

# LOOKING BEYOND THE CHICAGO SUMMIT

**Nuclear Weapons in Europe  
and the Future of NATO**

**George Perkovich, Malcolm Chalmers,  
Steven Pifer, Paul Schulte, and  
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**NUCLEAR POLICY | APRIL 2012**

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Carnegie Endowment for International Peace  
Publications Department  
1779 Massachusetts Avenue, NW  
Washington, D.C. 20036  
Tel. +1 202-483-7600  
Fax: +1 202-483-1840  
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## Summary

Leaders of the North Atlantic Treaty Organization (NATO) will meet for a summit in Chicago this May to conclude their Deterrence and Defense Posture Review (DDPR), which was intended to be a vehicle for resolving key questions about the future role of nuclear weapons in NATO policy. However, NATO is unlikely to resolve the question of what to do about its forward-deployed nuclear weapons before the summit.

The Alliance's 28 member states fall along a diverse spectrum of views on these nuclear weapons, with some advocating complete disarmament and other, more vulnerable states seeking to retain these weapons indefinitely for reassurance purposes. Currently, five European countries—Germany, the Netherlands, Belgium, Italy, and Turkey—base U.S. B61 bombs on their territory and some have dual-capable aircraft that can deliver these weapons. But it is possible that some NATO allies may choose to abandon their nuclear role as they make decisions regarding successor aircraft for their own air forces.

While NATO can extend the status quo for now, it cannot put off resolving its defense and deterrence dilemmas without undermining Alliance confidence and cohesion. The Alliance would be wise to establish at the Chicago Summit a process to continue work on two key issues:

- 1) What alternative forms of nuclear sharing and basing might be available that could simultaneously ensure wide participation in the nuclear mission, reassure those states that are seen as most vulnerable to external threat, and make a significant contribution to global disarmament efforts?
- 2) What means, if any, can be deployed to bolster non-nuclear reassurance of those NATO allies that feel most exposed to external threats? Who will provide these means and when?

We explore a range of options available to the Alliance in addressing these questions. Any policy package will need to include an agreement on alternative nuclear-sharing options (“Smart Sharing”) that allow for deterrence and burden sharing, while adding momentum to nuclear disarmament. A number of approaches can be envisaged for maintaining a NATO dual-capable aircraft posture in Europe, the most plausible of which provide a possible “middle way” that strikes a balance between the status quo and complete withdrawal of dual-capable aircraft.

In one scenario, some European air forces would give up the nuclear delivery capability while others retain it. Alternatively, Belgium, Germany, and

the Netherlands could eliminate their dual-capable aircraft and ask that B61 bombs on their territory be withdrawn, while the United States could continue to store its bombs in Turkey and its own dual-capable aircraft and bombs in Italy. Or the United States could maintain bombs in Turkey and Italy and its dual-capable aircraft in Italy (or another European location) but assign to that unit exchange pilots from allied air forces.

In addition, the Alliance should consider measures that could compensate for the reassurance these weapons currently provide to NATO's more vulnerable states, both to prepare for a possible withdrawal of U.S. nuclear basing in Europe and to bolster the Alliance's overall confidence and cohesion. The more encouraging the background political-security *conditions* are, the less need for strong additional reassurance *measures*. To improve the Alliance's security *conditions*, a transformation in NATO-Russia relations through transparency and confidence-building measures would have significant implications for reassurance in the Alliance, although NATO alone cannot determine this outcome. Strengthening NATO's cohesion and refocusing on its basic collective security function would also contribute to the reassurance of the Alliance's more vulnerable states.

We explore a variety of creative intra-Alliance *measures* that could bolster reassurance. These include declaratory statements by the United States and other Alliance members specifically emphasizing their commitment to the most vulnerable NATO allies and the deployment of visible reassurance measures involving some military capability in more exposed allied states. Others entail enhancing NATO's conventional deterrence through specialized, alliance-wide improvements in capabilities; preparatory planning; infrastructure development; and exercises to enable the fulfillment of Article V obligations.

NATO will continue to be a nuclear alliance as long as potential adversaries possess nuclear weapons. But the role of nuclear weapons in the Alliance's deterrence and defense posture will continue to evolve. Following the Chicago Summit, NATO should not pause in conducting discreet and forward-looking internal consultations and studies to determine how to meet the realistic deterrence and reassurance requirements of the future strategic environment. Careful NATO management of this issue will be crucial to avoiding an entirely predictable crisis among the allies.

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## Introduction

The leaders of the North Atlantic Treaty Organization (NATO) are convening this May in Chicago to finalize a review of the Alliance's deterrence and defense posture. Allied leaders, however, are preoccupied with other issues: the eurozone crisis, the war in Afghanistan, the Iranian challenge, presidential elections. Given these other priorities, and the diverse views within NATO on the long-term requirement for U.S. nuclear weapons in Europe, allied leaders meeting in Chicago are unlikely to reach a consensus on major decisions to reshape the Alliance's deterrence and defense posture, despite significant discussions between member states over the past months. They will likely agree to extend something like the status quo, while seeking to defer fundamental questions regarding the long-term future.

Nevertheless, reckoning with NATO's dilemmas cannot be put off much longer without undermining the Alliance's cohesion and strength. The Alliance should in any case continue to consider how it can provide new forms of non-nuclear reassurance to its most vulnerable members. Such reassurance is useful in its own right in order to reduce uncertainty among allies about the strength of Alliance security guarantees. Moreover, in the still-likely event of future nuclear posture changes—for example, if individual allies decide that their dual-capable aircraft (DCA), which can deliver nuclear and conventional weapons, should be retired without being replaced by successor aircraft able to deliver nuclear weapons—a well-formulated menu of reassurance measures could prove important to avoid a crisis of confidence within the Alliance in the medium-term.

When in November 2010 NATO agreed to undertake a Deterrence and Defense Posture Review (DDPR), the political salience of nuclear weapons in Europe was increasing. Germany had recently called for the withdrawal of U.S. nuclear weapons from its soil; the Dutch parliament had declared that nuclear weapons in Europe were no longer needed to guarantee NATO's security; and President Barack Obama's April 2009 Prague speech and its aspiration for a world free of nuclear weapons were still echoing. The DDPR, to be completed for the Chicago Summit, offered a vehicle for resolving key questions about the future role of nuclear weapons in NATO policy that had not been resolved by the Alliance's 2010 Strategic Concept.

Some states, led by Germany, wanted to eliminate the estimated 200 Europe-deployed U.S. nuclear bombs and reestablish NATO decisively in the

vanguard of nuclear disarmament. Some, particularly the Baltic and certain Central European states, wanted to retain at least some of these weapons for the foreseeable future. France wanted to avoid further questioning of the vital role of nuclear deterrence. For its part, the United States wanted the Alliance to live up to its responsibility to decide collectively.

Given these persistent differences, it is likely that NATO leaders in Chicago will not make or announce decisions that significantly change the role, locations, or quantity of the Europe-deployed U.S. nuclear weapons. This is a 28-member alliance, and there does not appear to be a dependable underlying consensus on whether U.S. forward-based nuclear weapons should or should not remain in Europe. The DDPR therefore will likely put off any major changes. The NATO Summit may produce offers to Russia on transparency and confidence-building measures but will probably not be the forum for dramatic decisions on the nuclear issue.

Yet the status quo will not be sustainable for long, unless the European allies who now have nuclear-capable aircraft renew their political commitment to maintain such a capability. This seems extremely unlikely. The only U.S. and NATO “nonstrategic” nuclear weapons are U.S. B61 gravity bombs.\* NATO member-state aircraft must be specially equipped and certified to deliver those nuclear weapons, and decisions about replacing the aging fleets in Germany, the Netherlands, Belgium, and Italy must be made this decade, even though existing planes may be kept flying longer, possibly well into the 2020s. The Eurofighter that Germany is now introducing into service as its main combat

aircraft would need to be nuclear certified and fitted with the necessary avionics package to carry nuclear weapons, which the Bundestag would not support.

There is also a strong possibility that some other NATO allies (including Belgium and the Netherlands) may choose to abandon the nuclear role as they make decisions regarding successor aircraft for their own air forces. The U.S.-made F-35s that the other allies would most likely buy can be equipped for the nuclear role at a relatively small additional cost, amounting to around \$5–10 million

per plane. But, if Germany opts out of the nuclear delivery role and asks for withdrawal of the B61 bombs deployed on its territory, the Netherlands and Belgium are likely to follow suit. That could leave Italy and Turkey to decide whether to retain the nuclear reassurance role that at least some allies continue to find invaluable. The absence of allied consensus on nuclear policy and posture would be exposed for all to see.

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**To avoid such a cascading loss of confidence, NATO leaders must prepare the Alliance to reach some fundamental decisions on its deterrence and defense posture after the Chicago Summit.**

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\* “Nonstrategic nuclear weapons” are also sometimes referred to as “tactical nuclear” or “substrategic nuclear” weapons. In this paper, the term nonstrategic nuclear weapons is used to include all nuclear weapons except for those that are for use on strategic delivery vehicles as defined by the New START Treaty, that is, warheads for intercontinental ballistic missiles and submarine-launched ballistic missiles, and air-launched cruise missiles and gravity bombs for nuclear-capable heavy bombers.

To avoid such a cascading loss of confidence, NATO leaders must prepare the Alliance to reach some fundamental decisions on its deterrence and defense posture. The Alliance may be able to “get through” the DDPR and the Chicago Summit and avoid hard decisions for now. But if the Alliance does not soon address these issues and underlying political differences start to threaten the sustainability of arrangements endorsed in Chicago, it will begin to lose its ability to take collective decisions on NATO’s nuclear capabilities and policies.

For this reason, we write *in advance* of the NATO summit to urge member states and attentive publics to press for commitments in Chicago to a schedule and plan for resolving these issues after the summit. By establishing a process for building consensus on the issues that the DDPR will likely paper over, NATO leaders could act to maintain Alliance cohesion on this important issue.

The DDPR process has been beneficial. It has educated member states, clarified critical issues, and identified policy options. While it likely will not produce consensus resolutions on long-term nuclear issues, it has helped create the basis for decisions in the future. It would be wise to maintain momentum and press ahead over the next few years with objectives and deadlines.

This paper seeks to facilitate the onward process, first by distilling insights or conclusions that have been clarified since the beginning of the DDPR in November 2010 and then by highlighting the most important outstanding challenges that remain to be resolved. We provide some specific suggestions as to how the “appropriate mix” of Europe-based nuclear and conventional capabilities in NATO’s deterrence and defense posture might be reconsidered in coming years to reflect changing circumstances, both inside and outside the Alliance. In order to do this, we structure our discussion around key questions:

- 1) Given the difficulties involved in maintaining the nuclear status quo in NATO, what **alternative forms of nuclear sharing and basing** might be available that could simultaneously meet the requirements for wide participation in the nuclear mission and provide reassurance for those states that are seen as most vulnerable to external threat while also making a significant contribution to wider disarmament efforts?
- 2) What means, if any, can be deployed to **bolster non-nuclear reassurance** of those NATO allies that feel most exposed to external threats? Who will provide these means and when? If European nuclear-delivery and nuclear-basing members of the Alliance choose not to renew commitments to base and deliver forward-deployed nuclear weapons in the absence of an Alliance consensus on withdrawing, or retaining, them, how can NATO demonstrably maintain conventional reassurance, which is key to the cohesiveness on which its deterrent posture and security will continue to depend?

Addressing these pivotal, yet unresolved, issues will stir up some political controversy. However, putting off the resolution of these hard issues or

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**It is time for NATO to begin to consider alternatives to the status quo, so that a new consensus can be created around a revised mix of nuclear and conventional capabilities, appropriate for the new circumstances in which the Alliance finds itself.**

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papering over differences indefinitely could result in decisions by default. And, as a result, particular member states could make national procurement decisions on budgetary or political grounds that would have implications for the Alliance as a whole.

This is not the basis on which an alliance as important as NATO can best maintain its vitality. It is therefore time for NATO to begin to consider alternatives to the status quo, so that a new consensus can be created around a revised mix of nuclear and conventional capabilities,

appropriate for the new circumstances in which the Alliance finds itself.

## **The Current Status of NATO's Nonstrategic Nuclear Forces and Dual-Capable Aircraft**

In the 1990s, following the end of the Cold War and the collapse of the Soviet Union, the number of U.S. nuclear weapons forward-deployed in Europe declined dramatically. The reductions included withdrawal to the United States—and eventual elimination—of all nuclear artillery shells, nuclear warheads for the Lance missile system, and naval nuclear weapons, leaving only B61 nuclear gravity bombs. Further reductions of these weapons took place after 2000.

NATO decided in the 1990s to retain the combination of dual-capable aircraft and B61 bombs as the remnant of the mixed arsenal of 7,000 tactical nuclear weapons that NATO once deployed in Europe. Controversial modernization proposals involving air-to-surface standoff missiles were rejected, and DCAs with gravity bombs were judged fully capable of fulfilling the U.S. contribution to NATO's nonstrategic nuclear weapons mission. They offer a visible U.S. nuclear presence in Europe. DCA are flexible and have the range, with refueling, to hold at-risk targets at a considerable distance. By providing and basing DCA that can deliver U.S. nuclear weapons, European allies help to spread and share the nuclear burden.<sup>1</sup>

The United States is believed to deploy some 200 B61 bombs at six air bases in Europe for use by U.S. and allied DCA. B61 bombs are deployed at airbases in Belgium and the Netherlands for use by Belgian and Dutch F-16s, in Germany for use by German Tornados, and at two bases in Italy for use by Italian Tornados and U.S. F-16s. Although B61 bombs are deployed in Turkey, the United States maintains no DCA there, and the Turkish air force is thought to have given up the nuclear delivery mission.<sup>2</sup> (The possibility remains, if necessary, of U.S. or European DCA deploying temporarily to Turkey.) These F-16 and Tornado aircraft are expected to remain in service at least through the end of this decade.

In the post–Cold War security environment, NATO’s nuclear forces are “no longer targeted against any country ... their role is now more fundamentally political, and they are no longer directed towards a specific threat,” according to an Alliance background publication on the new security environment. Although the readiness requirements for NATO DCA were once measured in hours, days, or even minutes, the Alliance decided in 1995 and again in 2002 to relax those standards. In 2004, NATO claimed that the “readiness requirements” were now measured in months.<sup>3</sup> Even if this overstates how long it would take the Alliance to ready this capability for use were mobilization to be ordered, it is a clear reflection of NATO’s desire to signal the weapons’ primarily political role.

Some believe that, in a crisis, NATO could take measures to upgrade DCA readiness. Those steps might in themselves serve a useful role in signaling Alliance seriousness and resolve. Others question the credibility of this. They note the difficulty that NATO members could face in finding consensus on raising DCA alert status, which some allies would regard as provocative and escalatory. Much would depend on the nature of the crisis in question, and in particular on whether potential adversaries had already begun to mobilize their own nuclear forces.

With the Cold War twenty years in the past, allies differ on whether U.S. nuclear weapons must be based in Europe at all in order to deter threats to NATO security. Regardless of their contribution (or lack thereof) to deterring external threats, the presence of U.S. B61 bombs in Europe continues to play an important role in reassuring some of those allies who feel more exposed to threats that reach the Article V threshold, requiring allies to take action in defense of the threatened member state. In the absence of substitute capabilities and policies to bolster confidence in NATO’s strength and resolve to defend them, these allies feel that the forward-based nuclear weapons are the best available link between the United States—and U.S. strategic forces—and their defense.

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## **DDPR Considerations: A Distillation of the Expert-Level Dialogue**

From multiple NATO and nongovernmental workshops, and numerous research reports and articles, we have distilled a number of key propositions on U.S. forward-deployed nuclear weapons in Europe. These points form the foundation for the analysis that follows.

**First**, the distinction between U.S. “strategic” and “nonstrategic” nuclear weapons (including those based in Europe) is now much more blurred than

in the past. The 2010 U.S. Nuclear Posture Review has furthered the move away from considering U.S. nuclear bombs deployed in Europe as a means for gaining an operational advantage in a military clash, which was a central role for “tactical” nuclear weapons in Europe during the Cold War. As a result, the distinction between “strategic” and “nonstrategic” weapons is increasingly based on an arms control rationale, with the latter simply referring to those weapons that are designed to be used with delivery systems that are not currently limited under strategic arms reduction treaties. Even this distinction could become blurred in the future, should the focus of nuclear arms control transition from limitations on delivery vehicles and deployed missile warheads toward an attempt to limit all nuclear weapons, whether strategic or nonstrategic, deployed or not.

**Second**, at the same time, U.S. government policy still seems to be based on an assumption that there is added deterrent value in NATO’s maintenance of a variety of nuclear strike options. Some argue (though others hotly dispute) that there may be some value in having a capability to use low-yield weapons as a “last warning” before escalating to large-scale nuclear attack and/or as a means of reducing collateral damage. U.S. B61 bombs, which, according to current plans, will continue to be deployed on both B-2 heavy bombers (which are counted under the New START Treaty) and F-16 and F-35 aircraft (which are not) have a variable yield capability. The U.S. government also continues to seek a capability to attack deeply buried targets, including enemy nuclear forces and command bunkers, with accurate nuclear munitions, which could include B61 bombs on high-yield settings.

Current modernization plans for B61 weapons envisage the replacement of existing strategic and nonstrategic warhead variants with a single model (the B61-12) that will be of value for both of these roles through its combination of increased accuracy and variable yield.<sup>4</sup> As a result of the post–Cold War shift in declaratory policy away from a war-fighting role—the Nuclear Posture Review calls for reducing the role of nuclear weapons and for creating conditions in which deterring a nuclear attack on the United States, its allies, and its partners would be the “sole purpose” of U.S. nuclear arms—the additional deterrent value that nonstrategic nuclear weapon capabilities provide is less than in the past. But in this way of thinking, such capabilities still have some operational, and thus deterrent, value.

**Third**, no purely operational or technical requirement has been publicly articulated for why B61 bombs need to be forward-deployed in Europe. Even during the Cold War, in public NATO debates there was a noticeable reluctance to discuss military rationales for nonstrategic nuclear weapons, given European concerns over nuclear war fighting on their territory. This tendency has been heightened in recent years, as the United States itself has moved to reduce the role of nuclear weapons in its defense posture.

By reducing the stated readiness requirement for these forces to a matter of “months,” NATO has sought to emphasize that there is no short-notice military role for these weapons at present. But supporters of U.S. nuclear deployment in Europe argue that such a role could arise in the future. They are concerned that, if these weapons were withdrawn, it would not be politically feasible to return them to Europe.

Our understanding is that the role of nonstrategic nuclear weapons is now seen within NATO as providing the Alliance with a limited and uniquely configured shared initial nuclear capability. In extreme circumstances of collective self-defense, the combination of DCA with U.S. B61 bombs would allow NATO to decide, by consensus, to cross the nuclear threshold in a manner that was not purely demonstrative. Such a use of nuclear weapons would involve a target, or targets, on the territory of an aggressor but could be observably limited. The preparatory and decisionmaking steps leading up to such use would signal allied resolve to escalate further if necessary, while the combination of weapons and delivery systems would be least likely to be mistaken as forming part of a full-scale nuclear response with strategic forces.

The collective nature of the initial nuclear response with nonstrategic nuclear weapons would be further emphasized by conventionally equipped aircraft from many Alliance nations flying to support it: the Support of Nuclear Operations with Conventional Air Tactics, or SNOWCAT, mission. The nonstrategic nuclear weapons capability is therefore intended to provide an inseparable mix of operational and political utility.

**Fourth**, because of the evident difficulty of establishing a unique and indispensable role, the primary purpose of U.S. nuclear weapons deployed in Europe is now political, encompassing elements of both reassurance and burden sharing. Some of the more vulnerable European allies, mainly on NATO’s eastern borders, do not want to give up what they see as an important symbol of the U.S. willingness to defend them by all means necessary. Some in the United States also think it is important for Europeans to demonstrate that they are willing to share the risks and moral burdens involved in preparing for possible nuclear use.

This group of Americans would therefore dismiss the argument that there can still be a deterrent role for B61 nuclear warheads in the overall U.S. arsenal (as the U.S. government clearly still believes) but no deterrent role for these weapons when they are in Europe. Even if there is no added deterrent role from deployment in Europe, they contend that Europeans should share the task of deploying these weapons as long as they are needed. In other words, they argue, non-nuclear NATO members should not leave the moral burden of possessing nuclear weapons solely to the nuclear-weapon states, while still expecting to benefit from the protection that their membership in a nuclear Alliance brings. This argument carries less weight in non-nuclear-weapon states, which

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point out that all NATO's nuclear-weapon states jealously guard their exclusive control over their national nuclear forces.

**Fifth**, the specific *number* of these weapons is of little operational importance, and the most essential numerical distinction is between zero and greater-than-zero. For the hypothetical mixed political and operational role outlined above—a “last warning” attack that signals the prospect of further nuclear strikes, including with strategic nuclear forces—what matters for deterrence is that the United States/NATO is capable of detonating a weapon on the territory of an aggressor as a clear signal to the opponent that it must bring the conflict to an end or face escalation to a strike with strategic weapons. For this purpose, NATO only needs to ensure that a psychologically convincing minimal number, perhaps five or ten warheads, could hit targets after accounting for realistic prospects of losses to a preemptive attack or attrition by air defenses.

The subsequent total numerical requirement would then depend on how available the stockpiles in different basing countries were assumed to be in times of crisis (assuming warheads could not easily be moved in times of crisis). If, for example, planning is based on an assumption that several of the stockpiles might not be available for a nuclear strike, either for operational or political reasons, some considerable duplication of this minimum capability might be needed (for example, five stockpiles of five to ten weapons each, spread across five separate European basing countries, mean a total of twenty-five to fifty weapons).

**Sixth**, the total size of the stockpile is also of little importance for meeting the political (reassurance and burden-sharing) roles assigned to U.S. nuclear weapons in Europe. But it does matter for burden-sharing purposes that the stockpile is spread across a range of NATO member states and that other European member states are also involved in supporting NATO's nuclear mission. Of course, this requirement for a wide European commitment to the nuclear role may not be vital to the purpose of reassuring exposed states, whose main concern is that U.S. aircraft and weapons will be seen to be available in a crisis. That commitment might arguably be diluted by too great a reliance on more reluctant European allies for the provision of the weapons.

The diversity of nuclear policy and posture preferences in the Alliance makes it unlikely that NATO will agree, as part of the outcome of the current DDRP, to substantially reduce the number of its forward-deployed nuclear weapons in the absence of some form of Russian reciprocation. Beyond the DDRP, the smaller the number of basing countries, the harder it may be to maintain domestic political support for continuing the nuclear role. Thus, a renunciation by one state—for example, Germany—of the nuclear-hosting role might lead others—for example, the Netherlands and Belgium—to renounce this role too. These decisions would reduce the number of basing states from five to two and could increase pressure on the Italian and Turkish governments to consider giving up hosting U.S. nuclear weapons as well. Yet, a further downward

trend in the number of nuclear weapons could have some benefit as a signal of disarmament commitment. As in the case of any deterrent role, however, the primary political distinction is between having zero or more-than-zero U.S. nuclear weapons in Europe.

**Seventh**, as a general rule, the physical location of nuclear weapons—whether Russian or American—matters much less militarily than in the past. But physical location does make a political difference in peacetime. It is bound up with the collective nature of NATO’s nuclear deterrent posture, which Alliance statements emphasize as a unique strength. Some of NATO’s newer member states appear to attach particular value to the tangible symbol of the U.S. nuclear guarantee that Europe basing provides. At the same time, the physical proximity of nuclear weapons in the westernmost parts of the Russian Federation also has an intimidatory effect, especially when accompanied by an aggressive declaratory policy on the part of Russian leaders.

**Eighth**, this is not primarily a budget-driven debate. The expenses involved in modernizing aircraft are small compared to national air force budgets, even more so compared to total NATO collective military expenditures. The United States has indicated it will go on meeting the more considerable expenses involved in developing, producing, servicing, and protecting the bombs. If the nuclear posture is changed by individual national parliaments refusing financial approval, it will be because of a political rejection of involvement in the DCA mission, expressed through line-item vetoes. In no public forum, for example, has any German official or commentator conceded that if NATO money could be found for the nuclear modification and certification of German Eurofighters it would make the slightest difference to the acceptability of the idea within the Bundestag.

**Ninth**, the prospect of sharp reductions in U.S. conventional forces in Europe could have a significant impact on the debate on the future of U.S. nuclear weapons on the continent. The United States has made clear that it wishes Europe would become more of a “provider” of security than a “consumer” and that the role for residual Europe-based U.S. conventional forces is not just for NATO’s defense but, perhaps more importantly, to deploy for operations in neighboring regions (such as the Middle East). Yet, those NATO member states that express the most concern about Russia may attach even greater weight to nuclear symbols of extended deterrence as U.S. conventional forces draw down.

However, most new member states spend less than 2 percent of their national incomes on defense. Lithuania—one of the states supposedly most committed to keeping the B61s in Europe—is now down to 0.9 percent. Thus, the extent of their concern about military threats from Russia should not be overstated. If the easternmost members of NATO feel that their concerns about such threats are justified, it is reasonable to ask why they are not more prepared to maintain

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**Those NATO member states that express the most concern about Russia may attach even greater weight to nuclear symbols of extended deterrence as U.S. conventional forces draw down.**

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or increase the level of their defense spending to demonstrate their willingness to shoulder a reasonable share of the burden of deterring or defeating such threats.

**Tenth**, there is widespread agreement that some form of Russian reciprocity will be needed if a consensus in favor of removing U.S. nuclear weapons from Europe is to be achieved. It is far from clear what would be required for this purpose, but the hope of contributing to a progressive unfreezing of political relations with Russia has been a long-standing motivation for those who wish to see U.S. nuclear weapons withdrawn from Europe.

**Eleventh**, nonaligned non-nuclear-weapon states are unlikely to give the Alliance much credit for marginal reductions in the number of U.S. weapons in Europe. If NATO were to eliminate or deeply reduce these weapons, and NATO leaders were to present such a move as part of a broader global effort to comply with Article VI of the NPT, some significant political credit could accrue in the run-up to the 2015 NPT Review Conference.<sup>5</sup> Were NATO to present such a reduction as a more routine readjustment of posture, however, it would be less likely to yield such a benefit. As long as the nuclear weapon states each possess hundreds of nuclear weapons, credible reassurances about non-use are likely to be more relevant than stockpile reductions in changing nonaligned perceptions.

Some states regard NATO's practice of nuclear sharing, in which U.S. plans for the transfer of nuclear weapons to non-nuclear member states in times of crisis, as incompatible with Article 1 of the NPT, which is meant to prohibit the transfer of nuclear weapons. NATO member states counter that this arrangement was in place at the time the NPT was signed and that no transfer

of nuclear weapons would occur except in times of war, when the NPT would no longer necessarily apply. There may still be some additional political value, in an NPT context, in ending the practice of nuclear sharing, whether or not U.S. nuclear weapons are completely withdrawn from Europe. But this would have to be balanced by the harm that could be done to Alliance solidarity were all

non-nuclear NATO members to give up involvement in sharing the burden of nuclear deployments.

**Twelfth**, the heart of the debate on the future of U.S. nuclear weapons in Europe is the requirement to balance different reassurance imperatives within the Alliance. On the one hand, a powerful group of countries (including a majority of those hosting these weapons) wants to be reassured that NATO is resuming a leading role in contributing to international nuclear non-proliferation and disarmament efforts. On the other hand, another group (led by countries that do not have these weapons on their territory) argues that reassurance of vulnerable allies of the Alliance's commitment and readiness to defend them with nuclear weapons should be given a higher priority. As always, the U.S. government, which has sympathy for both of these objectives,

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**NATO's deterrence and defense posture needs to reassure Russia that NATO's intentions are defensive.**

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has a central role in this debate, even as it does not want to be seen imposing its preference one way or the other. The United States wants the Alliance to more clearly share responsibility for deciding the role and posture of Europe-deployed U.S. nuclear weapons.

A further complication is that most member states, to varying extents, also agree that NATO's deterrence and defense posture needs to reassure Russia that NATO's intentions are defensive. It should furthermore be consistent with the 1997 NATO-Russia Founding Act, in which NATO stated that it had "no intention, no plan and no reason" to deploy nuclear weapons on the territory of new member states and that "the Alliance will carry out its collective defense and other missions by ensuring the necessary interoperability, integration, and capability for reinforcement rather than by additional permanent stationing of substantial combat forces." This reassurance imperative means that moving U.S. nuclear weapons from countries that no longer want them (in Western Europe) to those that might want them (in Central Europe and the Baltic states) would not be acceptable to NATO as a whole. Moreover, although NATO never articulated to Russia what constitutes "substantial combat forces," the Founding Act language entails some limit on the deployment of U.S. or other NATO conventional forces in the new member states of Central Europe and the Baltic states. We have therefore assumed that it would not be feasible under current political circumstances for NATO to contemplate relocating nuclear weapons or substantial conventional forces into these countries without a major crisis.

The shape and political sustainability of the Alliance's nuclear posture in Europe remains one of the key challenges facing NATO in the decade ahead, alongside Afghanistan and budgetary pressures. It is, moreover, not an issue that can be separated from other challenges facing the Alliance. These twelve propositions clarify some issues and put others in perspective. It is clear that increasing the reassurance provided to vulnerable allies is useful in general. Moreover, the acceptability of an eventual withdrawal of U.S. nuclear weapons could be made more palatable by the Alliance's ability to provide other acceptable forms of reassurance to Central Europe, the Baltic states, and Turkey.

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## **The Future of NATO's Dual-Capable Aircraft**

The DDPR will likely produce a compromise on NATO's nuclear posture that temporarily bridges the differences between those allies who believe the Alliance should dramatically reduce or even eliminate the presence of U.S.

nonstrategic nuclear weapons in Europe and other allies who believe the retention of a U.S. nuclear presence in Europe remains very important. NATO may be able to sustain this unresolved position for the next five to eight years, but not much longer. National decisions that may have to be taken this decade, however, could make NATO's nuclear posture unsustainable as dual-capable aircraft are retired from European air forces and replaced by successor aircraft that lack the capability to deliver nuclear weapons.

### **Coming Changes in NATO's DCA Posture?**

The F-16 and Tornado have been flying since the mid-1970s. The United States, Germany, the Netherlands, Italy, and Turkey have made or are now weighing decisions about replacing their F-16s and Tornado aircraft. The U.S., Dutch, Italian, and Turkish governments are considering the F-35 Joint Strike Fighter to replace their current DCA, while the German government is in the process of replacing its dual-capable Tornados with the Eurofighter, which is not currently nuclear capable. Belgium has not yet decided whether it can afford to buy new manned combat aircraft at all.<sup>6</sup>

The United States plans to replace the F-16 with the F-35, despite concerns about the latter's cost. The 2010 Nuclear Posture Review called for the United States to "retain the capability to forward-deploy U.S. nuclear weapons on tactical fighter-bombers (in the future, the F-35 Joint Strike Fighter) and heavy bombers."<sup>7</sup> Some F-35s thus will have a nuclear-delivery capability. The Nuclear Posture Review noted that this decision, plus the decision taken to proceed with a life extension program for the B61, "did not presume" what NATO might decide about its future nuclear deterrence needs. The goal was to hold options open and to support other commitments, such as retaining a forward-deployable nuclear fighter-bomber capability for the Pacific region.

Although all German Tornados were originally planned to be retired by 2015–2018, the German government has decided to maintain some Tornado interdicator/strike dual-capable variants in the force beyond 2020. (No final end date has been publicly articulated.)

The German government has called for the removal of U.S. nuclear weapons from Germany. This stems from the coalition agreement reached between the Christian Democratic Union and Free Democratic Party in October 2009, which says that against the backdrop of President Obama's goal of a world free of nuclear weapons and the then-upcoming 2010 Non-Proliferation Treaty review conference, "and in the context of the talks on a new Strategic Concept for NATO, we will advocate a withdrawal of remaining nuclear weapons from Germany, both within NATO and vis-à-vis our American allies."<sup>8</sup> The German foreign minister, Guido Westerwelle, subsequently said that Berlin would coordinate this with NATO allies and would not act unilaterally, but German officials privately indicate that the objective has not changed and they do not expect it to change.

Prevailing public sentiment in Germany is strongly antinuclear, and the German government is now also committed to ending reliance on nuclear power generation. Most German analysts assume that the German air force's nuclear role will cease when the last Tornados are retired, and any attempt to sustain a nuclear capability beyond the Tornado would prove controversial politically. While it is difficult to predict future political circumstances, barring a major crisis with Russia or Iran, it is very hard to see any future German government proposing, and the Bundestag agreeing, to sustain a nuclear delivery capability in the German air force after the Tornado is gone.

The Netherlands was an early participant in the F-35 Joint Strike Fighter program. The Dutch air force in 2008 identified the F-35 as “the best multi-role combat aircraft” to replace the F-16.<sup>9</sup> The Dutch government has up until this point proceeded from the assumption that the successor for the F-16 must be capable of fulfilling *all* the Dutch F-16 tasks. In fact, the basic-requirements document for the F-16's successor included the requirement that the new aircraft provide “strategic deterrence”—the Dutch government's term for the nuclear role for its aircraft.<sup>10</sup>

Although it has already retired a number of the aircraft, the Dutch air force plans to fly F-16s until 2025. The Dutch government has ordered two F-35s for test and evaluation purposes. It plans to reach a final decision around 2015 on whether to purchase the F-35 and is considered likely to decide to do so. A decision to purchase would be subject to approval by the Dutch parliament as part of the budget process.

While the issue now receives little public attention, some in the Netherlands would like to see the removal of nuclear weapons. Several political parties are on record favoring this; in March 2010 the parliament stated that nuclear weapons in Europe were no longer needed for NATO security and that it no longer attached value to the presence of nuclear weapons on Dutch territory. The Dutch government recognizes the sensitivity of the nuclear question and understands the importance of allies avoiding unilateral decisions. However, Dutch officials have privately indicated that the parliament's view on a nuclear delivery capability for the F-35 could be affected significantly—if not decisively—if or when it becomes clear that the German air force is giving up its nuclear role.

Italy has also been an early participant in the F-35 Joint Strike Fighter program and is committed to the F-35 as the successor to its Tornado strike aircraft, though a tightening budget could lead to a reconsideration of the number of F-35s to be procured. The Italian government supports nuclear arms reductions and the Alliance decision that NATO will remain a nuclear alliance so long as nuclear weapons exist. In comparison to Germany, Italy is

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regarded as a NATO member more likely to take a conservative position on nuclear weapons and thus more likely to consider a nuclear delivery capability for at least some of its F-35s, though the government has not commented publicly on whether the F-35 would or would not have a nuclear delivery capability. The government has generally tried to take a low-profile approach to the question. As in the case of the Netherlands, however, Italy's position is driven most of all by its commitment to Alliance solidarity. Were Germany—and the Netherlands and/or Belgium—to seek to drop its nuclear role, there would be strong domestic pressure on Rome to do the same.

Belgium decided not to participate in the system design and development phase of the F-35 Joint Strike Fighter program and plans to keep its F-16s flying until around 2025. The Belgian military would like to procure a multi-role combat aircraft to replace the F-16s in the 2020–2030 time frame, but no decision, preliminary or otherwise, has been taken by the government. The Belgian government reportedly is considering the possibility of dropping the fighter aircraft mission altogether when the F-16s are retired. Were Belgium to decide to replace the F-16s, any decision on a nuclear delivery capability for a replacement aircraft would likely be affected by developments in the German air force and any Dutch decision regarding a nuclear delivery capability for its F-35s. The Belgian government intends to take a decision regarding replacing its F-16s in the nuclear role in concert with NATO allies and in the context of the DDPR outcome.

The Turkish government was an early participant in the F-35 Joint Strike Fighter program. It has approved in principle the purchase of two aircraft for evaluation purposes, and has identified a need for more than 100 F-35s for its air force. As noted above, the nuclear capability of Turkish F-16s appears to have been ended. Ankara has said nothing publicly about whether it would seek a nuclear delivery capability for its F-35s.

Most allies appreciate the role that U.S. nuclear weapons in Europe play in providing reassurance to those NATO members who feel exposed to Article V threats. Some allies have suggested vaguely that other means of defense might assume some of the reassurance burden. None of the allies flying F-16 and Tornado aircraft, however, have suggested

that their decisions about giving successor aircraft a nuclear delivery capability would be affected by NATO's development of alternate means of reassurance. None of those allies has indicated, for example, that its decision to discontinue a DCA role would depend on the Alliance strengthening conventional force capabilities that might deploy to assist Central European states in a crisis.

For some allies, this likely reflects the fact that there is little or no domestic political support for sustaining nuclear weapons on their territory. That lack of political support worries some of the Central European allies. However, they

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have not articulated specific measures that they believe would substitute for the need for U.S. nuclear weapons to be forward-deployed in Europe. Most continue to focus on achieving increased reassurance in both the nuclear and non-nuclear dimension, even as they limit their own defense budgets (as a proportion of GDP) to levels well below those of NATO's nuclear weapon states.

### Budget Considerations

With defense budgets declining, the possibility of developing alternate means of reassurance is declining as well. Moreover, defense budgets are coming under pressure at a time when the costs for new aircraft are increasing. This is one reason why Belgium reportedly is weighing whether to maintain a fighter aircraft/mission after its F-16s are retired. The United States, the Netherlands, Italy, and Turkey will likely go forward with F-35 purchases, though they may reconsider the numbers of new aircraft that they plan to purchase.

With declining defense budgets, the cost of adding a nuclear delivery capability may be a factor in whether or not to make a successor aircraft dual-capable, but it likely is not the major factor. The wiring and other requirements for a nuclear delivery capability typically amount to a very small proportion of an aircraft's total capital cost: around \$5–10 million per plane for the F-35, according to some recent estimates, and a total of perhaps €300 million (\$400 million) for Germany, if it were to develop and fit a customized nuclear system for its Eurofighter strike aircraft. Some further expense would be needed to maintain the nuclear DCA role in European air forces. But the main financial costs are borne by the United States and include the additional costs of maintaining and guarding six separate nuclear storage facilities, as well as the costs involved in the development, production, and maintenance of the B61 bombs.

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### Five Alternative DCA Postures

In principle, and in light of these strong pressures, a number of alternate approaches can be envisaged for maintaining a NATO DCA posture in Europe.

**Option 1:** Some European air forces might choose to give up the nuclear delivery capability for their successor aircraft while others choose to retain it. In that case, NATO would retain both U.S. and European DCA, though fewer European allies would have DCA and B61 bombs based on their territory. That would maintain the nuclear reassurance role that is important to the more exposed Alliance members, though reassurance could be diminished by a perception that this was only a step toward full withdrawal. Some allies might also worry that this could signal a greater reluctance on the part of those states giving up the nuclear role to support robust military action in

a crisis. This approach would maintain a degree of nuclear burden sharing. However, as noted above, the smaller the number of countries hosting U.S. nuclear weapons, the more politically difficult it would be for those countries.

**Option 2:** Belgium, Germany, and the Netherlands could withdraw from the DCA role and ask that B61 bombs on their territory be withdrawn, while the United States would still keep B61 bombs in storage in Turkey, together with its own DCA and B61 bombs at Aviano air base in Italy (eventually replacing its F-16s with F-35s). This would sustain the U.S. nuclear reassurance role in Europe, though perhaps with less force than NATO's current nuclear posture. It would not require Italy to maintain its own national DCA, but it would require the Italians to be the sole European basing country for the combination of U.S. nuclear weapons and U.S. DCA (while Turkey would house only U.S. nuclear weapons).

This option would raise questions in the U.S. Congress regarding other allies' readiness to share the nuclear burden. It might also intensify perceived vulnerability to preemption in a crisis, thereby increasing political anxieties for the Italian and Turkish governments. In order to counter this concern, other states might be asked to continue to provide capabilities for U.S. aircraft (and warheads) to be dispersed during a crisis and to allow visible exercising and training to reflect this. This would help to demonstrate that other DCA-basing countries (such as Germany and the Netherlands) were still prepared to contribute, albeit in a different way, to the nuclear mission.

**Option 3:** In a variation of the previous option, the United States could maintain its DCA at Aviano (or another European location) but "multilateralize" that unit by assigning to it exchange pilots from allied air forces, such as Germany, the Netherlands, or even Poland. This would maintain the forward-deployed nuclear reassurance presence, and those allies contributing pilots would be sharing a measure of the nuclear burden (though not as much as if they provided aircraft and hosted B61s). The question would remain as to the readiness of Italy or some other ally to be the sole country permanently hosting the U.S. DCA, and one of only two (with Turkey) hosting their associated nuclear weapons.

**Option 4:** NATO reportedly has considered the option of an Alliance-owned DCA squadron or wing, just as NATO purchased with common funds and "owns" a squadron of airborne warning and control system (AWACS) aircraft. This force would support nuclear reassurance and share the burden—not least through a visible financial commitment by all member states—but again would raise the question of where the aircraft and their associated weapons would be based. The additional cost of procuring and maintaining such a unit would be significant at a time of austerity in defense budgets across the Alliance (although it might be offset by reductions in national aircraft numbers

elsewhere). It might also prove difficult for NATO to work out arrangements for how the aircraft would be operated to fulfill their other (primary) missions, as the Alliance presumably would not assign these aircraft only a nuclear role.

**Option 5:** NATO allies could eliminate all DCA in Europe, and the U.S. air force could maintain a NATO-dedicated U.S. F-16/F-35 unit in the United States. That unit could include, or even be built around, exchange pilots from allied air forces. Some or all of the five NATO members that currently host U.S. nuclear weapons could maintain the capability to host those weapons after they were withdrawn, for example, by keeping the nuclear weapon storage vaults in working order. This would allow those states to continuously prepare for the potential redeployment of U.S. DCA and their associated nuclear weapons to Europe (or elsewhere). This would distribute some of the nuclear burden and contribute to nuclear reassurance, though not as much as having U.S. nuclear weapons in Europe.

Some would question the credibility of the assertion that in a crisis, NATO could reach a consensus on returning U.S. nuclear bombs to Europe, given how provocative such a step might be perceived to be. While this might constrain redeployment in ambiguous situations short of war, it is less clear that it would do so in a situation of ongoing major conflict. And reaching a consensus on this question would not necessarily be substantially more difficult than obtaining a consensus among all member states for the actual use of the weapons. Indeed, there might be some added value in having an additional step available that still falls short of actual nuclear use to signal Alliance nuclear determination and solidarity in conflict.

In any of the above five alternate postures, NATO could continue its SNOWCAT program.<sup>11</sup> European allies could provide support aircraft and bases in exercises, with U.S. DCA practicing nuclear missions, whether those DCA were based in Europe or deployed to Europe from their U.S. base for the exercises.

There thus are options for maintaining a NATO nuclear DCA capability should one or more European air forces that now fly DCA shed the capability to deliver nuclear weapons when procuring successor aircraft. As indicated above, however, each of those options has significant questions or drawbacks attached to it.

Of the five options outlined above, a NATO-controlled DCA formation—Option 4—is the least plausible, for reasons that primarily stem from the difficulties involved in making it financially possible and operationally viable in its conventional role. Even a large wing of, say, 36 aircraft would strain NATO's collective funding while still being a substantial reduction from present numbers. But all four other options could, depending on the circumstances, provide a plausible way forward.

The elimination of Europe basing for DCA and U.S. nuclear weapons—Option 5—could occur if, at some stage over the next few years, Germany, Belgium, and the Netherlands decide that it is no longer acceptable to base nuclear weapons on their territory, and both Italy and Turkey refuse to be left as the sole basing nations. But in the absence of very substantial Russian reciprocation in relation to its own forward-deployed nonstrategic nuclear weapons, the Alliance is unlikely to reach a consensus on this option. As a consequence, NATO might consider Options 1, 2, and 3, or variations thereof, as providing a possible “middle way” between the status quo and unreciprocated, and complete, DCA withdrawal.

## Reassurance Possibilities if U.S. Nuclear Weapons Are Withdrawn From Europe<sup>12</sup>

If it chose a “middle way” option, NATO would agree to continue basing U.S. nuclear weapons in Europe but would reduce or end the DCA role of European states. These options would raise difficult questions as to whether the European states in question were still prepared to make a visible contribution to NATO nuclear deterrence. If compensatory burden-sharing measures were seen to be inadequate, this might raise difficulties for the United States, which would continue to be expected to shoulder the primary burden of NATO nuclear deterrence. Provided that the United States were satisfied in this regard, those states that still feel vulnerable to nuclear intimidation (especially on NATO’s eastern

frontier) would probably feel reassured that the element about which they care most—the presence of U.S. nuclear weapons on European territory—had been safeguarded.

But a complete withdrawal of U.S. nuclear weapons from Europe is also a distinct possibility over the next decade. As a result, it is necessary to look at what other measures might be considered to compensate for the reassurance that these weapons currently provide to leaders of NATO’s more vulnerable states. The rest of this section is based on the assumption that NATO could be set on a path that is likely to lead, over time, to complete the withdrawal of the U.S. B61 bombs from Europe. Even if that

proves not to be the case, additional reassurance measures could contribute to Alliance confidence and cohesion.

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### The Importance of Reassurance

Reassurance is an amorphous phenomenon, an uncertain mix of psychology and material capabilities. Collating and appraising options that might strengthen reassurance and confidence in general and, if necessary, compensate

allies who fear adverse effects on their security from the possible future withdrawal of NATO nuclear weapons is not a simple or quantifiable matter. Security and reassurance are subjective states of mind, difficult for others to determine or prescribe.<sup>13</sup>

Public statements by leaders and opinion shapers in countries that feel more vulnerable to pressure from potential adversaries, as well as from more powerful allies, cannot show the whole picture. Those who most wish to maintain NATO's nuclear status quo have no great interest in spelling out what they could reluctantly accept instead as alternatives (such as Options 1 through 3 above). Nor will they necessarily feel it wise to discuss, outside confidential NATO deliberations, the particular anxieties they feel about the intentions of potentially hostile neighbors. It may be even harder to admit openly any doubts about anticipated levels of commitment within the Alliance and the future willingness of other allies to send forces and take risks to protect states on NATO's periphery.

Expressing these anxieties openly risks further reducing the morale, cohesion, and self-confidence of the Alliance, which are precisely the major points of concern. It could set up a vicious cycle in which publicly expressed skepticism as to the value of Article V commitments results in the progressive erosion of the security value of those commitments. In some cases, there may also be apprehension about expensive consequences in other fields that result from publicly antagonizing influential European allies whose governments have explicitly called for withdrawal of U.S. nonstrategic nuclear weapons from NATO Europe.<sup>14</sup> In addition, some interpret the positions of various European governments toward nonstrategic nuclear weapons as surrogates for, or indicators of, differences in interpretations of Russian intentions and of the dependability of the U.S. security commitment. These attitudes do not directly derive from vulnerability and strategic exposure.

By contrast, those who favor changing or ending the nuclear status quo in Europe tend to argue that no special additional measures of reassurance ought to be needed, or offered, because nuclear deterrence from forward-based U.S. nuclear weapons is unnecessary in today's NATO context. For them, if the issues are properly understood, nuclear sharing can be seen to represent an expensive diversion in monetary and political terms, and a missed opportunity to contribute productively to wider disarmament efforts. Some fear that exaggerated requests of compensatory reassurance by some allies could become an easy excuse for the Alliance to decline to change the nuclear status quo, so as to avoid expenditure on conventional improvements. They also express concerns that strong alternative reassurance measures would work against rapprochement with Russia and hinder the establishment of a

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Euro-Atlantic security community, which is the configuration they believe most likely to provide real and lasting security for all NATO members.<sup>15</sup> There is a further position, attributed to Turkey, but perhaps felt more widely, that ending nuclear-sharing might be acceptable, but only if it could be done by consensus, without damaging overall Alliance cohesion.<sup>16</sup>

Reassurance also depends significantly upon the wider international climate, which is obviously an independent variable. Relations with Russia and Iran, the most potentially antagonistic of NATO's neighbors, fluctuate strikingly. In assessing the wider impact of ending NATO's nuclear-sharing and basing arrangements, much would depend upon the state of the relationship between each of these two states—and Russia in particular—and the Alliance at the time. But these matters are higher-order concerns than NATO's nuclear posture. This larger political-security environment is too important, and too influenced by wider considerations, to be changed by relatively second-order choices about dual-capable aircraft and B61 basing.

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Similarly, since the NATO nuclear weapons debate is permeated with concerns about symbolizing and maintaining the American commitment, the wider state of relations between the United States and its European allies (both collectively and individually) will clearly make a major difference in shaping decisions on the future of nuclear sharing. Yet these equally complex major relationships have their own dynamics and cannot be conveniently adjusted to assist post-DCA reassurance possibilities. It is therefore

necessary to distinguish background conditions that affect reassurance from implementable reassurance measures. The more encouraging the background conditions, the less need for strong additional reassurance measures. It is also likely that the Central and Eastern European states will continue to seek additional non-nuclear reassurance measures,<sup>17</sup> whether or not NATO continues to forward-deploy nuclear bombs.

### **Reassurance Conditions**

**Relations with Russia.** If NATO-Russia relations were transformed in such a way that intimidation or military crises became effectively inconceivable, the necessity for any reassurance measures could be removed. Such a transformation has been achieved among NATO and EU states, so it conceivably could be effective in the NATO-Russia case as well. But such a process will probably not bear fruit before decisions have to be made about the implementation of the Alliance's deterrence and defense posture, in both its conventional and nuclear dimensions. And a "reset" followed by a transformation of the bilateral political atmosphere is not in any case in NATO's power alone to effect.

Though the history of NATO-Russia relations to date does not encourage optimism that progress in the near term will be achievable, there is nevertheless work to be done. Additional confidence-building measures and greater Russian military transparency would be important contributors to reassurance.

In relation to nuclear weapons specifically, the 2010 NATO Strategic Concept calls for “Russian agreement to increase transparency on its nuclear weapons in Europe and relocate these weapons away from the territory of NATO members” as conditions for future NATO nuclear reductions. This remains important. Russia has not publicly declared the size and composition of its nonstrategic nuclear weapons arsenal. One recent independent source, however, estimates that its total—based in Europe and Asia—nonstrategic force is as follows:<sup>18</sup>

### Russia’s Nonstrategic Nuclear Weapons Arsenal

Anti-ballistic missiles/Air-defense and Coastal-defense missiles	430
Land-based aircraft-deliverable	730
Ground-based missiles	175
Naval missiles	660
<b>Total in active inventory</b>	<b>2,000</b>
Retired and awaiting dismantlement	2,000–3,000
<b>Total</b>	<b>4,000–5,000</b>

If these estimates are broadly accurate, it is possible to draw some important implications for nuclear confidence building and transparency between NATO and Russia. First, those who argue that Russia has an arsenal of several thousand nonstrategic nuclear weapons may be including a very large number of weapons that are now “retired and awaiting dismantlement.” And it is questionable whether a confidence-building strategy that focuses on dismantling weapons already retired from service should be a priority.

Second, a large part of the active Russian nonstrategic nuclear weapons arsenal consists of naval and defensive systems that, although greatly surplus to operational requirements, are of relatively little concern as a source of offensive threat to European NATO members (with the important exception of Norway in relation to naval weapons). Focusing confidence-building efforts on these weapons, similarly, may be of little value to overall NATO-Russia relations.

Third, the weapons that are of particular concern to NATO’s Central and Eastern European states (those available for use with intermediate-range Backfire and short-range Fencer and Fullback aircraft, together with warheads for short-range missiles) may total fewer than 1,000 warheads. This figure is twice as large as the total U.S. nonstrategic nuclear weapons arsenal of some 500

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(of which about 200 are in Europe and the remainder in the United States), but not an order of magnitude greater as is sometimes suggested.

Given this picture, NATO's Strategic Concept was right to focus on the dual objectives of increasing the transparency of Russia's nuclear forces in Europe and relocating these systems away from NATO's borders. Like NATO's own DCA weapons, most of the Russian systems that are of greatest interest to NATO are inherently air mobile, so they could be rapidly flown back toward NATO's borders in any crisis. Nevertheless, as in the case of NATO's own weapons, geographical location (or relocation) can be a powerful, and easily understood, political symbol of intent. Limitations on the numbers of nuclear warheads collocated with fighter-bombers in Russia's western military districts could have a useful confidence-building effect in relations with NATO. The power of such positive political signals would be greatly increased if they were accompanied by greater Russian openness about the scale of its nuclear deployments in this region.

Such restraint and confidence building need not necessarily mean an increase in Russian nuclear deployments east of the Ural Mountains (a concern, in particular, for U.S. allies in Asia). A significant part of Russia's strategic air capability is based in the central parts of the country (for example at Saratov, more than 1,500 km from Riga). Redeploying forward-deployed nonstrategic

nuclear weapons back to such locations, on a transparent and verifiable basis, could be as significant a confidence-building measure as steps to increase the rate of destruction of warheads that are already waiting dismantlement.

Transparency and confidence-building measures for conventional forces are underpublicized but may be more important than those for nonstrategic nuclear weapons as a test of Russian strategic attitudes, especially to Central and Eastern European states. The restoration of Russian observance of the 1990 Conventional Armed Forces in Europe (CFE) Treaty would help signal a more cooperative approach in Russia's attitude toward military security,

and a willingness to negate surprise conventional attack options. This could be complemented by further steps to bring the adapted CFE Treaty into force and to adopt further measures regarding conventional forces in Europe, including reducing the concentration of Russian conventional forces in its western military districts. In making the case for Russia to do so, NATO can point to the further reductions in its own conventional strike power that are taking place, especially in Europe, as a result of planned budget cuts. In return, Russia might demand arms control limitations regarding NATO's aerospace capabilities, about which Moscow has frequently expressed concerns.

Wider nuclear arms control negotiations between the United States and Russia may also provide an opportunity to reduce the role of NATO's nonstrategic nuclear weapons. A recent interview with Rose Gottemoeller, the acting

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under secretary of state for arms control and international security, indicates that the United States judges that the prospect of addressing U.S. strategic upload capacity may help induce Russia to begin new negotiations on further nuclear arms reductions. The New START Treaty will leave the United States with some 1,000 to 1,500 nondeployed strategic warheads that theoretically could be redeployed on strategic missiles with the capacity to carry more warheads than they are now allocated. Russia's capacity for such uploading of strategic weapons appears to be more limited than its capability for reintroducing nondeployed weapons into its active nonstrategic nuclear weapons arsenal. Foreclosing or limiting the U.S. upload option could be a Russian priority. Such talks could be a key arms control issue at the same time the NATO non-strategic nuclear weapons modernization issue becomes pressing.<sup>19</sup>

**Relations with Iran.** Iranian intentions and possible nuclear weapons capabilities are of direct interest to Turkey in particular. Given Turkey's strong army, rugged terrain, and strategic depth from the Iranian border, reassurance against Iran is less likely to depend upon conventional military improvements than upon overall political relations, which are recently under increased strain as a result of events in Syria. If political-security relations with Iran remain at crisis levels, lastingly credible nuclear guarantees and, probably, improved missile defense capabilities that make it possible to defend targets in Turkey as well as other allies to the north and west would be more important than conventional military assistance in countering a nuclear-armed Iran.

If Iran acquires nuclear weapons, the ramifications could be even more widespread. As fears escalate, a debate could arise within NATO and its Middle Eastern partners over whether to extend nuclear deterrence to Iran's non-NATO neighbors. Nuclear weapons forward-deployed in Europe could be recommended for this projection of deterrence, though it is not clear how much deterrent impact U.S. weapons based in Europe would have on Tehran (as opposed, say, to a capability to forward-deploy U.S. nuclear-capable aircraft into the Persian Gulf).

Debate within NATO over such a contingency would likely be intense and its outcome difficult to predict. Turkey for one is understandably politically cautious about voicing anxieties about Iran and insistent that it should not be categorized as an enemy.<sup>20</sup> But none of those debates directly addresses the heart of the matter—NATO will not be able to improve relations with Iran unless there are significant steps toward a resolution, or at least a postponement, of the Iranian nuclear compliance crisis.

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**Alliance Confidence and Cohesion.** Withdrawing U.S. nuclear weapons from Europe would raise fewer apprehensions within a confident, operationally

successful, unified, and relevant Alliance, which was also demonstrably helping allies meet pressing new security challenges (like energy or cyber security, or technologically super-empowered terrorism). In a modernizing and effective NATO, increasing in confidence and interdependence, it would be easier to believe that no member nation would be abandoned or menaced in a crisis. Confidence of this kind is more likely to be attained if the international conditions in relation to more traditional interstate threats were generally reassuring rather than demoralizing. The most extreme opposite scenario, in which there was a simple and undeniable threat from another state or states, is not likely to be conducive to the withdrawal of U.S. nuclear weapons.

The outcome of the 2011 Libyan intervention may have increased NATO's self-confidence, but it also revealed shortcomings in NATO's conventional

military capabilities. The much larger Afghanistan commitment will have longer-term and more mixed effects.

The operation has meant unprecedented levels of involvement by NATO member states in a common endeavor, and has helped to drive improvements in capability and interoperability. The implications for future NATO cohesion, however, will depend on finding new common missions in which member states can be involved, as well as finding ways to manage continuing differences over burden sharing and rules of engagement. Too great an emphasis on out-of-area operations may be seen by some,

especially in Central Europe, as coming at the expense of the NATO's core mission of defending its own territory from aggression.<sup>21</sup> A reenergized focus (post-Afghanistan) on the basic collective security function of the Alliance could therefore contribute to the reassurance of those states whose main security concern is a potential Article V threat.

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### **Potential NATO Intra-Alliance Reassurance Measures**

#### *Public and Private Declaratory Reassurance*

In order to provide reassurance, Hans Binnendijk and Catherine Kelleher suggest a role for “declaratory statements,”<sup>22</sup> strengthened speeches, ministerial statements, and diplomatic attention by the United States and other Alliance members to emphasize their commitment to the most vulnerable NATO allies. An enhanced communications strategy could aim to commit the Alliance as a whole to a deliberately reassuring and mildly innovative doctrine such as “A Bias toward—but Not a Veto for—the Most Exposed.” That is, NATO collectively could affirm that it would take particular account in its doctrine and capability of the needs of the most exposed member states, as distinct, for example, from the most secure. But it would also make clear to those states that feel most exposed that they should be prepared to make a proportionate

contribution to collective defense that reflects this perception. And, while collective commitment to Article V should remain an absolute, the particular means to give it credibility should continue to be chosen by collective deliberation and negotiation. Solidarity among NATO member states is more likely to be sustained if more vulnerable countries act with restraint and responsibility.

Specific statements by U.S. officials emphasizing undiminished determination to maintain extended nuclear deterrence might help reassure those allies who feel the fundamental issue at stake over nonstrategic nuclear weapons in Europe is that of potentially declining American commitment to the continent. Robust communication might intangibly help “offset some of the weight of potential Russian nuclear intimidation,”<sup>23</sup> which is seen by some as a function of NATO’s nonstrategic nuclear weapons now. Speeches and reiterated commitments might also serve to moderate anxieties created by U.S. defense budget cuts, troop reductions in Europe, and the new rhetorical emphasis on a “pivot” to the Pacific.

But the overall contribution of such additional declaratory policy to reassurance would be limited and would have to be carefully judged. It is difficult to see what could be said that is stronger than Article V’s commitment by all allies to come to the defense of any of their fellow member states who are subject to military attack. Instead, allies might simply state that Article V means what it says, and all allies fully share that commitment. Repeated supplementary promises could begin to sound desperate and unconvincing and ultimately could undermine the credibility of the NATO Treaty.

Such objections need not necessarily apply to specific pledges made in private. In addition to promises of unequivocal diplomatic support and guaranteed conventional reinforcements, they might include reassurances from the United States, and/or conceivably other NATO states, that those countries would rapidly threaten to forward-deploy major conventional units in a situation in which the integrity of allied territory was breached, even if the NATO system of consensus were paralyzed.

#### *Visible Reassurance Measures Involving Some Military Capability*

Paragraph 19 of NATO’s Strategic Concept states, “We will ensure that NATO has the full range of capabilities necessary to deter and defend against any threat to the safety and security of our populations. Therefore, we will . . . carry out the necessary training, exercises, contingency planning and information exchange for assuring our defense against the full range of conventional and emerging security challenges, and provide appropriate visible assurance and reinforcement for all Allies.”

There are a number of possibilities and initiatives for putting this into practice that are not purely declaratory or symbolic and that involve *visible*

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**While collective commitment to Article V should remain an absolute, the particular means to give it credibility should continue to be chosen by collective deliberation and negotiation.**

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*reassurance* in the form of NATO commitments on the soil of exposed allies. While reassuring, such NATO activities in Central and Eastern European states are not intended to add significantly to the level of forward military deployment.

There are, for example, a number of possible ways to supplement and improve NATO's rather small visible presence in those states. The Baltic Air Policing mission (BALTAP) has recently been extended indefinitely. Throughout the mission, NATO air forces have successively provided four fighters in rotation, operating from an air base in Lithuania, to protect the airspace of the Baltic states, which have no such combat aircraft of their own. This is the only NATO presence currently in Central and Eastern Europe involving the deployment of military forces daily securing allies' territorial integrity.<sup>24</sup> The development of a second Baltic airfield for the task has been proposed.

Additional NATO operations centers or agencies could be considered. At present, there is only one in the Central and Eastern European region, the Joint Force Training Center (JFTC) in Bydgoszcz, Poland. A NATO signal battalion headquarters is also being established in Bydgoszcz. None of the eleven key Allied Command Operations Centers or any of the fourteen (soon to be three) NATO agencies is located in the Central and Eastern European region. Headquarters for multinational units and institutions supporting NATO tasks might be located in the Central and Eastern European region.<sup>25</sup> For instance, there are proposals to make the NATO Center of Cyber Excellence in Tallinn more of a regional headquarters.

"Visible assurances" matter to Central and Eastern European states, and their material and symbolic importance, as a reminder of NATO solidarity, should not be overlooked. Several additional steps are currently said to be

under consideration, including restoring NATO security investment and improving transport logistics and port facilities.<sup>26</sup> Each of these would increase NATO's presence in the region and/or increase NATO's connectivity to Central and Eastern European states. These steps would act as enablers for the militarily significant improvements to collective defense discussed below.

NATO facilities and installations make its security umbrella more visible to its most concerned and exposed members. In the longer term, absent a positive break-

through in relations with Russia, there is a strong case that NATO should invest to build up its buildings, activities, and people on the ground in Central and Eastern European states.

For example, the U.S. air force plans to deploy a small detachment of logistical and support personnel to a Polish air base beginning in 2013. This small detachment, approximately ten to twenty-five personnel, will support periodic temporary deployments to the Polish air base by U.S. F-16s and C-130s, which

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will train and conduct exercises with their Polish air force counterparts. The first temporary deployment is also scheduled for 2013. This will mean a small permanent U.S. presence in Poland, at a level that might not overly antagonize Moscow, but that would demonstrate the ability of the U.S. air force to deploy to and operate from a Polish air base—a capability that could be very reassuring to Poland.

It might also serve as a model for NATO, which could consider whether other allies in Western Europe could “partner” with Central and Eastern European states, deploying small detachments that would support periodic training deployments by aircraft or other military forces. This model could provide a relatively inexpensive means to reassure allies as well as demonstrate capabilities to come to their assistance in a crisis, and it might not be too provocative to Russia.

For this, missile defense installations *may* constitute an important additional reassurance, given their intrinsic technical importance. The fact that these systems will entail the permanent deployment of small detachments of U.S. military personnel to operate the installations in Romania (beginning in 2015) and Poland (beginning in 2018) should provide a measure of reassurance. While full activation of such capabilities should be dependent on the evolution of Iranian ballistic missile threats, personnel deployments should continue regardless. Yet, unless missile defense can be developed in a way that mitigates present Russian opposition, the reassurance benefits of these systems could be offset, at least partially, by further Russian belligerence.

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#### *Militarily Significant Conventional Reassurance*

Nevertheless, for the foreseeable future, even if there are multiple initiatives, the “soft forward presence” represented by the “visible assurances” described above may not add much to the already considerable deterrent considerations facing a potential aggressor contemplating an invasion of NATO territory. The most reassuringly effective visible assurances are, unsurprisingly, likely to be those that significantly improve conventional deterrence.

The existing conventional-force situation is less than satisfactory. In a speech in January 2012 at the Center for Strategic and International Studies, Norwegian Defense Minister Espen Barth Eide warned: “Article V is not in such a good shape... the actual ability to deliver if something happens in the trans-Atlantic theater of a more classical type of aggression... Exercises have shown that NATO’s ability to conduct conventional military operations has markedly declined... Not only is NATO’s ability to defend its member states questionable, it might actually deteriorate further as financial pressures in Europe and the U.S. force cuts in military spending.”<sup>27</sup> Few NATO states (including in the Baltic region) spend as much as the Alliance-agreed target 2

percent of GDP on defense, and this looks unlikely to change. Increased attention to Article V tasks in the functioning of the Alliance's institutions would therefore be timely and reassuring, although it would come at some cost to the Alliance's ability to shape its external environment by preparing for future intervention and stabilization operations beyond NATO territory.

Possibilities for conventional assurances include improving civil and military transport infrastructure, enabling allies to receive reinforcements more quickly in case of aggression, and supporting the effective execution of NATO missions, including territorial defense. This covers the improvement of air bases and seaports, which is slowly progressing, and the modernization of air defense radars. Military expenditure in this category is covered by NATO's common-funded Security Investment Program (NSIP), which could, if necessary, be selectively increased. EU-funded infrastructure projects are also helping to make major improvements in transport links across the European Union, including through investment in roads, airports, and ports.

NATO should also consider more frequent, serious, and consequently expensive military training and exercises on the territory of Central and Eastern European states. The value of such exercises depends on their becoming regular, ideally involving live fire, and on their being used to demonstrate that allies have appropriate and available military capabilities, above all in the NATO Response Force. The first field exercises of the NATO Response Force—hitherto largely regarded as “a paper force”—will take place in Poland in 2013. Allies have previously been reluctant to undertake large-scale field exercises for fear of antagonizing Russia, but this reluctance is thought to be diminishing due to Russia's willingness to undertake large-scale recent exercises such as ZAPAD and Lagoda.<sup>28, 29</sup>

Contingency planning for defensive scenarios has already resumed and now includes Poland and the Baltic states.<sup>30</sup> Further identified possibilities for improvements in Article V capabilities include:

- 1) Using NATO's new strategic assessment capacity to examine not only new emerging threats but risks of limited conventional conflict.<sup>31</sup>
- 2) Developing robustly tested contingency plans for more sensitive scenarios, to quote Binnendijk and Kelleher, “not just on major tank attacks but also on smaller scale incursions and other more ambiguous means of intimidation.”<sup>32</sup> This would involve tabletop and command post exercises as well as exercises in the field.
- 3) Ensuring the command capacity to conduct operations across the whole spectrum of scenarios, including defensive operations, together with reform of the intelligence-sharing and cooperation system.<sup>33</sup>
- 4) Above all, increasing the credibility of the NATO Response Force through development and exercises, and, in the words of European

security expert Jacek Durkalec, creating a “demonstrated capacity of states in CEE [Central and Eastern Europe] to receive reinforcements, and a demonstrated capacity of other NATO members to provide them.”<sup>34</sup>

Improvements in capabilities and preparations to act on Article V are thus clearly under way, although facing major financial constraints and competition for resources with NATO’s Afghan campaign. A recent example is the long-overdue agreement on Alliance Ground Surveillance signed in February 2012. Thirteen allied states agreed to acquire five Global Hawk high-altitude, long-endurance surveillance UAVs at a cost of €3 billion (\$4 billion) for the program over twenty years. They will be operated from Sigonella in Italy after 2015, primarily supporting NATO’s out-of-area operations, but available if necessary in order to further reduce risks of surprise attack in Europe.<sup>35</sup>

The process of improving territorial defense is obviously important to the regional sense of security. But those who believe that U.S. nuclear weapons in Europe contribute to their security, and who can point to many statements that conventional resources are inadequate for the Article V task, might well challenge that. They may argue that at least without a major injection of resources and in a time of generally declining defense budgets, conventional reassurance may not be sufficient to compensate for changes in NATO’s nuclear posture.

Perhaps more importantly, NATO’s overall size and strength mean that, even without planned improvements to Article V capacities, it would almost certainly prevail in any extended conventional defensive conflict with Russia. Improved military arrangements for territorial defense, however, might reduce the scale of territory and people exposed to collateral damage from bombardment, occupation, and liberation, and hasten the eventual conventional ejection of an aggressor.

The nuclear posture and declaratory policy of neighbors is also relevant. The 2010 Russian Military Doctrine explicitly states that “the Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.”<sup>36</sup> The existence of NATO nonstrategic nuclear weapons could be seen by some as providing an additional and proportionate disincentive for Russia to escalate to use of “tactical” nuclear weapons if its forces were being repulsed from NATO territory in admittedly hypothetical scenarios of future Russian aggression.

Even very strong non-nuclear reassurance measures, if they could ever be afforded, would not be a panacea. A short thought experiment illustrates the limits that political prudence would in any case set on the Alliance’s ambitions for upgrading conventional capacities for territorial defense. It is obviously *technically possible* to envisage the NATO Response Force not only being

increasingly focused on territorial defense as its core task of the Strategic Concept but receiving additional combat aircraft and attack helicopters. Perhaps more importantly, NATO could draw upon a rapidly evolving and possibly dominant military technology, UAVs, an area in which the United States and its allies enjoy a comparative advantage. For example, wings of armed UAVs could be rapidly deployed in times of crisis near to NATO's eastern boundaries.

Together, in an accelerated twenty-first-century AirLand Battle, these enhanced capabilities, in synergy with the Alliance Ground Surveillance assets that NATO is already procuring, might promise the rapid negation of any significant threat from Russian armor and artillery. That would be one way to remove anxieties within Central and Eastern European states about possible temporary local Russian superiorities of force, which could enable reckless "seize and hold" options and therefore encourage resentful intransigence in peacetime and active intimidation in crises. Sufficient rapidly deployable high-technology military capabilities *might* therefore ease Central and Eastern European anxieties. Such capabilities would show those countries that NATO can readily counter temporary Russian superiorities of local force that might, those countries fear, enable "seize and hold" options or intimidation, in peacetime or crisis, that the prospect of such Russian operations could generate.

It is questionable, however, whether a tailored investment program, big enough to make a real difference to the confidence of the most concerned Central and Eastern European members, would be given a high priority in the constrained defense-finance situation of the next decade, even if savings from nuclear programs were made available to fund it. It would also depend on involving the latest high-technology American combat assets and enabling capabilities at a time when the United States is attempting to encourage European allies to do more for themselves.

Most critically, even if these internal political and financial problems could be overcome, there would be strong objections within the Alliance that significant new programs and deployments of this kind would risk stimulating Russian anxieties and resentment. This could slow or reverse any trend toward reorientation of Russia's own forces away from its western military district and create further deep grievances. The capability to initiate at least some military operations against countries in its vicinity is one of Russia's few strategic cards and has undoubtedly brought Moscow a certain deference from neighbors and NATO.

A NATO decision to invest in seriously diminishing that Russian offensive (and therefore also counteroffensive) option through military measures rather than by negotiation might have far-reaching consequences. It would not seem to Moscow as intended to increase the confidence of exposed NATO allies, though it might have more credibility to them than the retention of current numbers of U.S. nonstrategic nuclear weapons. Rather, it would appear to be

aimed at diminishing Russia's status and influence in Europe and its ability to prevent future color revolutions in Belarus, Ukraine, or elsewhere.

In Soviet times, this would have been denounced as a destabilizing change to the politico-military-psychological correlation of forces. That diffuse and intrinsically zero-sum concept does not seem to have been entirely abandoned in contemporary Russian security discourse. Within the current paradigm of its relationship with NATO, therefore, Russian responses to robust efforts at non-nuclear reassurance within the Alliance would probably be not only diplomatic complaints but also arms buildups and the development of compensatory unconventional threats, funded by increased hydrocarbon revenues that have so transformed the country's financial position.

To forestall this, it might be useful for certain NATO members, such as the United States and Germany, in quiet discussions with the Russians, to suggest that conventional force upgrades are linked to the change in NATO's nuclear posture and the possible removal of U.S. nonstrategic nuclear weapons from Europe. The message might also remind the Russians that visible actions to reduce Russian nonstrategic nuclear weapons and, more broadly, to contribute to more positive atmospherics with NATO's eastern members would reduce the demand for upgrades to NATO's conventional capabilities.

If U.S. nuclear basing in Europe appears to be ending, the most important form of reassurance for NATO's more exposed member states would likely come from wider political-security conditions rather than from specific measures. However, creating these conditions, particularly in relations with Russia, cannot be expected to be solely under NATO's control.

If such wider reassurance is not forthcoming, a spectrum of possible reassurance measures is conceivable. These measures have varying costs and sometimes uncertain prospects. Still, through a determined and carefully considered mix of investments, deployments, exercises, visits, speeches, and statements, there are ways for the Alliance to address the reasonable concerns of the most exposed allies.

## Conclusions

Because of continuing differences between key member states, this May, NATO leaders probably will not resolve the question of what to do about the Alliance's forward-deployed nuclear weapons, especially if the question of the retirement of existing aircraft can be further postponed. While major decisions can be put off for a few years, NATO will be weakened if it is seen to be incapable of resolving these issues for much longer. In Chicago, NATO leaders would be wise to establish a process and timeline for resolving the challenges we have highlighted here.

NATO has a range of options available. There is growing agreement that the current state of affairs cannot be sustained for very long, given the implausibility of a renewal of political commitment to maintain nuclear-capable DCA by all of the five European allies who now retain such a capability. But, if NATO cohesion is to be maintained, an alternative option will have to meet the concerns of three important constituencies within the Alliance: those (especially in the United States) whose main concern is the preservation of wide participation in the nuclear mission, those (especially in the most vulnerable states) who are most concerned with reassurance, and those who believe that NATO should make a significant contribution to disarmament.

In the absence of very significant Russian efforts to draw down its own non-strategic nuclear weapons from Europe, a “middle way” option that strikes a balance between the status quo and complete withdrawal of dual-capable aircraft might be possible that would meet, in large part, each of these concerns, though there is a question about its political feasibility. Such an option might allow U.S. nuclear weapons to remain in Europe but would also meet the requirement of finding a way for Germany (and others) to give up a national DCA role within a framework of NATO consensus. It would address the concerns of those most interested in ensuring broad NATO participation in the nuclear mission, for example through forms of “Smart Sharing,” which might include more visible SNOWCAT arrangements or new crewing arrangements. Importantly, such an option could help to satisfy the desire for reassurance by NATO’s more vulnerable states, whose main concern is a visible demonstration of U.S. commitment to their security. Not least, through a consolidation and reduction of NATO’s nuclear infrastructure, it would address the concern that NATO should be seen

to be making a contribution to wider disarmament efforts.

A more radical variation on this option, on which NATO might have to rely if Italy and Turkey are not prepared to be the only basing countries for U.S. warhead storage facilities, would be to maintain a NATO-dedicated U.S. F-16/F-35 unit in the United States, including, or even partially built around, exchange pilots from allied air forces. Some or all of the five NATO members that currently host U.S. nuclear weapons, together with other

NATO members, could also make continuing preparations for the possible redeployment to Europe of U.S. DCA and their associated nuclear weapons, if needed. It will be more difficult to construct a broad NATO consensus around this option except in a context of significant Russian reciprocation.

In this regard, we believe that NATO should continue to signal that it would respond constructively to significant moves by Russia in relation to its own nonstrategic nuclear weapon forces, for example, through increased transparency, relocation/demobilization and/or numerical reductions. Steps by Russia to improve its wider security and political relationship with the Alliance,

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**Steps by Russia to improve its wider security and political relationship with the Alliance could also help to create conditions in which deployment of U.S. nuclear weapons in Europe is no longer seen as necessary.**

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especially with NATO's most exposed states, would be just as important, and could also help to create conditions in which deployment of U.S. nuclear weapons in Europe is no longer seen as necessary.

In the absence of a fundamental improvement in NATO-Russia relations, and as part of the transition to a situation in which forward-deployed U.S. nuclear weapons play a declining role, the Alliance will also need to debate and identify other ways in which to strengthen reassurance for its most vulnerable members. In considering such steps, we recommend the Alliance bear in mind the following:

- Purely symbolic or declaratory reassurance can often be limited or self-defeating if corresponding capabilities are not identified and commitments to procure and/or deploy them are not fulfilled.
- Measures with real military utility will be the most effective but will involve fine judgments and difficult decisions in relation to Russia.
- The most valuable reassurances will be those which could both increase allied confidence and improve relationships with Russia, perhaps involving joint exercises or shared missile defenses.
- The optimum mix and timing of reassurance measures is not precisely predictable because we cannot yet know at what point U.S. nuclear basing in Europe may appear to be ending, what the international circumstances or the budgetary realities will be at the time, or what the balance of political feeling will be among Alliance governments in power as various basing and procurement decisions are made.
- The credibility of the United States as the Alliance guarantor repeatedly emerges as critical for the reassurance question. Four factors are most important:
  - First, the quality of communication between the United States, Central and Eastern European allies, and Turkey, especially when new opportunities or crises create pressure for rapid U.S. responses.
  - Second, the predictability of U.S. actions in the eyes of potentially exposed allies. For example, how the United States delivers on existing promises and plans regarding missile defense installations in Turkey, Romania, and Poland, air detachment training in Poland, and how it accommodates the reduced U.S. forces in Europe into NATO contingency plans.
  - Third, how the United States conducts future talks with Russia on nuclear weapons reductions and missile defenses.
  - Fourth, whether the United States and other NATO member states can maintain a united front in dealing with the developing crises over Iran and Syria, which is especially important for Turkey.

Against the backdrop of these considerations, NATO should consider the measures described in the previous section for bolstering reassurance—declaratory measures, visible measures that entail some military capability, and militarily significant conventional measures—for Central and Eastern European allies who continue to feel exposed to Article V threats. This means that, following the Chicago Summit, NATO should continue to conduct discreet and forward-looking internal consultations and studies, critically examining how such reassurance measures might help meet realistic deterrence requirements of the future strategic environment (and what costs they might entail). This process will need to avoid both complacency about present arrangements and insensitivity to national positions.

At worst, if the U.S. nuclear weapons were removed without adequate attempts to maintain consensus, amid unfavorable international conditions, and as a result of inward-looking politics in a few relatively sheltered states that show little concern for the anxieties (often privately expressed) of more exposed allies, the reassurance challenge would be very demanding. The task would be still more difficult if allies that feel most vulnerable were to demand ill-justified, arduous, and provocative reassurance measures even as they maintain already low defense budgets and thus are not contributing a reasonable share of the cost of their own defense.

The conduct of the Deterrence and Defense Posture Review has indicated that these issues are regarded as so sensitive that much will in practice continue to be handled confidentially within NATO. But there will be a role for Track II discussion to ventilate and debate the emerging political and deterrence issues. Many of the dilemmas bound up with NATO's nuclear future are opaque, interactive, disputable, publicly unspoken, and resistant to precise evaluation. Unclassified analysis and debate should be fully exploited to avoid internal disputes over the Alliance's nuclear posture stagnating and then bursting out into avoidable public disputes triggered by interlocking choices and cascading decisions.

This will not be an easy discussion for NATO members. But the Alliance must undertake it. There is a significant possibility that at least several of the five European allies that currently maintain DCA and base U.S. nuclear weapons on their territory will decide to end these roles. Careful NATO management of this issue will be crucial to avoiding an entirely predictable crisis among the allies.

There are two key elements that are likely to have to be included in a policy package if NATO is to move forward on this issue on the basis of a broad consensus. First, there will need to be some agreement on alternative nuclear-sharing options ("Smart Sharing") that allow the deterrence, burden-sharing, and reassurance roles that Europe-deployed U.S. nuclear weapons currently provide to be met in other ways. Second, agreement will be needed on a range of non-nuclear reassurance measures, in relation to NATO's more vulnerable

states, that can substitute, even if only partially, for the role of nuclear weapons in their security.

NATO will continue to be a nuclear alliance as long as potential adversaries possess nuclear weapons. But the role of nuclear weapons in the Alliance's deterrence and defense posture should continue to evolve. A combination of efforts in these two key areas would help to ensure that the mix of nuclear and conventional capabilities in NATO's posture remains appropriate for an environment that is quite different from the one in which existing nuclear-sharing arrangements were created half a century ago.

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**The role of nuclear weapons in the Alliance's deterrence and defense posture should continue to evolve.**

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## Notes

- 1 The United States has long provided nuclear weapons for potential use by NATO allies under “programs of cooperation.” Under such programs, the U.S. military maintains control of the nuclear weapon, which upon proper authorization would be turned over to the allied military for use by one of its delivery systems.
- 2 Robert S. Norris and Hans M. Kristensen, “U.S. Tactical Nuclear Weapons in Europe, 2011,” *Bulletin of the Atomic Scientists*, vol. 67, no. 1 (January 2011): 64–73; Mustafa Kibaroglu, “NATO and US Nuclear Weapons: What Would Happen after the Bombs Are Gone,” in *If the Bombs Go: European Perspectives on NATO’s Nuclear Debate*, edited by Malcolm Chalmers and Andrew Somerville, Whitehall Report 1–11, Royal United Services Institute, 2011, 41–50.
- 3 “NATO’s Nuclear Forces in the New Security Environment,” NATO background paper, [www.nato.int/nato\\_static/assets/pdf/pdf\\_topics/20091022\\_Nuclear\\_Forces\\_in\\_the\\_New\\_Security\\_Environment-eng.pdf](http://www.nato.int/nato_static/assets/pdf/pdf_topics/20091022_Nuclear_Forces_in_the_New_Security_Environment-eng.pdf).
- 4 Hans Kristensen, “The B61 Life Extension Program: Increasing NATO Nuclear Capability and Precision Low-Level Strikes,” *Federation of American Scientists Issue Brief*, June 2011.
- 5 The last Nuclear Non-Proliferation Treaty Review Conference, in 2010, noted “the reaffirmation by the nuclear weapon states of their unequivocal undertaking to accomplish, in accordance with the principle of irreversibility, the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under Article VI of the Treaty.” It also noted “with concern that the total estimated number of nuclear weapons deployed and stockpiled still amounts to several thousands.”
- 6 The discussion in this section is based in part on conversations with U.S. and other NATO member state officials, 2010–2012.
- 7 U.S. Department of Defense, “Nuclear Posture Review Report, April 2010,” 34.
- 8 Oliver Meier, “German Nuclear Stance Stirs Debate,” Arms Control Association, [www.armscontrol.org/print/3984](http://www.armscontrol.org/print/3984).
- 9 Dutch Ministry of Defense, “F-16 Replacement: Candidate Comparison,” [www.defensie.nl/english/dmo/f-16\\_replacement/candidate\\_comparison](http://www.defensie.nl/english/dmo/f-16_replacement/candidate_comparison).
- 10 Dutch Parliament, Second Chamber, Meeting Year 1999–2000, 26 488, no. 4, 16–17.
- 11 Karl-Heinz Kamp, “NATO’s Nuclear Weapons in Europe: Beyond ‘Yes’ or ‘No,’” NATO Defense College Research Paper, September 2010, 6.

- 12 We have drawn extensively upon the very recently published and comprehensive analysis by Hans Binnendijk and Catherine McArdle Kelleher, “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” Institute for National Security Studies, National Defense University, January 2012. But the problematic of that study is slightly different, and we have also adopted both a different typology and a different approach to the appraisal of the various options.
- 13 Views expressed in interviews with officials, diplomats, and academics, 2010–2012.
- 14 Overall impressions from private interviews with East European diplomats, 2010–2011.
- 15 See the recent reaffirmation of this vision in “Historical Reconciliation and Protracted Conflicts,” Euro Atlantic Security Initiative, February 2012.
- 16 Sinan Ulgen, “Turkey and the Bomb,” Carnegie Paper, Carnegie Endowment for International Peace, February 2012.
- 17 The CEE term here includes the Baltic members of NATO and those states in the Central-Eastern European region that joined the Alliance in 1999 and 2004.
- 18 Hans M. Kristensen and Robert S. Norris, “Russian Nuclear Forces, 2012,” *Bulletin of the Atomic Scientists*, vol. 68, no. 2 (March 2012): 89–90.
- 19 On-the-Record Interview with Rose Gottemoeller, assistant secretary of state, Bureau of Arms Control, Verification and Compliance, January 19, 2012, published in the *International Herald Tribune*, January 31, 2012.
- 20 Ulgen, “Turkey and the Bomb.”
- 21 Jacek Duralec, “New Strategic Concept and NATO’s ‘visible assurances’ towards Central and Eastern Europe,” *Bulletin of the Polish Institute of International Affairs*, December 2011.
- 22 “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” 5.
- 23 “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” 3.
- 24 “NATO Extends Air Policing Operation over Baltic,” *Washington Post*, February 8, 2012, [www.washingtonpost.com/world/europe/nato-extends-air-policing-operation-over-baltic-nations-until-2018/2012/02/08/gIQA73elyQ\\_story.html](http://www.washingtonpost.com/world/europe/nato-extends-air-policing-operation-over-baltic-nations-until-2018/2012/02/08/gIQA73elyQ_story.html).
- 25 There are only two headquarters of multinational units already there: the Multinational Corps Northeast in Szczecin, Poland, and the Heavy Airlift Wing (HAW) at Pápa Airbase, Hungary, operating three Globemasters for the NATO Airlift Management Organization.
- 26 “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” 8.
- 27 “Norway: NATO losing self defence ability,” Atlantic Council News Blog, January 13, 2012. Available at [www.acus.org/natosource/norway-nato-losing-self-defense-ability](http://www.acus.org/natosource/norway-nato-losing-self-defense-ability).
- 28 “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” 6.
- 29 ZAPAD and Lagoda were large-scale Russian exercises with thousands of troops, based on scenarios postulating attack from CEE states.
- 30 “NATO Reassurance and Nuclear Reductions: Creating the Conditions,” 4.
- 31 Ibid.
- 32 Ibid., 6.

- 33 Lukasz Kulesa, "Polish and Central European Priorities on NATO's Future Nuclear Policy," Nuclear Policy Paper no. 2, Arms Control Association (ACA), British American Security Information Council (BASIC), and Institute for Peace Research and Security Policy at the University of Hamburg (IFSH) (November 2010): 8, [www.basicint.org/sites/default/files/nuclear\\_policy\\_paper\\_2.pdf](http://www.basicint.org/sites/default/files/nuclear_policy_paper_2.pdf).
- 34 Jacek Durkalec, personal communication.
- 35 "NATO to purchase drones," Security and Defence Agenda, February 16, 2002, available at [www.securitydefenceagenda.org/Contentnavigation/Library/Libraryoverview/tabid/1299/articleType/ArticleView/articleId/3077/NATO-to-purchase-drones.aspx](http://www.securitydefenceagenda.org/Contentnavigation/Library/Libraryoverview/tabid/1299/articleType/ArticleView/articleId/3077/NATO-to-purchase-drones.aspx).
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## About the Authors

**MALCOLM CHALMERS** is research director and director (UK Defense Policy) at RUSI. He is a special adviser to the UK Parliament's Joint Committee on the National Security Strategy, and was a member of the UK Cabinet Office consultative group for the 2010 Strategic Defense and Security Review, and of the UK Defense Secretary's Advisory Forum for the 2010 Defense Green Paper. He was Visiting Professor of Defense and Foreign Policy in the Department of War Studies, Kings College, London, and was an FCO Special Adviser to Foreign Secretaries Jack Straw MP and Margaret Beckett MP. Chalmers's publications include "Looking into the Black Hole: Is the UK Defence Budget Crisis Really Over?" RUSI Briefing Paper, September 2011; "Keeping our Powder Dry? UK Defence Policy Beyond Afghanistan," RUSI Journal, 156, 1, 2011; and "The Lean Years? Defence Consequences of the Fiscal Crisis," in Michael Codner and Michael Clarke, eds., *A Question of Security: British Defence Policy in an Age of Austerity* (I B Tauris, 2011).

**GEORGE PERKOVICH** is vice president for studies and director of the Nuclear Policy Program at the Carnegie Endowment. His research focuses on nuclear strategy and nonproliferation, with a focus on South Asia and Iran, and on the problem of justice in the international political economy. He is the author of the award-winning book *India's Nuclear Bomb* (University of California Press 2001) and co-author of the Adelphi Paper, *Abolishing Nuclear Weapons*, published in September 2008 by the International Institute for Strategic Studies. Perkovich served as a speechwriter and foreign policy adviser to Senator Joe Biden from 1989 to 1990 and is an adviser to the International Commission on Nuclear Non-Proliferation and Disarmament and a member of the Council on Foreign Relations' Task Force on U.S. Nuclear Policy.

**STEVEN PIFER** is a senior fellow at the Brookings Center on the United States and Europe and director of the Brookings Arms Control Initiative. He focuses on arms control, Russia, and Ukraine. He has offered commentary regarding Russia, Ukraine, and arms control issues on CNN, Fox News, CNBC, BBC, National Public Radio and VOA, and his articles have appeared

in the *Washington Post*, *International Herald Tribune*, and *Boston Globe*, among others. Pifer served as deputy assistant secretary of state in the Bureau of European and Eurasian Affairs with responsibilities for Russia and Ukraine (2001–2004), U.S. ambassador to Ukraine (1998–2000), and special assistant to the president and senior director for Russia, Ukraine, and Eurasia on the National Security Council (1996–1997). In addition to Ukraine, he served at the U.S. embassies in Warsaw, Moscow, and London as well as with the U.S. delegation to the negotiation on intermediate-range nuclear forces in Geneva. Ambassador Pifer's publications include "The Next Round: The United States and Nuclear Arms Reductions After New START," Brookings Arms Control Series Paper #4 (November 2010); and "The Trilateral Process: The United States, Ukraine, Russia and Nuclear Weapons," Brookings Arms Control Series Paper #6 (May 2011).

**PAUL SCHULTE** is a nonresident senior associate in the Carnegie Nuclear Policy Program and at Carnegie Europe, where his research focuses on the future of deterrence, nuclear strategy, nuclear nonproliferation, cyber security, and their political implications. Schulte is a senior visiting fellow in the Disarmament and Globalization Program at the University of London's School of Oriental and African Studies, the Centre for Defense Studies at King's College at the University of London, and the Centre for the Study of Global Governance at the London School of Economics and Political Science. He previously served as chief speechwriter to two UK defense secretaries (2006–2007), as director of proliferation and arms control for the UK Ministry of Defence, and as UK commissioner on the UN commissions for Iraqi disarmament, UNSCOM, and UNMOVIC (1997–2002).

**JACLYN TANDLER** is the junior fellow in the Carnegie Nuclear Policy Program. She has conducted research on a variety of issues related to nuclear nonproliferation, disarmament, international security, and deterrence. She graduated with honors in international security studies from Stanford University.



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