries in the international community, under US leadership and designed for unilateral solutions (including the use of military force) to key issues in world politics in circumvention of the fundamental rules of international law. The formation of international relations is accompanied by competition and also by the aspiration of a number of states to strengthen their influence on global politics, including by creating weapons of mass destruction. Military force and violence remain substantial aspects of international relations. Russia is one of the world's major countries, with centuries of history and rich cultural traditions. Despite the complex international situation and its own temporary difficulties, Russia continues to play an important role in global processes by virtue of its great economic, scientific, technological and military potential and its unique strategic location on the Eurasian continent.

There are prospects for the Russian Federation's broader integration into the world economy and for expanded cooperation with international economic and financial institutions. The commonality of interests of Russia and other states is objectively preserved in many

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international security problems, including opposing the proliferation of mass destruction weapons, settling and preventing regional conflicts, fighting international terrorism and the drugs trade, and resolving acute ecological problems of a global nature, including nuclear and radiation safety.

At the same time, a number of states are stepping up efforts to weaken Russia politically, economically, militarily and in other ways. Attempts to ignore Russia's interests when solving major issues of international relations, including conflict situations, are capable of undermining international security, stability, and the positive changes achieved in international relations.

Terrorism is transnational in nature and poses a threat to world stability. This issue has exacerbated sharply in many countries, including in the Russian Federation, and to fight it requires unification of efforts by the entire international community, increased effectiveness of existing ways of countering this threat, and also urgent action to neutralize it.

II. Russia's National Interests

Russia's national interests are the combined and balanced interests of the individual, society and the state in economic; domestic political, social, international, informational, military, border, ecological security. They are long-term in nature and define the main goals and strategic and short-term goals of the state's domestic and foreign policy. The national interests are secured by institutions of state authority, which may also act in coordination with public organizations operating on the basis of the constitution and legislation of the Russian Federation.

The interests of the individual lie in exercise of constitutional rights and freedoms and provision of personal security; in an improved quality and standard of living; and in physical, spiritual and intellectual development.

The interests of society lie in strengthening democracy; creating a rule-of-law and social state; in achieving and maintaining public harmony and in the spiritual renewal of Russia. The interests of the state lie in the inviolability of the constitutional system and of Russia's sovereignty and territorial integrity; in political, economic and social stability; in unconditional assurance of lawfulness and maintenance of law and order; and in the development of international cooperation on

equal terms and to mutual benefit. Russia's national interests may be assured only on the basis of sustainable economic development. Therefore Russia's national interests in economics are of key importance.

Russia's national interests in the domestic political sphere lie in stability of the constitutional system and of state authority and its institutions; in ensuring civil peace and national accord, territorial integrity, unity of the legal domain, and law and order; in completing the process of establishing a democratic society; and in removing factors causing and feeding social, intercommunal and religious conflicts, political extremism, national and religious separatism, and terrorism.

Russia's national interests in the social sphere lie in assurance of a high standard of living for its people. The national interests in the spiritual sphere lie in preservation and strengthening of society's moral values, traditions of patriotism and humanism, and the country's cultural and scientific potential.

Russia's national interests in the international sphere lie in upholding its sovereignty and strengthening its position as a great power and as one of the influential centres of a multipolar world, in development of equal and equitable relations with all countries and integrative associations and in particular with the members of the Commonwealth of Independent States and Russia's traditional partners, in universal observance of human rights and freedoms and the impermissibility of dual standards in this respect.

Russia's national interests in the informational sphere lie in observance of its citizens' constitutional rights and freedoms to receive and make use of information, in the development of modern telecommunications, and in protecting the state's information resources from unsanctioned access.

Russia's national interests in the military sphere lie in protection of its independence, sovereignty and state and territorial integrity, in the prevention of military aggression against Russia and its allies and in ensuring the conditions for peaceful and democratic development of the state.

Russia's national interests in border policy lie in the establishment of political, legal, organizational and other conditions for ensuring reliable protection of the state border of the Russian Federation, and in observance of the procedure and rules laid down by Russian Federation

legislation for the carrying on of economic and all other kinds of activity within the borders of the Russian Federation.

Russia's national interests in the environmental sphere lie in the preservation and improvement of the environment.

A vital component of Russia's national interests is protection of the individual, society and state from terrorism, including international terrorism, and also from extraordinary situations, both natural and man-made, and their consequences, and in times of war from the dangers arising from the conduct and consequences of military action.

III. Threats to the Russian Federation's National Security

The condition of the national economy and incomplete nature of the system and structure of the authorities of state and of society, social and political polarization of society and criminalization of social relations, the growth of organized crime and terrorism, and a deterioration in intercommunal and international relations are all creating a broad range of internal and external threats to the country's security.

In the economy, these threats are of a comprehensive nature and are caused above all by a substantial contraction in the gross domestic product; reduced investment and innovation; diminished scientific and technological potential; stagnation in agriculture; a distorted banking system; growth in the state's internal and external debt; and domination of exports by fuel, raw materials and energy components of imports by food and consumer items, including consumer essentials.

A weakened scientific and technological potential, reduction in research in strategically-important areas of science and technology and departure for abroad of specialists and intellectual property mean that Russia is faced with the threat of loss of its leading world positions, decay of its high-technology industries, increased dependence on foreign technology and the undermining of its ability to defend itself.

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The fundamental threats in the international sphere are brought about by the following factors:

- the desire of some states and international associations to diminish the role of existing mechanisms for ensuring international security, above all the United Nations and the OSCE;
- the danger of a weakening of Russia's political, economic and military influence in the world;

- the strengthening of military-political blocs and alliances, above all NATO's eastward expansion;
- the possible emergence of foreign military bases and major military presences in the immediate proximity of Russian borders;
- proliferation of mass destruction weapons and their delivery vehicles;
- the weakening of integrational processes in the Commonwealth of Independent States;
- outbreak and escalation of conflicts near the state border of the Russian Federation and the external borders of CIS member states;
- territorial claims on Russia.

Threats to the Russian Federation's national security in the international sphere can be seen in attempts by other states to oppose a strengthening of Russia as one of the influential centres of a multipolar world, to hinder the exercise of its national interests and to weaken its position in Europe, the Middle East, Transcaucasus, Central Asia and the Asia-Pacific Region. Terrorism represents a serious threat to the national security of the Russian Federation. International terrorism is waging an open campaign to destabilize Russia.

There is an increased threat to the national security of the Russian Federation in the information sphere. A serious danger arises from the desire of a number of countries to dominate the global information domain space and to expel Russia from the external and internal information market; from the development by a number of states of "information warfare" concepts that entail creation of ways of exerting a dangerous effect on other countries' information systems, of disrupting information and telecommunications systems and data storage systems, and of gaining unauthorized access to them. The level and scope of the military threat are growing.

Elevated to the rank of strategic doctrine, NATO's transition to the practice of using military force outside its zone of responsibility and without UN Security Council sanction could destabilize the entire global strategic situation. The growing technical advantage of a number of leading powers and their enhanced ability to create new weapons and military equipment could provoke a new phase of the arms race and radically alter the forms and methods of warfare.

Foreign special services and the organizations they use are increasing their activity in the Russian Federation. Adverse trends in the military sphere are being assisted by delays in reforming the military and the defence industry of the Russian Federation, by inadequate funding for defence and by a poor regulatory and legal framework. At the present

time, this can be seen in the critically low level of operational and military training in the Armed Forces of the Russian Federation and of the other forces and military bodies and authorities, and in the impermissible drop in equipment of the forces with modern armaments and military and special hardware, and in the extreme acuteness of social problems; this leads to a weakening of the military security of the Russian Federation as a whole.

Threats to the national security and interests of the Russian Federation in the border sphere are caused by the following:

- economic, demographic and cultural-religious expansion by neighbouring states into Russian territory;
- increased activity by cross-border organized crime and also by foreign terrorist organizations.

The threat of a deteriorating environmental situation in the country and depletion of natural resources depends directly on the state of the economy and society's willingness to appreciate the global nature and importance of these issues. For Russia this threat is especially great because of the domination position in industry of the fuel and energy sector, inadequate legislation for environmental protection, lack or limited use of energy-saving technologies, and low environmental awareness. There is a trend for Russia to be used as a place for reprocessing and burying environmentally dangerous materials and substances.

Against this background the weakening of state supervision and inadequate legal and economic levers for averting and relieving emergencies are increasing the risk of man-made disasters in all sectors of the economy.

IV. Ensuring the National Security of the Russian Federation

The following are the principal tasks for ensuring the Russian Federation's national security:

- to promptly detect and identify external and internal threats to national security;
- to take short- and long-term action to avert and remove internal and external threats;
- to ensure the sovereignty and territorial integrity of the Russian Federation and the security of its border lands;
- to improve the economy and pursue an independent and socially-oriented economic policy;

- to overcome the Russian Federation's scientific and technological dependence on external sources;
- to ensure citizens' personal security and constitutional rights and freedoms in Russia;
- to improve the system of state power in the Russian Federation, the system of federal relations and local self-government and legislation; to create harmonious relations between communities, and to strengthen law and order and preserve socio-political stability in society;
- to ensure unwavering compliance with Russian Federation legislation by all citizens and officials, state bodies, political parties and public and religious organizations;
- to ensure Russia's cooperation, especially with the world's leading countries, on equal and mutually advantageous terms;
- to increase the state's military potential and maintaining it at a sufficient level;
- to strengthening the regime of nonproliferation of mass destruction weapons and their delivery vehicles;
- to take effective action to identify, avert and intercept intelligence and subversive activities by foreign states against the Russian Federation;
- to fundamentally improve the country's ecological situation.

It is an important priority of state policy to ensure national interests and uphold the country's economic interests.

The following are important tasks in foreign economic activities:

- to pave the way for international integration of the Russian economy;
- to expand markets for Russian products;
- to create a single economic domain with the members of the Commonwealth of Independent States.

Against a background of liberalization of Russia's foreign trade and increased competition on the global market for goods and services, there must be greater protection of the interests of Russian producers.

...

Effective action must be taken in currency regulation, to pave the way for an end to payments in foreign currency on the domestic market and to end the uncontrolled export of capital.

The main directions for ensuring the national security of the Russian Federation in matters of the domestic economy are:

- legal support for reforms and creation of an effective mechanism for monitoring observance of Russian Federation legislation;
- strengthening state regulation in the economy;

- taking measures essential to overcoming the consequences of the economic crisis, and preserve and develop scientific, technological and production potential;
- effect a transition to economic growth with a diminished likelihood of man-made disasters, a transition to greater competitiveness of industrial products and to improved wellbeing of the people.

...

The following are the fundamental directions for protecting Russia's constitutional system:

- to ensure the priority of federal legislation and improve to this effect the legislation of constituent parts of the Russian Federation;
- to develop organizational and legal mechanisms for protecting the integrity of the state, and unity of the legal domain and Russia's national interests;
- to develop and implement a regional policy that ensures an optimum balance of federal and regional interests;
- to improve the mechanism for preventing the appearance of political parties and public associations that pursue separatist and anticonstitutional goals and for stopping their activities.

Efforts aimed at fighting crime and corruption require consolidation. It is very much in Russia's interests to uproot the economic and socio-political causes of these socially dangerous phenomena and to draw up a comprehensive system for protecting the individual, society and the state against criminality.

The formation of a system of effective social preventive measures and education of law-abiding citizens is of a top priority task. These measures must be subordinated to the interests of protecting every person's right to personal security regardless of race, nationality, language, origin, property interests or official status, place of residence, religion, membership of public associations or other circumstances.

It is vital when fighting crime to:

- identify, eliminate and prevent causes and conditions engendering crime;
- strengthen the state's role as guarantor of security of the individual and society, and create the legal framework necessary for this and the mechanism for applying it;
- enlist state authorities, within the bounds of their authority, in the prevention of illegal actions;

- expand mutually-beneficial international collaboration in law and order, primarily with the members of the Commonwealth of Independent States.

Decisions made and steps taken by state authorities in the fight against organized crime must be open, specific, and understandable to every citizen, they must be preventive in nature, they must ensure equality of all before the law and inevitability of liability, and they must rely on society's support.

The development of a legal base as the foundation for reliably protecting citizens' rights and lawful interests, as well as observance of Russia's obligations under international law in the sphere of fighting crime and protecting human rights are needed first and foremost for preventive measures and for crime-fighting. It is important to deprive crime of the sustenance it derives from shortcomings in legislation and the economic and social crisis.

An effective system for financial control, enhanced administrative, civic and legal levers and ways of verifying the assets and sources of income and expenditures of state officials and other employees must be created to prevent corruption in the state apparatus and to eliminate conditions for legalizing criminally acquired capital.

The fight against terrorism, the drug trade and smuggling must be based on a special state-wide set of countermeasures designed to put an end to such activities.

Using the framework of international agreements, there must be effective collaboration with foreign states and their law-enforcement and special agencies, and also with international organizations tasked with fighting terrorism. Broad use must be made of international experience of dealing with this phenomenon and there must be a well-coordinated mechanism for countering international terrorism, closing all available routes for illicit weapons and explosives within the country and preventing their import from abroad. The federal state authorities should pursue within the country persons involved in terrorism irrespective of where acts of terrorism damaging to the Russian Federation were conceived or carried out.

...

The following are among priority directions for ensuring ecological security:

- rational use of natural resources and fostering of environmental awareness;
- prevention of environmental pollution by raising the level of safety of technologies connected with the burial and recycling of toxic industrial and household wastes;
- prevention of radioactive contamination of the environment and relief of the consequences of earlier radiation accidents and disasters;
- ecologically safe storage and reprocessing of arms removed from the order of battle, above all nuclear powered submarines, ships and vessels with nuclear power plants, nuclear munitions, liquid rocket propellants, and fuel of nuclear power stations;
- storage and destruction of chemical weapon stockpiles in a way that is environmentally safe and safe for public health;
- creation of ecologically clean technologies, a search for ways of making practical use of environmentally friendly sources of energy, and urgent action in environmentally-vulnerable areas of the Russian Federation.

A new approach is essential for the organization and conduct of civil defence in the Russian Federation and there must be a qualitative improvement to the unified state system for early warning and removal of emergency situations, including its further integration into equivalent systems of foreign countries.

The foreign policy of the Russian Federation should be designed to:

- pursue an active foreign-policy course;
- strengthen key mechanisms, above all of the UN Security Council, for multilateral management of world political and economic processes;
- ensure favourable conditions for the country's economic and social development and for global and regional stability;
- protect the lawful rights and interests of Russian citizens abroad, through the use of political, economic and other measures;
- develop relations with CIS member states in accordance with principles of international law, and developing integrative processes within the framework of the Commonwealth of Independent States that meet Russia's interests;
- ensure Russia's full-fledged involvement in global and regional economic and political structures;
- assist in settling conflicts, including peacekeeping activities under UN, OSCE and CIS aegis;
- achieve progress in nuclear arms control and maintain strategic stability in the world through states' compliance with their international obligations in this respect;

- fulfil mutual obligations to reduce and eliminate weapons of mass destruction and conventional arms, carrying out confidence- and stability-building measures, ensure international supervision of the export of goods and technologies and over the provision of military and dual-purpose services;
- adapt existing arms-control and disarmament agreements in line with the new climate in international relations, and also develop when necessary new agreements especially for enhancing confidence- and security-building measures;
- assist in establishing zones free of weapons of mass destruction;
- develop international cooperation in the fight against transnational crime and terrorism.

Ensuring the Russian Federation's military security is a crucial direction of state activity. The main goal in this respect is to ensure an adequate response to threats which may arise in the 21st century, with rational spending on defence.

In preventing war and armed conflicts, the Russian Federation prefers political, diplomatic, economic and other non-military means. The national interests of the Russian Federation, however, require the presence of military power sufficient for its defence. The Russian Federation armed forces play the main role in ensuring the military security of the Russian Federation.

A vital task of the Russian Federation is to exercise deterrence to prevent aggression on any scale and nuclear or otherwise, against Russia and its allies.

The Russian Federation should possess nuclear forces that are capable of guaranteeing the infliction of the desired extent of damage against any aggressor state or coalition of states in any conditions and circumstances.

In their peacetime order of battle the Russian Federation armed forces should be able to provide dependable protection against aerial attack; to perform jointly with other troops, military units and entities missions to repulse aggression in a local war (armed conflict); and to carry out strategic deployments for missions in a large-scale war. The Russian Federation armed forces should also ensure Russia's ability to carry out peacekeeping duties.

One of the vital strategic directions in providing for the Russian Federation's military security is effective collaboration and cooperation with members of the Commonwealth of Independent States.

The interests of ensuring Russia's national security predetermine the need, under appropriate circumstances, for Russia to have a military presence in certain strategically important regions of the world. The stationing of limited military contingents (military bases, naval units) there on a treaty basis must ensure Russia's readiness to fulfil its obligations and to assist in forming a stable military-strategic balance of forces in regions, and must enable the Russian Federation to react to a crisis situation in its initial stage and achieve its foreign-policy goals.

The Russian Federation considers the possibility of employing military force to ensure its national security based on the following principles:

- use of all available forces and assets, including nuclear, in the event of need to repulse armed aggression, if all other measures of resolving the crisis situation have been exhausted and have proven ineffective;
- use of military force inside the country is allowed in strict conformity with the Constitution of the Russian Federation and with federal laws in the event of emergence of a threat to citizens' lives and also of violent change to the constitutional system.

An important role in ensuring Russia's national interests belongs to the defence industry. Restructuring and conversion of the defence industry should proceed without detriment to the development of new technologies and science-and-technology opportunities or to modernization of armaments, military and special equipment and the presence of Russian manufacturers on the world markets.

The way should be paved for organization of the priority fundamental, forecasting and original research, which ensure the existence of a promising and advanced science-and-technology sector in the interests of defence and the state's security.

The following are principal tasks as regards border security:

- to establish the required regulatory and legal framework;
- to develop international cooperation in this area;
- to counter economic, demographic and cultural-religious expansion into Russian territory by other states;
- to intercept transnational organized crime and illegal migration;
- to engage in collective measures to ensure security in the border zones of member-states of the Commonwealth of Independent States.

The following are crucial tasks for ensuring the Russian Federation's information security:

- exercise of citizens' constitutional rights and freedoms in the sphere of information;
- improvement and protection of the domestic information infrastructure and integration of Russia into the world information domain;
- countering the threat of opposition in the information sphere.

The use of intelligence and counterintelligence resources for the timely discovery of threats and identification of their sources is of particular importance when ensuring the national security of the Russian Federation.

The system for ensuring the Russian Federation's national security is created and developed in accordance with the Constitution of the Russian Federation, federal laws, Russian Federation presidential decrees and directives, Russian Federation government decrees and resolutions, and federal programmes in this area.

The basis of the system for ensuring the Russian Federation's national security consists of the agencies and resources for ensuring national security that carry out political, legal, organizational, economic, military and other measures aimed at ensuring the security of the individual, society and the state.

The powers, composition, principles and operating procedure of the agencies and forces ensuring the Russian Federation's national security are defined in the relevant Russian Federation legislative instruments.

The following are involved in forming and implementing policy for ensuring the Russian Federation's national security:

- the president of the Russian Federation, who within the bounds of his constitutional powers directs the agencies and resources for ensuring the Russian Federation's national security; sanctions actions to ensure national security; in accordance with Russian Federation legislation forms, reorganizes and abolishes subordinate agencies and forces for ensuring national security; issues messages, appeals and directives on national security issues and in his annual message to the Russian Federation Federal Assembly specifies individual provisions of the Russian Federation National Security Blueprint and defines the directions of the country's current domestic and foreign policy;
- the Russian Federation Federal Assembly, which on the basis of the Russian Federation constitution and on representation by the Russian

Federation president and government forms the legislative framework for ensuring the state's national security;

- the Russian Federation government, which within the bounds of its powers and in consideration of priorities in the area of ensuring the country's national security formulated in annual messages of the president to the Federal Assembly, coordinates the activities of federal executive authorities as well as of executive authorities of the constituent parts of the Russian Federation, and forms items of the federal budget for implementing specific special-purpose programmes in these areas;
- the Russian Federation Security Council, which works for the advance identification and assessment of threats to national security, drafts operational decisions to prevent them for the president; develops proposals for ensuring the country's national security and proposals on updating individual provisions of the Russian Federation National Security Blueprint; coordinates the forces and agencies for ensuring national security; and monitors implementation of decisions in this area by federal executive authorities and authorities of the constituent parts of the Russian Federation;
- federal executive authorities, which ensure compliance with Russian Federation legislation and implementation of decisions of the Russian Federation president and government in the area of national security; within the bounds of their competence develop regulatory legal instruments in this area and submit them to the Russian Federation president and government;
- executive authorities of the constituent parts of the Russian Federation, which coordinate with federal executive authorities in implementing Russian Federation legislation and decisions of the Russian Federation president and government in national security, and implementing federal programmes, plans and directives issued by the Supreme Commander in the area of Russian Federation defence security; with institutions of local government act to involve citizens, public associations and other organizations in helping to resolve national security problems in accordance with Russian Federation legislation; make proposals to federal executive authorities for upgrading the system of ensuring national security.

The Russian Federation intends to decisively and firmly uphold its national interests. The existing legal democratic institutions and structure of Russian Federation state authorities and the broad involvement of political parties and public associations in implementing the Russian Federation National Security Blueprint serve as a guarantee of Russia's dynamic development in the 21st century.

Appendix I

NPG Communiqué, December 2000*

Final Communiqué

Ministerial Meeting of the Defence Planning Committee and the Nuclear Planning Group on 5 December 2000

The Defence Planning Committee and Nuclear Planning Group of the North Atlantic Treaty Organisation met in Ministerial Session in Brussels on 5th December 2000.

Collective defence planning remains the cornerstone of the Alliance's ability to provide for the defence and security of its members. Today we reviewed the national defence plans of Allies for the period 2001-2005 and beyond and have adopted a five-year force plan which addresses the requirements of the future security environment.

In reviewing Allies' plans, we paid particular attention to the progress of implementation of the Defence Capabilities Initiative (DCI), launched by Alliance Heads of State and Government at Washington last year. We concluded that the DCI has significantly influenced the future force plans of Allies and we welcomed the efforts underway to improve Alliance capabilities in key capability areas such as provision of strategic sea and airlift, precision guided munitions and further progress in consultation, command and control capabilities. We recognised, however, that it will be some time before Allies have fully developed many of the capabilities highlighted in the DCI, partly reflecting resource constraints. In this context, we also took stock of Allies' defence expenditure plans. We noted that, this year, more Allies project real increases in defence expenditure than was the case last year and that greater emphasis is being put on improvements in the management of defence resources and the potential benefits of multinational, joint and common funding projects as ways to ensure greater cost-effectiveness in providing the military capabilities the Alliance needs. On the other hand, we realise that, in many cases, additional funds appear necessary to achieve the required capability improvements set out in the DCI.

* Text from NATO on-line library at
<http://www.nato.int/docu/pr/2000/p00-115e.htm>.

We agreed on the need to continue to pursue greater efficiency in defence spending and to ensure that defence spending priorities match identified Alliance requirements. We also agreed to continue to seek the necessary resources to ensure that our forces are properly equipped, manned, trained and supported for the full range of Alliance missions. We will continue to review the success of our efforts, based on a number of important indicators, as part of our regular force planning work.

As part of this year's annual defence review we also noted the planned contributions by many Allies to support the European Union Headline Goal, which were announced at the Capabilities Commitment Conference. We expect that the objectives of the Headline Goal and DCI will be mutually reinforcing and will give further impetus to the development of the military capabilities of the countries concerned. Such enhanced capabilities would also strengthen the ability of the Alliance to contribute to ensuring security and stability. For each nation, there is only one set of forces and resources. The possible overlapping of NATO and EU requirements should be addressed and coordinated by the two organisations in a coherent, transparent and consistent way, in order to harmonise those requirements and to review progress in meeting them. In any event the autonomy of NATO and EU institutional decision-making should be fully respected. We will, therefore, continue to take account of commitments made by Allies concerned to other organisations, to the extent that they have consequences for NATO force planning.

Against this background, we approved new Ministerial Guidance to provide the framework for NATO and national defence planning in the period until 2008 and beyond. The actions the Alliance had to undertake last year to end the humanitarian crisis in Kosovo, and the instability that still exists in this and other regions, provide a stark reminder of the need for the Alliance to have substantial and robust forces able to react rapidly to emerging crises. The ability and determination of the Alliance to respond to non-Article 5 crises which threaten Euro-Atlantic security are closely linked to its ability and resolve to continue to deter and defend against aggression directed at Allies. The new Ministerial Guidance, therefore, emphasises the importance of having sufficient forces with the required capabilities for all likely missions, able to deploy quickly and to sustain themselves for as long as required, able to carry out their tasks and protect themselves effectively, and able to operate together effectively with the forces of other nations engaged in the same operations.

At our Nuclear Planning Group meeting, we reviewed the status of NATO's nuclear forces and other related issues and activities. We received with appreciation presentations by the United States Secretary of Defense which included further information on U.S.-Russian efforts to establish a Joint Data Exchange Center in Moscow to share information from early warning systems regarding missile launches.

We affirmed the continuing validity of the fundamentally political purpose and the principles underpinning the nuclear forces of the Allies as set out in the Alliance's 1999 Strategic Concept. NATO's nuclear forces are a credible and effective element of the Alliance's strategy of preventing war, and they are maintained at the minimum level of sufficiency to preserve peace and stability, and under conditions that meet the highest standards of safety and security. Nuclear forces based in Europe and committed to NATO continue to provide an essential political and military link between the European and North American members of the Alliance.

We reaffirmed the continued importance attached by Allies to full implementation of and compliance with international nuclear disarmament and non-proliferation regimes. We confirmed our commitments made at this year's Review Conference on the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and will contribute to carrying forward the conclusions reached there. NATO Allies continue to support the ratification, early entry into force, and full implementation of the Comprehensive Nuclear Test Ban Treaty (CTBT), and remain committed to the immediate commencement and rapid conclusion of negotiations on a non-discriminatory, multilateral and internationally and effectively verifiable and universal Fissile Material Cut-Off Treaty (FMCT).

We expressed our full support to the United States and the Russian Federation for an early implementation of START II and for future negotiations on the basis of an agreed START III framework to reduce significantly the number of deployed strategic nuclear warheads of both countries. We also recalled the drastic reductions of NATO's nuclear forces in the new security environment, and renewed our call on Russia to complete the reductions in its non-strategic nuclear weapons stockpile, as pledged in 1991 and 1992 for implementation by the end of the year 2000.

We welcomed the resumption of exchanges with the Russian Federation on a range of nuclear weapons issues, under the auspices of the NATO-Russia Permanent Joint Council, and we look forward to

further exchanges in the spirit of improved transparency and full reciprocity.

At the 1999 Washington Summit, the Alliance agreed to consider options for confidence and security building measures, verification, non-proliferation and arms control and disarmament in the light of overall strategic developments and the reduced salience of nuclear weapons. We received a comprehensive final report on the nuclear elements of this work and endorsed its conclusions, in particular proposals made in the area of confidence and security building measures and increased transparency as a basis for enhanced understanding, trust and cooperation. We commend the High Level Group for this valuable contribution to the overall Alliance work in fulfilling the Summit remit