NATO and Nuclear Weapons

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The Alliance’s deterrence systems left over from the Cold War cannot but evolve in the current environment. Aspects of NATO’s nuclear strategy need therefore to be reviewed. What role should NATO weapons play from now on? How should decisions be taken in moments of crisis, and how will NATO weapons be used? Are the sharing agreements still appropriate? And how is an agreement to be reached with Moscow about the scrapping of short-range nuclear weapons?

The 1999 Strategic Concept has been described as a core mission statement for NATO. The Secretary General of the Alliance, Anders Fogh Rasmussen, has established a Group of Experts to lay the groundwork for a new NATO Strategic Concept. The results of the Group of Experts work will be the subject of open consultation among and within the allies before inter-governmental discussions to elaborate a new document. This process is expected to lead to a new Strategic Concept being adopted by the end of 2010.

Among other things, the Strategic Concept lays out the main parameters of current NATO nuclear policy. There appears to be an emerging pattern of reviewing the Strategic Concept of NATO roughly every ten years, so the task facing the experts is to establish guiding principles for Alliance nuclear policy over the next ten years.

At the time of writing, the United States Department of Defense is reviewing its nuclear posture, a process that should be complete by the end of 2009. Aside from the work of the Group of Experts, NATO is also undertaking an internal review of nuclear deterrence requirements for the 21st century. The role, size and configuration of nuclear forces is therefore being evaluated in key NATO countries and collectively within the Alliance.
The United States has tried to create a positive environment for new steps in arms control through a number of political initiatives. In a speech in Prague in April 2009, President Obama reconnected the issues of nuclear non-proliferation and disarmament and emphasized the urgent need to reduce the role of nuclear weapons in international security. The Obama administration has also re-energized the bilateral nuclear arms-control negotiations with Russia and proposed convening a high-level summit in 2010 to discuss the security of nuclear materials worldwide. At the end of September 2009, President Obama chaired a meeting of the UN Security Council discussion of nuclear arms control. This meeting culminated in unanimous support for a Security Council resolution that called for existing nuclear arms-control law to be strengthened. The US administration has also shown a willingness to engage in dialogue with states that are currently considered to pose particular problems for nuclear arms control.

A new context for arms control

In Europe the leaders of France and the United Kingdom have also developed their thinking on what the next steps should be in creating the conditions not only for additional reductions, but for nuclear disarmament. The British and French recommendations have been published and senior political figures have promoted them in public conferences and forums, creating both an opportunity and a framework for a broad discussion of nuclear arms control. The Secretary General of the United Nations has laid out his own program and views on the future of nuclear arms control.

Together, these developments make this an interesting time to consider the role of nuclear weapons in creating a sense of security in and for the members of NATO. This article will try to describe the options and the constraints that set the parameters for nuclear choices that NATO will face in the coming years.

This should be seen as an effort to contribute to a wider European debate that will be needed in the near future concerning the available options for building national, European regional and international security.

The changing threat picture and NATO’s nuclear response

In spite of the recent reminder that serious clashes can still occur at the periphery of Europe, territorial defense against the threat of invasion by the armed forces of states is no longer the principal military security concern of countries in NATO.
It is now clear that a number of countries, including some located not too far from Europe, have made steady progress over an extended period to build technical capacities that can be the basis for nuclear weapons programs. As well, a number of countries, in most cases the same ones, have sustained engagement in the development of missile delivery systems of various types, including ballistic and cruise missiles of different ranges. Analysis of the information gathered by the United Nations related to Iraqi weapons programs as well as the unmasking of the A. Q. Khan network have shown how clandestine procurement techniques have become more sophisticated and trafficking has become more difficult to prevent.

As a result, there is a real possibility that what were thought to be problems unfolding over 25 to 30 years will appear at the borders of NATO more quickly. Within the decade covered by the next Strategic Concept, it is possible that one or perhaps more than one new nuclear weapons state, armed with ballistic missiles, could be present at the borders of the Alliance. The still unexplained event in which a facility in Syria was destroyed by Israel is an indicator that unexpected problems might emerge fairly quickly.

During the Cold War, defense, deterrence, political engagement to defuse crises, broader political engagement (or détente), military confidence-building measures and arms control all worked together as part of the effort to build security in and for the NATO allies. While the balance between the instruments was different at different times, there was never a moment when all efforts were focused on one of them. This mix proved to be successful in meeting the military security challenge posed by a single, large adversary in the past.

Whether or not these instruments can address current needs is less certain. As discussed below, how deterrence might be made effective is uncertain in the new environment. However, the other security policy tools are equally unproven in the new environment. Prevention using non-proliferation instruments has had mixed success. With regard to defense, even the advocates of missile defense recognize the limitations of what can be achieved with existing technologies.

The level of confidence in containment through mutual self-restraint – in other words, arms control – has fallen in recent years. It is not clear that trust in multilateral arms control can be recovered in spite of the renewed commitment by the United States to work for progress in this area. In any event, there is no arms-control framework bringing together NATO members with all the countries around the periphery of the enlarged Alliance.
As of today, all allies continue to see a role for nuclear weapons as one part of a mix of capabilities that are needed to guarantee their security in an uncertain and fragmented international environment. A confirmation that nuclear weapons remain essential to the security of the Alliance can be found in the Declaration on Alliance Security issued at the Kehl summit on 4th April 2009, which states that “deterrence, based on an appropriate mix of nuclear and conventional capabilities, remains a core element of our overall strategy.”

The consolidation and reduction of nuclear forces in France, the United Kingdom and the United States has been continuous since the early 1990s. At the same time, all three countries have continued to invest in research, development and production to keep nuclear forces safe, secure and functional. In future, the strategic nuclear arsenals of these three NATO allies will be numerically smaller, but the weapons retained will be modern, very effective and capable of dealing a devastating blow to any adversary if used.

Given the changes in the nature of security problems sketched above, the need for all aspects of security policy to be re-evaluated is recognized and, although NATO will remain a nuclear alliance during the coming decade (the period for which the upcoming Strategic Concept is probably valid), there are aspects of nuclear policy that seem ripe for discussion.

To achieve the fundamental purpose of preventing coercion and any kind of war, the strategic nuclear forces of the United States, France and the United Kingdom are all, in their different ways, considered to contribute to the overall deterrence and security of all the NATO allies. However, in these three countries there has been some evidence of diverging views about the future role of nuclear weapons.

In the United States, a ‘new strategic triad’ has been suggested, whereby in future nuclear weapons would be one element alongside advanced conventional capabilities and so-called non-kinetic capabilities (including new capabilities such as cyber weapons), missile (and other) defenses, and enhanced resilience if an attack does take place. The underlying approach on which this change would be based has not been explained or discussed in Europe outside a very small and closed group of experts. Whether this is an approach intended to strengthen the security of the US or whether the

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underlying philosophy is for wider application within NATO has not been made clear; neither has its feasibility or desirability been debated.

An issue that has begun to be debated inside the Alliance is whether nuclear deterrence can be tailored to a discrete and narrower set of circumstances than was the case in the past and, if it can, then how this can be accomplished and what would the implications be? This discussion has already been under way in the US for some time. As David Yost has pointed out, the 2006 Quadrennial Defense Review Report (QDR) already proposed moving to “tailored deterrence for rogue powers, terrorist networks and near-peer competitors.” However, as Yost went on to say, the QDR did not define tailored deterrence or examine the organizational and operational challenges it presents.

Nuclear forces based in Europe and committed to NATO are also considered necessary by the Alliance in order to provide an essential political and military link between its European and North American members. In current NATO thinking, the commitment to maintain adequate nuclear forces in Europe is contingent on those forces having “the necessary characteristics and appropriate flexibility and survivability to be perceived as a credible and effective element of the allies’ strategy in preventing war.”

Apart from being credible (that is, any potential adversary must believe that under certain conditions nuclear weapons could really be used), nuclear forces need to meet several other tests, according to NATO official documents. First, they must be safe, secure and reliable, since public support would quickly drain away if NATO nuclear weapons came to be seen as a danger to our own societies through the accidental release of radiation or because they might fall into the wrong hands. Second, there is a military-technical test by which weapons must be possible to deploy and use, and appropriate for countering anticipated threats.

**Short-range nuclear weapons in NATO strategy**

The political context for the deployment of nuclear weapons in Europe has changed significantly in recent years. Nuclear policy was characterized by a high degree of solidarity among allies when a large number of nuclear weapons were present in Europe, distributed across many countries. With

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3. The Alliance’s Strategic Concept, approved by the heads of state and government at the meeting of the North Atlantic Council, Washington DC on April 23-24 1999, paragraph 63.
the drawdown and consolidation of armed forces and equipment has come a realignment and closure of facilities. As a result, the number of countries directly engaged in the nuclear mission has been shrinking continuously since the end of the Cold War.

Traditionally, NATO has been willing to confirm that nuclear weapons owned by the United States are stored in Europe but unwilling to provide additional details or clarifications. However, it is widely believed that these weapons are currently stored in five countries: Belgium, Germany, Italy, the Netherlands and Turkey. Unlike in the past, when nuclear weapons might have been delivered by a wide range of tube artillery, short-range rockets and missiles as well as land and sea mines, the only nuclear delivery system for these weapons at present would be dual-capable fast jets.\(^4\) In some cases these would be flown on their missions by the US Air Force and in other cases by pilots from the air force of the country on whose territory the weapons are located.

In recent years it is believed that the number of participants in the nuclear mission has continued to shrink, with Greece and the UK the most recent countries to effectively withdraw from the sharing arrangements. Recent political statements by senior government figures suggest that additional countries would like to withdraw from the sharing arrangements. In the Netherlands, in a parliamentary debate on 10\(^{th}\) September 2009, the Social Democratic Party, one of the coalition partners in the current government, called for the withdrawal of US nuclear weapons from Europe.\(^5\) With support from Chancellor Angela Merkel, German Foreign Affairs Minister Guido Westerwelle has made the withdrawal of US nuclear weapons from bases in Germany one of the policy goals of the newly elected government.\(^6\) If the sharing arrangements involved only two countries, Italy and Turkey, then at some point a domino effect leading all NATO countries to give up the nuclear task might become unavoidable.

As the allies have progressively given up the nuclear mission, there are also barriers that prevent some NATO members from participating in nuclear sharing arrangements. In December 1996, NATO foreign affairs and defense ministers made a unilateral announcement that NATO has

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4. NATO has confirmed that by 2003 the number of different types of nuclear systems deployed in Europe had been reduced from 13 in 1971 to one (US gravity bombs carried on dual-capable aircraft), NATO’s Nuclear Forces in the New Security Environment. NATO Fact Sheet: see http://www.nato.int/issues/nuclear/sec-environment.html
“no intention, no plan, and no reason to deploy nuclear weapons on the territory of new member countries, nor any need to change any aspect of NATO’s nuclear posture or nuclear policy, and that it does not foresee any future need to do so.” This commitment was reiterated in the document that established a new basis for cooperation between NATO and Russia; that document also elaborated and explained that “this subsumes the fact that NATO has decided that it has no intention, no plan, and no reason to establish nuclear weapon storage sites on the territory of those members, whether through the construction of new nuclear storage facilities or the adaptation of old nuclear storage facilities.” Nuclear storage sites are understood to be facilities specifically designed for stationing nuclear weapons, and include all types of hardened above- and below-ground facilities (storage bunkers or vaults) designed for storing nuclear weapons.

Given these developments, whether NATO nuclear policies currently meet the self-imposed test of solidarity and burden-sharing is an open question. It appears more likely that, as a number of recent analyses have concluded, the main reason for retaining US nuclear weapons in Europe is inertia on both sides of the Atlantic, given that the weapons have been described as having an “almost dormant status.”

The countries that participate in the nuclear sharing arrangements will also face some decisions of a military-technical kind in the not too distant future. It is believed that the aircraft available to drop the US-owned B-61 nuclear bomb are the Tornado IDS operated by Germany and Italy, the F-16C/D and MLU versions operated by Belgium and the Netherlands, and the F-15E and F-16C operated by the US Air Force. Given that these aircraft types will come to the end of their operational lives in the next ten years, there are genuine doubts over whether European air forces will have a dual-capable aircraft available to replace them.

Looking beyond 2020, the United States, Italy, the Netherlands and Turkey are very likely to buy the F-35 fighter aircraft (formerly known as the Joint Strike Fighter or JSF) for their air forces – though no formal decisions have been taken. In 2004 the prototype of the F-35 (then still known as JSF) is said to have completed its initial nuclear certification requirements plan. However, while the development of a nuclear-capable F-35

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9. NATO documents confirm that the US Navy has completely eliminated the nuclear role for its aircraft carrier-based aircraft.
variant is not excluded, it is not currently contracted. The high-level group
appointed by US Secretary of Defense Robert Gates to evaluate the strate-
gic posture of the United States noted that the defense budget did not
include any funding for a dual-capable version of the F-35. Moreover, the
F-35 contractors are not authorized to open discussions with the US
nuclear weapons complex on technical issues related to adapting fighter
aircraft to carry nuclear bombs.\footnote{11} Thus, two uncertainties surround
the F-35: will there be a dual-capable variant and, if so, will any country par-
taking in the NATO sharing arrangements buy it?

Two countries, Belgium and Germany, have not expressed any interest
in buying the F-35. For them to change this position would imply a serious
commitment of funds from already constrained defense budgets and
would be difficult to justify based on expected operational requirements.

Apart from the F-35, the other possible contenders to replace existing
European fighter aircraft in a ground-attack role seem unsuited to NATO’s
nuclear task. Although it could carry the B-61 bomb, a nuclear mission for
the JAS-39 Gripen would be excluded by the Swedish government. The
French Rafale F3 is dual-capable and has a nuclear mission in France. How-
ever, the United States would need to grant access to the relevant parame-
ters of the B-61 to allow a release mechanism to be designed and fitted
while the French government would need to grant access to the relevant aircraft
technology. It seems unlikely that either government would be willing to share the
relevant technical data, while the French companies involved might also
be reluctant to release technical data to the US. The FGR4 ground-attack
version of the Typhoon would be the only other European alternative, but
this aircraft is not currently tasked with a nuclear mission. There do not
appear to be any initiatives to develop a dual-capable version of the
Typhoon.

With respect to the US Air Force, the oldest dual-capable US aircraft cur-
rently based in Europe (F-16s at Aviano, Italy) are probably approaching
20 years in service. However, most of the aircraft based at Lakenheath in
the UK were probably built in the past ten years and have many years of
service life remaining. It seems likely, therefore, that F-15E aircraft based

\footnote{10. United States Department of Defense, \textit{RDT&E Budget Item Justification Sheet}. Defense Technical
\footnote{11. \textit{America’s Strategic Posture: The Final Report of the Congressional Commission on the Strategic
Posture of the United States}. Washington DC: United States Institute for Peace, 2009.}
at Lakenheath could come to play an ever more central role in the NATO nuclear mission.

The United States is also currently grappling with a set of difficult issues related to the future of the B61 nuclear bombs assigned to dual-capable aircraft. In September 2009, the US Congress proposed that, once the requirement for a B61-12 version was confirmed, the Department of Energy should be authorized to continue with a B61-12 upgrade study. However, at the time of writing, the US Department of Defense (which did not request that funds be allocated in the congressional legislation) had not decided how to proceed with possible modernization of the B61 bomb.

Engagement with Russia and the future of short-range nuclear weapons in NATO

The nuclear weapons that are available for delivery by dual-capable aircraft play an essentially political role as symbols of the commitment by the United States to defend its European allies.

Few people either inside or outside the official structures believe that the weapons could play a direct role in the defense of NATO. The location of the weapons and the nature of the delivery systems mean that any use of the weapons would have to occur at the periphery of the enlarged Alliance. The weapons could not be used in more distant locations (even if there was a meaningful task for them to carry out there) because there is no way to fly distant missions from their current bases and no temporary storage facility available for the weapons in a distant theatre.

Changes in the way in which NATO operates have raised a question over whether the nuclear weapons based in Europe would be an instrument of solidarity in a crisis or whether they would in fact become a rather divisive issue. Prior to 1991, NATO peacetime contingency plans included identified targets for standing nuclear forces, but with the end of the Cold War this type of planning was discontinued, and nuclear forces no longer targeted any specific country in peacetime.

Cold War conditions required a complex and integrated peacetime plan for immediate implementation once a conflict began. In a more benign threat environment, there has not been the same need for rigid planning.

Plans have been developed and adapted continuously to meet a much wider and very different range of contingencies. Any connection between nuclear forces and recent NATO plans seems remote at best and probably does not exist. The United States was already moving to a system called ‘adaptive planning’ by the time of the 2001 Nuclear Posture Review.\textsuperscript{13}

The absence of a detailed plan means that, in a crisis, NATO would have to use its existing planning mechanisms to reach agreement on when and how nuclear weapons might be used, including changes in alert status and deployment patterns in a crisis. These mechanisms would normally require consensus among the 28 allies in order to reach any decision. However, in nuclear matters France has made clear that it intends to remain outside some of the relevant decisionmaking bodies and so it is not clear exactly how French perspectives might be included in collective decisions.

If proposals to use nuclear weapons to signal to an adversary during a crisis created disagreements among the allies, the political symbolism would not demonstrate solidarity in the face of an external threat. It could actually achieve the reverse effect and persuade a potential adversary that the Alliance was divided and in disarray.

NATO threat assessments have raised the general issue of how the Alliance can reduce the impact of civil wars around the periphery of the enlarged NATO, including those that occur at or close to the borders of nuclear-weapons states. These conflicts will have spillover effects on the Alliance, whether or not NATO is directly involved. Russian military engagement inside Georgia underlined that this is not a hypothetical concern.

The conflict in Georgia did not engage a NATO ally, but there are concerns in several parts of NATO about growing vulnerability to Russian pressure. This is perhaps greatest in the Baltic states and in Poland, given that Russia continues to carry out major exercises in close proximity to these countries.\textsuperscript{14}

\textsuperscript{13} “The current nuclear planning system, including target identification, weapon-system assignment, and the nuclear command and control system requirements, is optimized to support large, deliberately planned nuclear strikes. In the future, as the nation moves beyond the concept of a large, single integrated operational plan (SIOP) and moves towards more flexibility, adaptive planning will play a much larger role,” (emphasis added), Nuclear Posture Review Report, 8 January 2002, p. 29. Available at http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm
\textsuperscript{14} In 2009 about 12,500 troops from Russia and Belarus took part in major exercises involving aircraft, armor and other heavy weapons in southern Belarus, about 125 kilometers (78 miles) from the Polish border, and in Kaliningrad (which borders Poland and Lithuania).
NATO will have to find a response to address the reasonable concerns of allies which feel they are exposed to risk. However, for reasons stated earlier, it is unlikely that the presence or absence of US nuclear weapons in Europe can provide much assurance. A number of non-nuclear initiatives could, taken together, strengthen solidarity inside NATO.

The pattern of exercises involving allies and organized under the NATO umbrella could be modified so that activities become more regular and more tailored to the security environment of exposed countries. These exercises could demonstrate that NATO is still able to concentrate significant conventional firepower in a particular place and at fairly short notice. The exercises could be made part of a dedicated effort to strengthen military planning for any contingencies arising at the periphery of the enlarged NATO.

These steps might be combined with a set of stronger bilateral agreements between exposed countries and the United States. This pattern might also extend to agreements with the two European NATO nuclear-weapons states. The precedent for this could be the Declaration on Strategic Cooperation between the United States and Poland, which is intended to deepen their military and political partnership through a mutual commitment to assist one another immediately if either should come under attack.  

In the first instance, NATO will have to come to a decision about whether short-range nuclear delivery systems are still needed. However, if NATO leaders decided that the weapons are no longer essential, it is unlikely that the Alliance would support unilateral removal before trying once again to engage Russia in a mutual agreement to eliminate them. While the development of relations with Russia is a complicated matter, ending the stationing of US weapons in Europe might be part of a process of re-engaging with Russia. Ultimately, a joint mandate could be sought with Russia, for negotiations leading to a ban on short-range nuclear forces in deployment. However, difficult challenges would have to be overcome before the benefits of such an approach could be realized.

An agreement would require the current gap in understanding of the role of nuclear weapons to be closed. At present, the US and Russia seem to be moving in different directions in this regard, with the US progressively de-emphasizing the role of nuclear weapons and Russia appearing

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to rely on nuclear deterrence to an increasing degree. Russia is reported to be in the final stages of updating its nuclear weapons doctrine as the latest step in elaborating a set of hierarchical documents defining national security. While the content of the new document is not known, reports suggest that the formulation in the 2000 doctrine, related to the first use of nuclear weapons in response to an attack on Russia with conventional arms, will be retained.16

While the next phase of nuclear arms control will be bilateral between the United States and Russia, talks will need to take account of a range of related issues – such as the development of advanced conventional weapons and ballistic missile defenses. Generating greater transparency regarding Russian short-range nuclear forces might form part of this wider package of issues.

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In spite of the development of a new momentum behind nuclear arms control, it appears certain that NATO will remain a nuclear alliance during the next decade. There is a common understanding among the members of the Alliance that the international security conditions are too uncertain to allow for a unilateral decision that nuclear deterrence is no longer necessary as an element in NATO strategy.

The decisions by France, the United Kingdom and the United States to retain modern and effective nuclear arsenals provide the basis for continued NATO nuclear deterrence. However, there are significant political, military, technical and economic arguments against a long-term commitment to retain US nuclear weapons in Europe. There are also alternative means of creating assurance in exposed parts of the Alliance that are likely to be more effective than continued reliance on nuclear sharing arrangements.

One objective of NATO during the period for which the next Strategic Concept is valid – which is likely to be roughly a decade – should be to engage with Russia to explore how to safely reduce and eliminate the short-range nuclear weapons currently based in Europe. This will probably require some changes in the way that NATO plans and operates.

16. Some reports suggest that the new document may go further and link the use of nuclear weapons to a regional or local conventional conflict as opposed to a major war. For example, ‘Kremlin Says Worries Over Revised Nuclear Doctrine Unnecessary,’ Global Security Newswire, October 26 2009: http://www.globalsecuritynewswire.org/gsn/nw_20091026_7027.php
There appear to be differences between the discussion of nuclear issues in NATO and the way in which the issue is presented in the capitals of the allied countries. A discussion that gathers experts for regular consultations on nuclear issues should be considered in the short term. Consultation on the broader issues of the next steps in bilateral arms control could also form part of this process. To achieve an eventual ban on short-range nuclear forces by agreement with Russia, France would need to include the airborne component of national nuclear forces in an eventual settlement. The proposed arrangement could facilitate an internal NATO dialogue that includes all allies while respecting France’s policy of self-exclusion from the most relevant nuclear bodies.

KEYWORDS
Atlantic Alliance
NATO
Nuclear weapons
United States
Russia