

Deep Cuts - Challenges for U.S. Conventional Extended Deterrence

Katarzyna Kubiak¹ and Christine Leah²

July 2016

Abstract

Deep nuclear cuts will have repercussions for the alignment and credibility of U.S. security commitments in both Europe and the Asia-Pacific. Assuming that deterrence remains the name of the game in international politics, this article explores alternatives to U.S. extended *nuclear* deterrence. It does so by identifying and examining the issues policymakers would have to deal with in Europe and Asia to enable a sustainable transition from nuclear to conventional extended deterrence. Ultimately it argues that, whilst such a transition might be possible in the long term, designing such a posture for the United States is highly challenging: deep nuclear reductions will not only have to be supplanted by a credible *conventional* deterrent, but also incorporate sustainable, multilateral conventional arms control regimes.

Keywords: global zero, nuclear order, nuclear disarmament, tactical nuclear weapons, conventional arms control, conventional stability, crisis stability, arms race stability.

Introduction

Whilst neither further nuclear reductions nor nuclear disarmament are likely to happen any time soon,³ the worldwide NPT-based consensus on the inevitability of further nuclear disarmament and President Obama's stated goals of further reducing the U.S. nuclear stockpile should force us to think very carefully about practical aspects of relying on conventional military balances for deterrence.

Right now, neither the United States nor its allies are seriously interested in a purely non-nuclear extended deterrence posture. But given the right geopolitical conditions, they might be in the not-so-distant future. It seems consequential, and thus highly probable, that American and Russian tactical nuclear weapons will be discussed in the next bilateral disarmament round. Therefore, one of the next logical steps on the road to complete disarmament would be to focus on all different types of Russian tactical nuclear weapons and American forward-deployed nuclear weapons in Europe, plus those stored in the United States for possible overseas deployment in support of extended deterrence to allies and partners.

If the nuclear bases for extended deterrence were to disappear, U.S. allies in Europe and Asia would have several issues to take into account on the path to reaching an enduring non-nuclear security guarantee. Eventually, for the United States and its NATO and Asia-Pacific allies, conventional extended deterrence may end up replacing nuclear extended deterrence. NATO has already made political concessions by tasking committees "to develop concepts for how to

¹ Katarzyna Kubiak is a Researcher at the German Institute for International and Security Affairs (SWP); katarzyna.kubiak@swp-berlin.org.

² Christine Leah is a Chauncey Postdoctoral Fellow in Grand Strategy at Yale University; christine.leah@yale.edu.

³ See, for example, Frank Miller's remarks at the 2015 STRATCOM Deterrence Symposium. Lunch keynote speech 30 July 2015; <http://livestream.com/Stratcom/2015USSTRATCOMDS>.

ensure the broadest possible participation of Allies concerned in their nuclear sharing arrangements, including in case NATO were to decide to reduce its reliance on non-strategic nuclear weapons based in Europe.”⁴

This transition, however, will not be a mere withdrawal of nuclear weapons from allied territories and superficial changes in U.S. or NATO doctrines. Instead, this will require a reconfiguration of the current European security environment, including agreements to place limitations on the deployment of conventional forces. Sam Nunn, William Perry, Henry Kissinger, and George Shultz made this point when they wrote that “a world without nuclear weapons will not simply be today's world minus nuclear weapons.”⁵ What they meant was that the overall strategic context needs to be ripe – or as we argue, ‘calibrated’ – to enable such a transition.

This article does not intend to debate the desirability or undesirability of a world without nuclear weapons. That has been extensively discussed elsewhere.⁶ Our starting point is the moment in which the international community already decides and undertakes appropriate steps towards global zero. This paper should, thus, be seen as an exercise that elaborates questions and obstacles that political decision-makers will face if and when they decide to make further steps towards a world without nuclear weapons. It discusses historical experiences and options for conventional stability in the European and Asia-Pacific contexts.

A genuine policy commitment to global zero should motivate decision makers to define the terms of a non-nuclear world. Shall we stick to deterrence, switch to cooperative security, or look for a mix as the governing security paradigm? Some scholars argue that cooperation on the way to a nuclear-weapons-free-world will liberate us “from the dominance of deterrence as a security paradigm.”⁷ Others narrow this vision to “a community of states organized on distinct principles, in which the security of all nations is ensured, regardless of how big or economically or militarily strong they are.”⁸ While these are very appealing ideas, we try to find a middle ground between deterrence and arms control. In this article we explore, under the assumption that deterrence remains the name of the game in international politics, the particular requirements for conventional extended deterrence that would enable a sustainable transition and uphold a stable balance of power. Two questions animate the article. First, how should cogent conventionalized reassurance be designed? In other words, we ask how to convince allies that the defender is willing and able to provide security without using the “ultimate” guarantee of nuclear weapons. Second, how should the stability and predictability of conventional deterrence be guaranteed?

⁴ Deterrence and Defense Posture Review (2012) NATO, point 12, http://www.nato.int/cps/en/natolive/official_texts_87597.htm.

⁵ George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn (2011) Deterrence in the Age of Nuclear Proliferation [in:] *The Wall Street Journal, Opinion*, 7.03.2011, <http://www.wsj.com/articles/SB10001424052748703300904576178760530169414>.

⁶ George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn (2007) *Toward a World without Nuclear Weapons*, NTI, http://www.nti.org/media/pdfs/NSP_op-eds_final_.pdf?_=1360883065. Cf. John Mueller (1988) *The Essential Irrelevance of Nuclear Weapons: Stability in the Postwar World* [in:] *International Security* Vol. 13, No. 2 (Fall, 1988), pp. 55-79; Thomas C. Schelling (2009) *A world without nuclear weapons?* [in:] *Dædalus*, Fall 2009, Vol. 138, No. 4, pp. 124-129.

⁷ Harald Müller (2013) *Security in a Nuclear-weapons-free World: Thinking out of the Box* [in:] David Atwood, Emily J. Munro (eds.) *Security in a World without Nuclear Weapons: Visions and Challenges*, pp. 49-58, Geneva Centre for Security Policy, <http://www.gcsp.ch/download/2880/74292>.

⁸ Andrei Zagorski (2013), in Atwood and Munro, *A Nuclear-weapons-free World*, pp. 59-67.

Here, the challenge lies in creating an international system balancing military capabilities, including instruments of transparency over military forces and activities, and tools to catch potential break-outs early enough that action can be taken to stop an aspiring proliferator.

Current Setting of Nuclear Extended Deterrence in Europe and the Asia-Pacific

In order to think strategically about reductions and disarmament, it is first important to understand the legacy of nuclear weapons in strategic concepts. Indeed, nuclear weapons have been integral to America's role in the world. For most of its history, the United States was a relatively isolationist power. It is easy to take for granted just how impressive a feat it was for Washington to establish strong alliances with countries in Asia or Europe, half a world away. U.S. nuclear capabilities, their long-range delivery systems, and ground-based nuclear forces were integral to that enterprise. Without the bomb, Washington might not have had the appetite or the audacity to undertake such vast and significant security commitments. Nuclear weapons "connect" allies (especially those in far-flung lands, such as Australia) in ways that were not previously possible without forward-deploying substantial conventional forces to the ally's territory – a costly exercise. To this day, the United States provides nuclear extended deterrence to its European NATO and Asia-Pacific allies, albeit through different political, strategic, and technical arrangements.

In the European context, the United States supplies ground-based nuclear extended deterrence with fully developed dual-decision procedures, information infrastructure, and a burden-sharing principle. It hosts approximately 180 free fall bombs (B61) on the territory of five NATO states – Belgium, Germany, Italy, the Netherlands and Turkey. At the planning level, NATO allies have participatory mechanisms, like the Nuclear Planning Group, which enable them to take part in U.S. nuclear policy planning, exchange information on nuclear doctrines, and consult on the use of the bombs. At the operational level, aircraft from NATO host states or American dual-capable tactical fighter-bombers (F-16 and PA-200 Tornado) would deliver these bombs to their targets. Their pilots train for such scenarios during the annual Steadfast Jazz exercises. Additionally, in a nuclear attack mission, around 15 non-nuclear, non-host NATO member states would grant non-nuclear support, including air refueling or search and rescue operations, known as SNOWCAT (Support of Nuclear Operations With Conventional Air Tactics).⁹ In Europe, reassurance is demand-driven. In other words, the United States provided assurance upon the request by particular European NATO allies for reaffirming the role of its main defender rather than the United States seeking to assert its authority.¹⁰

By contrast, in the Asia-Pacific the United States provides offshore extended nuclear deterrence, based on bilateral commitments, but without formal arrangements like NATO. After the end of the Cold War, the United States withdrew its forward-deployed nuclear forces from the region and based its nuclear extended deterrence upon approximately 320 U.S.-based nuclear weapons (B61) that could be forward deployed if needed. No multilateral alliance structures analogous to NATO exist. Since 2010, however, the United States has held an "Extended Deterrence Dialogue" with Japan and established an "Extended Deterrence Policy Committee" for regular

⁹ Karl-Heinz Kamp (2011) NATO's Nuclear Posture Review: Nuclear Sharing Instead of Nuclear Stationing [in:] NATO Defense College, Research Paper No. 68, <http://www.ndc.nato.int/download/downloads.php?icode=283>.

¹⁰ Lyon Rod (2013) The Challenges Confronting US Extended Nuclear Assurance in Asia, p. 936 [in:] *International Affairs*, Vol. 89, No. 4, pp. 929–41.

consultation with South Korea. Neither institution involves Japan and South Korea in the decision on contingencies involving the use of nuclear weapons or how they would be delivered. As a Japanese official put it: “When it comes to the nuclear umbrella, it is like a talisman from the United States. Japan is not sure how it works, but they put their faith in it and believe it will protect them.”¹¹ According to Elbridge Colby, in South Korea some credible voices have been recently calling for the reintroduction of U.S. nuclear weapons on the peninsula to defend the South against the North.¹² At the same time, a recent survey in South Korea revealed that elites and public opinion perceive declaratory policy and nuclear-forward deployment as having the same effect on the credibility of security assurances.¹³

Australia has been much less vocal on extended nuclear deterrence than its East Asian counterparts. There are various historical reasons for this, as well as the fact that neither China nor North Korea presents an imminent military threat to Australia. In general, however, whilst historically extended deterrence in the Asia-Pacific may have served an indirect purpose within the context of a possible global nuclear war with the USSR, now it is much more regionalized in nature, and allies in both Europe and the Asia-Pacific are asking for more.

The Role of Nuclear Extended Deterrence for Allied States

In order to think about alternatives to nuclear extended deterrence, one needs to understand the role that American nuclear weapons play for its allies in Europe and Asia-Pacific. Specifically, what is it that they most value in the concept of ground-based or offshore-based nuclear extended deterrence?

First, nuclear extended deterrence is framed as a means of reassurance and also serves as a physical transatlantic security link.¹⁴ The B61 symbolizes U.S. commitment to the security of its allies. Second, the B61 is perceived as a means of deterrence.¹⁵ In other words, it is believed to discourage potential aggressors from attacking U.S. allies, and in specific cases, to contain aggression. Third, the B61 is considered a bargaining chip against the greater Russian stockpiles

¹¹ **Error! Main Document Only.** James L. Schoff (2010), *Realigning Priorities: The U.S.-Japan Alliance and the Future of Extended Deterrence* (Institute for Foreign Policy Analysis, Boston, MA), p. 30.

¹² Elbridge A. Colby (2012) *U.S. Nuclear Weapons Policy and Policymaking: The Asian Experience*, p. 86 [in:] Tom Nichols, Douglas Stuart, Jeffrey D. McCausland (ed), *Tactical Nuclear Weapons and NATO*, pp. 75-106, <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1103.pdf>.

¹³ Jiyoung Ko; *Alliance, Commitment and Nuclear Forbearance*; Paper presented at the annual meeting of the International Studies Association, New Orleans, Louisiana, 18.02.2015.

¹⁴ NATO Basic Fact Sheet (1999) *Basic Fact Sheet. NATO's Nuclear Forces in the new Security Environment*, 30 March 1999, p. 8; *Nuclear Posture Review Report* (2010) Department of Defense, 6.04.2010, p. vi; James R. Schlesinger (2008) *Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management, Phase II: Review of the DoF Nuclear Mission*, Secretary of Defense Task Force on DoD Nuclear Weapons Management, Arlington, pp. 14-15 and 59-60; George Lewis, Andrea Gabbitas (1999) *What Should Be Done About Tactical Nuclear Weapons? Occasional Paper*, Washington, The Atlantic Council of the United States, p. 12. Cf. Lawrence Freedman (1991) *The Problem of Nuclear Doctrine* [in:] Beatrice Heuser, *Nuclear Weapons and the Future of European Security*, London Defense Studies 1990-91, No. 8, Centre for Defense Studies, Oxford, pp. 15-25, p. 19; Łukasz Kulesa (2009) *Reduce US Nukes in Europe to Zero, and Keep NATO Strong (and Nuclear). A View from Poland*, PISM Strategic File, No. 7, http://www.pism.pl/zalaczniki/Strategic_File_7.pdf.

¹⁵ *Deterrence and Defense Posture Review* (2012) NATO, point 8, NATO Basic Fact Sheet 1999:8, http://www.nato.int/cps/en/natolive/official_texts_87597.htm.

of non-strategic nuclear weapons stationed in the Euro-Atlantic area.¹⁶ The idea of using the bomb as a bargaining chip is also partly behind the reasoning by some in South Korea to use the B61 as a way to engage and negotiate with the North.¹⁷ Fourth, the B61 is framed as a means of cooperation, serving the purpose for institutionalized communication, nuclear policy monitoring, and burden sharing among European allies.¹⁸ In the Asian-Pacific context, however, this is not the case, so far. Finally, U.S. nuclear weapons are believed to serve non-proliferation.

The dynamics in both regions illustrate the enduring perception that nuclear weapons remain an essential instrument for geopolitical ordering. In general, due to the differences in nuclear extended deterrence arrangements, allies in both regions perceive nuclear security assurances differently. There is no unity about the role of U.S. nuclear weapons in Europe. For some European allies, the B61 strengthens their trust in American security commitments, creates multilateral communication and decisional infrastructure, and can be used to bargain for arms control agreements with Russia or to deter Russia. Currently, some advocate to strengthen the role of nuclear weapons inside NATO in response to Russia's aggressive nuclear rhetoric and change in nuclear doctrine, assertive foreign and defense policy, and brinkmanship with military forces near the border of NATO.¹⁹ For some host-states, however, retaining U.S. nuclear weapons in Europe is a sign not only of the U.S., but also their, commitment to the security of other allies.

As in Europe, there also is no unified perception of the role U.S. nuclear forces play in the Asia-Pacific region. While for Japan and South Korea, they serve as an offset to North Korean nuclear weapons, for Taiwan they provide a deterrence against Chinese nuclear arsenals. They are also supposed to equalize qualitative and quantitative imbalances in conventional military forces in the region. Although the United States has tried to balance out these differences through its "pivot to Asia,"²⁰ Asia-Pacific allies, with Japan and South Korea in the forefront, intend to rely more strongly on extended nuclear deterrence in the future. They increasingly demand nuclear security guarantees to be tailored more specifically to their needs. Moreover, because the U.S. extended deterrent in the Asia-Pacific is based on bilateral agreements rather than collective doctrines, the role of U.S. nuclear weapons in the Asia-Pacific is much more ambiguous. The reliance on bilateral agreements in the Asian-Pacific military environment stems from the higher priority placed on pursuing unilateral security policies in the region instead of addressing mutual

¹⁶ Ibid., point 28.

¹⁷ Elbridge A. Colby (2012), U.S. Nuclear Weapons Policy and Policymaking: The Asian Experience, p. 86 [in:] Tom Nichols, Douglas Stuart, Jeffrey D. McCausland (ed) Tactical Nuclear Weapons and NATO, pp. 75-106, <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1103.pdf>.

¹⁸ Raymond Knops (2010) U.S. Non-Strategic Nuclear Weapons in Europe: A Fundamental NATO Debate, NATO Parliamentary Sub-Committee on Future Security and Defense Capabilities, http://tbmm.gov.tr/ul_kom/natopa/docs/raporlar_2010/d2.pdf; Oliver Thränert (2010) NATO and Extended Deterrence [in:] Perspectives on Extended Deterrence, Recherches & Documents No. 03/2010, Fondation pour la Recherche Stratégique, pp. 115, www.frstrategie.org/barreFRS/publications/rd/2010/RD_201003.pdf; Deterrence and Defense Posture Review, 20.05.2012, http://www.nato.int/cps/en/natolive/official_texts_87597.htm; NATO Basic Fact Sheet (1999) Basic Fact Sheet. NATO's Nuclear Forces in the new Security Environment, 30.03.1999, p. 8.

¹⁹ Tom Sauer (2016) Just Leave It: NATO's Nuclear Weapons Policy At the Warsaw Summit [in:] Arms Control Today, VI. 46. No. 5, pp. 16-21.

²⁰ Hillary Clinton (2011) America's Pacific Century [in:] Foreign Policy, No. 189, pp. 56-63.

security concerns. However, the most distinguishing feature of the role U.S. nuclear weapons play in the region is that they serve non-proliferation, containing break-out scenarios.²¹

Starting Point: Conventional Forces

Europe remains one single geostrategic entity connected by land. The current European conventional force structure is a mix of national capabilities, alliance commitments, and force deployments, with the main arms control agreement – the Conventional Forces in Europe Treaty (CFE) – suspended, and the Vienna Document urgently requiring modernization. Russia remains the most relevant state actor to balance forces with, although military threats in Syria and Iraq have started to preoccupy the attention of the Alliance.²² In numerical terms, NATO has a comparative edge over Russia in major conventional military categories, including active troops, combat aircraft, and main battle tanks.²³ At the same time, however, conventional forces are not equally dispersed across NATO, due to different military budgets and political and spending priorities. In general, European NATO allies are keen for the deployment of U.S. troops on their territory and systematically call for an increased presence of the United States in Europe.²⁴

While European NATO member states do not balance against each other's military capabilities and do not face any imminent mutual threat to their territory, Russian military forces need to be ready to respond to a broad range of threats related to its vast geopolitical location. Next to NATO, Moscow also looks to China.

The picture in the Asia-Pacific is very different. First, most U.S. military capabilities (and importantly, *strategic* forces) intended for extended deterrence are based off-shore. Second, not only is the Asian theater of operations fundamentally a maritime one, but it is a *very large* maritime theater; the Pacific Ocean is much larger than the Atlantic Ocean, the Baltic Sea, or the North Sea. In the Asia-Pacific, Japan, South Korea, Australia, and Taiwan are widely dispersed, with neutral and non-aligned states dotted here and there in between. Therefore, the forces required for military operations are very different than in Europe. The issues are also very different regarding the relationship between land, air, and sea power. The United States provides vast maritime support, but its conventional land-based capabilities in the region are modest. In contrast to European States, neither Japan, South Korea, nor the Philippines has expressed much interest in hosting additional U.S. troops on their soil.

In the context of the Asia-Pacific, there is not one particular source of threat. North Korea and China both pose a potential danger. But again, the threat relation is not linear in the region, with

²¹ Richard. C. Bush (2011) The U.S. Policy of Extended Deterrence in East Asia: History, Current Views, and Implications, Brookings, Arms Control Series, Paper 5, http://www.brookings.edu/~media/research/files/papers/2011/2/arms-control-bush/02_arms_control_bush.pdf; Blinken: US protection prevents Korea, Japan from going nuclear [in:] The Korea Times, 30.06.2016, http://www.koreatimes.co.kr/www/news/nation/2016/06/120_208240.html.

²² NATO Foreign Ministers address challenges to the south, agree new hybrid strategy and assurance measures for Turkey, NATO, 1.12.2015, http://www.nato.int/cps/en/natohq/news_125368.htm.

²³ Cf. The Military Balance 2014, The International Institute for Strategic Studies.

²⁴ See: An Open Letter to the Obama Administration from Central and Eastern Europe [in:] Gazeta Wyborcza, 16.07.2009. The “American pivot to Asia” announced by Secretary of State Hillary Clinton triggered this open letter from 22 prominent former officials from Central European states “convinced that America needs Europe and that Europe needs the United States as much today as in the past” and calling for a reinvestment in the transatlantic relationship.

Beijing also looking at Russia, and North Korea looking overseas to the United States. However, it is the case that currently the United States has a far more militarily effective force than China and North Korea at its disposal.

“Conventionalized” Alliances

As long as nuclear weapons remain, detaching American tactical nuclear weapons from their deterrent role in Europe and Asia will only shift the focus of deterrence. Nuclear deterrence will still remain the name of the game, albeit served by offshore strategic nuclear forces only. Thus, the more interesting question is: what will happen when the United States – probably simultaneously with other nuclear weapon states – gives up its nuclear stockpile? Or at least reduces it to a size that prevents Washington from assuring nuclear security to its allies? A logical step in answering these questions is to start thinking about how conventional arms control measures can alleviate tensions between the United States and its allies on the one hand, and China and Russia on the other.

In both regions, the attachment to extended nuclear deterrence and the acceptance of U.S. forces on their territories illustrate the allies’ desire to keep the United States engaged in their regional security arrangements. As such, we assume that allies in both Europe and the Asia-Pacific will want the United States to stay involved as a security guarantor in any future security arrangement, whatever its nature. Thus, even with a “successful” elimination of nuclear weapons, the tasks of strategy – namely deterrence and extended deterrence – will still be relevant, but their management will require a new approach. A world without nuclear weapons would graphically expose existing conventional imbalances. However, at the same time, it is upon these imbalances that any remaining system of deterrence would increasingly rely.

Balancing conventional forces would lie at the foundation of deterrence. Thus, extending deterrence through conventional forces would mainly require the constant shifting of military capabilities to compensate for missing power, and the development of cutting edge technology to keep up with developments elsewhere. The defender will need to both skillfully manage its ally’s needs and perceptions and an opponent’s risk tolerance. On one hand, this means making the security pledge credible to allies, thus reassuring them of the defender’s intent, political willingness, military preparedness, and capacity. On the other hand, the defender needs a tailored mix of ambiguity and clarity about how the deterrence threat will be enforced.

The main danger to conventional deterrence is a crisis situation in which one player believes it could take advantage by launching an unexpected, decisive attack. To prevent such a surprise attack from happening, transparency and stability in military capabilities are key ingredients of a future conventional security environment. However, as we know from experience, relying purely on arms control, arms race stability, and transparency does not help when a crisis arises. For such an eventuality, crisis stability mechanisms must be flawlessly functioning. As such, conventional deterrence supported by arms control, arms race stability, and crisis stability is a broader, multilaterally coordinated endeavor. It does not confine participation to the members of bilateral and/or multilateral alliances, but needs to include a broad range of potential opponents and neutral neighboring states. In the following, we raise issues which will require attention in designing a conventional balancing arrangement, relating both to the relationship with an ally and to a potential opponent.

Reassuring allies

Reassuring allies means making clear to them that their security is taken seriously, that the defender possesses appropriate confidence in and numbers of its own military forces to be used for the defense of the ally, and that the political will exists to defend that ally. This is no small challenge, and indeed is likely to become even more of a challenge with an extended deterrence posture that relies on conventional forces because the aspect of ambiguity buttressed by an “unimaginable attack” will fall away. Moreover, as the Healey Theorem asserts, “it takes only five per cent credibility of American retaliation to deter the Russians, but ninety-five per cent credibility to reassure Europeans.”²⁵ To convince an ally of the defender’s commitment to its security, the defender applies tools from a wide range of “habits of cooperation”²⁶ or security guarantees, ranging from purely political to strictly military ones. The former are covered by instruments like implicit or explicit declaratory policy, multilateral cooperation, and consultation mechanisms. A simple promise to defend an ally, be it in a formal treaty or unilateral declaration, however, may not be sufficient.²⁷ For instance, Poland suffered a nightmare when the United Kingdom and France could not keep its pledge to guarantee Polish independence after the military invasion from Nazi-Germany. After all, real capabilities to enforce a pledge may be lacking, and interests can always vary. To make sure these interests do not vary too much, sufficient physical capabilities deployed or ready to be deployed to effectively execute punishment or denial are widely perceived as the most stable way of signaling commitment. Capabilities tend to physically embody intent, and provide tangible evidence of “loosely-worded alliance obligations.”²⁸ According to Herman Kahn, “usually the most convincing way to look willing is to be willing.”²⁹ Like “Covenants without the Sword,” threats are “but Words, and of no strength to secure a man at all.”³⁰ Therefore, to strengthen the credibility of assurances, the defender may deploy military forces in the vicinity of the ally or on its territory. Military instruments consist of joint exercises and planning, defense cooperation, and the presence of foreign troops or equipment on allied territory.³¹

The main question for the future is whether the absence of nuclear weapons will change existing reassurance mechanisms between allies. In the “nuclear age,” some experts argued that forward-deploying or prescribing nuclear forces for the security of allies is the ultimate guarantee. Nuclear weapons were framed as a tripwire linking “tactical” nuclear weapons to American strategic weapons deployed on U.S. territory. The argument is that in case of use, the defender gambles its own security. In other words, by providing nuclear extended deterrence to its European allies, the United States risks Washington for Warsaw. However, if nuclear weapons were out of the game, the “ultimate” guarantee would be replaced by numerical conventional

²⁵ Denis Healey (1989) *Time of My Life*, Joseph, London, pp. 243. Denis Healey was the British Minister of Defense in the late 1960s.

²⁶ Lewis A. Dunn (2007) *Deterrence Today: Roles, Challenges and Responses*, Proliferation Papers; IFRI Security Studies Center, p. 9, http://www.ifri.org/sites/default/files/atoms/files/Deterrence_Today_Dunn_2007.pdf.

²⁷ Paul Huth, Bruce Russett (1984) *What Makes Deterrence Work? Cases from 1900 to 1980* [in:] *World Politics*, Vol. 36, No. 4, pp. 496-526.

²⁸ Mason Willrich (1966) *Guarantees to Non-Nuclear Nations* [in:] *Foreign Affairs*, Vol. 44, No. 4, pp. 683-692, p. 688.

²⁹ Herman Kahn (1960) *On Thermonuclear War*, Princeton University Press, Princeton, p. 287.

³⁰ Frank C. Zagare, Marc D. Kilgour (2000) *Perfect Deterrence*, Cambridge University Press, Cambridge, p. 81.

³¹ Cf. Bruno Tétrais (2010) *The Future of Extended Deterrence: A brainstorming paper* [in:] *Perspectives on Extended Deterrence; Recherchés & Documents*, No. 03, Foundation pour la Recherche Stratégique, pp. 5-12.

military support “sufficient” to either keep equilibrium or to tip the balance to the advantage of the ally. The concept of a tripwire – the linking of locally-deployed forces and “strategic” forces deployed on U.S. territory, is not necessarily as strong as the nuclear guarantee. Nevertheless, such a reassurance would involve all the same mechanisms as nuclear extended reassurance does – consultations, information sharing, and burden sharing, among other things.

Detering adversaries

As Kenneth Waltz put it, the zest of nuclear weapons is that they “purify deterrent strategies by removing elements of defense and war-fighting.”³² Without nuclear weapons involved, these elements of military craft will become the center of military planning. Deterrence will solely rely upon real military capacity rather than a perceived, ambiguous capability. As a result, the defender would need to be consistent (and actually deliver) in issuing and executing threats and “red lines” in order to remain credible in the eyes of an adversary. Credibility of deterrence will depend less upon ambiguity and more on clear signaling and actually carrying out threats if need be. However, providing adequate military forces for such signaling will likely be a very intensive and costly endeavor.

Particular challenges to deterrence will be region-dependent. Here, we provide a glimpse into some difficulties related to the Asian-Pacific theater. Indeed, it is only now that U.S. planners are starting to think very seriously about the logistics and operational issues of extended deterrence in Asia, which were never given much attention because U.S. sea power in this region was never contested. In the Asia-Pacific, U.S. forces will need to be able to move around many vessels, aircraft, troops, and munitions. A significant problem will be that U.S. and allied air and naval bases in the western Pacific are vulnerable to Chinese conventional ballistic and cruise missile strikes. The closer to Chinese territory, the more vulnerable a base is. On the one hand, unless the United States maintains permanent bases on allied territory, it is not clear that the American military would be able to deploy replacement capabilities on short notice if its ships/aircraft carriers were destroyed. On the other hand, placing more forces in-theater and closer to allies makes them highly vulnerable to enemy surprise attack. Then again, the same holds true for enemy forces, since closer basing results in shorter warning times for enemy forces, and compressed decision times for leaders. Also, there are fewer air bases in the Western Pacific capable of supporting combat aircraft than bases suitable for aerial refueling tanker operations. A lack of bases greatly increases the demands and stress on an aerial fleet and the logistics involved in keeping U.S. forces adequately supplied. It also makes for significantly longer ship and submarine transit times to and from more distant resupply points. Submarines and many surface combatants are unable to replenish their missile magazines without sailing back to the U.S. West Coast. A recent report from the Center for Strategic and Budgetary Assessments (CSBA)³³ points out many more of these issues: how quickly cruisers and destroyers exhaust their missiles; how adversaries could attempt to use “cheap” missiles (models such as the BrahMos cruise missile) to attack U.S. warships to get them to use their most effective defenses first (such as the long-range SM-6), then strike with more effective weapons to destroy carriers and their escorts; the rate at which missiles can be launched; the amount and availability of sensor resources that can be devoted to BMD versus other missions (especially since the demand for BMD ships will likely

³² Kenneth N. Waltz (1990) Nuclear Myths and Political Realities, pp. 732 [in:] The American Political Science Review, Vol. 84, No. 3, pp. 731–745.

³³ Bryan Clark (2014) Commanding the Seas: A Plan to Reinvigorate U.S. Navy Surface Warfare, CSBA, <http://csbaonline.org/publications/2014/11/commanding-the-seas-a-plan-to-reinvigorate-u-s-navy-surface-warfare/>.

increase given the proliferation of such systems); the capacity of combat logistics forces to cycle ammunition ships between rear bases and forward reloading areas; maintaining long-range, high capacity, carrier-based aerial refueling capabilities; the sustainability of different operational concepts over long periods of conflict; and ordnance consumption rates. Another issue to take into account is that the People's Liberation Army missile inventory is likely to number in the thousands by the 2020s. China's forces pale in comparison to U.S. forces in the region, but China holds home-court advantage in terms of political resolve in a conflict. And it is clear that Beijing has been trying to redress the military imbalance, including with land-attack cruise missiles and nuclear-powered submarines armed with ballistic missiles. As a result, U.S. bases are increasingly under threat from precision-strike systems.

Cooperative Conventional Arms Control

One of the issues the international community will almost surely have to deal with before and after a transition is conventional cooperative arms control. Arms control is a political attempt to dam existing capabilities and mechanisms that aid an outbreak of war. Arms control will provide trust, reduce the probability of war, reduce the costs of preparation for war, and reduce the death and destruction if control fails and war comes.³⁴

Unfortunately, both in Europe and especially Asia, the history (or lack thereof) of formal conventional arms control agreements since 1850 is rife with failure. From the 1850s to the late 1930s, European states attempted many bilateral and regional agreements. The historical record reveals that successive attempts at arms control in Europe, even before the Cold War, largely failed to fill the role of central, robust, and enduring pillars of a regional security architecture. Agreeing on limitations is fraught with difficulties linked to geography, defense spending, cross-cutting geopolitical interests, alliance dynamics, rearmament capability, and the dual nature of modern military technology. Here, we will elaborate on some of these issues.

First, negotiating parties need to agree what kinds of metrics might be used to think about conventional arms control. What categories might be used? What are the starting numbers and sizes of forces? What is their geographic deployment? What is the range or destructiveness of a weapons system? Should more attention be given to naval or air power? Or land power? Or the amount of overall defense spending? What should the yardstick of power be? How does each country decide what is "enough" for strictly national defense?

The second major area of historical contention is what capabilities, within each arm of a nation's military forces, should be limited? For example, regarding seapower, can a distinction be made between capabilities intended for sea-denial and sea-control? What might be considered purely "defensive" as opposed to "offensive" forces? How do different countries see one type of capability providing a "check" on others? Take, for example, submarines in the 1920s. There were strong disagreements between the great powers over their vertical and horizontal proliferation. The British did not like submarines, pointing to the indiscriminate destruction they had wrought in previous naval battles. The French, on the other hand, argued that they were an effective instrument of defense: Paris and other European capitals argued that they were an effective check on battleship strength.³⁵ The other argument put forth by France was that it was the only weapon that permitted a nation scantily supplied with capital ships to defend itself at

³⁴ F.A. Long, *Arms Control from the Perspective of the Nineteen-seventies* [in:] *Daedalus*, Summer 1975, p.1.

³⁵ *Ibid.*, p.19.

sea. Or should the metric of sea power be tonnage? Even this has been a subject of contention; the age of the ships, how well staffed they are, how well loaded they are, what weapons they carry: these should all be taken into consideration. Today we see an analogous debate on ballistic missile defense in Europe.

A third issue: the relationship between the various arms of a country's military forces, i.e., the complicated relationship between air, sea, and land power. It was relatively easy to distinguish between forces up until 1910 or so. But the advent of the airplane quickly complicated things, as it would now be possible for states to extend the attack range of their warships without having to be closer to their target(s) – an extension of firing power that went well beyond torpedoes. Again, this highlights the importance of thinking of systems in terms of complementarity, in an overall military balance affirming the interdependence of land, naval, and aerial capabilities. This is to say nothing of the proliferation of conventionally-armed cruise and ballistic missiles, which are also a significant enabler of strategic reach and destructive capacity.

Another area of contention includes spending: could spending be limited instead of focusing on limitation on specific weaponry? On what categories of military expenditure? What about the fact that some states face greater internal security problems than others? Countries would vary in their preferences for investment. Others may not be so advanced as their neighbors – should they be allowed a “catch-up” period?

These are but some of the issues regarding hardware that come up in the history of attempts at conventional arms control. A more fundamental one is the question of alliances. But even more broadly, a crucial question to think about when contemplating a world without nuclear weapons is: what would the U.S. arsenal look like were it not for Washington's global alliance commitments? Or if it were a less globally committed military actor and its nuclear policies looked more like France and Great Britain's? There are, of course, nuances to this question: could the United States still continue to “extend” deterrence with conventional forces only, i.e., by extending deterrence by denial through ballistic missile defense supported by conventional deterrence by retaliation? Would it want to? U.S. nuclear capabilities and their long-range delivery systems played an important part in establishing strong alliances throughout the world. In a future without the bomb, Washington might not have the appetite or the audacity to undertake such vast and significant security commitments. Conventional deterrence will be much more costly.

Moreover, would removing the nuclear component of U.S. extended deterrence entail an inverse buildup of conventional forces? Could we see a non-nuclear arms race try to fill a nuclear-shaped gap in these regions? Which raises another related question: how much would America's conventional-force posture change? And how much of it would be tailored to assuring allies that the United States was committed to defending them? Any buildup of U.S. conventional forces in any region would surely be provocative for challengers to the current regional order – namely, China and Russia.

A slightly different picture emerges in the European context, where extensive experience with conventional arms control prevailed throughout history. Europe went through a chain of conventional arms control negotiations. The negotiations for the Mutual and Balanced Force Reductions, which lasted 16 years, did not bring about any agreement. They failed due to the fact that 1) the mandate did not allow for substantial conceptual opportunities and demands; 2) negotiating parties approached it with starting positions being red lines already; 3) parties tried to

compare different weapon systems (e.g., the United States tried to exchange nuclear weapons against a Soviet tank army); 4) troop numbers delivered by the Warsaw Pact differed from estimations by the Western bloc, causing a controversy over the data validity; and 5) there was relatively little interest in conventional arms control. The talks were held parallel to the Conference on Security and Co-operation in Europe, which avoided engaging on strictly military aspects. However, it was the Mutual and Balanced Force Reductions talks that prepared the ground and formulated ideas on transparency and confidence building that later found their place in the 1986 Document of the Stockholm Conference. The negotiation process itself constituted a forum contributing to mutual understanding of security needs and perspectives.

It is also these talks that paved the way for the 1990 Treaty on Conventional Armed Forces in Europe. The CFE process eventually suffered from political conditionality, in other words constraining a treaty's signature, entry into force, or implementation on fulfilment of additional criteria. In 2007, Russia suspended the CFE treaty implementation and participation in the Joint Consultative Group, which deals with issues relating to compliance with the provisions of the CFE. Meanwhile, NATO states refused to sign the Adapted CFE, introducing national and territorial troop ceilings, as long as Russia did not fully withdraw its military forces from Georgia and Moldova. As a lesson learned, the question is how to make a future arrangement immune to instrumentality. The CFE history clearly demonstrates that arms control agreements need to be reviewed and adjusted to ongoing changes. There is not one version for all times.

Arms Race Stability and Crisis Stability

Moving from a nuclear to a conventional extended deterrence posture incurs different dynamics compared to those we have been used to thinking about in the nuclear age. Assuming that conventional forces will be the most important element in any future equation of "strategic stability," the concepts of arms race stability and crisis stability will play a major role. Strategic stability, as we understand it, comprises the absence of incentives for first use (crisis stability) and incentives to build up military forces (arms race stability). These instruments would provide qualitative and quantitative stability and predictability in military capabilities, providing a basis for thorough transparency and security building measures.

One interesting point is that these concepts did not exist before the nuclear age. At least, national governments did not organize their naval and air fleets to "conform" to a particular model that would not prompt the other side to build even more forces. A rare exception was the Washington Naval Limitation Treaty which, it can be argued, was not even based on a model of "stability" *per se* but rather was an attempt at freezing the arms race between the United States, the UK, and Japan. It was nuclear weapons that made these concepts both necessary and useful in designing optimal force structures that would deter the other side. Do these concepts pertain in a return to a conventionalized deterrence posture? Should they?

To discuss the viability and necessity of incorporating these concepts in future arms control thinking, one needs to first detach himself/herself from the nuclear analogy. Conventional forces differ tremendously from nuclear forces in the way they are organized and applied, and in their destructiveness. This distinction influences the way in which arms control arrangements aimed at conventional arms race stability and crisis stability will be conceptualized. To be highly destructive, conventional forces need to be applied in high quantities. Their successful application requires well-organized cooperation between several military units, often between different types of military forces (land, air, naval) and, due to the globalization of conflicts, also

the participation of several allied states granting military support and land access. Conventional forces require a military victory; they first have to fight against adversarial forces, before having the potential to exert a decisive strike. Also, to be militarily effective, conventional forces need up-to-date technology and well trained soldiers able to use it. These characteristics, however, make it easier to operationally trace and verify conventional arms control agreements. Defectors from arms control agreements could be traced by virtue of the type of military strategy they pursue – offensive (to disarm the enemy), defensive (denying an opponent the ability to achieve his military objectives by applying counterforce attack), punitive (prolonging a military campaign and imposing unexpected losses) or denial (denying the opponent from starting or succeeding in the attack).

Crisis stability is a term stemming from the nuclear age. Crisis stability aims at keeping incentives for a first use of military forces as low as possible. It additionally tones down emotions, providing procedures to cope with a crisis. Interestingly, it is the least developed instrument. Ruling out accidental attacks and ruling out first strike capabilities are a critical feature of a future conventional balance. While ruling out accidental attacks is mainly a responsibility of the arms holder, it can be strengthened by inviting potential adversaries to verify command and control structures and mechanisms, joint early-warning activities, and implementing security arrangements to rule out that an accidental attack might occur, including maintaining high military morale. Prior notification of the use of weapons could also alleviate misunderstandings in reading radar data. The U.S.-Soviet Incidents at Sea agreement to reduce the chance of incidents in a time of higher military activity, and in the event that one occurred to prevent it from escalating, is an example that could be expanded. Next to this, maintaining communication channels seems an inevitable feature, including immediate “red lines” and less immediate mechanisms. Unfortunately, existing forums that could be used to communicate in a crisis, like the NATO-Russia Council, do not pass the test, as of yet. Thus, the big challenge for a conventionalized arms control agreement will be its disconnection from political or value-based conditions. Communication lines and verification mechanisms should work regardless of the political climate.

Arms race stability aims at lowering incentives to further build up military forces. Two options to reach arms race stability seem possible – implementing transparency measures and/or setting up alliances. Transparency measures include disclosing one’s starting inventory, followed by frequent or constant verification through visits and the use of verification technology. Institutionalized committees with a clearly stated charter on the consequences of violation should present a forum to discuss the implementation of the transparency agreements. This enables systematic tracing of capabilities. Such arrangements should utilize lessons learned from existing and previous transparency agreements. The second option is creating an alliance with all states concerned. Alliances are an interesting example of how to cope with new arms deployments. An arms deployment among friendly nations does not necessarily cause confusion or alarm if it is: 1) discussed in a transparent manner; 2) it is not aimed at other allies; and 3) other allies do not feel threatened by these systems. Transparency seems to be a precondition of confidence – an inevitable trait necessary to achieve for the purpose for a long-lasting equilibrium. The European Phased Adaptive Approach, however, exemplifies how difficult and unrealistic this can be even among allied nations.

The question, however, is whether crisis and arms race stability are compatible with the goal of deterrence. Can one combine the aim of deterring aggression while simultaneously trying to keep

forces low to avoid first use? Does conventional deterrence demand large forces or can it also work with small, specialized units? Given the myriad of logistical issues in forward-deploying conventional forces in sufficient numbers, combining conventional deterrence and crisis stability seems very difficult. It will be a tough endeavor to conceptualize force structures that are politically attractive and arms control agreements that are robust.

Implications of Emerging Technologies

Discussing future conventional arms control and arms race stability arrangements cannot omit challenges resulting from technological progress. New technological developments, scientific curiosity, and economic viability pose strong incentives for states to acquire new weaponry. New military systems combined with innovative operational concepts increase power-projection capabilities while decreasing potential casualties. They attract the attention of players who calculate that the “win” of deploying new technology secures a military advantage over other players, enabling escalation dominance. A vicious circle of new deployments endangers arms race stability and contests conventional deterrence. In a system aimed at equilibrium, arms competition has destabilizing effects.

Stopping new arms developments and their deployment does not seem practical. But how to cope with the temptation for more efficient, faster, and better weaponry which might have a destabilizing effect on the deterrence equilibrium? Limiting the differential between offensive and defensive weapons could be one solution. However, using this distinction does not seem useful, as defensive weapons can be converted for offensive purposes. Treaties banning particular types of weapons are another way of handling emerging technologies. The Anti-Ballistic Missile Treaty (ABM), which limited ballistic missile defense systems to be deployed in the United States and the Soviet Union, not only limited the race to develop more effective defense systems, but also larger quantities of offensive weapons to overcome the defense. However, as the ABM treaty taught us, there always might be a black sheep that wants to break out of a deal, endangering the balance. Moreover, unsuccessful attempts on banning autonomous weapons show how difficult it is for technology leaders to give up on their technological advantage. Additionally, as we experienced with the Intermediate-Range Nuclear Forces Treaty, arrangements that pose limitations to a narrow group of states and omit the broader entirety can become outdated. Missile defense, unmanned aerial vehicles, high-precision conventional weapons, hypersonic conventional strike weapons, and space and anti-space weapons will serve as experimental animals on how emerging technologies change strategic thinking. They could also serve as subjects to explore means for their limitations in the near future. Nevertheless, so long as states prefer continuous arms development for the purpose of achieving offensive and/or defensive advantage to collective and preventive security measures, then technological development will be a permanent element threatening the strategic equation. The only sustainable way to include new technological developments in a future equilibrium will be to build systematic adaptation and modernization requirements into arms control agreements. Every new technology will need to be included into numerical ceilings, traded for other technology to be abandoned. This, of course, would cause conflicts between technology possessors and those lagging behind. As such, clear rules and sanctions will be essential in designing future arms control agreements on technological developments.

Challenges of Conventionalizing U.S. Alliances

Thinking about deterrence in a post nuclear-weapons world is a challenging undertaking. A world without nuclear weapons would graphically expose the conventional imbalances which in many instances have remained partially hidden in the current “nuclear age.” But it is upon these imbalances that any remaining system of deterrence would increasingly rely. The question, then, is about the future constellation of conventional forces and mechanisms to keep their balance in an ever-changing world. Ultimately, the transition to a conventional U.S. extended deterrence posture will be no small feat and fraught with challenges. A number of issues seem important focal points for further consideration.

We already have experience with conventional alliances from before the nuclear age. However, we have little experience in implementing conventional deterrence together with instruments that prevent an outbreak of war, including arms control, arms race stability, and crisis stability. This is partly because these mechanisms have been developed in the nuclear age and used only selectively since. Thus, we lack experience in combining conventional balancing with these tools. However, the question remains whether these instruments could effectively fix what failed at conventional balancing in the past. Moreover, it is not clear whether lumping all known instruments together will provide an effective safety belt or if there will still be a safety anchor missing.

Designing a future conventional balancing system will require the involvement of many more parties than the allied states only. Existing or virtual enemies of these alliances will also be in demand to participate. Taking into account that in many of these states no experience in arms control exists, convincing them to participate might pose another challenge. It remains to be determined what role regional organizations and institutions will play in providing a forum for and a keeper of arms control agreements.

Even though it seems a natural choice in today’s terms, combining cooperation and containment seems a long and difficult process without a guarantee of success at the end. Turning enemies into collaborators while relying upon deterrence also does not seem very progressive, as it would codify existing animosities rather than turn them into constructive relations. The question thus remains whether investing in deterrence and cooperation rather than cooperation only is good value for the money.

© Katarzyna Kubiak and Christine Leah, 2016. Do not distribute or quote without permission by the authors.