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NATO's Nuclear Weapons in Europe: Beyond "Yes" or "No"

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"NATO is a nuclear alliance", stated US Secretary of State Hillary Clinton at NATO's informal ministerial meeting in Tallinn in April 2010. NATO always was, but many had forgotten about this constituting element of the North Atlantic Alliance. Today, the nuclear question and the so- called "tactical" [2] nuclear weapons (TNW), i.e. the US nuclear bombs stationed in five European member countries (Belgium, Germany, Italy, Netherlands, Turkey) are back on the political agenda. Ignited by some European member governments, a debate on the pros and cons of the American nuclear presence in Europe has started. Some are in favor of a rapid withdrawal of these weapons from European soil and claim that the strategic rationale for these types of weapons, which were supposed to be used against Warsaw Pact forces, had long gone. Opponents of quick removal point out that a credible nuclear deterrence posture remains essential for NATO - not least to reassure most of the new NATO members who still harbor concerns with regard to a potentially aggressive Russia (which keeps an estimated number of 3,000 tactical nuclear weapons in its European part - about 10 to 15 times as many as NATO).

It is not the first time in the last years that a nuclear debate has briefly emerged in NATO. In 1998, for instance, the new Red-Green coalition government in Germany requested, together with Canada, a revision of NATO's nuclear policy, particularly with regard to the "First Use Doctrine". As in some other cases, though, the issue was soon buried and a serious debate on the requirements of a credible nuclear deterrence for the 21st century was carefully avoided. Existing differences and contradictions were papered over by generic communiqué language. [3]

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[2] The characterization of these weapons as "tactical" is an outmoded definition stemming from the Cold War times when the use of these weapons on the battlefield was seen at least conceptually (i.e. in the logic of escalation) as a viable option.

[3] There was just a little internal debate in NATO. NATO's "High Level Group" (the senior nuclear advisory body of the Alliance) produced in 2007 a classified report on NATO's nuclear posture in the 21st century, which has been amended a couple of times since then.

This time, however, a status quo oriented "don't rock the boat" approach might not work, as a number of political and military developments require an open discussion. President Obama's call for a nuclear free world – the so called "Global Zero Initiative" - increased general interest in the issue. The likelihood that Iran will soon become a nuclear power will build up pressure from the opposite side. Within NATO there are intensive disputes on how to deal with the nuclear issue in the new Strategic Concept, which will be developed for the NATO summit in November 2010. France in particular opposes the global zero idea and rejects any tendency to reduce the relevance of nuclear deterrence.[4] Thus, beyond arguing the pros and cons of keeping the US bombs in Europe, NATO has to answer the much broader question of what it takes to keep deterrence credible in the years to come. How to deter whom with what?

NATO's Nuclear Debate

In November 2009 the coalition agreement of the newly elected German government requested the withdrawal of all US nuclear weapons from German territory. In the months that followed, German foreign minister Guido Westerwelle advertised this position outspokenly, focusing more on withdrawal - as if nuclear reductions would be of value per se - and much less on the entire strategic political framework of deterrence requirements. This came as a surprise for most NATO allies, especially as it was a conservative-liberal government taking a political view that in the past had been expressed primarily by Social Democratic or Green politicians. Still, the German position was seconded by the foreign ministers of the Benelux countries and by Norway - albeit in a less explicit way. In a common letter to the NATO Secretary General in February 2010, Germany, Norway, Belgium, Luxembourg and the Netherlands called for an open discussion on how NATO could further reduce the role of nuclear weapons.

Some reactions within the Alliance were very critical: the former NATO Secretary, Robertson, accused Germany of a "beggar-my-neighbor" policy and of free riding with respect to the benefits of deterrence, but leaving the burden to others.[5] NATO's current Secretary General, Rasmussen, stated that NATO would stick to nuclear deterrence as long as nuclear weapons were in the world [6], and key representatives of the Obama administration emphasized on a variety of occasions that the United States was not ready for quick and unilateral nuclear reductions in Europe - despite the anti-nuclear rhetoric of the American president.[7] The reason for this anti-withdrawal rhetoric was not only the fact that Russia still keeps an arsenal of tactical nuclear weapons exceeding the number of US warheads in Europe by more than ten times. Equally important is the political role of these weapons. In particular, representatives from NATO's Eastern European member states still harbor concerns with regard to a potential Russian aggression and express serious doubts as to whether or not Alliance solidarity - and particularly the solidarity of the "old" European NATO members - would be granted in a case of need. US nuclear weapons are therefore regarded as a strong symbol of the credibility of the American commitments to the security of Europe. Eliminating the American nuclear presence in Europe - even if the number of warheads is small[8] - could further erode Alliance cohesion at a time when reassurance and solidarity issues are at the heart of the Alliance debate on its new Strategic Concept.

Hence, the informal spring meeting of NATO foreign ministers in Tallinn in April 2010 concluded with the confirmation of the status quo: for the time being, the US nuclear weapons will remain where there are, as no ally will push unilaterally for an immediate withdrawal. Moreover, NATO will discuss the nuclear question in the context of the general debate on its new Strategic Concept. However, as this strategy is supposed to be defined in a brief and crisp document of about 8 - 12 pages, it will be hard to foresee anything other than short wording on the general need

[4] The rifts are so deep that the 28 NATO defense ministers decided at their spring meeting in Brussels in June 2010 to delete the nuclear paragraph from the final communiqué as there was no agreement on the wording.
[5] Franklin Miller, George Robertson, Kori Schake, Germany Opens Pandora's Box, Centre for European Reform, London, February 2010.
[6] In a press conference on April 19, 2010, http://www.nato.int/cps/en/natolive/news_62605.htm
[7] It is worth mentioning that the US Nuclear Policy Review of 2010, which displays some nuclear dissent in the Obama administration, calls for a full life extension program for the B-61 bombs.
[8] The number of American nuclear weapons in Europe has been constantly reduced. Currently, only a small number of warheads - the exact size of the arsenal is classified - is deployed in the five countries mentioned above.

for keeping up NATO's nuclear deterrence capabilities, without specifying the weapons and the places of their deployment. In any case, the NATO's nuclear debate seems off the table again and the internal argument ignited by the German foreign minister seems to be adjourned.

However, this time it will be much more difficult for NATO to go back to business as usual. The German foreign minister might not have put forward his unexpected anti-nuclear position[9] in a very adept manner; yet the critics of the US nuclear presence in Europe have a point when they state that the current strategic rationale for nuclear bombs on European soil is at best doubtful. Just leaving the weapons where they are cannot paper over the conceptual vacuum currently characterizing NATO's nuclear posture.

Strategic Inconsistencies

NATO's current nuclear posture consists primarily of air delivered nuclear bombs (Type B-61) stationed in Europe. Some of them are foreseen to be employed by US aircraft; others are under so-called "Programs of Cooperation", where the United States provide the nuclear weapons, whereas the stationing countries provide (and equip) the aircraft – as a special form of sharing of nuclear responsibilities. In addition, a few nuclear missiles on American and British submarines are still assigned to NATO.[10]

NATO's nuclear bombs in Europe are a relic of the East-West conflict. They were part of an entire spectrum of nuclear weapons of different types and ranges (missiles, cruise missiles, artillery shells, mines) deployed in large numbers in many NATO countries. The key purposes of these weapons were political, namely deterrence, war prevention and war termination in a Cold War context. By conveying the message that the damage it would suffer in a war would far outweigh any political or territorial benefit the Soviet leadership might hope for, the threat of nuclear retaliation would, it was believed, convince the Soviet Union not to use force against NATO. To make this deterrence message credible, NATO needed a number of nuclear and non-nuclear options to react to any foreseeable contingency. Even if deterrence had failed and Soviet troops had launched an attack, NATO's nuclear forces were supposed to have a role within what strategists named a "Continuum of Deterrence". Using them as a form of deliberate escalation would send a sign of resolve that would convince the aggressor of his miscalculation and pressure him towards a ceasefire at the lowest possible level of destruction. Even in war the purpose of nuclear weapons was not victory on the battlefield but the political goal of war termination.

In that sense, the B-61 bombs were one link in a long chain of nuclear forces - ranging from the intercontinental strategic systems in the United States to intermediate range missiles (deployed in Europe but able to reach the Soviet homeland) and to short-range nuclear weapons to be targeted against attacking formations in the Warsaw Pact satellite states. This mix of types and ranges and the fact that all the weapons could actually be used (this is a key dilemma of deterrence: nuclear weapons must be militarily usable in order to have a political effect), was intended to signal flexibility and alter the cost-benefit analysis of military planners in the Soviet Union who might contemplate military options against NATO.

Moreover, the American weapons in Europe would, it was felt, reassure the European NATO allies of the credibility of US nuclear commitments. In turn, by being a natural target for Soviet nuclear attacks, they would symbolize the readiness of the Europeans to share the nuclear risks within the Atlantic Alliance. Lastly, NATO's nuclear weapons were embedded in a system of nuclear consultation and nuclear participation, where the nuclear power, the United States, granted a high level of information and consultation to its non-nuclear allies. In the framework of NATO's Nuclear Planning Group (NPG), guidelines for the use of nuclear weapon on the European battlefield, for consultation procedures and for targeting plans were developed.

[9] It is worth noting that Westerwelle's Liberal Party (FDP) does not have an anti-nuclear tradition. On the contrary, it strongly supported NATO's Dual Track Decision and the stationing of Intermediate Nuclear Forces (INF) in Germany in 1983. Only in April 2005 - then in opposition - the party drafted a bill requesting the withdrawal of NATO's tactical nuclear forces from Germany. However, at that time, this was seen as a political move to drive a wedge between members of the governing Red-Green coalition, who were divided in their views vis-à-vis NATO. In late 2009, this position was reactivated and used in the campaign for the German national elections and was then codified in the coalition agreement - as the only foreign policy position, the FDP insisted upon.

[10] As the Alliance no longer conducts nuclear planning in the classic sense or nuclear targeting, this part of NATO's nuclear force currently plays a minor role and is not under debate.

Much of this Cold War deterrence and reassurance logic seems awkward today and sounds like "nuclear theology": one can believe it or not. However, it was conceptually consistent in the sense that the military hardware was more or less in line with the strategic reasoning and the political purposes at that time – as long as the basic assumptions were accepted.

With the fall of the Berlin Wall and the demise of the Soviet Union, almost all of the US nuclear weapons were withdrawn. On September 27, 1991 US President Bush announced that only a small air-delivered nuclear component, i.e. the nuclear bombs, would be left on European soil. The reasons for this decision were manifold: they were meant to deter a residual threat from the East, as the Soviet Union had officially ceased to exist only one day before (on September 26, 1991). Moreover, bombs on aircraft were regarded as flexible, had enough range to reach Russian territory, allowed the allies to participate in NATO's nuclear missions by providing the means of delivery and could – unlike missiles – be called back in the case of a false alarm or a fundamental change in the situation. In the NATO jargon at that time, B-61 bombs delivered by fighter bombers combined in the best possible way the requirements of flexibility, reliability and survivability.

While this reasoning might have been valid for the first years after the end of the Cold War, it seems hardly applicable two decades later. Instead, today's mismatch between deterrence requirements and nuclear posture could hardly be more striking. Seven inconsistencies are evident:

1) *Deterrence Requirements*

The strategic situation in Europe has changed fundamentally. Since the fall of the Berlin Wall NATO has enlarged by 12 countries; three NATO members have a common border with Russia. In classic terms of force comparisons (in Cold War times mockingly characterized as "bean counting") NATO's conventional forces today are highly superior to the military capabilities of Russia. Moreover, NATO and Russia are engaged in an intense partnership, which might not be free of frictions but has permitted fruitful cooperation on a variety of common concerns. All this does not exclude regional tensions or aggressive behavior by Moscow. That's why threat perceptions by Poland or the Baltic Countries cannot be simply dismissed – particularly as Russia remains the second largest nuclear power in the world. However, NATO's nuclear deterrence today no longer has to cope with the huge military force of an opposing empire.

Instead, deterrence (nuclear but also conventional) today is more likely to be directed against at least three categories:

- Rogue powers like Iran or North Korea;
- Non-state actors like terrorist networks or organized crime (the combination of wealth, skills, religious zeal and/or criminal energy);
- Near-peer competitors like China.

This picture is not a static one but can alter significantly. One altering factor could be Iran becoming a nuclear power in the near future. This would most probably lead other countries in the region to strive to acquire nuclear weapons as well, especially as civil nuclear energy technology is spreading all around the globe. The same holds true for East Asia, depending on how North Korea (which has already demonstrated its nuclear status) will act in future. The likelihood of more nuclear players will not only render the dream of a nuclear free world more difficult; it will also increase the need for deterrence strategies. In turn, the emergence of aggressive non-state actors or 'non-deterrable' religious extremists might show the limits of deterrence as a security policy instrument.

To deter current or potential nuclear actors, the use of retaliatory force must be plausible in the eyes of the potential aggressor. NATO's current nuclear posture hardly meets the plausibility test. Assuming that a nuclear threat emerges in the Middle East or in East Asia and needs a deterrence signal, is it plausible that NATO will agree to take a B-61 bomb from a storage vault in Europe, mount it under an allied aircraft and then fly it to the crisis region in order to drop the bomb over the pre-defined target? Would NATO ever consider a mission that would imply a flight over thousands of kilometers with a nuclear freight, crossing NATO and non-NATO airspace, with the severe legal implications this entails, needing air refueling and requiring the nuclear aircraft to overcome the heavy air defenses of the target country? Wouldn't it be much more plausible to have this nuclear task fulfilled by a US strategic nuclear weapon like a cruise missile or an intercontinental missile?

Given the above-mentioned insight that nuclear weapons have to be militarily usable (in a plausible manner) in or-

der to have a political deterrence effect, the conceptual plausibility of NATO's nuclear bombs on European soil in today's security environment is nil.

2) *Escalation in Crisis*

Supporters of NATO's current nuclear capabilities hold that in addition to the (extremely remote) scenario of an actual "use" of these weapons, they also could have another purpose in connection with crisis management. In an emergency - again assumed to be in the Middle East - the nuclear weapons, including the aircraft, could be relocated closer to the crisis region in order to send a signal of resolve to a potential aggressor and to convey a signal of reassurance to the NATO members in the region. As the most plausible scenario, the option of moving them to Turkey in a possible crisis with a nuclear Iran is mentioned and given as a justification for keeping the B-61 bombs in Europe.

On closer examination, however, this option can also be seen to have conceptual weaknesses. First, it is difficult to imagine that 28 NATO members could find consensus on such a serious step, which would be a dramatic escalation of a crisis situation.[11] Second, neighboring countries, but also the public in the deployment country itself, might regard the arrival of nuclear weapons not as a reassurance but as a threat, as the weapons could become targets for attacks by the opponent.[12] And third - why should NATO move nuclear weapons to Turkey when there is apparently a significant number of nuclear weapons deployed at Incirlik Air Base already – some of them assigned for delivery by US pilots and some for delivery by the Turkish Air Force?[13] What would be the point of adding more in a crisis – particularly as the number of those deployed already is not known anyway? If a signal of deterrence and resolve needed to be sent to an aggressor - combined with a reassuring message to the ally under threat, this could be done more credibly by an explicit action of the United States or the two other nuclear powers in NATO, France and United Kingdom. They could either visibly deploy sea-launched nuclear weapons to the region or could issue an explicit nuclear threat (as happened in the 1991 Gulf War against Iraq).[14]

3) *Nuclear Participation*

NATO's system of nuclear participation, epitomized in the NPG, where the US as the nuclear superpower granted information and influence on nuclear planning issues to its non-nuclear allies, was a true success story. It enabled the Alliance to harmonize the different interests of nuclear "haves" and "have nots" and helped to develop NATO's nuclear force structure in Europe. Thus, as long as nuclear deterrence is in NATO's toolbox, nuclear participation should remain a key element of Alliance policy. In consequence, protagonists of the current nuclear structure opt for leaving the weapons where they are in order to keep up NATO's system of consultation and participation.[15]

However, nuclear consultations in NATO are not necessarily linked to the existence of US nuclear weapons in Europe, as membership in the NPG is not dependent on being a stationing country for nuclear weapons. In fact, all NATO members except France take part in the NPG meetings.[16] Should France join the NPG in the near future, the group could even be dissolved and nuclear debates could be held within the framework of the North Atlantic Council.

Efficient nuclear participation is primarily dependent on the readiness of the nuclear power to grant information and influence to the non-nuclear allies. Even if there were no US nuclear weapons in Europe, the United States could closely confer with the NATO members on those American strategies and US-based weapons that are foreseen for NATO deterrence missions. The results of the discussions within the NPG on nuclear targets or consultation procedures could be then fed into the national nuclear planning of the US or the UK - as France is not yet included in this process.

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[11] The nuclear policy of Turkey itself is ambiguous: on the one hand, Ankara supports the idea of a regional nuclear free zone; on the other hand it strongly objects to the withdrawal of NATO TNW.

[12] As an analogy: in some NATO countries, not participating in the fight against terrorism in order to avoid becoming a target of terrorist action is still a popular argument.

[13] This is at least what open sources say. Turkey follows a neither confirm nor deny policy. NATO confirms stationing countries but does not disclose the numbers of warheads deployed.

[14] On January 25, 1991 President George Bush warned Saddam Hussein in a letter not to use chemical weapons against Israel and implicitly pointed to the option of nuclear retaliation against Iraq.

[15] It is worth noting that nuclear participation not only involves the five stationing countries but a number of other allies who provide non-nuclear support: so-called SNOWCAT missions (Support of Nuclear Operations with Conventional Air Tactics) like air-refuelling or search and rescue operations.

[16] It is true, though, that in practical terms the nuclear stationing countries have a greater say in the group.

4) *Political Reassurance*

The nuclear Cold War function of reassurance – i.e. the credibility of American nuclear commitments for the European allies – is still valid. For some NATO members in the East, reassurance through US nuclear weapons in Europe has the function of being an insurance vis-à-vis Russia. This is why countries like Latvia, Estonia, the Czech Republic and others have expressed concerns about the unilateral measures indicated by the German foreign minister to get rid of nuclear weapons from German soil. Even if conceptually not fully cohesive, nuclear traditionalists hold, American nuclear weapons should stay in Europe primarily for political reasons, in order to satisfy the concerns of the new NATO members.

Political reasoning of this kind that puts Alliance cohesion before strategic clarity is understandable but displays two weaknesses. First, it is not decided yet whether the credibility of a nuclear commitment requires the physical presence of nuclear weapons on the territory of those countries under the nuclear umbrella. In NATO, it was mostly the European allies who insisted on this nexus between credibility and nuclear deployments – the anti-nuclear protests in Europe in the early 1980s could not hide the fact that it was the German government that was strongly demanding the stationing of Intermediate Range Forces (INF). On the other hand, Japan is under the American nuclear umbrella without permitting nuclear weapons to be deployed on its territory. Instead, Japan regards the explicit commitment of the United States for its security, bolstered by the American strategic nuclear posture, as sufficiently reassuring - even in a confrontation with an aggressive rogue nuclear power like North Korea.

Second, if NATO does agree on the need for a physical US nuclear presence in Europe, then the American weapons should be stationed in those countries which demand reassurance most - primarily the Eastern European NATO members.[17] Such a restructuring of the nuclear posture in Europe on the basis of political or strategic requirements is not possible, since NATO is bound by the "Three No's" iterated for the first time by US Secretary of State Warren Christopher and then approved by the NATO ministerial meeting in December 1996. According to this credo, NATO has no intention, no reason and no plan to deploy nuclear weapons on the territory of the new NATO members.

5) *Nuclear Non-Proliferation*

US nuclear commitments have always had an implicit and barely mentioned function, namely to serve as a means of combating the spread of nuclear weapons. American nuclear guarantees should keep allies from developing their own nuclear forces for deterrence purposes, and should thereby help to keep the number of nuclear states as small as possible. Given the danger of Iran going nuclear and North Korea expanding its nuclear capabilities, the non-proliferation effect of American commitments will not only remain but might increase in relevance. The United States might feel obliged to give security guarantees to other countries in the Middle East or in East Asia to abate their potential nuclear ambitions.

The interconnection between commitments and non-proliferation had led to the longstanding but hidden argument that US nuclear weapons in Europe should keep NATO members – other than France and the UK – from acquiring national nuclear forces. It is still used by some as a justification for the current NATO nuclear posture.

This line of reasoning hardly seems convincing today, as it would mean – in a reverse conclusion – that NATO member nations might strive to acquire nuclear weapons if the B-61 bombs were withdrawn. In the case of four of the five stationing countries (Belgium, Germany, Netherlands and Italy) this can definitively be excluded. Only with respect to Turkey might it be a theoretical option, given its geographical proximity to the Middle Eastern "powder keg". However, even for a geographically exposed country like Turkey, the decision to go nuclear (and to abrogate the Non-Proliferation Treaty) would be such a fundamental one that it would take much more than the presence or absence of US nuclear weapons to justify it.

This is all the more true since – as already mentioned – the example of Japan indicates that the credibility of nuclear commitments does not necessarily require the physical presence of nuclear weapons, provided that the protected countries define the oral or written pledge of the nuclear power as sufficient. If they do, they have no reason for seeking to acquire their own nuclear capabilities.

[17] There were Polish voices suggesting that the B-61 bombs could be withdrawn from Germany to be redeployed to Poland.

6) *Nuclear Placeholder*

Even some of those who admit the conceptual weakness of NATO's nuclear posture in Europe opt for keeping the bombs stationed in their host countries as a placeholder for more modern weapon systems potentially to be stationed at a later time. They argue that once these weapons were fully withdrawn, it would politically not be possible to station them in Europe again, even if the security situation should develop negatively. In that case even a modernization of the arsenal, i.e. the replacement of the B-61 bombs with other types of nuclear weapons, which would be more in line with strategic requirements, would no longer be possible. Thus, to keep up the option of a nuclear overhaul - whenever regarded as necessary or feasible - the nuclear bombs should be kept, since it is easier to replace existing weapons than to build a new nuclear posture from scratch.

The placeholder argument was probably valid in the first years after the end of the Cold War when the course of Russia as the successor to the Soviet Union was hard to predict and the political situation in the post-Warsaw Pact realm was still shaky. In the meantime, though, the strategic landscape has changed fundamentally. Admittedly, Russia is not a full-fledged democracy (it will arguably never be) and the NATO relationship is – despite cooperation and partnership – still characterized by elements of misperception and mistrust. Nevertheless, it is hard to imagine that the relationship with Moscow could deteriorate to a level where the use of nuclear weapons against each other could be contemplated again. Thus, it is hardly justifiable to keep up a costly but inappropriate military structure just to retain the remote option of replacing it (especially in view of the severe financial cuts all NATO members will be facing in the coming years).

Besides, the basic assumption of the placeholder logic, namely the supposed impossibility of re-stationing the weapons once they have been withdrawn, is flawed. Should the European security environment deteriorate fundamentally, be it because of a (hypothetically) resurgent and aggressive Russia, or China's emergence as a peer competitor, or the appearance of new and hostile nuclear states, this would not go unnoticed by the public and by decision makers. A worsening of the security situation would be accompanied by massive force build-ups, by violations of arms control agreements and by a hostile political and military rhetoric. As a result, the threat perceptions of most NATO members - not only in the Eastern part of Europe - would vastly increase. In such a situation, it is not plausible to assume that NATO, which was able to go to war in Kosovo (even without a UN mandate) and has been sustaining a war in Afghanistan for almost nine years, should not be able to agree on raising its level of defense preparedness - including nuclear reinforcements in Europe.

7) *Technical "Expiration"*

The Alliance's so-called dual capable aircraft (DCA), able to deliver nuclear weapons under the Programs of Cooperation, need special technical equipment to carry the bombs and to implement all necessary procedures (communication, authorization of the weapon's use by the US president etc.) in accordance with the highest security standards. Hence, the aircraft, the equipment, the crews and the processes have to be certified by US nuclear authorities. The Tornado aircraft, which is used by some stationing countries (others use the F-16 aircraft) will reach the end of its lifecycle by 2013-2015. The Tornado's successor, the Eurofighter, a European aircraft, has not been certified for nuclear operations. The reasons are manifold: the process of certification is very complex and costly and requires the release of highly classified technical data to the American certifying agency - something the Europeans are very hesitant to do. On its part, the US does not seem very keen on certifying the Eurofighter, as it has already suggested that European governments could buy an American aircraft for a potential nuclear role.

Consequently, as soon the Tornado is replaced by the Eurofighter, NATO will lose its means to deliver the nuclear bombs. Of course, it is possible to extend the technical life of the Tornados in order to keep a nuclear certified aircraft. Germany already announced in February 2008 that it would keep its Tornados in service until 2020. The US also plans to keep the F-16 in its nuclear role for many more years. In that sense, the technical "expiration" of aircraft is not an obstacle in principle to NATO's nuclear posture in Europe (the US B-52 strategic bomber has been kept operational for almost 60 years now). However, the cost of sustaining the nuclear mission of the Tornados in Europe will constantly increase. The same holds true for the storage system for the nuclear bombs, which will also need an overhaul by the end of the century. In sum, technical and financial implications add to the conceptual problem of NATO's nuclear posture.

NATO's Options

NATO's current position, that the Alliance has to bank on nuclear deterrence as long as there are nuclear weapons, is absolutely correct. Alas, its current nuclear posture does not match the political and military challenges ahead and thus cannot satisfy deterrence needs in a cohesive and credible manner.

The fact that NATO's nuclear capabilities are not in line with deterrence requirements is not a new insight. The Alliance papered over these discrepancies for (understandable) political reasons: no ally was keen on raising a topic which is extremely unpopular and mostly regarded as an issue of the past. Given the rising relevance of nuclear questions, this "papering-over strategy" will no longer be possible. Some simplifications permitted, NATO has five options for dealing with the problem of the inconsistency of its nuclear posture.

1) *Non-Nuclear Replacements*

For decades, voices in NATO have suggested replacing nuclear weapons with conventional devices in order to deal with the implicit dilemmas of nuclear deterrence – in the 1980s the catchword was "conventionalization of NATO's strategy". By doing so, highly destructive conventional power could be delivered in case of need, while avoiding the cataclysmic and dreadful consequences of a nuclear detonation. Currently, some proponents of the "nuclear zero idea" support this view by arguing that technical progress has rendered some of today's conventional weapon systems almost as lethal as (small) atomic warheads. Thus, NATO's nuclear bombs could be withdrawn from Europe in exchange for powerful conventional explosives.

However, such technocratic reasoning about conventional replacements misses a crucial element of nuclear deterrence: it is precisely the horrible and unpredictable prospect of nuclear detonations - which far exceeds the danger posed by chemical or biological weapons - that makes deterrence work. Only the prospect of destruction and harm beyond imagination and out of all proportion to a perceived political or military gain can lead countries - even powerful ones - to restrain their own behavior if there is a danger of nuclear escalation. Curbing this dimension of sheer horror by substituting it with conventional means would render the entire idea of nuclear deterrence – which, not least, contributed to preventing the Cold War from becoming a hot one - ineffective.

A variation of the replacement argument is the more recent idea of compensating a possible withdrawal of nuclear bombs by an efficient missile defense capability. According to this view, nuclear threats to NATO would most probably emanate from the Middle East and in East Asia. Since nuclear aggressors are likely to use ballistic missiles as the preferred means of delivery, a functioning NATO missile defense could neutralize these threats and render NATO nuclear retaliation capabilities superfluous. NATO's nuclear bombs could be removed as soon as a functioning missile defense capability became available. This idea is currently very popular in US circles in NATO, where the point is made that nuclear reductions in Europe will be possible only if there is agreement on building an efficient missile defense capability.

Alas, such an approach reminds one of debates on the "Strategic Defense Initiative" (SDI) of the Reagan administration in 1983, when some proponents believed in a kind of technological finality of history: as soon as the (functioning) strategic missile defense capability had been built, the United States and their allies would be completely invulnerable. Deterrence would no longer be necessary and the contest between political systems would come to an end.

Instead, missile defense can always be only a supplementary element in a comprehensive security policy, adding - in conceptual terms - one additional firewall or line of defense to the system. Should diplomacy as the first defense line and deterrence as the second both fail, it would be useful to have a third line in the form of a missile defense that could intercept incoming missile threats. However, this could never replace either diplomacy or deterrence. Thus, nuclear weapons are in a class of their own which cannot be replaced by any other means of war fighting or destruction.

2) *NATO Nuclear Force*

Another option which is occasionally presented as a way to deal with at least some difficulties of NATO's current nuclear structure would be to create a true NATO nuclear force. Instead of the bilateral arrangements between the United States, providing the warheads, and European allies, providing the stationing ground and the means of delivery, there could be a wing of NATO aircraft under the command of the Supreme Allied Commander Europe. Comparable to NATO's Airborne Warning and Control System (AWACS), the nuclear capable aircraft would be

manned by personnel from many NATO countries. In such a system, the nuclear burden would be shared by as many shoulders as possible and all member states could visibly contribute to the common deterrence effort.

However, apart from the political signals of burden sharing and mutual commitments, the benefit of such a model would be very limited. Leaving aside the technical question of the choice of the aircraft (and the nuclear certification), which could lead to serious disputes, many other key problems would not be tackled. Where should the aircraft and the American nuclear weapons be stationed - in only one country or widely dispersed? Regardless of the stationing mode, the issue of aircraft having to cross long distances and enter heavily defended airspace to drop the nuclear bombs would remain unsolved. Hence, the credibility of the deterrence message would be as doubtful as it is under the present regime.

These problems could be overcome by more ambitious models of a common nuclear force deployed on ships or submarines - comparable to the "Multilateral Force" concept of the 1960s. However, it seems unrealistic that the Alliance could currently agree on such a large-scale solution, given that the nuclear question - despite its relevance – is still well below the top of NATO's priority list.

3) *Nuclear Force Modernization*

If the nuclear weapons currently deployed are not in line with deterrence requirements because they are not survivable enough and do not have sufficient ranges for contingencies far beyond the European borders, a theoretical option would be to replace them by state of the art technology. Modern, precision-guided standoff weapons or nuclear cruise missiles could be launched way ahead of the targets and would not require the aircraft to overcome the opponent's air defense systems. Indeed, the modernization of NATO's nuclear posture was intensively discussed in the late 1980s until the demise of the Soviet Union in 1991.

Today, however, any notion of stationing more modern nuclear weapons in Europe, regardless of the technical feasibility, is politically impossible. None of the governments in any of the current stationing countries would be willing to risk a public debate on nuclear deployments at a time when - outside the debate on NATO's famous "Dual Track Decision" - no immediate nuclear threat could be brought forward as a justification. Sophisticated arguments on conceptual deterrence requirements would hardly suffice to convince the public in any of the old NATO member states of the wisdom of such a step. Some of the new NATO members in Central and Eastern Europe might theoretically be willing to host modern US nuclear weapons on their soil, but the already mentioned "Three No's" preclude such a possibility.

In sum, unless the strategic landscape in Europe dramatically worsens, the option of nuclear modernization is only a theoretical one which de facto does not exist.

4) *Nuclear Arms Control*

If current NATO nuclear weapons pose severe conceptual problems and if Russia stocks a huge amount of these weapons - which might not only be regarded as a potential threat but also as a security concern owing to the risk of theft or inadvertent detonation[18] - what would be more obvious than including the weapons in negotiated arms reductions? Moreover, given the (alleged) broad consensus on a world free of nuclear weapons, starting with these weapons could ostensibly be a step in the right direction.

Arms control negotiations on TNW could pursue two goals: one possibility would be to strive for the removal of all TNW from European soil. Given Russian superiority in that category of weapons, a zero-solution such as this seems particularly attractive for NATO. Another model recently proposed[19] would be to aim for an equal share of reductions, like cuts of 50% or 80% for each side (which would mean that Russia would have to scrap significantly more warheads).

However, leaving aside practical problems like the verification of agreed reductions, there are some fundamental problems that render an arms control solution highly unlikely.

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[18] Since the Cooperative Threat Reduction Program of 1992 ("Nunn-Lugar Program") the Soviet or Russian tactical nuclear weapons were a particular concern, as the security standards for these weapons were reportedly lower than those for the strategic nuclear posture. Underfunding of the military and widespread corruption have aggravated these worries.

[19] Joe Ralston, George Robertson et al., The Next Arms Control Agreement, in: Washington Times, 22. 4. 2010.

First, Russia has so far rejected any arms control initiatives with regard to its tactical nuclear weapons, pointing to the fact that it had already taken advance measures which had not been matched by an equivalent NATO response. After the demise of the Soviet Union, Russia as the successor state had brought all nuclear weapons back on Russian soil. Thus, Moscow argues today that the United States would have to bring all nuclear weapons back on their territory as well, before a scrapping of warheads could be negotiated.

Second, a longstanding point of contention in all NATO-Russia debates on nuclear arms control is the role of French and UK nuclear warheads. Russia subsumes them under NATO's nuclear forces and wants them to be included in any arms reductions deal. The UK, and France in particular, however, insisted on being independent bodies for nuclear employment decisions, thus the French land-based nuclear weapons (the UK has nuclear missiles only on submarines) should be dealt with separately. This argument will not be easy to support as NATO itself regards them as an element of its deterrence posture.[20] Moreover, France is step by step approaching closer to NATO and might even joint the nuclear structures of the alliance - the Nuclear Planning Group - sooner or later.

Third, and most importantly, Moscow apparently is not interested in abandoning all its TNW in Europe, as it has assigned them a role as a replacement for the conventional capabilities that it lacks. Over many years shrinking defense budgets, corruption and failed military reforms have reduced the efficiency of the Russian armed forces dramatically. For the foreseeable future, nuclear forces are regarded as compensation for absent conventional strength. Scrapping the nuclear weapons in Europe would counter Russia's need to balance NATO's conventional superiority.

Even if Russia agrees on the phased approach of reducing the numbers in equal percentages on both sides, the success would only be partial. The reductions would at least help to get rid of large quantities of potentially insecure Russian nuclear warheads but they would hardly solve NATO's conceptual problem: the remaining US nuclear weapons. Even if they were only very few in number, they would still be plagued by the problems of shaky strategic foundations and lack of political or military rationale.

5) *Unilateral Withdrawal*

If NATO's TNW are regarded as inappropriate for the future deterrence requirements of the Alliance, and if a formal arms control agreement with Russia on the removal of these weapons from Europe is highly unlikely, NATO could decide to withdraw the nuclear bombs unilaterally. By doing so, the Alliance could get rid not only of the nuclear weapons themselves but also of the very expensive infrastructure (nuclear capable aircraft, storage vaults, security systems, custodial teams etc.). Moreover, NATO would remove one element of its defense posture which was always criticized by a large part of the European publics and policy makers. Lastly, such a unilateral step by NATO could be presented to Moscow as an advance effort to encourage similar Russian steps on nuclear disarmament in Europe - which might or might not happen. According to this logic; NATO might not get much in return from Russia but it would not lose anything critical, as the strategic value of its current nuclear posture is limited at best, and also it could remove a source of public criticism.

Critics of this view, though, point to the political implications of such a step, particularly with regard to the new NATO members. As mentioned above, some of them are already concerned about the credibility of NATO's solidarity provisions. Therefore, to remove the weapons now could be the right step at the wrong time which could lead to political collateral damage far beyond the military relevance.

On the other hand, unvoiced doubts in Eastern Europe about the credibility of the security commitments of the (West European) NATO allies are a general problem in NATO which goes far beyond the nuclear realm. It has to be cured by efforts on the part of all members to bring their national security policies into line with the requirements of a Euro-Atlantic security alliance based on solidarity, burden sharing and democratic values. The question of whether or not a very small number of US nuclear bombs will be stationed on European soil will probably have

[20] Already at its ministerial meeting in Ottawa in 1974 the Alliance stated that the nuclear forces of France and the UK would contribute to overall NATO deterrence. In its Strategic Concept of 1999 NATO repeated this wording.

only a small impact on the overall perception of NATO's cohesion.

What the Alliance Should Do

NATO is faced with a dilemma. On the one hand, it cannot solve the problem of its shaky nuclear foundations by kicking the can further down the road. On the other, any changes or reductions in its current nuclear posture could further erode the trust of some NATO members in the security commitments of the allies and could further wear down NATO's cohesion. And Russia is certainly not going to help NATO out by signing arms control agreements in order to solve the mismatch between deterrence requirements and existing nuclear force structures.

This dilemma is at least partly self-inflicted. Many non-nuclear allies have carefully avoided any debate about the role of nuclear weapons after the end of the Cold War and have papered over all open questions with generic communiqué statements. Whereas in the United States there has been an intense debate on how to adapt nuclear deterrence to new requirements, key issues like how to deter terrorist groups, rogue states or non-state actors have not been raised in NATO meetings or in most European NATO capitals. As a result, new concepts like Nuclear Forensics, Prompt Global Strike or Tailored Deterrence[21] have gone almost unnoticed by most of the NATO members.

Since there is no easy way out and a nuclear consensus cannot be constructed overnight, three areas must be given priority:

1) *Nuclear Weapons in the New Strategic Concept*

The most pressing issue is the question of how to deal with the nuclear problem in the new Strategic Concept. NATO faces two difficulties: the rift within the Alliance on the future role of nuclear weapons is very deep while the time to find a consensus among the 28 members is extremely short. Secretary General Rasmussen will present his first draft of the new strategy by the end of September, which will leave the member nations less than two months to discuss the draft and to agree on the final wording for the Lisbon Summit in November. An indication of the time pressure is the fact that NATO plans a so-called "jumbo ministerial meeting" on October 14, 2010, which will include foreign and defense ministers.

The good news, though, is that NATO intends to agree on a very short Strategic Concept - only about six to ten pages long. Should the Alliance achieve such brevity, this would have two implications: first, the new strategy will tackle the various security issues only in a very generic way; and second, NATO would require additional documents - to be written at a later stage and ranging below the Strategic Concept - which are specific enough to give sufficient political and military guidance.[22]

- Under these circumstances, NATO should not try to solve the issue in the framework of the new strategy as it will hardly be possible to bridge existing differences under pressure. Instead, the Allies should revert to some of the already agreed nuclear language of the Strategic Concept of 1999. Formulations like "a credible Alliance nuclear posture" remain necessary even if their use seems "extremely remote", should be acceptable to all members and could form a general nuclear accord.
- More detailed language could be developed without time constraints for the subordinated documents which are likely to be developed after the Strategic Concept has been approved.

[21] The idea of Nuclear Forensics is based on the fact that, even after a nuclear detonation, radiation and debris display an individual nuclear fingerprint. Analysis of the debris permits conclusions to be made as to where the fissile material has been produced or processed. Hence it is possible to ascertain the origin of the nuclear device and to hold the particular state responsible. Prompt Global Strike means the destruction of launch pads, missile production sites or nuclear facilities preemptively with conventionally tipped ballistic missiles. In fact, US Trident missiles are already undergoing such a conversion program to replace nuclear warheads with conventional explosives. Tailored Deterrence describes a concept that tries to understand the peculiarities of the opponent and includes non-nuclear means in the deterrence equation.

[22] NATO's Comprehensive Political Guidance of 2006 was such an example for a key strategic document below the level of the Strategic Concept.

2) *An Intense Nuclear Debate*

In order to prepare for these subordinated documents and not to fall back into the old habits of putting the nuclear issue to rest, NATO needs to engage in a broad and intense nuclear debate - even if some member nations might be hesitant. The heads of states and governments should task the NATO Council to do so.

- For that purpose, NATO's Nuclear Planning Group (NPG) must rouse itself from its slumber and become the forum for transatlantic nuclear consultations again. Given the magnitude of the task - i.e. developing a nuclear strategy for the 21st century - NATO might require fervent discussions comparable to those of the late 1960s, when the NPG developed political guidelines for the use of nuclear weapons. The participation of France as a nuclear state and a key ally would be highly desirable - if France still hesitates to participate in NPG meetings, it could convey its position in the form of non-papers.
- Given the need to find a new nuclear consensus, debates should not remain limited to the question of how to deal with the NATO nuclear weapons in Europe, but should cover the broader topic of how to preserve deterrence in the current and future security environment. This requires that all NATO members familiarize themselves with contemporary concepts of nuclear and non-nuclear deterrence. The debate should be held in a frank manner - not excluding any option. If, for instance, NATO members fail to bolster the argument for existing nuclear bombs with conclusive reasoning, the bombs need to be withdrawn.

3) *NATO's Declaratory Policy*

NATO needs to achieve clarity not only on its strategy but also on its declaratory policy and its way of communicating deterrence messages. Declaratory policy, i.e. NATO's nuclear related statements or declarations, aims to influence the risk calculation of a potential aggression and at the same time to increase acceptance among the publics of the member states.

So far, NATO's nuclear issues have been shrouded in secrecy. While this might have been appropriate during the Cold War, it has become increasingly counterproductive, causing suspicion and giving rise to conspiracy theories. Therefore, NATO's new approach of increasing public acceptance through openness and transparency throughout the debates on the new Strategic Concept should be continued in the nuclear realm as well.

- If NATO is to remain - for the foreseeable future - a nuclear Alliance, it should not hesitate to admit and argue in favor of the fact that nuclear weapons are an element of security: it was nuclear deterrence that helped prevent the Cold War from becoming a hot one. Nuclear reductions or withdrawals are not a value per se but should only be contemplated if they increase Alliance security.
- Openness should also be exercised with respect to the nuclear posture. As a new sign of transparency, the United States and the United Kingdom published recently for the first time the exact number of their nuclear weapons. NATO could do the same with regard to US nuclear weapons deployed on European soil. In particular, the numbers of American and British submarine-launched nuclear missiles should be made public in order to convince those NATO members looking for nuclear reassurance that NATO has a credible, flexible and survivable nuclear posture beyond the heavily disputed B-61 arsenal.
- The purpose of nuclear weapons is to prevent aggression against NATO by altering the cost-benefit calculus of a potential attacker. To do so, NATO should not deviate from its present scheme of not excluding the first use of nuclear weapons - even if the likelihood is extremely remote. Any "no first use policy" would limit NATO's freedom of action, would make the Alliance more predictable and would thereby infringe a key lesson of deterrence - namely to keep the opponent guessing.

As NATO has (intentionally) evaded a debate about its nuclear basics for many years, it has maneuvered itself into a situation where the allies fundamentally differ about the hardware and the software of deterrence. To catch up and at least try to re-establish a consensus, NATO has to engage in a debate beyond the "yes" or "no" of nuclear bombs in Europe. This consensus cannot be forged by the new Strategic Concept, but it can be the starting point.