Managing Change

NATO's Partnerships and Deterrence in a Globalised World

NATO Supreme Allied Command Transformation
Alma Mater Studiorum Università di Bologna
Istituto Affari Internazionali

Villa Guastavillani, Bologna, Italy
21-22 June 2011

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With special thanks to Riccardo Alcaro, Federico Casprini, LTC Antonio Del Gaudio ITA A, Sonia Lucarelli, and Jeffrey Reynolds for their dedication and expertise.

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FOREWORD

Major General Mark Barrett
NATO Supreme Allied Command Transformation

Foreword

Major General Mark Barrett

As NATO continues to grow and adapt to emerging security challenges in the highly dynamic strategic environment of the 21st Century, it is vital that the Alliance evolve its approach to deterrence and how it partners with groups and nations. The Strategic Concept adopted in 2010 is the culmination of over a decade of work, and outlines the next phase in NATO's evolution. It confirms NATO's fundamental and enduring purpose: to safeguard the freedom and security of all its members. To do this, the Alliance must continue to fulfil three essential core tasks: collective defence, crisis management, and cooperative security.

It is no longer useful to regard the international environment in which NATO operates in terms of simple divisions between East and West, communism and capitalism. The lines that defined these dichotomies have faded as a consequence of globalization, and the spread of information technology, leaving the poles they once delineated less clear and less useful.

NATO came into being over 62 years ago as a post-World War II alliance intent on securing Europe. Over time, however, the North Atlantic region increasingly has become interconnected with partners across the globe. At the same time the concept of *security*, and menace, changed significantly, compelling the Alliance to evaluate threats and challenges to its security in new and diverse ways. The international maritime, air, space and cyber domains, collectively labelled as the 'global commons,' are but one example of a diverse strategic challenge that a single country – or a *regional* alliance for that matter – would struggle to confront alone. Nonetheless, the importance of assured access to and use of the commons becomes more and more significant, as more nations evolve and expand their role in the growing globalized world of today and tomorrow.

Reliable information, insight, and thoughtful analysis are the basis of good decision-making. This is equally true for NATO, its allies and partners. It follows that poor decision-making often results from poor analysis, impatience and unreliable information. While a lack of accurate information is often times cited for poor decisions, in today's complex world the true shortcoming is often a glut of often disconnected information that overwhelms. With this in mind, and at the direction of Supreme Allied Commander Transformation (SACT) General Stèphane Abrial, ACT has been working to strengthen, deepen, and enlarge the connections between HQ SACT and academic institutions. We believe that deepening these relationships will improve our ability to better sort and analyze information. Multiple initiatives with partners intent on helping us sort this information maze are moving forward: chief among a significant list was the inaugural NATO-Academia Conference, held in Bologna, Italy in June 2011. Hosted by the University of Bologna, and organized by the HQ SACT's Academic Outreach team led by LTC. Antonio Del Gaudio, and the I*stituto Affari Internazionali* (IAI), the conference brought together a diverse group of experts to foster a long-term relationship between the academic community, think tanks, and HQ SACT.

The conference revolved around NATO's current interests and possible role in three areas of collective defence: 1) the evolution of deterrence; 2) a comprehensive approach to partnerships between the governmental, military, academic and private sectors; and 3) and assured access to the global commons for all users.

Clearly, the Alliance's overall deterrence and defence posture must be consistent with its strategic requirements, while at the same time strengthening Allied unity and cohesion. It must respond effectively to a complex security environment, and because circumstances will change in ways difficult to foresee, it must also be resilient and adaptable. Such a posture should form the foundation of the Alliance's strategy, bringing together a coherent ensemble of instruments , including cooperation, crisis prevention and crisis management, operations, and missions. Additionally, it must make full use of a comprehensive approach that encompasses all sectors of government and society, to include close collaboration with nations and international organisations.

The new Strategic Concept recognizes that the evolving security environment requires a holistic interpretation of defence and deterrence, one that looks beyond just nuclear weapons or overwhelming conventional force. This effort will demand a full set of mechanisms and capabilities that allows our forces to defeat the threat, no matter the origin. One approach to such a posture could be based on the three pillars of retaliation, denial, and cooperation.

Deterrence by threat of overwhelming retaliation is self-evidentiary and has been fundamental to Alliance security since its inception. NATO's nuclear capabilities, its declaratory policy, and its conventional forces back this deterrent posture, reinforced by a Strategic Concept that states unequivocally that NATO will remain a nuclear Alliance as long as nuclear forces exist. Deterrence by denial on the other hand, rests on establishing defence capabilities robust enough to convince any adversary that a direct attack will not be successful. The NATO ballistic missile defence capability, while still evolving, will pave the way in this direction. Furthermore, broadening our partnership program will afford NATO a regional flexibility that under the right circumstances will provide a deterrent effect by bringing together nations with a shared vision. Bringing nations under this umbrella of "shared" intent may convince potential adversaries that they have more to gain from cooperation than from confrontation.

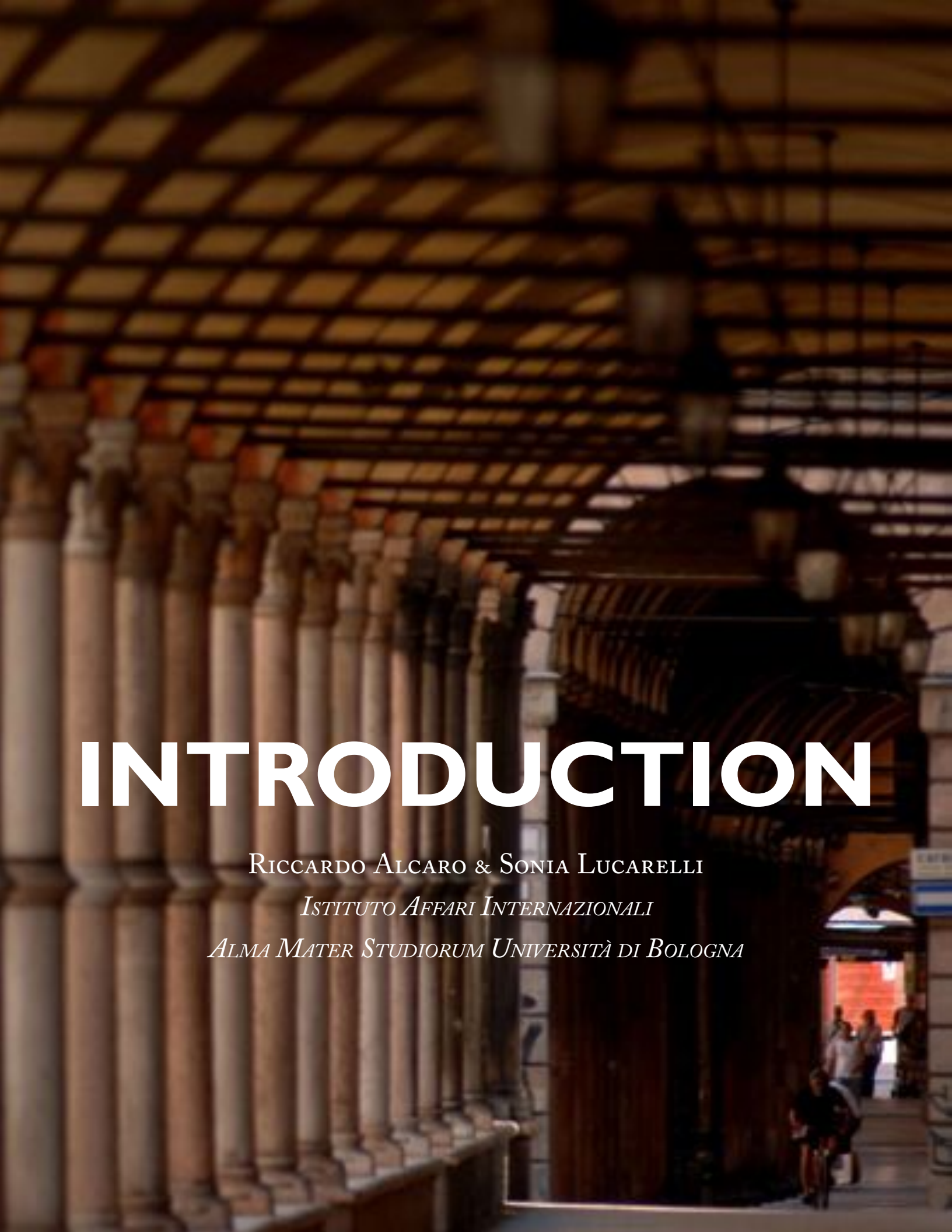
At the national level, NATO's partnership programs enhance international security and stability in and beyond the Euro-Atlantic region, and can provide a framework for political dialogue and regional cooperation in the field of security and defence. They strengthen common values and promote transparency, accountability, and integrity in the defence sector. The various partnership tools that NATO offers help the Alliance train and assist its partners in developing their own capabilities. For two decades, the Alliance's extensive expertise in the field of defence reform and defence planning has been offered to and used by states as a tool for stabilization and reform of the defence sectors. These nations have thereby evolved from security recipients (Western Balkans for example) into security providers, partners of the Alliance and, in some cases, full-fledged members.

It is not clear whether the explicit signals essential to deter an adversary will be effective across a diverse set of nations and cultures, as many do not share the strategic goals and values of the Alliance. While a large-scale conventional attack on Alliance territory has been described as highly unlikely, even this assessment must allow for strategic surprise. The tenth anniversary of 09/11 and the recent developments in North Africa and the Middle East remind us of such a possibility.

Assured access to the global commons is another example of how nations have become both more connected and more vulnerable to surprise. The domains of the high seas, airspace, outer space, and cyber space are closely interlinked, vital for our daily lives and critical to the prosperity and security of the international community. Therefore, all States have a unique role to play to ensure that there is access to and use by all. It is no overstatement to say that for NATO, the loss of access to these commons would affect its ability to fulfil its essential core tasks of collective defence, crisis management and cooperative security.

In summary, the threats and challenges of the future security environment will strain the Alliance's most powerful capabilities: strategic unity, solidarity and commitment. Additionally these risks and threats to the Alliance, its territories, populations and forces will be hybrid in nature and interconnected. History has taught us that the modern adversary of the future will use the viability of the networked environment to innovate and adapt their use of traditional and irregular warfare, terrorism and organised crime in pursuit of their objectives.

Thus, the Alliance will have to ensure its abilities to anticipate sense and shape the security environment and act upon a common understanding of risks and threats. It is my hope that the "Bologna Conference" will contribute in no small way to the development of such an understanding. As a result of the debates held, a set of essays and reports have been collected on the three strategic topics identified above. The involvement and contributions from the University of Bologna and IAI ensured the high quality of this work, due in large part to the organizational and editing efforts provided by Riccardo Alcaro and Sonia Lucarelli. Their clear and insightful framework set the tone for this work and can be viewed in the Introduction. The following pages constitute clear evidence that a lasting interconnection between NATO and the Academic world not only exists, but is a worthy and valuable enterprise.



INTRODUCTION

Riccardo Alcaro & Sonia Lucarelli

Istituto Affari Internazionali

Alma Mater Studiorum Università di Bologna

Introduction

Riccardo Alcaro and Sonia Lucarelli

Similarly to many other international players, particularly in the transatlantic and former Soviet-dominated areas, NATO has been undergoing a process of profound and seemingly unceasing transformation since the dissolution of the Soviet Union in 1991. In fact, with its main antagonist, the Warsaw Pact, gone, the Atlantic Alliance has been subject to more speculations as to its continuous relevance than other multilateral entities stemming from the post-World War II period. Today, doubts about NATO's ability to survive its own success against the Soviet threat are perhaps less acute than they were in the early 1990s, the question of NATO's purpose and future role remains nonetheless as open now as it was then.

This persisting uncertainty notwithstanding, the Alliance has been anything but inactive in the last twenty years. On the contrary, it has been only with the end of the East-West conflict that NATO has been able to use its military assets not only in a defensive fashion. Between 1995 and now NATO has waged four military campaigns – some of them relatively small-scale (Bosnia 1995 and Libya 2011), some larger-scale (Kosovo 1999 and Afghanistan since 2003) – which have often led to a protracted presence of NATO troops on the ground as peacekeepers or stabilization forces. Furthermore, NATO has fulfilled a number of minor military missions outside allied territory, ranging from deployment of peacekeepers in Macedonia in 2001 to logistic assistance to the African Union (AU) mission in Darfur in 2005-2007 to counter-piracy patrolling off the coast of Somalia since late 2008.

All of these missions have been conducted outside the original perimeter indicated by the 1949 Washington Treaty, the Euro-Atlantic area, signaling the Alliance's willingness to re-think its role in order to adapt to the seismic change in the international order that followed the Cold War. Out-of-area operations have been crucially important in that they have reflected new trends in NATO's threat environment, where insecurity emanates more from regional instability and conflict than from an enemy state's armed forces, and have accordingly forced a sometimes radical re-thinking of allied militaries' doctrines and structures. Attesting to this, when in 2002 NATO proceeded to reform its internal structures, it turned its old Europe-based headquarters in Mons (Belgium) into a dedicated command for planning and directing operations, Allied Command Operations (ACO). Against this backdrop, to say that out-of-area operations have come to embody the transformation process NATO has been involved in for the last twenty years might entail a bit of rhetorical emphasizing, but it is not far from reality.

Yet, referring to operations as the only measure to appreciate NATO's post-Cold War transformation would be highly misleading. The evolution of the international context has certainly spurred the Alliance to develop and sharpen up its expeditionary capabilities. But it has also forced allied strategic and defense planners to reconsider the efficacy of old military policies, in particular NATO's nuclear posture, as well as to work out new initiatives such as partnerships with other countries and groups of countries and, more recently, to focus on the task of securing the access to the so-called 'global commons', a broad notion spanning four domains key to the functioning of modern societies: aerospace, maritime space, cyberspace, and outer space.

While grabbing less attention from both analysts and the media than out-of-area operations, this set of policies/initiatives has been equally key to determining the evolution course of the Atlantic Alliance. In this regard, the initiative by the Allied Command Transformation (ACT) – the new command created in 2002 that replaced the old Atlantic headquarters in Norfolk (VA) with the goal of identifying NATO's new tasks and related military doctrines and capabilities – to conduct in-depth analyses of these fundamental dimensions of NATO's evolution seems both timely and appropriate. As part of the ACT's effort, an international conference open to experts from both NATO and non-NATO countries, sponsored by ACT and jointly organized by ACT, the Rome-based Istituto Affari Internazionali (IAI) and the University of Bologna (Italy), took place in Bologna on June 21-22, 2011. This publication is the result of that conference, collecting a revised version of the papers presented there as well as reports of the discussion held in its various working groups.

Bruno Tertrais' chapter in this volume, and the lively discussion to which it gave birth when it was presented at the Bologna conference, are a revealing testimony of how far analysts (and member states alike) are from reaching a common understanding of how NATO should frame its current deterrence policy. In fact, the massive withdrawal of US sub-strategic nuclear weapons (SSNW)[1] deployed in Europe occurred during the early 1990s has not put a halt to the debate on the Alliance's nuclear policy. A difference of opinions has emerged as to whether keeping even a much-reduced SSNW arsenal in Europe is still in NATO's interest. Those in favor of their maintenance argue that SSWN are still essential in preserving the credibility of NATO's deterrence policy as well as in safeguarding the delicate balance reached over the years on an even distribution of risks and responsibilities among allies. They consequently support the modernization of both SSNW and their delivery systems, the latter being mostly the responsibility of those NATO countries involved in nuclear-sharing arrangements with the US. Supporters of SSWN are generally ready to envisage NATO reducing the number of US nuclear weapons in Europe only if that is carried out in parallel with a proportional reduction of Russia's sub-strategic nuclear arms, which remain in their thousands.

To many other analysts (and some member states) the proposition that the SSNW should remain a key part of NATO's defense posture seems, however, overcome by history. They contend, first, that the SSNW have no significant military role to play: apart from the fact that there is no apparent target for them, they are too slow to activate compared to the strategic weapons of the US, Britain, and France (the only nuclear-armed members of NATO). According to this line of reasoning, further reducing, or withdrawing SSWN altogether, would also lend more substance to NATO's stated intention of promoting non-proliferation around the globe, as it would give a tangible, and long overdue, signal to the international community that the Alliance takes nuclear disarmament seriously. As for Russia's still massive sub-strategic nuclear arsenal, withdrawal supporters argue that NATO's willingness to unilaterally reduce its SSWN would actually put Russia on the spot, depriving it of a powerful reason for refusing to engage in talks over SSWN cuts (contrary to strategic forces, sub-strategic ones have never been the object of any arms reduction arrangements). Finally, supporters of SSWN withdrawal from Europe point to NATO's plans to build up an integrated missile defense system, whose various components are to be scattered among several member states, as a valuable alternative to nuclear-sharing arrangements to maintain the necessary inter-allied risk- and burden-sharing.

NATO's external partnerships, a relatively new policy which is gaining ever more importance, is the subject of Prof. Sten Rynning's chapter. Unlike nuclear deterrence, this policy does not stem from the Cold War period. Today, however, it has taken on a quite different appearance from what it looked like in the

1 More often, but less accurately, referred to as 'tactical' nuclear weapons.

1990s and early 2000s. Initially devised as a preparatory step towards NATO membership, cooperation and assistance mechanisms were largely meant to bring beneficiary countries closer to the Alliance's standards. In this regard, they proved to be a key instrument in fostering the political stabilization and democratization of countries once under Soviet rule, some of which had only had a brief experience of democratic governance (if any at all).

NATO's enlargement however seems to be near exhaustion of its potential (with the exclusion of the Western Balkans, all of which could accede one day). The fierce debate over the opportunity of giving clear prospects of membership to such countries as Ukraine and Georgia reflects the changed scenario in which the Alliance's possible enlargement to the east would unfold now compared to what was the case in the 1990s. By then, enlargement was clearly conceived of as a way to increase the security of the Alliance since the integration of the former enemies would at one time prevent clashes between them and NATO, dangerous rivalries among those countries, and, as already said, political instability within those countries.

This analytical framework seems to be out of date today. Ukraine and Georgia are far less democratically reformed and have much more complex relations with Russia than the Central and Eastern European states that joined NATO between 1999 and 2004. Arguably, the most visible sign of Russia's regained influence is that many allied countries think that antagonizing it was too high a price to pay for having Georgia and Ukraine as fellow partners. In other words, in the eyes of some allies the logic that drove enlargement in the past seems to have reversed: instead of being an instrument to export security, it may now risk of becoming a way to import insecurity.

With enlargement losing its appeal (also for structural reasons: NATO cannot enlarge indefinitely), allies have had to resort to other instruments to preserve their security interests outside the treaty's territory. Partnership have been re-designed to meet less ambitious objectives, such as having constructive relations with countries of interest to NATO because of their geographic proximity or geostrategic relevance (or both). In some cases, partnerships come down to some forms of NATO assistance in the security and defense sector only. In other cases, however, such partnerships reflect deeper connections, for instance with non-western democracies involved in NATO-led operations (these countries are known, in NATO jargon, as 'contact countries': Australia, Japan, New Zealand and South Korea).

Most recently, the partnership dimension of NATO's external action has apparently moved up a gear. Among the hard lessons learned from the troubled Afghanistan experience is the growing awareness of NATO member states that military might cannot suffice to solve a crisis. Crises need instead political solutions, implying political links with countries relevant to those crises and a capacity to make use of such links. A new generation of partnerships is now looming, one that is less centered on technical assistance/cooperation in circumscribed sectors such as defense and security and more reliant on the ability of NATO to establish a broader dialogue with all actors involved in a specific crisis. In this regard, partnerships are becoming, at least in principle, an essential component of NATO's push for cooperative crisis management, by which is meant an approach to crises that presupposes interaction with local actors (including NGOs), cooperation with regional players, and coordination with both great powers and relevant international organizations.

Thus conceived, the development of partnerships reflects both NATO's resolve to be active on a global scale and its preference for sharing responsibility for crisis management with other players. Although sound in theory, this approach has yet to deliver strong evidence of its effectiveness in practice. In part, this difficulty stems from the fact that not all presumed partners of NATO share its goals in a determined crisis situation, or even accept that NATO remains engaged all across the globe. Libya can be seen as a good case in point, as in spite of NATO's great effort to garner as much international legitimacy and support as possible, it has been unable to establish a working relations with the African Union (AU), although the latter falls into the category of partners with which NATO strives to forge an enduring and solid partnership. As it is clear from both Prof. Rynning's paper and the discussion that ensued from its presentation during the conference, the issue of NATO's purpose surfaces again here as being key to the success of its partnership initiatives. These cannot be indefinitely driven by a functionalist approach, as NATO partners could well be uninterested in solving an international crisis if the Alliance's goals remain vaguely defined.

Probably the greatest and certainly the newest challenge to NATO's ability to perform its institutional role of guaranteeing the security of its members is posed by possible limitations to access to four crucial domains: air, sea, space and cyberspace. The part of these areas that does not fall under national jurisdiction are the so-called 'global commons'. Globalization has made access to the commons vital to the security and prosperity of virtually every country in the world. Our daily trade in goods and services, mobility, exchange of information, depend on the free access to these domains. Accordingly, it is not by chance that NATO regards the denial of access to the global commons as a medium to long-term risk. The Commander of Allied Command Transformation has completed a study on the topic and a debate is evolving including academic and practitioners. Prof. James Sperling's chapter in this volume analyses and compares the four global commons to which access should be assured and evaluates the difficulties that NATO encounters in fulfilling that task.

The first difficulty concerns the tools at disposal of the Alliance (mainly military) and those that are necessary to cope with the challenge (mainly civilian). This relates also to one additional challenge, that is, the apparent necessity for any public actor, including NATO, to interact with the private sector on assuring access to and the use of the global commons. In fact, like public institutions, private actors are not only users of these domains but also ultimate stakeholders in the case of a denial of access.

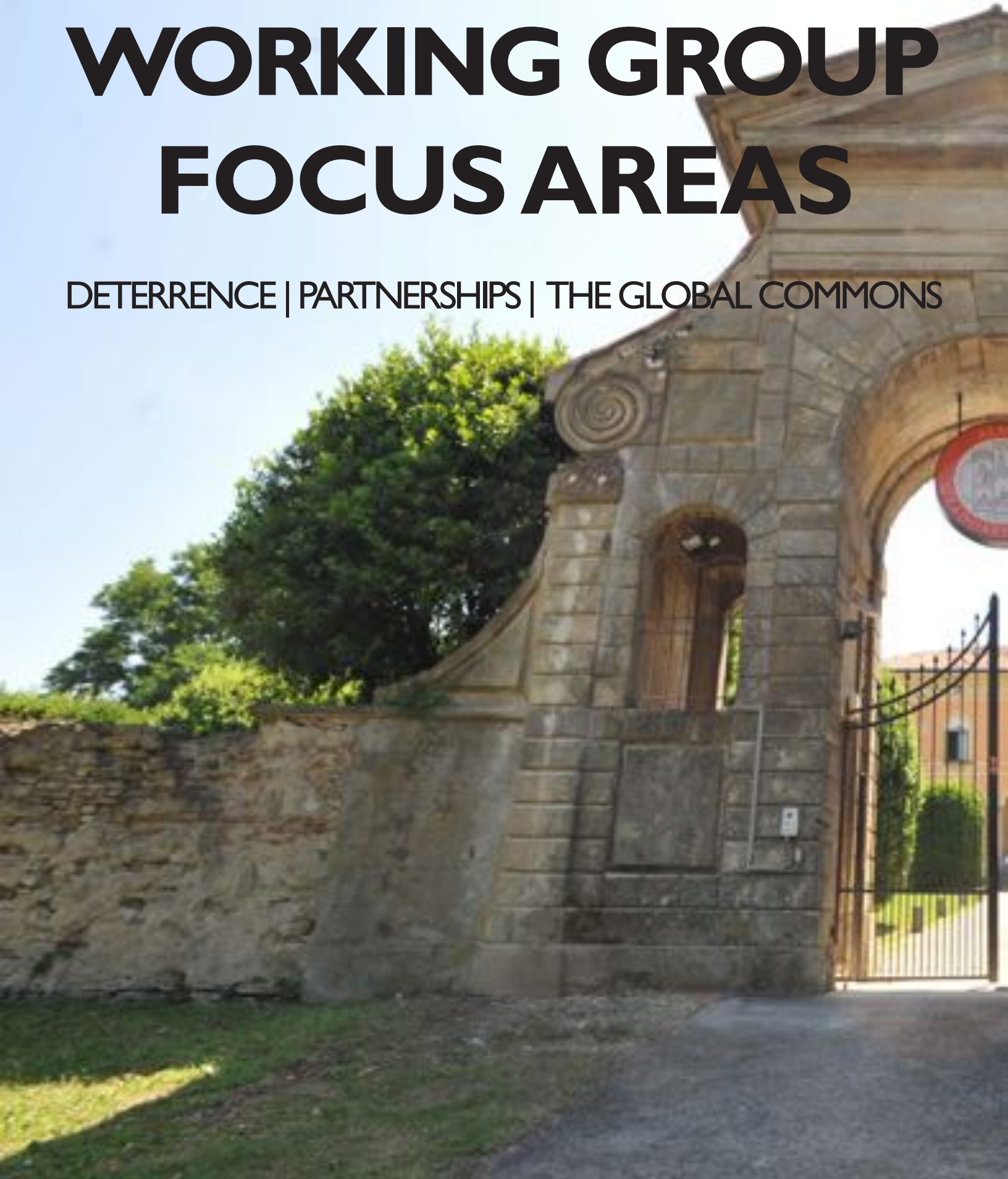
In Prof. Sperling's interpretation of this issue, a significant challenge stems from the level of the legitimacy that other international actors (for instance, emerging powers) are ready to grant NATO. The provision of a public good in the theory of Hegemonic Stability of International Relations requires that the provider ("the hegemon" in the language of such an approach) is recognised as a legitimate actor. This would be particularly the case if NATO were to present itself as the one and only actor aiming at providing assured access to the Global Commons not only for itself but for the community at large. In reality, precisely to address these concerns and clarify NATO's position, the final ACT document on *Assured Access to the Global Commons* clearly states that the Alliance should function as a forum for consultation, cooperate with relevant actors and encourage regional organizations to uphold the principle of free access. It remains understood, however, that NATO, while hoping for the best, should continue to get prepared both in terms of defence planning and capacity development to cope with possible denial of access to the commons.

There is a concern is that this new multifaceted dimension of NATO's action might become a source of confusion and misunderstanding in terms of NATO's role. The fact that the reflection on the topic has so far been largely a technocrat-driven process to which relatively little political attention has been given might contribute to this outcome. Given the fundamental importance of an assured access to the global commons for our daily lives, it is crucial that NATO be able to convey a clear message on the challenge before us, the tools that are necessary to deal with that challenge and, most of all, the type of multi-actor security governance necessary to cope with it. The debate has just started and hopefully it will develop further intellectually and politically.

NATO's post-Cold War transformation process has developed in ways that few could predict when the Soviet Union collapsed and a number of Western experts rushed to prepare their obituary for the successful, but presumably no longer useful, Atlantic Alliance. Far from being dismissed of, NATO has multiplied its tasks (although at the expense of some clarity as to its core purpose). The development of new initiatives such as NATO's partnerships, and the increasing attention NATO is dedicating to issues as diverse as the security of the access to the global commons, attest to the Alliance's great adaptability and resilience. That said, NATO has still much work to do, in particular in better defining its overall purpose and its role in the various dimensions of its external action. If the Alliance wants to keep escaping its often-predicted but never materialized demise, it will need to be able to make a credible case for its inclusion in a wider security governance framework involving a variety of actors with different interests, vulnerabilities, security cultures. The debate on how best the Alliance can do that is still open. This publication, like the conference from which it has ensued, provides insight on critical aspects of such a debate.

WORKING GROUP FOCUS AREAS

DETERRENCE | PARTNERSHIPS | THE GLOBAL COMMONS



FOCUS AREA I

DETERRENCE

Defining the Right Mix of Capabilities: The Irreplaceable Role of NATO Nuclear Arrangements

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Defining the Right Mix of Capabilities: The Irreplaceable Role of NATO Nuclear Arrangements

Bruno Tertrais [1]

The 2010 NATO Lisbon Summit, which saw the adoption of a new Strategic Concept, called for a Defense and Deterrence Policy Review. Such a review is timely. Since the last Strategic Concept (1999), the political, strategic and technological context has changed significantly. Several NATO governments, along with many experts, are calling for dramatic changes in the allied nuclear posture.

This paper will seek to demonstrate, however, that significantly reduced reliance on nuclear weapons and, in particular, an end to the current North Atlantic Treaty Organization's nuclear arrangements, would seriously affect collective deterrence and Alliance solidarity.[2] It calls for a sober evaluation of what an "appropriate mix" of NATO's forces could be.

New Challenges

The existing NATO nuclear arrangements are increasingly being challenged.[3] Calls in the United States, since 2007, for moving towards the abolition of nuclear weapons, and the election of Barack Obama in 2008, have encouraged some European leaders to speak up on the issue of the US nuclear presence in Europe.[4]

The foreign ministers of Belgium, Germany, Luxemburg, the Netherlands and Norway (thus including three countries hosting dual-capable aircraft, DCA) called for NATO to contribute to nuclear disarmament, with some of them calling, separately, for the withdrawal of US weapons from their national territories or from all Europe.

This new drive for NATO's nuclear disarmament comes on top of classical criticism of the continuation of existing arrangements. DCA are said to be militarily useless given their ageing, the evolution of the threat environment, and the possibility for strategic forces to play their role, to say nothing of possible alternatives such as missile defense and high-precision conventional weapons. Financial arguments are also being tabled: the US Air Force has long argued in favor of their withdrawal for economic reasons, and many in Europe balk at the idea of paying for their modernization.[5] As for their political value, it is argued that NATO common operations, from Bosnia to Afghanistan, are now much more important in terms of solidarity and burden-sharing, and that the presence of US nuclear weapons is unpopular. An argument is sometimes made that the nuclear sharing procedure runs counter to the spirit, if not the letter, of the Non-Proliferation Treaty (NPT). Claims have also been made of their susceptibility to theft, and thus of their contribution to the risk of nuclear terrorism. The idea of setting an example that could lead Russia to reduce its own arsenal of non-strategic nuclear weapons is also put forward.[6] Finally, some are in favor of a withdrawal simply because of an ideological commitment to disarmament, and characterize the B-61s in Europe in this regard as a low-hanging fruit.

Unconvincing Arguments

These arguments are unconvincing. DCA do have some military value: aircraft can be refueled to extend their range (witness NATO's operations in Libya), and the bombs themselves will not be obsolete for a long time.[7]

1 The author is Senior Research Fellow at the *Fondation pour la recherché stratégique (FRS)* of Paris.

2 Some of the points made here were initially developed in a paper prepared for the Royal United Services Institute (RUSI) in January 2011.

3 The US nuclear presence in Europe has been reduced since the end of the Cold War by more than 90%. Reductions were made in 1991, 1993, and 2003. Only B-61 gravity bombs remain today. Their number is classified, with estimates ranging from 150-200 to "a few hundred" (or "a couple of hundred") according to NATO officials. The location of the weapons is the object of concurrent assessments: US weapons have been withdrawn from Greece and the United Kingdom, and they remain in five host countries: Belgium, Germany, Italy, the Netherlands, and Turkey. About half of the weapons are earmarked for US dual-capable aircraft (DCA); the remainder is for European DCA. In addition, some US (a small part of the US strategic arsenal), and all UK Trident sea-launched ballistic missiles (SLBM) warheads are formally assigned to NATO nuclear planning.

4 See Bruno Tertrais, *The Coming NATO Nuclear Debate,* ARI 117/2008, Madrid, September 26, 2008: Real Instituto Elcano; Ian Anthony & Johnny Janssen, The Future of Nuclear Weapons in NATO, Berlin, April 2010: Friedrich-Ebert-Stiftung; Malcolm Chalmers & Simon Lunn, NATO's Tactical Nuclear Dilemma, London, March 2010: Royal United Services Institute; and David S. Yost, *"Assurance and US extended deterrence in NATO"*, International Affairs, vol. 85, n° 4, 2009.

5 The cost of the US nuclear presence in NATO includes the permanent stationing of reportedly about 1,500 dedicated personnel (Munitions Support Squadrons, MUNSS).

6 The only usable definition of "non-strategic" is a weapon system which is not covered by existing US-Russian bilateral treaties (which include only missiles and bombers of an intercontinental range). In itself, the B-61 bomb is neither a strategic nor a non-strategic weapon (although some models are designed for use by strategic bombers and others by tactical fighter-bombers).

7 The US 2010 *Nuclear Posture Review* (NPR) called for the modernization of the B-61 bomb: a "B61-12" model should be available around 2017.

The cost for the US Air Force of the European nuclear mission, and of a nuclear capability for the successors to the fighter-bombers currently in service in European air forces will be limited.[8] As far as the NPT is concerned, nuclear sharing existed before the Treaty was signed, and it was stipulated that US weapons would remain under American control until the very last moment.[9] The unpopularity of the NATO arrangements has been measured only by polls commissioned by anti-nuclear activists. It is true that physical security at European nuclear sites has not always been maintained to American standards and that intrusions on some military bases have confirmed the existence of security lapses; but it is equally true that no recorded incident has in any way shown that there is a real risk of weapons theft.

The late Sir Michael Quinlan was fond of saying that if the United Kingdom did not have nuclear weapons, it would certainly not build them today. At the same time, he argued that this was not, in itself, a reason to give them up. There were, on balance, according to him, more reasons to keep the UK deterrent than to abandon it. Sir Michael's reasoning can be applied to the question of US nuclear weapons in Europe. Even the most ardent supporters of the continuation of this presence do not claim that, if there were no such weapons on the continent today, they should now be deployed. Policy decisions have to take the world as it is as a point of departure. The weapons are there: the question therefore concerns the possible benefits or cost of taking them out. This makes the allied nuclear debate very different from the one between the United States and Japan, for instance.[10]

Questionable Benefits

There are few, if any, reasons to believe that the unilateral withdrawal of US nuclear weapons – or a significant reduction of the existing Europe-based arsenal – would have any measurable non-proliferation and disarmament benefit.[11]

In the past fifteen years, the massive nuclear reductions undertaken by the United States, Russia, the United Kingdom and France have had no apparent impact on nuclear proliferation dynamics and the non-proliferation regime. India, Iran, Israel, Libya, North Korea and Syria were obviously not impressed. And the Non-Aligned Movement (NAM) countries have not shown any interest in seriously reinforcing the regime.

What about Russia? One should be skeptical of the possible "exemplary" value of any unilateral gesture that NATO could make in this domain. Calls for a formalization of the Presidential Nuclear Initiatives of 1991-1992 (a raft of unilateral initiatives to limit and reduce the US tactical nuclear weapons arsenal decided by US President George Bush sr.), for instance, have always been opposed by Moscow. There is little evidence to suggest that unilateral disarmament has had any positive impact. A unilateral reduction or withdrawal of US nuclear forces in Europe could even be seen as a sign of weakness.

On this issue, the current US and NATO position is to seek reciprocity with Moscow (whose own non-strategic arsenal measures in the thousands), or at least to include both non-strategic arsenals in the next round of nuclear arms control. It is not an unwise position, but the signals coming out of Moscow on the possibility of a "nuclear grand bargain" do not make the prospect of success for such negotiations very likely.

Impact on NATO's Strategic Culture

If the US weapons were withdrawn from the continent, Europe would lose its leverage on NATO's nuclear policy – and also its potential influence, even if limited, on US nuclear policy, planning and posture.[12] The

8 As part of the 2010 NPR, the United States has decided to provide a nuclear capability for the F-35 fighter-bomber, which Italy and the Netherlands currently intend to acquire. The nuclear version would be available around 2017, thus at the time when DCA allies will need their first replacements. The retirement of European DCA will stretch from 2015 to 2025, unless life extensions are made. Germany is committed to buying the Eurofighter; the cost of making that aircraft nuclear-capable would reportedly be about 300 million euros, less than 1% of the annual German defense budget.

9 The issue did not figure prominently in the May 2010 NPT Review Conference. On a more general note, it is far from certain that there would have been an NPT at all, signed by countries such as Germany and Italy, had it not been for the existence of the NATO nuclear-sharing procedure.

10 In 2010, the US decision to retire the TLAM/N missiles (which could have been deployed on US nuclear-powered attack submarines, or SSNs, in crisis time), was compensated by the creation of a joint US-Japan nuclear policy structure.

11 This paper will not address the value of nuclear disarmament "per se".

12 An additional question that might be raised is the nationality of the Supreme Allied Commander Europe (SACEUR); the key rationale for SACEUR to be an American general was always the control of US nuclear forces in Europe. Some Europeans might take the end of the US nuclear presence in Europe as a reason to change NATO's organization.

Nuclear Planning Group, whose role is already limited, would probably disappear, at least as we know it today; it is hard to imagine that it would maintain a significant role just to deal with sea-launched ballistic missiles (SLBM) warheads assigned to NATO. Likewise for the SNOWCAT procedure[13] and the Steadfast Noon exercises. The difficulties that exist in organizing nuclear consultation exercises today would be magnified: in the absence of nuclear sharing, the motivation of non-nuclear countries to take part in such exercises would be almost nil. And the nuclear powers would certainly be less inclined to consider the use of nuclear weapons (as an alliance) and thus consult non-nuclear nations in a crisis.

In most NATO members, the nuclear deterrence culture would soon be a thing of the past. Assigning European officers to a NATO planning cell at US Strategic Command in Nebraska might be an option, but it could not replace dedicated NATO groups and procedures. Absent nuclear sharing, it would be difficult in non-nuclear countries to maintain a cadre of officers and diplomats well-trained in nuclear deterrence concepts, planning and operations. US nuclear weapons in Europe are an instrument of "nuclear socialization" for non-nuclear European nations.

There could also be negative consequences on NATO solidarity at large. If several NATO nations signaled that they did not want to carry on with their share of the nuclear burden, there could be reluctance in the US Congress to continue funding a missile defense system that is meant to protect Europe.

Nuclear Alternatives?

The adoption by NATO of what could be called a new "Turkish Clause" allowing for the return of B-61s in crisis time is not a credible option.[14] This would imply that nuclear-capable aircraft and bases would continue to be certified, and that pilots would continue to be trained for nuclear missions. It is very dubious that NATO would be willing to bear such costs in the absence of real nuclear-sharing. More importantly, such a decision in crisis time would probably open a divisive debate within the Alliance, that would be highly escalatory. This might lower the possible cost of aggression, as cogently argued by a trio of former US and British officials.[15] Note also that the so-called "Asian model" for NATO is an illusion: as the US 2010 Nuclear Posture Review made clear, assurance and deterrence in North-East Asia require that Washington can deploy nuclear forces to the region in time of crisis, but this option is credible only if there are NATO arrangements.

Would alternatives to US gravity bombs be available in the nuclear domain? To a certain extent, yes – but only to a certain extent: there would be a net loss in terms of deterrence. From a technical point of view, there is no question that US or UK strategic forces would be perfectly adequate to threaten nuclear retaliation in case of aggression. However, from a psychological standpoint, an adversary could judge that the use of an intercontinental-range ballistic missile or bomber would be less likely than the use of in-theater forces, especially if the adversary had the capability to strike the United States. The threat of using single-warhead SLBMs could be considered, but would be trickier than the use of B-61s, given that resorting to such weapons could be seen as the beginning of a massive strategic strike. (NATO would not be able to use sea-based cruise missiles since nuclear Tomahawk land attack missiles (TLAMs) were eliminated by the 2010 NPR.) Only in-theater air-delivered weapons can ensure nuclear burden-sharing, by giving a responsibility to host countries (to ensure that "all members 'dip their fingers in the blood'", as one researcher put it[16]) and other nations (who might participate inSNOWCAT procedures). Note also that the demonstration potential of in-theater forces (raising alert levels, moving aircraft closer to the adversary's territory…) would no longer exist.[17] Having US, UK (or French) submarines calling at Southern European ports to demonstrate NATO solidarity would hardly be an option, given the particular nature of the Mediterranean Sea, which does not lend itself to discrete navigation.[18] And what if Russia were

13 SNOWCAT (Support of Nuclear Operations With Conventional Air Tactics) concerns participation by non-nuclear allies in a common nuclear mission by suppression of enemy air defenses, aircraft refueling, etc.

14 The Turkish Clause was a 1887 agreement between the United Kingdom and the Ottoman empire, by which British troops could return after their withdrawal from Egypt, in case of a security threat.

15 Franklin Miller, George Robertson & Kori Schake, Germany Opens Pandora's Box, Briefing Note, London, February 2010: Center for European Reform, p. 4.

16 Trine Flockhart, *Hello Missile Defence – Goodbye Nuclear Sharing?*, DIIS Policy Brief, Copenhagen, November 2010: Danish Institute for International Studies, p. 2.

17 Moving a strategic bomber to Europe would be possible only on nuclear-certified bases.

18 Likewise, port calls by a US or UK nuclear-armed submarines (SSBN) would only be possible at bases with a high degree of nuclear security.

to station nuclear weapons demonstrably in Kaliningrad (or even Belarus) one day? NATO would not be able to alter its nuclear posture – something that some Eastern European members would probably request, despite the Three Nos of 1997 ("no intention, no plan and no reason" to base nuclear weapons on the new members' territory).

Finally, it is dubious that France would be willing to replace the United States by stationing Mirage-2000 or Rafale armed with Air-Sol Moyenne Portée Amélioré (ASMP-A) missiles abroad.[19] This could only be conceivable in the (very improbable) scenario of a unilateral US withdrawal and only if there were a clear request from some NATO allies to the French government.

The Substitution Myth

What about non-nuclear "replacements"? The idea of an "appropriate mix" of capabilities suggests that NATO could compensate reduced reliance on nuclear deterrence with stronger reliance on advanced conventional weapons and missile defense. But neither of these are substitutes: this is not a zero-sum game. Increased investment in those two capabilities will not create the conditions that existed before further reduction of NATO nuclear assets.

For both physical and psychological reasons, conventional weapons do not have the same deterrent power as nuclear ones. Conventional deterrence has a long record of failure – in fact, as long as civilization itself. The threat of conventional bombing is not enough to make an adversary desist when the stakes become extreme or vital, or even when they are more limited: the crises of the past twenty years have shown that it does not always lead the adversary to change its strategic calculus. There is still a large difference today – at least one order of magnitude – between conventional and nuclear yields. For this reason, conventional weapons cost much more for an equivalent effect.[20] Finally, US Conventional Prompt Global Strike (CPGS) assets, thanks to which the US would be able to strike select targets everywhere on earth with conventional weapons, will only be a "niche" capability, and not one geared towards the defense of Europe.

Even more than its nuclear counterpart, conventional strategy relies on the threat of targeted strikes on key assets and centers of gravity. Such a logic places extraordinary demands on intelligence and C3 (command, control and communication assets).[21] Conventional means today still cannot credibly threaten hardened targets. Just to give a recent example: in 1999, during the Kosovo campaign, NATO failed to disable Pristina's military airport.[22] A massive and sustained bombing campaign could, in many scenarios, have a physical effect equivalent to several nuclear weapons. However, as stated above, it is far from obvious that Western public opinion would bear the conduct of such a prolonged campaign, the unfolding of which would be visible twenty-four hours a day, seven days a week on television and the Internet.

Missile defense can reinforce the freedom of action of political leaders; it acts as a form of "deterrent by denial"; it covers cases where nuclear deterrence does not apply; it can be a damage limitation instrument, and a tool for burden-sharing. But deterrence by denial can never be as powerful as deterrence by retaliation: from the aggressor's point of view, the potential costs of the former are nothing compared with those of the latter. The damage limitation role of missile defense cannot be applied to massive threats today – nor can it be in the foreseeable future. The cost-effectiveness of missile defense remains questionable. Even assuming the total coverage of one's territory by defensive modes (anti-aircraft, anti-ballistic- and cruise missiles) in the face of a major threat – something that today can only be achieved at a reasonable cost for very small territories such as Israel's – such defenses would not take non-traditional modes of employment of nuclear weapons such as terrorism into account. And as far as burden-sharing is concerned, the land components of NATO missile defense will be limited.

Finally, there is the question of costs. Defense budgets in Europe are declining: it is far from certain that NATO governments would be willing and able to compensate a reduced reliance on nuclear weapons

19 France would remain the only country in Europe with air-launched missiles; it is dubious that withdrawal of NATO's SSNWs would push Paris to give up that capability. (For instance, France has for fifteen years been the only NATO country, and possibly the only country in the world, to maintain a nuclear capability on its nuclear aircraft carrier).

20 The annual cost of US nuclear deterrence is about 25 billion dollars (thus the equivalent of about one-thirtieth of the Pentagon's budget).

21 See Dennis M. Gormley, *The Path to Deep Nuclear Reductions. Dealing with American Conventional superiority*, Paris, Fall 2009: Institut français des relations internationales, p. 18

22 Tim Ripley, *"Kosovo: A Bomb Damage Assessment"*, Jane's Intelligence Review, September 1999.

by increased expenditures on conventional means and missile defense.
As a result, in lieu of an "appropriate mix", the Alliance might end up with less nuclear deterrence, little missile defense, and fewer conventional capabilities.

Such a development would be relatively harmless if the threat environment were currently undergoing significant improvements. But this is far from obvious. The current trajectory of Russia's policies is leading Moscow towards increasing friction with NATO in Europe and with the Western world in general. Likewise, the radicalization of the Iranian leadership and Tehran's arrival at the nuclear threshold places it on a collision course with Western interests. Of course, the threat is far from being as grave and immediate as it was during the Cold War. But it is a credible hypothesis that by 2015 NATO, for the first time in its history, will face two revisionist nuclear-armed countries along its borders. This is not the right time to let down the nuclear guard.

Proliferation Concerns

It is also possible that the end of NATO nuclear arrangements in Europe could create the perception that the American defense umbrella is folding. This could foster unease among US allies around the world, and perhaps become an additional factor for some of them to consider embarking on a nuclear program. This could also be an encouragement for potential adversaries to develop or continue their own nuclear programs. A historical example to bear in mind is North Korea. The withdrawal of all US nuclear weapons from South Korea in 1992 did nothing to slow down the North Korean nuclear program. Might it even have accelerated it? At the time, the White House was concerned that Pyongyang might see the end of the American nuclear presence on the peninsula as "the beginning of a US withdrawal".[23]

Nowhere does this reasoning hold more true than in Turkey. As noted by former UK Defense Secretary Des Browne, US weapons are important to Ankara "because the relationship between Turkey, the US and its NATO allies is under strain for other reasons. (…) Turkey is not wedded to US sub-strategic weapons but in the absence of its other concerns being addressed, they have become of symbolic importance".[24] Likewise, a researcher exploring the likelihood of a Turkish nuclear program recently argued that "it is Turkish faith in the credibility of US security commitments – not the presence of militarily insignificant tactical nuclear weapons on Turkish territory – that helps to constrain Ankara from pursuing nuclear weapons of its own".[25]

The Way Forward

An end to NATO nuclear arrangements would diminish transatlantic burden-sharing and solidarity, and weaken deterrence at a time when threats to NATO's collective security are increasing. These arrangements should thus be maintained. Nevertheless, an allied consensus on the continuation of these arrangements could be conditioned by the adoption of a new conceptual framework, which would be reflected in an updated NATO declaratory policy.

What could this include? NATO's Deterrence and Defense Posture Review could for instance make it clearer that the Alliance's nuclear weapons are instruments of deterrence, not war-fighting; that their use can only be considered under the most extreme circumstances of self-defense in case of a threat against vital interests; and that their main (though not "sole") purpose today is to deter the use of nuclear weapons. It should also acknowledge that conventional weapons and missile defense, even though they are not a substitute for nuclear weapons, do have a deterrence role of their own.

Should NATO go further and say that nuclear weapons will not be used against non-nuclear countries that are in good standing of their NPT obligations? In 2010, the United States and the United Kingdom both stated – albeit in slightly different ways – that they would not use nuclear weapons against such countries. This amounted to a strengthening of the Negative Security Assurances (NSAs) already given by Washington and London. But such a doctrine might be perceived as a weakening of deterrence at a time when Russia and Iran, as stated above, are increasingly flexing their muscles. And the third Alliance nuclear power, France, does not want to

23 George H. W. Bush & Brent Scowcroft, *A World Transformed*, New York, 1998: Vintage, p. 545.
24 Des Browne, *Current NATO Policy, Nuclear Policy Paper* n°3, ACA/BASIC/IFSH, November 2010, p. 4.
25 Jessica C. Varnum, *"Turkey in Transition: Toward or Away from Nuclear Weapons?"* in William C. Potter (with Gaukhar Mukhatzhanova), ed., *Forecasting Nuclear Proliferation in the 21st Century: A Comparative Perspective*, Stanford, 2010: Stanford University Press, p. 252. See also Report of the Committee on Foreign Relations, US Senate, *Chain Reaction: Avoiding a Nuclear Arms Race in the Middle East*, 110th Congress, 2nd Session, February 2008, p. 41.

embark on such a route; a consensus on such a doctrine is therefore unlikely.[26] A better and more realistic option for NATO might be to announce that "any major State aggression against allied vital interests would be met with a devastating and proportionate response", thus leaving the adversary guessing whether the response would be nuclear or non-nuclear.

In addition, the Alliance should consider sharing the costs of the nuclear capability for the next generation of European DCA among all members, possibly as part of a NATO common fund. In order to make modernization acceptable to all Alliance members, the number of DCA should be reviewed with a view to a possible further reduction, as long as burden-sharing is ensured.
Finally, NATO would probably not have anything to lose if it were to become more transparenton the numbers of weapons and aircraft earmarked for a nuclear role.
The ultimate goal of both deterrence and disarmament is peace and security. NATO should not cling to its current nuclear posture in all possible scenarios. For instance, if Russia were to express a willingness to negotiate the complete dismantlement of its non-strategic forces (those not covered by the bilateral US-Russian arms control treaties), then of course the end of the NATO nuclear arrangements could be put on the table.[27]

Today, however, this remains a highly unlikely scenario. Nevertheless, NATO should perhaps consider a new "dual-track" decision by which it expresses its readiness to give up all non-strategic nuclear weapons if Russia is ready to do the same and, conversely, its readiness to modernize its aircraft and weapons in case Moscow refuses.

26 If all Alliance members except France were to agree on this point, then it might be possible to adopt the broad principles of nuclear policy and doctrine at 28, and have a more restrictive doctrine for the use of US nuclear weapons in Europe. (France does not participate in the Nuclear Planning Group.)
27 The Russian non-strategic stockpile is, according to most estimates, ten or twenty times larger than NATO's.

Sustaining Deterrence: Conventional Forces, Nuclear Arms and Missile Defense

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Sustaining Deterrence: Conventional Forces, Nuclear Arms and Missile Defense

Bastian Giegerich[1]

The workshop saw intense discussion following the presentation of the paper, entitled "Defining the Right Mix of Capabilities: The Irreplaceable Role of NATO Nuclear Arrangements", by Bruno Tertrais from the Fondation pour la Recherche Stratégique (FRS) of Paris. Given the way in which the paper-giver and the discussants approached the subject, the wider conversation in the workshop concentrated on the future of NATO's nuclear posture and was thus somewhat more focused than the workshop title suggests.

Tertrais' paper argued that a reduced role for nuclear weapons in NATO's posture would have negative consequences for the credibility of extended deterrence and solidarity among NATO member states. Nevertheless, a push towards nuclear disarmament is visible within NATO, which, so Tertrais, is in part driven by well-known criticism of current nuclear arrangements. This development has to be taken into account. The main arguments of the advocates of a reduction, or dismantlement, of NATO's sub-strategic nuclear (SSNW) weapons range from the SSNW's lack of military purpose and the continued deterrence provided by the strategic forces of the US. Furthermore, missile defense and improved conventional weapons are said to be potential alternatives. The political utility of SSNW is also questioned because solidarity today is shaped by the operational experience in conventional operations, not nuclear burden-sharing. Finally, some participants argued that several member states fear that NATO's continued reliance on nuclear weapons interferes with its attempts to pursue a cooperative non-proliferation agenda and sends confusing signals to non-NATO powers including Russia. Tertrais' paper went on to refute the arguments for change, concluding that a conservative view of NATO's nuclear arrangements is in order and that the status quo should be maintained.

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Expanding on his paper during the presentation, Tertrais suggested that talks about the appropriate mix of forces are unfortunate, because they imply there is a zero-sum dynamic between nuclear and conventional forces. He contended that the substitution thesis, whereby nuclear forces could be replaced by a mix of missile defense and conventional forces, is deeply flawed. Rather than thinking in terms of substitution, it is more appropriate to think in terms of complementarity, because, so Tertrais, "for both physical and psychological reasons, conventional weapons cannot have the same deterrence effect as nuclear ones" (p. 5). The great danger looming in the background is that the budget crunch, putting downward pressure on defense budgets across the Alliance, would lead to substitution by default. NATO member states might end up with less conventional forces, less nuclear weapons, and a rudimentary missile defense capability, in particular given that money saved from expenditure on nuclear weapons would likely be withdrawn from defense expenditure rather than reinvested in conventional capability. The Alliance – Tertrais concluded – might thus find itself considerably worse off.

Several participants took issue with Tertrais' approach and his core arguments. The ensuing discussion among workshop participants at large centered on several themes. All of them saw elements of fierce disagreement. However, participants were also able to identify islands of agreement on most issues. The themes discussed further were:

- NATO's posture and the relationship between deterrence by punishment (retaliation) and deterrence by denial;
- the question of extended deterrence at low numbers of weapons;
- the question of whether or not there is a contradiction between NATO holding on to nuclear weapons and at the same time declaring proliferation to be a core threat;
- the possibility of strategic surprise and the relationship of contemporary security threats and extended nuclear deterrence;
- the role of Russia and its views of nuclear weapons.

NATO Posture

Workshop participants questioned whether the rejection of the substitution thesis would automatically lead to

a conservative view of NATO's nuclear arrangements, as Tertrais had argued. The substitution thesis had received a boost, in the view of several participants, by the US Nuclear Posture Review (NPR) of April 2010, which suggested that reliable missile defense combined with improved conventional forces would gradually assume roles currently covered by nuclear weapons.[2] At the same time, however, it was pointed out by others, the NPR also announced investments to modernize the nuclear arsenal with a view to improving its reliability and security.

A particular focus in this discussion were the some two hundred US B-61 sub-strategic gravity bombs currently deployed in Belgium, Germany, Italy, the Netherlands, and Turkey where they are allocated to delivery systems maintained by those NATO allies. It was argued that the new threat environment demanded a new kind of response and that the ageing technology these systems represented further undermined their utility. Even if modernized (for instance, by extending the range of the aircraft carrying them) their penetration would be lower than that of missiles. The B-61s lack accuracy, would require complex combined air operations to support them and have a high overall risk of loss, it was argued. Hence, some participants felt there was no convincing military rationale for these weapons in Europe at all.
This controversy is reflected in the different position NATO member states take on the political value of SSNW. Germany was judged to represent one end of the spectrum since it prefers their negotiated withdrawal on the ground that they are judged to be militarily obsolete and a burden for the non-proliferation agenda. The suggestion by German minister of foreign affairs, Guido Westerwelle, to seek the withdrawal of American SSNW from Europe while remaining under the US nuclear umbrella, was judged by some workshop participants to signal a weakening of allied solidarity. France was seen to promote the opposite position maintaining that nuclear sharing was still a central embodiment of solidarity within NATO and withdrawal would be a naïve gesture in relation to Russia, a country that has maintained an SSNW arsenal at least ten times the size of the B-61s deployed in European NATO member countries.

The group was also of two minds on the related issue of whether or not deterrence by punishment could be replaced by deterrence of denial. The US shift towards missile defense and the agreement reached by NATO at its 2010 Lisbon summit to deploy an Alliance-wide missile defense system protecting allied territory and populations were seen by some as strong evidence that such a replacement was possible. In this view, a strong missile defense would serve to prevent an adversary from achieving its objectives. The new Strategic Concept, approved by the same Lisbon NATO summit in November 2010, states that NATO would "develop the capability to defend our populations and territories against ballistic missile attack as a core element of our collective defense, which contributes to the indivisible security of the Alliance."[3]

The Question of Numbers: How Much is Enough?

By and large there was agreement in the group that a further reduction in the number of nuclear weapons was unlikely to have a negative effect on the credibility of nuclear deterrence. However, a part of the group maintained that there likely was a tipping point where nuclear burden-sharing in the Alliance would be affected, even if extended deterrence remained intact. Thus, the question "how much is enough?" could not be completely ignored and the number of weapons was not judged to be completely irrelevant for the health of the nuclear relationship. Some participants in the workshop maintained that those who are in favor of preserving NATO's current nuclear arrangements are overly focused on strategic stability. Their core argument in this regard was that it is by no means clear that large arsenals are required and that deterrence at low numbers would be less effective than NATO's current posture. Therefore, deterrence effectiveness is, in their opinion, at least as important a driver of force structure as strategic stability. Deterrence failures are likely to be linked to political credibility, the survivability of forces, and doctrine, all issues that cannot be resolved by maintaining large arsenals.

Others rejected this interpretation, although they agreed on the point of strategic stability, namely that reduced numbers would neither undermine crisis stability nor armaments stability. Yet, in their opinion,

2 US Department of Defense (2010): Nuclear Posture Review Report, Washington, DC, April 2010, http://www.defense.gov/npr/docs/2010%20Nuclear%20Posture%20Review%20Report.pdf.

3 NATO (2010): Active Engagement, Modern Defence. Strategic Concept For the Defence and Security of The Members of the North Atlantic Treaty Organisation, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf (p. 5).

the SSNW numbers in Europe are already so low that a further reduction would only make sense if it led to withdrawal (which they oppose). The point about Alliance solidarity, however, was more complex. There was an important socialization argument in nuclear burden-sharing, namely that it enabled European allies to maintain knowledge of doctrine and procedures as well as accept part of the responsibility otherwise shouldered by a very small number of allies. This, it was argued, while not tied to a particular type of weapon, would suffer enormously if NATO's posture were to change. In addition to this point, Tertrais had argued in his paper that, "if the US weapons were withdrawn, Europe would lose its leverage on NATO nuclear policy – and also its potential influence, even if limited, on US nuclear policy, planning and posture". Some participants responded that the symbolic value of SSNW as an element of risk- and burden-sharing is limited at best. It was suggested that NATO's nuclear planning group does not really have a clearly defined agenda anymore and it is thus doubtful whether it could serve as an anchor for nuclear sharing in the future.

Nuclear Weapons and Non-Proliferation

A key element in the workshop discussion was the question whether there is a contradiction at the heart of NATO's strategy as embodied in the new Strategic Concept. Some participants asked whether a policy that seeks to build cooperative relationships on non-proliferation issues can be credible while NATO says "as long as nuclear weapons exist, NATO will remain a nuclear alliance."[4] Would the non-proliferation agenda not need a much stronger signal from NATO, namely that it is reducing its own reliance on nuclear weapons in its own posture? In other words, if NATO argues that the proliferation of weapons of mass destruction and the proliferation of ballistic missile programs is its key worry, how can it expect to cope with it while it has this lingering contradiction in its own strategy?

Some participants remarked that both the group of experts report, led by former US secretary of state Madeleine Albright, published in May 2010 in preparation of the new Strategic Concept[5], and the new Strategic Concept itself do very little to support the goal of nuclear disarmament. Others echoed this argument by recalling that, while US President Barack Obama has framed the vision for "global zero" in his speeches[6], NATO as an alliance offers very little orientation on how it will contribute to this goal. Clearly, in these participants' view, the deterrence review NATO announced at Lisbon to look again at the importance of SSNW and their relation to missile defense and deterrence was considered too little to offset the harmful consequences deriving from NATO's nuclear 'schizophrenia'.

Several workshop participants insisted that continuing with the old posture makes no sense at a time when NATO has declared cooperative security to be one of its three core tasks and has furthermore argued that non-proliferation is one of its central worries. This position suggests that if NATO seeks cooperation on non-proliferation issues it would need to send much stronger signals to outsiders. These signals would not aim at states like Iran or North Korea, but at all those members of the Nuclear Non-Proliferation Treaty (NPT) in compliance with their NPT obligations who can help to strengthen arms control regimes and frame an intellectual environment that supports nuclear disarmament. A NATO policy that can be interpreted by outsiders as "NATO needs nuclear weapons while at the same time telling third countries they should stay away from them" is likely to be unconvincing even assuming support for the non-proliferation agenda in those third countries.

However, not all members of the workshop group accepted the argument that there is indeed a contradiction and questioned the assumed link between non-proliferation and deterrence. One speaker recalled that NATO had engaged in unilateral and negotiated disarmament arrangements for the past fifteen years. However, the impact of these signals had been close to zero on the global level. How many signals did the world need, it was asked? Others added that those countries that had proliferated in the past were certainly not driven by the number of weapons in Europe. Yet another participant suggested that even with a view to Russia, continued reliance on nuclear deterrence did not seem to complicate cooperation on issues such as Afghanistan, counter-terrorism, or counter-piracy efforts. If at all, a negative effect was visible in relation

4 NATO 2010, p. 4.

5 For the report see: Group of Experts (2010): NATO 2020: Assured Security; Dynamic Engagement, 17 May 2010, http://www.nato.int/strategic-concept/expertsreport.pdf.

6 See: Remarks of President Barack Obama, Hradčany Square, Prague, Czech Republic, April 5, 2009, http://prague.usembassy.gov/obama.html.

to cooperative missile defense with Russia. Given that Russia's leadership continues to see NATO's missile defense plans as potentially undermining its deterrent, progress is likely to come in small steps. NATO has set itself a timeline for reaching some form of agreement with Russia by the next NATO summit in May 2012.

Strategic Surprise and New Threats

Several participants asked what kind of scenario and what kind of political development would lead NATO to see military utility in SSNW and even contemplate the use of such weapons. While there was great reluctance to pursue specific scenarios, many participants argued that for NATO it is necessary to maintain flexibility to deal with strategic surprise. They argued that the importance of NATO's current nuclear arrangements is not predicated on Russia being a threat to NATO – it is predicated on a functional logic and generating adaptability in light of a high level of international uncertainty. Thus, guarding against strategic surprise is part of that logic. And while we obviously do not know what form and shape such a surprise would take and which direction it would come from, NATO had better assume, it was argued, that there will be one. Therefore, NATO will need to be able to respond and have options when such a surprise emerges. One participant suggested that a key worry for NATO should be to prevent being compelled by others.

Most participants failed to see the utility of sub-strategic weapons in crisis situations and some argued that the US strategic capability would be there to deal with any strategic surprise that may arise. It was pointed out that NATO had had to deal with surprises in the past and had proven that it could respond adequately. Trying to create the illusion that this challenge could be avoided was dangerous. Furthermore, NATO has already undertaken huge disarmament steps since 1990 – why would the argument about strategic surprise be more important now than it was then? However, the credibility of the American strategic deterrence capability was questioned by others.

A group of participants argued that the relevance of nuclear weapons today should be measured against contemporary threats: can new threats, including in the realm of cyber-security and terrorism, be deterred and would nuclear weapons be needed to do so? If the answer is "yes", it was argued, the relevance of maintaining NATO's current posture is clear. However, if we could show that the answer is "no", then it might be time for fundamental re-thinking. This avenue was not pursued further during the workshop discussions except for brief comments suggesting that it would remain inherently difficult to deter actions that cannot with certainty be attributed to specific actors as in the case of cyber threats. Likewise, terrorist groups that do not care about maintaining a support base among a certain population in order to achieve a cause and that employ the tactic of suicide bombings are likely to prove nearly impossible to deter. Certainly, deterrence by punishment seems a futile suggestion in that regard. However, even if, on balance, NATO came to the decision that nuclear weapons do continue to have a deterrent value in the context of new security threats and the possibility of strategic surprise in an inherently uncertain international environment, this would be likely to cause a new discussion about numbers: how much is enough?

NATO-Russia Relations

Regarding both the relationship between NATO and Russia and the bilateral US-Russia relationship, workshop participants strongly agreed that Russia was now thinking about nuclear weapons very differently from NATO allies. Some speakers suggested Russia was likely to see SSNW as being of particular value because they could make up for Russia's current conventional weakness. Furthermore, Russia's threat perception was likely to be different from that of NATO allies, given a variety of nuclear and missile arsenals in its neighborhood. Russia, it was argued, might today think about nuclear weapons much in the same way as NATO did when it was following its "flexible response" strategy. Added to this was that Russia might blatantly use its large nuclear arsenal as a matter of prestige and superpower status. Maintaining its nuclear posture, according to this logic, would make it necessary for the US to engage Russia as an equal partner and seek bilateral arms control negotiations. Between NATO allies and Russia there was thus very likely a growing asymmetry of views when it comes to the role of nuclear weapons and this was judged to have important implications for any attempt to bargain with Russia.

One speaker argued that bilateral US-Russia disarmament talks were anachronistic, because they harked back to the bipolar logic of the Cold War. If Russia is now using SSNW in a way that was similar to NATO's thinking at the time of flexible response, it is

time to bargain. Herein, it was argued, lies the true value of NATO's SSNW. They should be used as a bargaining chip with Russia – if getting rid of NATO's SSNW can serve as a tool to get Russia to reduce the number of its own SSNW, true progress will have been made. On this point, the discussion circled back to Tertrais' paper which argued "there is only one scenario where the end of the current arrangements should be considered: if Russia was to express a willingness to negotiate the complete dismantlement of its non-strategic forces".

Conclusion

The key dividing lines regarding NATO's nuclear posture could not be bridged in this workshop session. Some participants felt that maintaining the current arrangements is a sign of trying to extend past approaches into a radically different international environment and therefore bound to fail. Others, however, saw the conservative, status-quo-driven approach as offering the best opportunity to maintain deterrence, nuclear burden-sharing within the Alliance, and flexibility with a view to uncertainty in the international environment. These divisions are also reflected in the current government policies of NATO allies. However, even in the absence of consensus on this fundamental issue, the workshop proved to be very valuable in highlighting and beginning to clarify a range of issues the Alliance will have to engage with as it tries to define a sustainable basis for deterrence in light of its defense and deterrence policy review mandated at the Lisbon summit last November.

FOCUS AREA II

PARTNERSHIPS

Why Connect? On the Conceptual Foundations of NATO Partnerships

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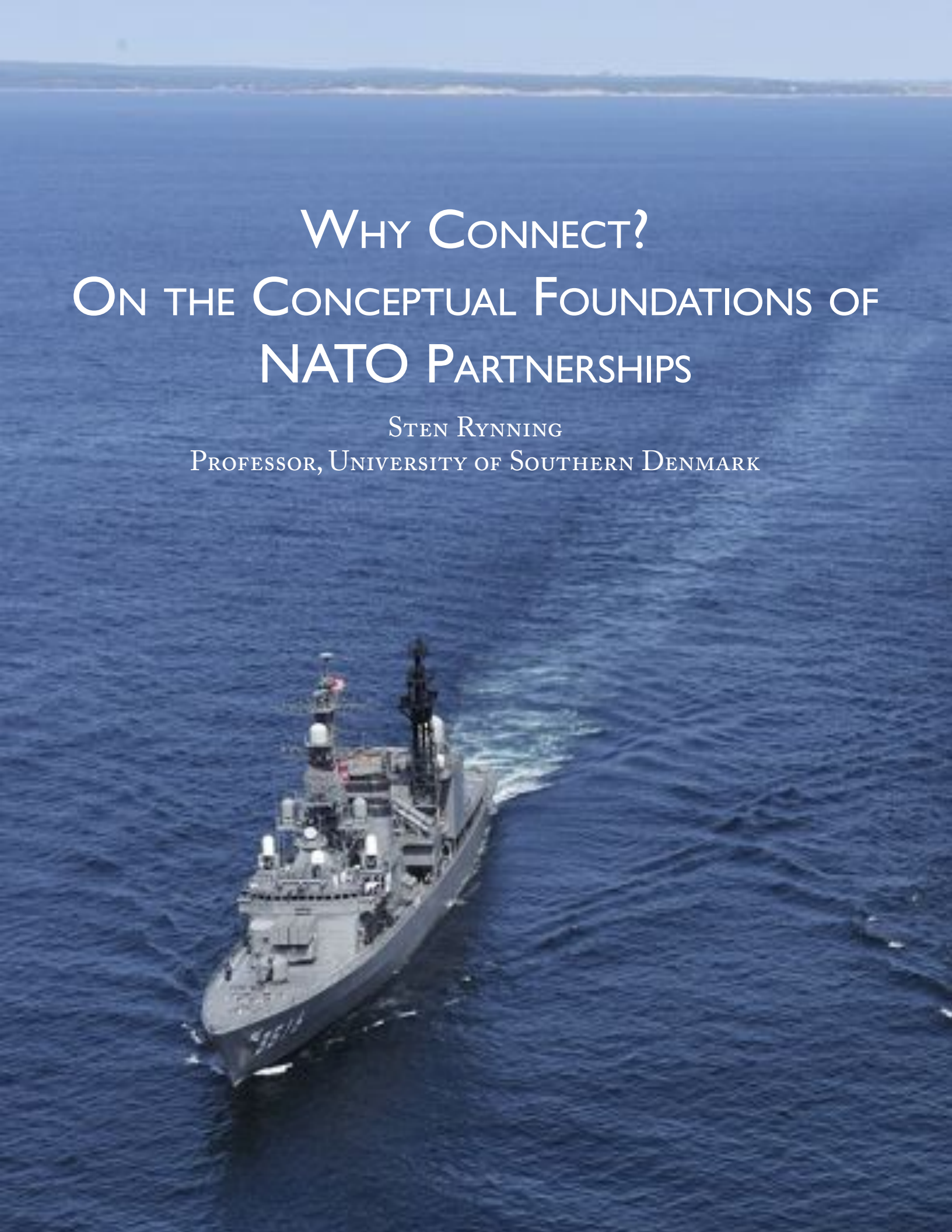


Why Connect? On the Conceptual Foundations of NATO Partnerships

Sten Rynning[1]

NATO's quest to connect itself to the wider world and design partnerships that grant both stability and influence reflects a challenge inherent in the management of change wrought by the environment. If NATO does not manage to navigate contradictory impulses and coordinate allied action, in particular, it could become like Thomas Mann's Buddenbrooks – a family with a splendid history that dithered and failed.

NATO appears to be aware of the challenge, though, as it has defined a set of reforms that will upgrade the Alliance. According to the NATO script, NATO must improve its fortunes by being more than a war-fighting machine: it must rediscover the tools of statecraft and engage the modern era's emerging security challenges; it must manage crises before they turn to war; and it must maintain relations with a large number of countries and international organizations to be a security player as much as a defense alliance.[2]

NATO policy has changed, therefore. A new partnership policy outlined in April 2011 promises to be more "flexible and efficient;" a new and more inclusive political military framework for operational partnerships is in place; and NATO is adding substance to the Enduring Partnership with Afghanistan that was launched at Lisbon and which holds the potential to bring NATO into dialogue with Afghanistan's key neighbors, including India and China.[3] Such dialogue would truly amount to a transformation of NATO, which for the better part of a decade has considered its Afghan engagement strictly through the prism of the UN mandate that limits NATO to Afghanistan's boundaries and security assistance operations. Where old NATO was strictly operational, new NATO is predominantly politically engaging and preventive.

NATO is not on firm ground yet, however. It notably lacks an overarching purpose for outreach and is in fact in need of a China moment. This happened in US foreign policy in 1971-1972 when President Richard Nixon, as Henry Kissinger recalls, cut through the maze of multiple and mostly minute interests and relied on his "conceptual foundation" for policy to engineer the "opening" of China.[4] NATO's current Libya operation – Operation Unified Protector – is illustrative of conceptual confusion. It comes at a time when NATO has agreed to become more political and preventive. However, NATO's current regional partnerships in the region, the Mediterranean Dialogue (MD) and the Istanbul Cooperation Initiative (ICI), have been next to useless, and NATO once again finds itself in the role of command and control structure that is representative of the "old" NATO (2.0) that "new" NATO (3.0) was supposed to overtake. What NATO needs is not a drive towards a singular and unified partnership because this is not politically possible; what it needs is to rethink the balance between its several conceptual foundations.

This paper will contribute in the following way. It will first demonstrate how NATO partnerships are complex constructions with multiple rationales. A first cut is provided in the next section where NATO partnerships are assessed in a generational perspective. There are three such generations, and the sum total is a complex policy toolbox but also evidence that NATO is fundamentally adaptive. A second cut comes in the second section where the infrastructure of ideas in all partnerships is exposed. We shall see that principled ideas co-exist within each generation of partnerships, but that the emphasis has changed over time as NATO has come to emphasize globalization and functional cooperation among itself and a host of global actors at the expense

1 The author is Professor of Political Science at the University of Southern Denmark. The author would like to thank the participants at the panel, *Reaching Out to the World: NATO's International Partnerships* for many insightful comments. The author is particularly grateful for the thorough reviews and suggestions provided by the two designated discussants, Gulnur Aybet and Arkady Moshes.

2 This is the gist of NATO's new Strategic Concept adopted by the heads of state and government in November 2010 and also the promise by the Secretary General that NATO now has upgraded itself to "NATO 3.0". NATO, *Strategic Concept For the Defence and Security of The Members of the North Atlantic Treaty Organisation: Active Engagement, Modern Defence*, Lisbon 19 November 2010, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf. "The time has now come for NATO 3.0," argued the Secretary General in October 2010 and continuously thereafter: "The New Strategic Concept: Active Engagement, Modern Defence," Speech by NATO Secretary General Anders Fogh Rasmussen at the German Marshall Fund of the United States (GMF), Brussels, 8 October 2010, http://www.nato.int/cps/en/natolive/opinions_66727.htm.

3 NATO, Meeting of Ministers of Foreign Affairs, Berlin, 14-15 April 2011; the cited documents can be found at http://www.nato.int/cps/en/SID-F043DE52-27A2A4D5/natolive/events_72278.htm.

4 Henry Kissinger, *On China*, New York, 2011: Penguin, p. 235; also *Diplomacy*, New York, 1994: Simon & Schuster, p. 705.

of both values and geopolitics. This sets the stage for the third and final section that argues for a rebalancing of principles given the political void encouraged by functionalism. NATO must put geopolitics and values into its partnership framework, thus creating a new balance of conceptual foundations.

Toolbox Complexity

NATO's post-Cold War partnerships come in generations, though today they co-exist and overlap. The first generation followed logically from the Cold War and was concerned with NATO's geographic approaches to the East. The "adversaries", now in transition, needed to be maintained on the track of liberal-democratic reform, and NATO needed policies to assist them. The ultimate partnership policy became NATO's enlargement, one might venture, with enlargement taking place in 1999 (with three countries) following some hesitations in the mid-1990s, then again in 2004 (with seven countries) and again in 2009 (with two). Without exception, the new members have been Cold War adversaries.[5]

Enlargement is distinct from partnership, though. NATO's eastern partnerships were offered to all former Warsaw Pact members and comprised a large framework – first the North Atlantic Cooperation Council (NACC), then the Euro-Atlantic Partnership Council (EAPC) – with a built-in opportunity for enhanced individual partnerships via the Partnership-for-Peace program (PfP). The purpose was to create dialogue across the board and thus promote transparency and stability, to embed democratic norms, and to optimize the contributions of partners to peacekeeping operations. These partnerships were an extension of the liberal-democratic Atlantic community, and their scope was defined by the geography of the Cold War. The neutrals of Western Europe also joined – Finland and Sweden in 1994, Austria in 1995, Switzerland in 1996, and Ireland in 1999. These "neutral" partnerships were predominantly focused on peacekeeping operations and NATO-partner interoperationability but, as in the case of the Eastern partners, it was the changing geography of Europe that eroded the meaning of neutrality and led these countries to conclude that they, too, should support the democratic agenda of NATO. In time, by 1999, NATO defined a tool – the Membership Action Plan (MAP) – to manage the distinction between partnership and (new) membership, promising that NATO's door remains open.

The second generation is predominantly operational in nature. As mentioned, the EAPC-PfP partnerships also had an operational dimension, but with the turn of the century, the onset of the US War on Terror, and NATO's 2002 commitment to full scale "transformation," operational imperatives became more pronounced and moved out of the Cold War geographical confinements. The Prague summit of 2002 was NATO's transformation summit, and though it did not result in a new partnership architecture it unmistakably focused on new global challenges. The EAPC-PfP framework was revised to allow for more "tailored" and thus more effective individual action plans; partners in the Caucasus and Central Asia were in particular encouraged to make use of them; and existing relations with Russia, the EU, and the Mediterranean countries were deepened and reoriented to focus on strategic and terrorism-related issues.[6]

NATO's focus was not least on Afghanistan, where the ISAF mission slowly but surely increased the need to work with partners, and also on the wider Middle East region where, allies felt, liberal reform was needed. NATO launched the ICI partnership program for the Persian Gulf monarchies in 2004 and then became embroiled in a partnership dispute that touched on the Alliance's core identity and which concerned global partners such as Australia, New Zealand, Japan, and South Korea that took part in ISAF. NATO was unable to solve the issue of outreach and in 2006 had to settle for the diplomatic formula of "Contact Countries" or "partners across the globe". The labels revealed both a desire to work with global partners in ISAF and a political deadlock on global partnership's wider purpose. The 2008 Bucharest summit provided little by way of clarification. The aforementioned four global partners gained so-called "tailored cooperation packages", but these were merely toolboxes tailored to bilateral relations that did not presage a more general policy of global engagement.

This deadlock has now come unlocked because the Strategic Concept of 2010 states that "[t]he promotion

5 Slovenia (2004 accession) and Croatia (2009) were then part of Yugoslavia, notoriously a not-aligned communist country, it might be noted, as were Bosnia-Herzegovina and Montenegro, next in line for membership.

6 NATO, *Prague Summit Declaration*, 21-22 November 2002, paragraphs 7-11, http://www.nato.int/docu/pr/2002/p02-127e.htm.

of Euro-Atlantic security is best assured through a wide network of partner relationships with countries and organizations around the globe."[7] It downplays previous distinctions – such as regional or global, partner countries or organizations – in favor of a flexible partnership network suited to a globalizing world. It thus selectively draws on the May 2010 report of the Group of Experts that helped prepare the Strategic Concept and which maintained, while recognizing the need for flexibility, a focus on regional forums and suggested "expanding the list of shared activities."[8]

Regionalism and listed activities tied the hands of decision-makers and they instead opted for a more flexible format that has become NATO's new partnership policy. This new policy also consists of a new political military framework for operational partnerships which de facto is a set of lessons learned from ISAF that promises greater partner involvement in all phases of an operation.

Yet we have also moved into a third generation of partnerships that may be labeled strategic. It is a question of using partnerships not only as a resource in a given campaign, which was the center of gravity for the second generation, but a tool of statecraft and a means to build stability in any region or area of NATO concern. While "strategy" and "strategic" are used in a variety of contexts, here they refer to the desire to use partnerships for the sake of equilibrium. This third generation shares the goal of the first generation of partnerships – namely stability – but it does not presume that stability can grow out of democratic transitions, as in Eastern Europe: equilibrium must be crafted by statesmen in political dialogue.

The evidence for this is partly the Strategic Concept's network emphasis and also the implementation of this policy, as agreed at NATO's April 2011 ministerial meeting in Berlin. One of the texts approved by ministers on that occasion contains two notable sections, one on "wider engagement" and one on "enhancing consultations in flexible formats."[9] NATO is now ready to engage pragmatically with "key global actors," just as it is ready to consult with any partner at any time it judges consultations opportune, which is referred to as the "28+n" formula. It is no longer farfetched to imagine a NATO-India dialogue on Afghanistan or a NATO-China dialogue on Afghanistan or piracy; nor is it farfetched to imagine NATO consulting with, say, Egypt if the security situation relating to the Gaza Strip seriously deteriorates.

This last generation of partnerships is in the making. Its development is incomplete and it coexists with the other two generations. Operations can intrude – such as Operation Unified Provider – and derail attention. Moreover, some partners may defy easy categorization, Russia being the best illustration hereof. Russia bridges the first and third generations of partnerships, with its initial and "special" partnership (the NATO-Russia Council) coming on the heels of NATO enlargements and with no real operational impact. Whether NATO and Russia can turn their gaze from the European scene to global management is a question that currently rests on the test case of missile defense cooperation and which ties in with the wider question of NATO cohesion and purpose. We therefore turn to the balance of ideas inside NATO.

Dissecting the Balance of Ideas

NATO's partnership legacy is one of diverse policy tools, and only the foolhardy would expect that NATO can now suddenly agree on a single rationale that will provide unity of purpose to NATO's outreach. NATO will instead have to confront the underlying conceptual infrastructures of its policy tools and consider ways of emphasizing some tools over others. In this section we unearth these infrastructures; in the next section we consider options for change.

It is possible to identify three conceptual infrastructures in NATO's partnership policies. These infrastructures are ideal-types: they reflect "pure" constructions of policy rationales, and they cannot be found in their pure form in reality. In other words, each successive generation of NATO partnership policy contains parts of several ideal-types. It is by way of teasing out these ideal-types that we can suggest ways of repackaging NATO policy. The ideal-types define themselves first and foremost in relation to their assessment of global trends and what can be done about them: one detects a globalized world of common challenges and an imperative of collective action; another an era of value-based policy according to

7 *Strategic Concept*, paragraph 28.

8 Group of Experts, *NATO 2020: Assured Security; Dynamic Engagement*, 17 May 2010, http://www.nato.int/nato_static/assets/pdf/pdf_2010_05/20100517_100517_expertsreport.pdf, see Chapter 3 and especially pp. 23 and 29.

9 Sections VII and VIII of *Active Engagement in Cooperative Security: A More Efficient and Flexible Partnership Policy*, Berlin, 14-15 April 2011.

which progress depends on the promotion of the right ideas; and a third a compelling need for great powers to manage change and emphasize equilibrium as much as, if not more, than justice (table 1 provides a complete overview).

The first ideal-type is "functionalist." Its intellectual roots are both liberal and a-political – coming out of the European interwar period where politics wreaked more harm than good – and it has latched onto globalization. Functionalism is today a global quality, and we may therefore label it the ideal-type of "Global Functionality." It is network-oriented and advocates the largest possible degree of interaction between NATO and other international organizations – the United Nations, the European Union, the African Union, the Arab League, and so on – and adds individual country partners to the extent possible. NATO should respect the division of labor that emanates from global functionality and only contribute to it with a set of core competences – by nature military – that other organizations cannot deliver.

The second ideal-type is centered on "values." It is inherently political because values drive politics. Its roots can equally be traced to the European interwar period, but in a different way. Where functionalists concluded that progress could be achieved by stellar functionalism, progressives concluded that only the firm embrace of liberal and democratic values could ensure progress in a world of continuous rivalry. Such values are written into NATO's treaty – notably in the preamble and Article 2 – and they inform the post-Cold War vision of a Europe "whole and free" that President George H. W. Bush made the clarion call for his country and the Alliance. According to the logic of the ideal-type, one should be guided by ideas and not the prerogatives and divisions of labor built into international organizations. NATO should thus take confidence in its values and only grant partners privileges if they align with liberal-democratic values.

The third ideal-type is concerned with "geopolitical management." It is also inherently political, but it foresees little scope for global progress given the presence of political and cultural plurality. It therefore values management of equilibria more than the pursuit of justice, given that the latter inevitably comes out of a particular political context and therefore represents a type of offensive power politics. It informed the various détente policies of the 1970s that followed the early and highly ideological phase of the Cold War, though the American, French, and German designs for détente tended to clash and result in as much acrimony as power management. Today it informs the argument that NATO should work with powerful partners – beginning with Russia in its neighborhood (which is also to renounce the idea of enlarging the Alliance to Ukraine and Georgia) and notably extending cooperation to emerging powers, the other BRIC countries in particular (Brazil, India, and China), but also emerging powers in whatever local or regional setting that NATO enters into.

Table 1 - Ideal-types and Partnership Policy

	Global Functionality
Essence of World	Globalization; imperative of collective action beyond political divides
What is NATO?	One node in wider network; in possession of key military competences
What is NATO Outreach?	A recognition of a global division of labor; NATO should do more to work with other IOs.
Keywords	Comprehensive approach and cooperative security
Relation to 1st Generation of Partnership?	Not fully developed in early 1990s but in time debate on "interlocking" institutions
Relation to 2nd Generation of Partnership?	Considerable impact but unsettled; NATO goes out of Euro-Atlantic region focused on own functions/operations; debates Comprehensive Approach
Relation to 3rd Generation of Partnership?	Major justification for NATO policy both in terms of crisis management and partnership

Liberal Values	Geopolitical Management
Distinction between free and non-free world; progress depends on the balance between the two	Dialogue among great powers; emphasis on equilibrium over justice
A center of gravity in free world; a collection of established liberal states	A meeting place for leading Western powers; a lieu to coordinate policies vis-à-vis other powers
An effort to bolster the free world and extend its reach; NATO should be guided by values.	A dialogue among great powers regarding management of hot spots and global commons
League of Democracies; liberal-democratic community	Strategic partners and strategic relationships
The predominant driver of policy; nourished by Cold War victory and US policy, resulting notably in enlargement policy	Considerable but secondary; focused on Russia and uncertainty of its transition
The predominant driver of US policy but controversy within Alliance; agreement that terror involves war of ideas	Unhinged; great power relations sidetracked by liberal ideas and functionality of Comprehensive Approach
NATO principles continue but effectively downplayed; they act as flexible menu that frame pragmatic policies	Considerable new justification though untested and controversial: why should NATO talk to China or debate Iran?

From this overview we can gain some insight: Liberal Values were once the main driver of NATO's partnership policy, but they have receded in importance; Global Functionality has steadily increased in importance and is the predominant driver of policy today; and Geopolitical Management is on the agenda, but continues as a source of Alliance controversy. All this is a question of emphasis. It would be wrong to argue that any one of the ideal-types has either fully dominated NATO policy or been entirely absent.

Within this context of varying emphasis, it is nonetheless striking that, in terms of liberal approach, NATO seems to shift from the value-focused approach that was nourished by the Cold War and the confidence that the Western powers gained from having upheld their liberal values and won, to a more anodyne and technical liberal vision according to which NATO is just one of many cog wheels in the engine of global management. It is a retreat from value confidence that has many sources: it could be the recent decade's exhausting wars in Afghanistan and Iraq combined with a financial crisis whose impact on public budgets has yet to be fully discerned; it could also be the mere fact that as NATO has lifted its gaze from its near abroad – the lieu of the Cold War – it has encountered regions and dynamics that demand fewer preconceptions and greater attentiveness to the brokering of local antagonisms. It finally is striking that NATO, a preeminent defense alliance, has consistently – for the past twenty years –had difficulty articulating a firm approach to power politics or geopolitics.

Problems and Prospects

NATO's key challenge may well be that the third generation of partnerships, building predominantly on Global Functionality ideas, provides little by way of purpose for NATO. The Alliance is part of a larger whole where the brain power is either floating in composite networks (akin to the 'G' format: G8 or G20) or is anchored in the UN. It is certainly not anchored in the North Atlantic Council (NAC). Two cases illustrate the point that NATO has a deficit of political purpose.

In the spring of 2011, NATO Secretary General Anders Fogh Rasmussen sought to place Iran on the agenda of the North Atlantic Council, hoping to raise awareness and engage in a type of preventive political consultation. NATO has no formal role in relation to Iran – it is notably not part of the group of six involved in nuclear talks – and such an Iran debate amounted to a potentially significant change in terms of political engagement on behalf of the NAC. Predictably, though, the allies failed to agree to such an NAC discussion and the exercise concluded with an informal discussion of some symbolic value but with little impact.[10]

In the absence of a vision of its political contribution, NATO could not advance its internal consultations and, subsequently, outreach.

Similarly, in the spring of 2011, when NATO was on the verge of approving Operation Unified Protector, France was leading the allies and others that sought to place the political leadership of the operation in the hands of the coalition of the willing which began the intervention and continues to meet regularly (the Libya Contact Group). Had this happened, the NAC would have been relegated to running the operation militarily. The outcome was a compromise of sorts, with the Contact Group gaining "overall political direction" of the international effort and NATO "the executive political direction" of NATO operations.[11]

If we look at the generations of partnerships and the underlying ideas illustrated in the previous sections, the conclusion offers itself that NATO lacks some of the purpose that Values and Geopolitics provide and which was built into the first two generations of partnerships. Values ran strong in both generations and Geopolitics was quite strong in the first generation. Values and Geopolitics provide purpose because they tell the actor in question (NATO) who it is and why it must engage in certain parts of the world. It is a basic question of identity. On this score, the first generation was the most successful.

That was more than a decade ago, however, and the challenge for NATO now is to cope with all three generations and provide purpose once again. It follows that NATO should consider ways of emphasizing Values and Geopolitics within its new framework, the third generation. It should not fall back on Global Functionality, even though the broad legitimacy it confers is luring. What NATO needs is purpose, and Global Functionality does not provide it. An agenda for reform could therefore include the following:

Reintroducing Geography: NATO should reintroduce geography in its political imagination. Global Functionality reflects the fact that most threats and dynamics cross borders and some at a global scale. Yet, the track record of the past decade also demonstrates that the most pressing threats for the allies come out of the broader Middle East region and that European allies have limited political and military capacity for sustained military engagement beyond it. The

10 Some allies objected to the idea of such consultations on the grounds that they diluted the value of Article IV consultations as a stepping stone to Article V collective defense commitments. Other allies went along with the proposal, but then objected that the timing was wrong once nuclear negotiations again got under way in Geneva. Background interviews by the author in NATO HQ, 6-8 April 2011.

11 *London Conference on Libya: Chair's Statement*, 29 March 2011, http://www.fco.gov.uk/en/news/latest-news/?view=News&id=574646182.

region should run from North Africa over the Indian Ocean and Horn of Africa and north to Afghanistan and then on to the Caucasus. Defining this arc of crisis would be to build on the "Euro-Atlantic" vision of NATO that was agreed on in 1999 and which moved NATO's gaze beyond NATO territory, but not significantly outside the home region. It is now time to broaden the Euro-Atlantic bonds while also resisting the facile legitimacy that Global Functionality confers. The existing regional tools – EAPC, MD, and ICI – need to be fundamentally rethought as part of this process. They might be preserved because some allies value them and because they refer to distinct geopolitical regions, but they should be structured to deliver more of the added value that NATO can provide.

Envisioning Added Value: NATO should define what kind of contribution it could make to the advancement of liberal-democratic principles in this enlarged region of concern. It should eschew grand talk of democratic coalitions or leagues and focus on added value in complex processes of political, social, and economic transition. Drawing notably on the ISAF experience, this added value could come in the shape of (a) the training of local security forces, (b) logistical support to the same forces, (c) joint operations where appropriate, and (d) development of ministerial capacity and civilian control.[12] Such added value could be brought to bear within a particular country (e.g., Libya) or as part of a peace settlement (e.g., between Israel and the Palestinian Authority). This would likely also contribute to improved transatlantic relations at a time when the Alliance leader, the United States, has fleeting regard for NATO's role in providing order as opposed to NATO's command and control function. Added value would define a security niche for NATO, which some might see as undesirable, but it is an enlarged niche compared to the present and one that will attract political attention within and outside the Alliance.

New Functionality: NATO should continue reaching out to both organizations such as the UN, the EU, and the AU, and partner countries ranging from China and Russia to smaller partners. However, it should anchor this outreach in the value vision for the region of concern. Partner organizations are key to a comprehensive approach to problems, but partner institutions should be made to recognize that a security vision – and thus a political vision – guides NATO's policy; it is not merely an operational toolbox. This is inspired by the Value approach to inter-institutional relations. Its implementation will not be easy, judging from the NATO-EU-UN track record, but developing a vision for concrete added value that is confined to security affairs should aid the diplomatic operation, as should the Strategic Concept's admonition that the "integrity" of institutions should be respected.[13] China and other global partners should be brought in only on an as-needed basis (defined mostly by operational context), given the lack of substance for a generalized strategic partnership. At the same time, NATO should be open to any partnership of value.

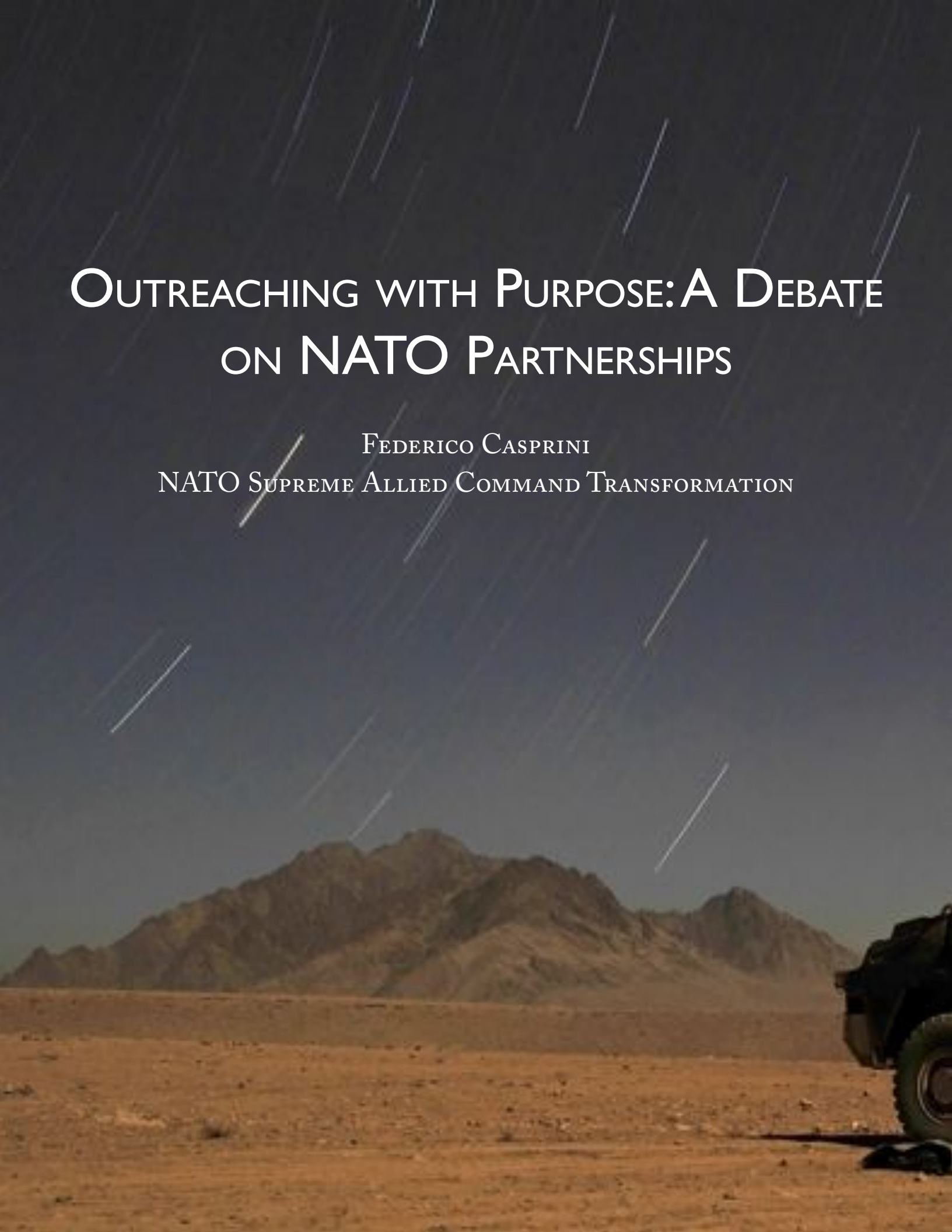
Conclusion

The essence of NATO's problem is the current anchoring of political purpose outside the Alliance. A tentative answer to this challenge is to maintain the Strategic Concept's ambition to be flexible and pragmatic, but downgrade the global dimension and instead reintroduce geopolitics and, within a renewed geopolitical framework, rethink values and functional cooperation.

To thus privilege interests and values runs counter to current political wisdom, it should be noted. In late 2010, as mentioned, NATO leaders rejected the idea that they should tie their hands to regional forums and predefined activities and voted in favor of flexibility. Such flexibility appeals to decision-makers who must manage a restless world and an Alliance in permanent flux, it seems, but it is ultimately corrosive. Flexibility is not a purpose, and NATO is in need of one. It will take political courage to challenge the current trend but those NATO leaders who try need look no further than the neighboring region, the stretch of geopolitical landscape that in a figurative sense begins in Tripoli and ends in Kabul, to find that NATO's outreach does have a geopolitical center of gravity that must now be conceptualized and connected back to NATO's gamut of generations of partnerships.

12 ISAF is particularly relevant because it has brought home how important these tasks are in operational environments (the EAPC/PfP framework focuses on similar themes, but in vastly different contexts).

13 *Strategic Concept*, paragraph 32. This forms part of an attempt to advance particularly NATO-EU relations by improving institutional ties without necessarily resolving underlying nation-to-nation controversies and in particular the deadlocked Greco-Turkish conflict over Cyprus. Recognizing the integrity of institutions would imply a kind of de facto recognition of Cyprus by Turkey, but it would be balanced by Turkey's access to the European Defence Agency (EDA) as well as its EU security clearance.



Outreaching with Purpose: A Debate on NATO Partnerships

Federico Casprini
NATO Supreme Allied Command Transformation

Outreaching with Purpose: A Debate on NATO Partnerships

Federico Casprini[1]

"What NATO needs is not a drive towards a singular and unified partnership because this is not politically possible; what it needs is to rethink the balance between its several conceptual foundations"[2]. Drawing on NATO's recent decision to become militarily engaged in Libya, Prof. Rynning decided to start his analysis of NATO's partnerships and engagement with third parties, by posing the most basic question on the topic: why? That is to say: why does NATO connect with the outside world, and why does it do so in the way it does?

A simple question that could not be matched with an equally simple answer by the participants in the discussion of the Working Group on NATO Partnerships. For, as much as a clear rationale behind a peaceful and institutionalized type of engagement could be expected, Prof. Rynning argued that there are in fact multiple intellectual foundations for the decision to act this way. He identified three conceptual infrastructures in NATO's partnership policy:

1. Functionalism – now defined as Global Functionalism, given its very extensive geographical scope;
2. A Value-Centered type – in which a clear set of values and the member's shared adherence to them that drives action;
3. A sort of Geopolitical Management – where the management of local balances becomes more important than the political discourse over legitimizing principles, such as justice.

Each of these, to a different degree, has appeared in the various types of partnerships in which NATO engaged throughout the years. The author then identified three different generations of partnerships:

1. The generation that followed the end of the Cold War and the fall of the Iron Curtain – full engagement, eventually ending in enlargement and absorption of partners into the Alliance;
2. An operational type brought about by NATO's transformational efforts and boosted by the events following 9/11 – mostly "bilateral" in nature, not designed to yield a general policy of global engagement;
3. A "third generation" of partnerships evolving from the second. Focused on stability; this kind of partnership, in contrast to the previous one, is not based on the assumption of democratic transition. In this light, partnership becomes a tool of statecraft, useful for building stability in any region or area of NATO concern.

For these three rationales and multiple types of partnership, participants recognized that, at least tactically, NATO has proved over time to be more adaptive than it is generally given credit for.

On the other hand, this great adaptability led the participants to consider a "chronic" issue for the Alliance: *purpose*. Does NATO have any precise purpose at all in using the tool of partnership? Or, conversely, as many argued, does it have too many purposes for it?

Be it the former or the latter, participants shared the understanding that NATO can hardly be more than a toolbox (that is, NATO 2.0 in Prof. Rynning's description). However, the goal for the Alliance, as explicitly highlighted in the New Strategic Concept[3], is to evolve beyond that. If – as appears to be the case – NATO finds itself unable to define such clear objectives, the question then becomes one of effectiveness. Participants brought forth much evidence of the failures caused by the use of the military tool as an enhancer of fuzzy or unclear policies.

One of the participants, in particular, argued that NATO's engagement still rests on the vision inherited from the Cold-War: a Euro-Atlantic alliance. Many shared this understanding, while at the same time recognizing its intrinsic shortcoming: does "Euro-Atlantic" communicate anything at all for a region like the Middle East? Broader horizons entail a broader vocabulary – and shared notions then become harder to attain. Again, participants agreed that without an awareness of its mission, NATO remains only a tool, which – like any other tool – can end up being misused

1 The author is currently Academic Coordinator for the Strategic Issues & Engagement Branch at NATO HQ SACT in Norfolk, Virginia, USA.

2 Sten Rynning, Why Connect? *On the Conceptual Foundations of NATO Partnerships*, in this volume, p. 26.

3 NATO, *Strategic Concept For the Defence and Security of The Members of the North Atlantic Treaty Organisation: Active Engagement, Modern Defence,* Lisbon 19 November 2010, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf

or used too much. In this regard, the debate over the opportuneness of "out-of-area" operations is an old one.

Like intellectual dominos, new issues unfolded as the discussion developed. The realization of said lack of purpose triggered the question of whether the North Atlantic Council is still the seat of a real and effective political debate, or whether "brain power is […] floating in composite networks (akin to the G format: G8 or G20) or is anchored in the UN"[4]. A partnership, like any other form of institutionalized cooperation, is no more than a set of rules that *can* mitigate the competitive pressure within the international (anarchic) system. Nobody in the Working Group seemed to expect partnerships to bring about any coherent result if the parties involved in it experience a deficit of political purpose.

If we believe in the idea of authority springing from the capability to perform functions and satisfy needs, purpose is left out of the picture. In this regard, many participants agreed with Prof. Rynning's argument that Values and Geopolitics (like it or not) can provide something functionalism alone cannot: they can tell the actor in question who it is and why it is engaged in certain parts of the world. It is the rather basic question of *identity*.

One participant argued that the case of Libya, with the Arab League not opposing NATO's intervention, showed that the capability to perform and provide can lead to some degree of legitimacy. Many agreed that that is to be welcomed as a much-needed confirmation of the still-present relevance of the Alliance, but on the other hand contested that such an event did not help fill the broader strategic void. For example, Secretary General Anders Fogh Rasmussen evaluated the mission in North Africa purely on a capability basis, urging European countries to live up to the Alliance capability requirements, but did not go beyond that to draw a map of the strategic road ahead[5]. In the discussion, it was highlighted that a clear example of this shortsighted trend is that specifications regarding non-Art.5 crises are still absent in NATO's Strategic Concept. Despite a very strong recommendation to develop such specifications, they were not included in the new Lisbon document. Participants conceded that this may well be due to disagreement or lack of imagination, but either way, the Alliance has proved itself to be short in vision and awareness of purpose.

4 Rynning, *Why Connect? On the Conceptual Foundations of NATO Partnerships*, p. 32.

5 Anders Fogh Rasmussen, *NATO after Libya: the Atlantic Alliance in Austere Times*, Foreign Affairs, July/August 2011, pp. 2-3

This is, in the end, the heart of the matter that came from the discussion: focusing on partnerships, rather than on purpose, means anchoring the actual political vision of the NATO outside of the Alliance. In a sense, as was stated by one of the contributors, outreaching may lead to irrelevance. On the other hand, many believed that by downplaying NATO's dreams of "global *grandeur*" (as we may call it), reintroducing geopolitics and identifying a clear space for values, the Alliance might be able to attain a self-awareness of purpose. NATO may have to stop dreaming globally, but in doing so, it can still be relevant at multiple local or regional levels. It is purpose that shapes partnerships: identifying global challenges or even defining a need for NATO to globalize is only a first step, and does not by itself give a political direction to the Alliance.

In addition to the categories identified by Prof. Rynning, several purposes driving partnerships were identified during the discussion:

1. to save a way of life – as in the Cold War;
2. to preserve a way of life – after the Cold War;
3. to use engagement to legitimize military intervention in collective security;
4. to face the terrorist challenge – in more recent times.

In all these cases, many agreed, partners become a resource for the Alliance. But what if, others argued, they cannot be used, or the ground for cooperation is slippery?

As was suggested by one of the participants, let's imagine institutionalized cooperation between NATO and Egypt after a compelling crisis in Gaza. Would NATO be mainly a provider of security? If that were the case, the direction of functionality is reversed, but a coherent approach is not developed. Would NATO rather engage in full diplomatic talks? Even so, the group questioned whether NATO would be the right body for that and could hardly give a positive answer to this question. Another participant brought forward an even more debatable example: Russia. In his interpretation, the case of the Georgia crisis in 2008 showed that the old "foes" – although connected in an *ad hoc* forum (the NATO-Russia Council) – rather than partnering seemed engaged in a duel over ownership of international norms.

Who or what makes an intervention (especially military) legitimate? Participants found no need to bring the notion of *soft power* explicitly into the discussion, but

a "value-based outreach" – as the group conveniently labeled it – as attractive as it may be, evidently carries many controversial side effects.

Furthermore, one of the participants urged the group not to confuse the partner's strategic relevance with its size. Only a partnership that enhances strategy can be strategic, not one that connects possibly reluctant and quick-tempered giants. Russia is commonly defined as a strategic partner, but does NATO have a coherent vision for its engagement with Russia? If not, as seems to be the widely shared view, there is no need to define it as such.

In light of this, most of the partipants questioned whether NATO is really ready to engage with a broader set of geographical regions. It was highlighted that the relationship between NATO and the European Union is still unclear and at times antagonistic, and that NATO has not fully assessed the contributions and challenges a country like Turkey can bring. In light of this, the group shared uncertanty about the Alliance having the clarity of vision believed necessary to engage with, for example, the BRIC countries. Even Secretary General Rasmussen seems aware of this challenge, in that he has stated that emerging powers may not "have the same approach to addressing security challenges".[6]
Some of the participants seemed to believe that the ever increasing presence of these and other "developing" countries in the international political arena shall not be viewed as a problem, but rather as a challenge that offers potential gains. It was argued that third parties may not be challengers but rather partners, provided the benefits from cooperation are made evident, since states tend to be risk-averse when considering cooperation. After all, by partnering, countries decide to share responsibilities, but also give the partner the ability to inflict great damage, simply by defecting or not living up to expectations.

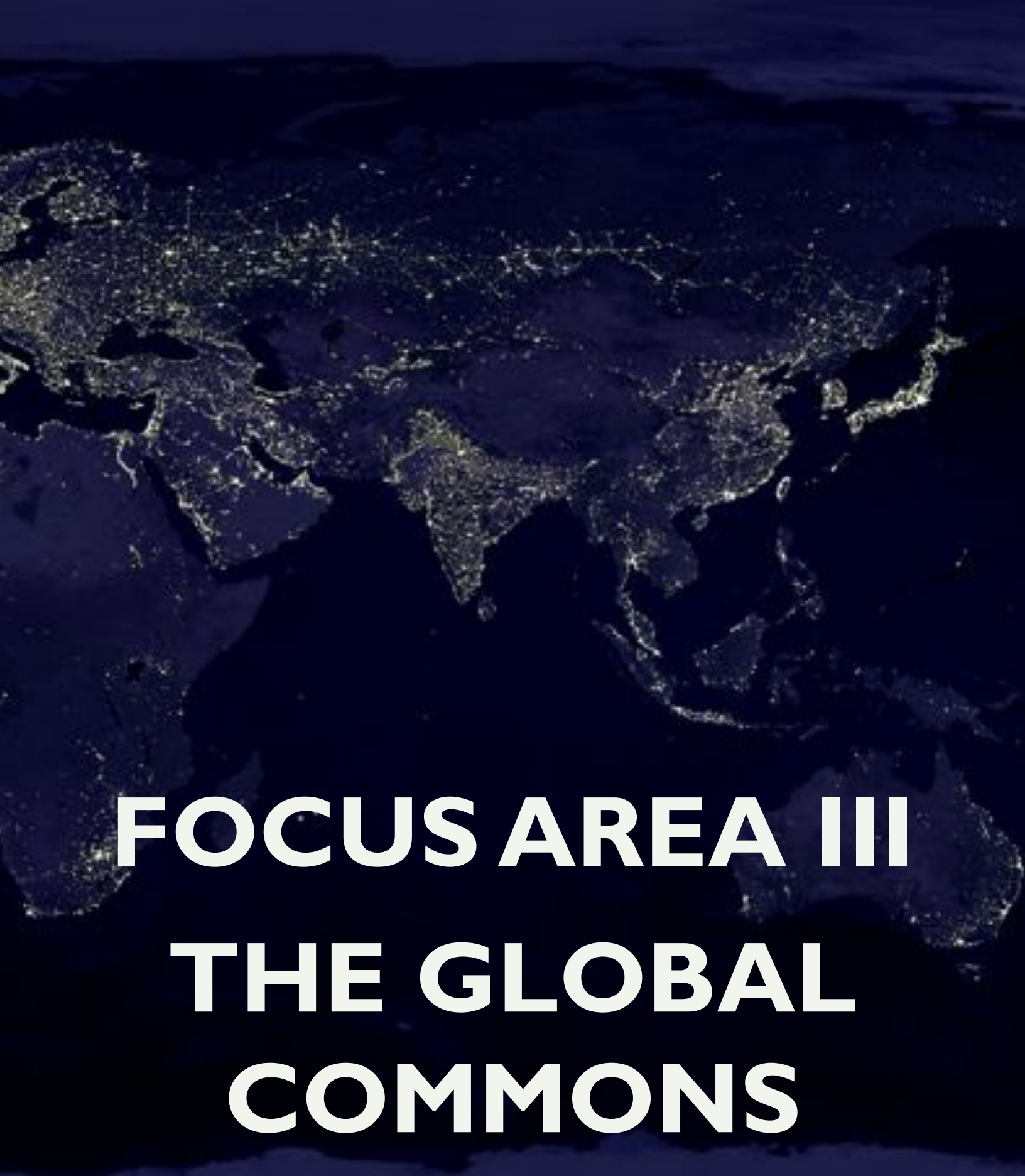
On the other hand it was contested that, if NATO does not act as a unified body, then it only voices the concerns of the member countries, thus making the differences between *members* – who hold veto power – and *partners* – who do not – evident and intolerable for the partners. The latter then, as in the case of Russia, may find it harder to cooperate, as they are left in a position of relative "weakness". It was made evident in the discussion that trust cannot be achieved when there are such qualitative differences between parties; that is to say if member countries use NATO only as an asset to increase their specific weight in negotiations *vis-à-vis* a third party. In any case participants conceded that with sufficient will and vision at the national level, the Alliance can act as gatekeeper and settler of agreements, thus reinforcing them. Without such political guidance, the group argued that more partnerships will only create the paradox of an international system with more stakeholders but very few guarantors. If the goal is to build "security for less money by working together and being more flexible"[7], this would lead instead in the opposite direction.

NATO, it was underlined, started and prospered as an alliance of like-minded countries, ostensibly united by a shared vision of the rules and values on which the club was based. In such a context, countries are more likely to agree on operations and cooperation. But what about an environment in which NATO allows the mission to define the coalition? As one of the participants correctly pinpointed, the goal, in assessing partnerships and NATO's decision to resort to this tool, should be whether such partnerships represent a viable contribution in the management of the political community. If decisions as well as the rationale behind them, are not shared, then NATO no longer has members, but simply "contractual partners", associated without being united.

Participants shared the concern that contractual politics, however successful they may be in the short term, could be the end for NATO, as they believe it does not show political direction. Exhausted partners may resort to contractual obligations to make their relationship last; but members of an alliance are expected to have broader and deeper connections. Lacking that, cooperation – just for the sake of it – can easily lead nowhere.
Flexibility may not lead to *relevance*: can response on a "case-by-case" basis really allow NATO to manage crises before they turn into war – as stated in the new Strategic Concept? The result of this debate seems to be that relevance cannot but spring from coherence: NATO needs to envision itself as part of the solution only when it is viable to do so. For the Working Group on Partnership, not involvement in itself, but involvement through coherence and commitment appears to be the key.

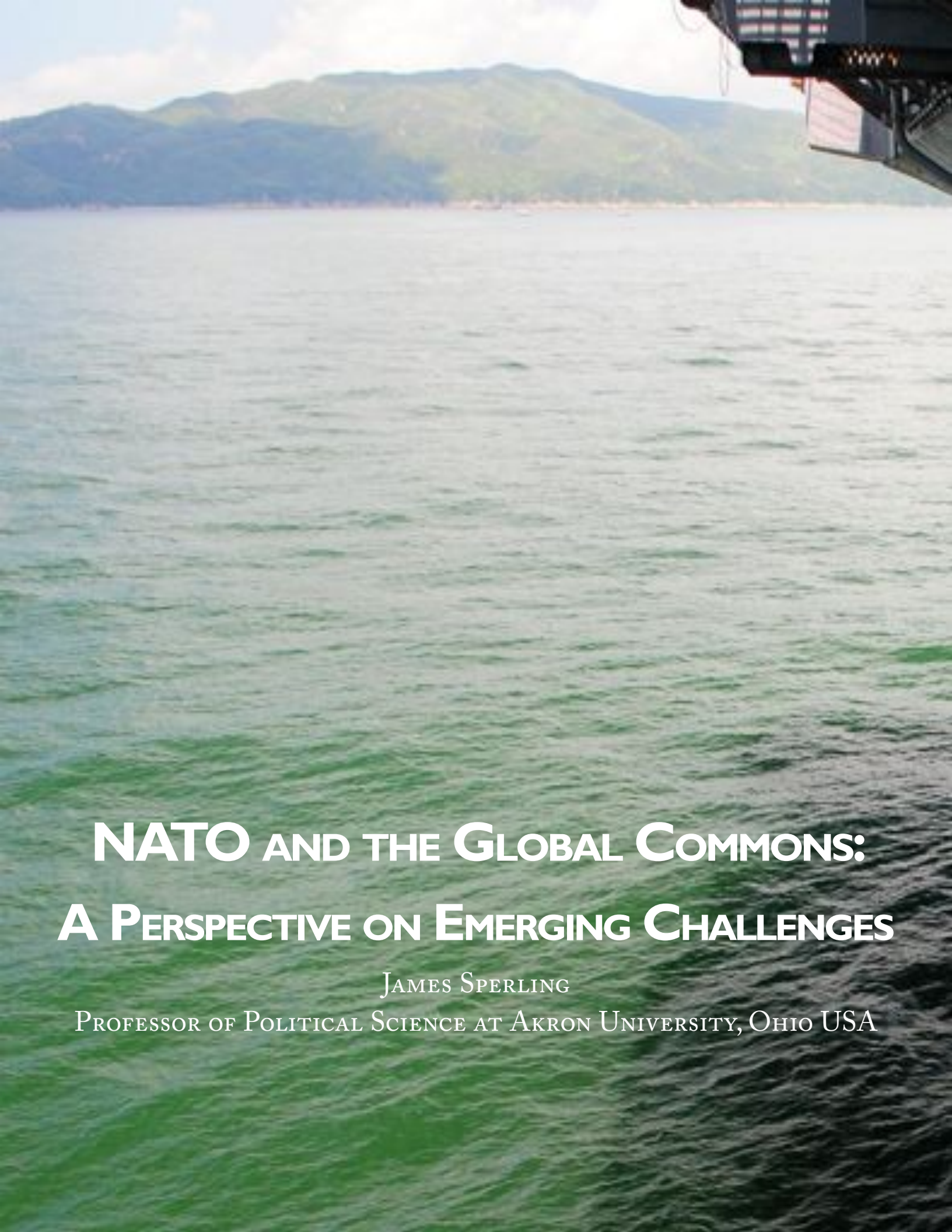
6 Ibid., p. 4

7 Ibid, p. 5



FOCUS AREA III

THE GLOBAL COMMONS



NATO and the Global Commons: A Perspective on Emerging Challenges

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NATO and the Global Commons: A Perspective on Emerging Challenges

James Sperling[1*]

The current preoccupation with assured access to the global commons may be attributed to the concurrent demilitarization of security within the transatlantic area and the securitization of issues once considered the exclusive domain of domestic politics.

The absence of an immediate and commonly accepted strategic threat to the territorial integrity of the Alliance member states has legitimized 'coalitions of the willing' under Article 4 of the North Atlantic Treaty, while the securitization process has produced a variegated range of national vulnerabilities and threat assessments. These developments have consequently rendered increasingly problematic the precise conditions under which Article 5 can be invoked, although the reinterpretation of Articles 2 and 4 now provides a political foundation for adapting the Alliance to newly emerged security challenges.

Institutional adaptation to this changed external security environment and the development of allied policies for the global commons are complicated in three respects: the potential mismatch between private and public responsibilities for security of the commons; the potential disjunction between NATO capabilities and the challenge of protecting the commons; and, finally, not easily reconciled national interests within and outside the Alliance.

The technological innovations that have driven the transformation of allied armed forces have created the paradox of a military with unparalleled capabilities matched by singular vulnerabilities. The task of preserving the allied strategic advantage in the commons is increasingly dependent upon the civilian sector for the physical and virtual assets making power projection and net-centric warfare possible, while that very dependence exposes the alliance to novel vulnerabilities that it remains ill-equipped to address. Moreover, the vulnerabilities attributed to globalization in fact reflect a deeper and more profound structural transformation of the state that has progressively diminished the ability of the cisatlantic NATO member states to exercise sovereign prerogatives, thereby compounding the vulnerabilities occasioned by rapid technological change and interdependence.[2]

The four domains constituting the global commons—aerospace, maritime space, cyberspace and outer space—are inextricably linked, but cyberspace and outer space are the two domains underpinning NATO's ability to operate globally on air, land and sea. Allied Command Transformation (ACT) has employed the language of 'collective action' and 'collective goods' as the foundation for NATO participation in shaping future access to the commons in each domain.[3] Yet the objectives of the alliance (and particularly those of its senior partner, the United States) clearly underscore the continuing importance and desirability of sustaining the NATO (and American) sponsored regimes governing the commons or ensuring that any modification of those regimes does not harm the interests of the Alliance or its member States. The final report notes that the goal of the Alliance, in tandem with pother stake-holders, is to ensure that the commons remain accessible "for the good of all responsible users, equally and without exceptions."[4] This formulation, however, does not identify who defines responsible and irresponsible actors and actions. Such a formulation implies that the content of the collective good sought in each domain of the commons is bounded by NATO preferences that may not be share by other stake-holders in the system, particularly rising powers dissatisfied with the existing system of governance that privileges the interests of NATO member States. Another potential problem with the approach taken by the Alliance is located in the operating assumption that each domain is intrinsically homogeneous in character and can therefore be treated as a "system of systems". An alternative approach would assume that each domain of the Global Commons is intrinsically heterogeneous and therefore

1 * The author is Professor of Political Science at Akron University, Ohio. The revision of this paper benefited greatly from the frank discussion of the original draft during the meeting of the working group. Particular thanks are owed to Riccardo Alcaro, Dick Bedford, Paul S. Giarra, Scott Jasper and Sonia Lucarelli. The usual disclaimers apply.

2 See James Sperling, 'Security Governance in a Westphalian World', in Wagnasson *et al.* (eds), *European Security Governance: The European Union in a Westphalian World*, London, 2009: Routledge; see also James Sperling, 'National Security Cultures, Technologies of Public Goods Supply and Security Governance', in Emil Kirchner and James Sperling (eds), *National Security Cultures: Patterns of Global Governance*, Abingdon, 2010: Routledge.

3 See ACT, *Pre-decisional Interim Report: .The Global Commons Project*, 2 December 2010, available at http://www.act.nato.int/images/stories/events/2010/gc/gc_ir_20101202.pdf. For a comprehensive overview of the security policy implications of the global commons for the Alliance, see Scott Jasper, *Securing Freedom in the Global Commons*, Stanford, 2010: Stanford University Press, p. 2.

4 Mark Barrett, Dick Bedford, Elizabeth Skinner, and Eva Vergles, *Assured Access to the Global Commons*, Norfolk, April 2011: Supreme Allied Command Transformation, North Atlantic Treaty Organization, p. 46.

disallow a single NATO strategy for governing each one of them. This approach may indicate at best a supporting governance role for NATO, and would cast doubts on the utility of treating the commons as a "system of systems", despite the evident interconnections and interdependencies of the four domains.

Any assessment of the potential role for NATO in each of the four global commons requires a conceptual clarification of the nature of the security good that exists in each domain and the identification of the barriers to collective action embedded in each. There are three additional considerations relevant to understanding the challenges that NATO faces in providing a global governance structure consistent with NATO interests: the security salience of each domain for NATO; the threat assessment within and between each domain; and the strategic challenges to a NATO-crafted governance structure for each domain.

The Global Commons

According to Allied Command Transformation (ACT) the four commons are the 'connective tissue' of international security and 'constitute a global public good that serve as a crucial enabler of international security and trade'.[5]

There are two dominant assumptions governing this dimension of the policy debate. First, each domain is essentially the same with respect to its intrinsic nature; second, NATO is the most likely guarantor of commons stability and unfettered access to them.[6] Setting aside the precise challenges or threats presenting in each domain, there is good reason to question whether these four global commons are conceptually the same across a number of dimensions with respect to their intrinsic nature and the ways in which that good is provided.

First, the classification of the four global commons is problematic owing to the varying degrees of sovereign rights that can be ascribed to each. Sovereign property rights are well delineated and acknowledged in the aerospace commons, and contested at the margins of the maritime commons. There are few sovereign property rights in either cyberspace or outer-space; the private sector owns the overwhelming share of the physical and virtual assets constituting each system. This range of sovereign property rights—from mutually acknowledged sovereignty to sharply defined communal property rights to the absence of either—defines the challenges that confront NATO in assuring access and stability.[7]

A public goods framework provides a foundation for assessing the intrinsic nature of each domain. Public goods have two characteristics: non-rivalness and non-excludability. There are few pure public security goods (nuclear deterrence being a rare exception), although the provision of a stable international economy and systemic equilibrium come close to meeting the public goods standard of non-rivalness and non-excludability.[8] There are three additional, alternative categories of security goods found in the global commons based on those criteria: national security goods (rival and excludable); club security goods (non-rival, but excludable), and common-pool security goods (rival, but non-excludable) (see Figure 1).

Figure 1. Categories of Security Goods

	Excludable	Non-Excludable
Rival	National Security goods (territorial defence)	Common-pool Security goods (geostationary orbit or bandwidth allocation)
Non-Rival	Club Security goods (nuclear deterrence and regional security)	Public Security goods (freedom of the seas)

5 See ACT, *ACT Workshop Report. NATO in the Maritime Commons*, Norfolk, VA, 30 September 2010: USS Enterprise, available at http://www.act.nato.int/images/stories/events/2010/gc/report03_norfolk.pdf, p. 1.

6 See ACT, 'NATO in the Cyber Commons. Survey from the Fifth ACT Workshop', Tallinn, 19 October 2010, in Mehmet Kinaci (ed.), *Assured Access to the Global Commons Workshop Survey Analyses*, available at: http://www.act.nato.int/globalcommons-reports, p. 3; see also Mark Barrett, Dick Bedford, Elizabeth Skinner, and Eva Vergles, *Assured Access to the Global Commons*, Norfolk, April 2011: Supreme Allied Command Transformation, North Atlantic Treaty Organization, pp. xvi-xvii.

7 Ibidem.

8 On the definition of public security goods, see Charles P. Kindleberger, *The World in Depression, 1929-1939*, Berkeley, 1973: University of California Press; and Robert O. Keohane, *After Hegemony :Cooperation and Discord in the World Economy*, Princeton, 1984: Princeton University Press.

A representative national security good is territorial defense; the Article 5 collective defense commitment of the North Atlantic Treaty is a club security good; and a common-pool security good includes assured access to geostationary orbits for commercial and military satellites.

The aerospace and maritime commons both possess the characteristics of public security goods and present the classic problem of collective action; cyberspace and outer space, however, are both common-pool security goods with ambiguous or non-existent definitions of communal sovereign property rights. The key distinction between a public good and a common-pool security good is the existence of a core security resource (e.g., access to cyberspace or outer space) that is subject to rivalness or congestion (e.g., a finite bandwidth spectrum or the number of available geostationary or sun synchronous orbits). Whereas a hegemon or 'privileged group' (in this instance NATO) is capable of supplying a public security good, the requirements for providing a common-pool security good are more demanding and elusive. The latter requires that states abnegate sovereign property rights and acknowledge that the resource is held in common; namely, that the recognized stakeholders create a regime establishing communal ownership rights and responsibilities.[9]

The heterogeneity of the security challenges in these commons encode different technologies of publicness, defined as 'the manner in which [actors'] provision or subscription levels are aggregated to yield a group provision or consumption level' of the public good.[10] These technologies aid our understanding of the opportunities and barriers for NATO as a guarantor or stabilizing force within (and between) each domain.

There are four basic technologies of public goods production: summation; weakest link; 'best shot' and strongest pillar.

Summation represents the simplest case: the sum of the individual contributions of the group determines the amount of the good supplied. 'Weakest link' technology exists where the smallest level of the good provided by a single actor determines the absolute level of the public good available to all. The 'best shot' technology characterizes those public goods that are most likely to be provided when resources are concentrated in a single actor.[11] And the 'strongest pillar' technology exists in those instances where the provision of the public good depends upon the contribution of a single actor.[12]

Each alternative technology of public goods production characterizes a specific domain of the global commons. The 'strongest pillar' technology defines the maritime domain owing to the indispensability of the global US naval presence to any coalition seeking to enforce the provisions of the United Nations Convention on the Law of the Sea (UNCLOS). The technology of summation characterizes the aerospace domain: each state has an overriding interest in contributing to that domain's stability owing to the existence of well-defined sovereign airspace, a common interest in protecting commercial aircraft and commerce, and a relatively uncontested aerospace regime delineating national rights and responsibilities with respect to civilian and military aviation. The 'weakest link' technology vexes cyberspace: the defection of one state from established security protocols or the lax domestic enforcement of internationally agreed upon rules or the use of cyberspace as an instrument of strategic disruption will determine the absolute level of security available to all. And the 'best shot' technology characterizes outer space owing the legitimacy of the United Nations as the institution best capable of brokering a global bargain establishing communal property rights and responsibilities in this domain. These different technologies contribute to our understanding of the opportunities and barriers facing NATO as a guarantor or stabilizing force in each domain.

These structural barriers to the management of the global commons (the type of security good found and the different technologies of public goods production embedded in each domain) are also conjoined to variations in a number of other salient features shaping the context of NATO policy in and for the global commons: the strategic barriers posed to NATO by rising powers, particularly the so-called BRIC nations (Brazil, Russia, India and China); the security salience of and security threats to each domain for NATO; the (in)separability of the commercial and military assets; and the direction and intensity of the (inter)dependence of each domain of the commons (see Table 1). These variables discipline the following analysis of each common and the policy implications for NATO as an alliance in the 21st century.

9 See Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge, 1990: Cambridge University Press.

10 See Todd Sandler, *Collective action. Theory and application*, New York, 1992: Harvester Wheatsheaf, p. 36.

11 Ibidem, pp. 36-37.

12 Emil J. Kirchner and James Sperling, *EU Security Governance*.

	Maritime	Air	
Structural Barriers	Public security good Strongest pillar technology	Public security good Summation technology	
Strategic Barriers	BRIC naval assertiveness US pursuit of maritime dominance	Existing regime uncontested	
Security Salience	Importance of sea-borne trade in manufactures, raw materials, and energy NATO force projection dependent upon unrestricted access	Sovereign airspace Commercial traffic (passengers and freight)	
Security Threats	Strategic Interference Degraded power projection capabilities WMD proliferation Interference with energy or global supply chain security Delegitimization of UNCLOS regime	Violation of air space Interference with commercial aerospace	
(In)separability	Separable	Separable	
(Inter)dependence	Operational dependence on cyber- and space-based assets	Operational dependence on space-based assets and cyberspace	

	Cyberspace	Outer Space
	Common-pool security good Weakest link technology	Common-pool security good Best shot technology
	Global military dominance afforded by net-centric warfare & vulnerability of systems to adversaries Ambiguous attribution, strategies of deterrence, and proportionality of response	Scarcity of strategically necessary and commercially lucrative orbits Global reach afforded US/NATO by outer space assets & BRIC ambitions to thwart that reach
	Perforated state sovereignty. Global financial, currency, securities, and commodity markets. NATO dependence on cyber networks	Critical military functions dependent on space based assets Telecommunications and GPS critical to commercial sectors
	Physical assets (nodes/fibre optic cables) & software (malware/infiltration) Data disruption, theft, & misdirection Asymmetrical cyber security within NATO and between commercial/military sectors	Unintentional (space junk) Intentional (e.g., jamming, destruction of terrestrial assets, ASAT) Congestion & crowding out of military access.
	Highly inseparable	Highly inseparable
	Independent of maritime and aerospace assets, partially dependent on (and substitut- able for space-based assets)	Independent of maritime and aerospace assets. Dependent on cyberspace for delivery of critical data

The Maritime Commons

The maritime commons domain has the longest history as a sovereign-free domain facilitating commerce and conquest. Trading nations have had an asymmetrical interest in freedom of the seas to ensure the uninterrupted flow of trade, just as maritime powers have valued freedom of seas to facilitate the projection of power. In some cases, there has been a marriage of convenience between trading nations and maritime powers, while in others the maritime powers are states with a major interest in protecting global trade. The globalization of national economies has effectively rendered this distinction moot, but has reinforced the criticality of open seas for prosperity and security.

The maritime commons domain retains an unparalleled security salience: the global and Atlantic economies are heavily dependent on sea-borne trade for manufactures and raw materials, and three quarters of global trade passes through vulnerable international straits and canals. The evolution of the global supply chain, particularly the manufacturing sector's near universal reliance on just-in-time inventory management, has made the advanced economies particularly vulnerable to any disruption of maritime trade. The global communications infrastructure is underpinned by a complex web of undersea cables, and global energy infrastructures are similarly dependent upon a stable maritime space.[13]

The violation of any component of 'freedom of the seas' inevitably impinges upon the Alliance's relative ability to engage rivals at sea or to execute the 'post-modern' tasks of peace-making or -keeping in regions outside the North Atlantic area deemed critical to allied security, broadly defined (Rohman 2008: 23).[14]

These objectives, in turn, have focused NATO's attention on maintaining the integrity of the UNCLOS regime, particularly innocent passage through territorial seas, transit through straits used for international navigation, archipelagic sea passage, and the definitions of territorial sea, the contiguous zone, the exclusive economic zone (EEZ), and continental shelf.[15] The importance of the UNCLOS regime reflects the perceived threat posed to allied freedom of action on the seas owing to the putative and actual emergence of BRIC states as maritime powers and, more pointedly, China's revisionist ambitions in the South China Sea and on-going infringement of the UNCLOS provision on innocent passage inside the EEZ.[16]

The solutions proffered to meet the challenges of the maritime commons seek to maintain the integrity of the UNCLOS regime in the service of protecting NATO economies from disruptions to sea-borne trade and preserving NATO's comparatively unencumbered maritime power projection capabilities.[17]

Policy analysts recognize that the NATO maritime powers are alone unable to ensure freedom of the seas, particularly the depredations of pirates in the western Indian Ocean, the Straits of Malacca, or the Gulf of Guinea.

Piracy, drug trafficking, and sea-borne WMD

13 See ACT, *NATO in the Cyber Commons. Survey from the Fifth ACT Workshop*, par. 4-5 and 14-15; *ACT Workshop Report. NATO in the Maritime Commons*, p. 1; *The Global Commons—Maritime Workshop*, USS Enterprise, 30 September 2010, available at: http://www.act.nato.int/maritime, p. 2; *NATO in the Cyber Commons. Survey from the Fifth ACT Workshop*, par. 4-5 and 14-15; *ACT Workshop Report. NATO in the Maritime Commons*, p. 1; see also Christian Soules, *Assured Access to Global Commons*, Helsinki, 25 February 2011, available at: http://www.act.nato.int/globalcommons-reports; and Jonathan Dowdall and Beatriçe Hasani (Rapporteurs), *Protecting the Global Commons*, SDA Report, Brussels, November 2010: Security & Defense Agenda, available at: http://www.securitydefenceagenda.org/Portals/7/2010/Events/Global_Commons/Global_Commons_Report.pdf p. 7.

14 Brooke Smith-Windsor, *Securing the Commons: Towards NATO's New Maritime Strategy*, Research Paper No 49, Rome, September 2009: NATO Defense College, available at: www.ndc.nato.int/download/downloads.php?icode=110, p. 3; see also Lord Jopling (General Rapporteur), *Maritime Security: NATO and EU Roles and Coordination,* 207 CDS 10 E bis, Brussels, 2010: NATO Parliamentary Assembly, available at: http://www.nato-pa.int/default.asp?SHORTCUT=2087; and Chris Rohman, *The Global Maritime Partnership Initiative: Implications for the Royal Australian Navy*, Canberra, 2008: Sea Power Centre, Department of Defence), available at: http://www.navy.gov.au/w/images/PIAMA24.pdf.

15 See ACT, *The Global Commons—Maritime Workshop*, p. 1; see also J. M. Paxton, Jr., and Peter Kühnel, *Maritime Security Primer. Global Maritime Security Cooperation in an Age of Terrorism and Transnational Threats at Sea*, Copenhagen, 2008: Multilateral Planners Conference VI, 4 August, available at http://jcs.dtic.mil/j5/conference/MPCVI_Maritime_Sec_Primer.pdf, pp. 6-7.

16 See ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 4; *ACT Workshop Report. NATO in the Maritime Commons*, pp. 2-3; *The Global Commons—Maritime Workshop*, p. 5; see also ACT, *ACT Workshop Report: Global Commons: Asia-Pacific Perspective*, Singapore, 15 November 2010, p. 2; and *ACT Workshop Report. NATO in the Global Commons: Global Perspectives*, Washington, DC, 3 February 2011: The Atlantic Council, available at: http://www.act.nato.int/images/stories/events/2010/gc/report07_wash_bric.pdf, p. 2. See also Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, pp. 7-9; Abraham M. Denmark, 'Managing the Global Commons', *The Washington Quarterly*, 33 (3), 2010, p. 168; and Dowdall and Hasani, *Protecting the Global Commons,* p. 7.

17 See Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, p. 8.

proliferation pose security threats that require a collective rather than hegemonic solution: the compulsory implementation of long-range identification & tracking (LRIT) for all ships engaged in legitimate commercial operations, for example, could provide a 'reliable and persistent global surveillance of maritime traffic…'.[18] Such a global system of maritime surveillance protecting sea-borne commerce could be enforced by a US-led Global Maritime Partnership or by integrated regional initiatives on the model of the Italian V-RMTC in the Mediterranean or the Cooperative Mechanism in the straits of Malacca and Singapore or the ReCAAP information sharing center in Singapore.

American naval forces—and those of the alliance more generally—are central to any global solution to the security threats posed to the uninterrupted flow of goods on the high seas. The policy debate attending the progressive globalization of NATO's naval role has revealed fissures between the continental and maritime member-states of the alliance.[19] But those fissures pale in comparison with the chasm between NATO and non-NATO states, particularly those with a plausible claim to regional dominance, notably China, India, and Russia.

The purpose—and hence legitimacy—of a NATO-dominated maritime order is questioned outside the North Atlantic area, particularly in Asia.[20] Arguably, the BRIC nations have as great a stake in an uninterrupted flow of manufactures and raw materials on the high seas as do the member states of the alliance. Despite the recognition that NATO is unable to provide security on the high seas alone, the emerging maritime powers are viewed as posing a challenge to US (and NATO) maritime dominance rather than as potential partners contributing to the stability of the global economy, the ostensible collective security good identified by the ACT Assured Access to the Global Commons project.[21]

NATO suspicions of the Chinese, Indian, or Russian maritime ambitions—and the negative consequences for the NATO member states were they to be realized—is inexplicable if the security and stability of maritime trading routes are collective security goods. But this resistance is explicable if the NATO strategic ambition is to 'underpin the United States command of the commons' in the interests of the western democracies (Posen 2003).[22] As the BRIC states emerge as maritime powers capable of challenging the current maritime prerogatives enjoyed by American (and NATO) naval forces outside the North Atlantic region, the viability of the maritime regime currently servicing their shared commercial interests will be undermined by opposed diplomatic and strategic objectives in the Indian Ocean, the South China Sea or Arctic Ocean.

Thus, the geostrategic and geoeconomic requirements for securing the maritime commons are counter-indicative: the latter would welcome an enhanced BRIC naval contribution for the purposes of enforcing the letter and substance of the UNCLOS, while the former underscores the need for continued American (and NATO) naval dominance.

The Cyberspace Commons

Cyberspace has perforated national sovereignty; it has accelerated the growing irrelevance of geography and borders for commerce, finance, and communications. The revolution in information technologies and the digital linking of national economies and societies have contributed to the unparalleled openness, productivity, and vulnerability of NATO member states' economies. The ease with which disturbances are transmitted across cyberspace and the difficulty of deflecting those disturbances have reduced systemic resiliency to exogenous shocks or malevolent acts by a broad range of actors. Not only is data transmitted in cyberspace vulnerable to attack, but the physical and virtual infrastructures creating cyberspace are similarly vulnerable. The private ownership of the cyber infrastructure (e.g., software and the global fiber optic cable network), in conjunction with the military reliance upon that infrastructure, has not only securitized civilian cyberspace, but elevated cyberspace to a critical theatre of operations for the Alliance.[23]

18 See Paxton and Kühnel, *Maritime Security Primer. Global Maritime Security Cooperation in an Age of Terrorism and Transnational Threats at Sea*, pp. 33-34; and Rohman, *The Global Maritime Partnership Initiative: Implications for the Royal Australian Navy*, p. 31.

19 See ACT, *ACT Workshop Report NATO in the Global Commons*, Washington, DC, 21 July 2010: The Atlantic Council, available at: http://www.act.nato.int/images/stories/events/2010/gc/report01_wash.pdf, p. 1.

20 See Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, p. 7.

21 See ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 5; and *The Global Commons—Maritime Workshop*, p. 2.

22 See Smith-Windsor, *Securing the Commons: Towards NATO's New Maritime Strategy*, p. 2; Denmark, *Managing the Global Commons*, p. 165; and Barry Posen, 'Command of the Commons: the Military Foundations of US Hegemony', *International Security*, 28(1), 2003: 5-46.

23 Paul Ames (Rapporteur), *Cyber Security: A Transatlantic Perspective*, Brussels: Security and Defense Agenda, April 2010,

The civilian and military stakes in the assured and unimpeded access to cyberspace is well recognized; the ACT 2010 *Pre-decisional Interim Report* noted that the 'global economy and modern militaries are… increasingly threatened by hackers, malicious software, and coordinated attacks on states and state-owned targets that may be state-sponsored'.[24] Transactions in key aspects of the contemporary international economy, particularly financial, currency, securities and commodity markets, are mediated in cyberspace, while a range of critical infrastructures, particularly power grids and water supply systems, are dependent upon internet-linked Supervisory Control and Data Acquisition (SCADA) Systems.[25] The threats to cyberspace are varied with respect to agent (terrorists, malicious hackers, criminals, states), strategies of disruption (computer network operations, computer network attack, domination of the electromagnetic spectrum), and target (data, physical infrastructure or software).[26] Moreover, major power vulnerability to the disruption of cyberspace is asymmetrical. Unlike the vast majority of the NATO member states, late adapters to cyberspace (e.g., China) have been able to reduce their vulnerability to disrupted cyberspace with national gateway controls. Finally, the American-led embrace of net-centric warfare has created new vulnerabilities for American and allied forces, particularly the targeted destruction of the physical or virtual infrastructure of cyberspace, that are not shared by likely adversaries (ACT 2011b: 4; Denmark 2010: 165).[27]

The various strategies for protecting cyberspace and assuring the integrity of allied access to it are complicated by a number of factors intrinsic to cyberspace. First, cyberspace is dependent upon physical assets (nodes, servers, and terminals) that are vulnerable to kinetic weapons and overwhelmingly owned by private sector operators. Second, a comprehensive (and effective) solution to the problem of cyber security requires a joint effort not only between states but between states and the private sector, which is unlikely to share the same level of concern about security or invest the requisite financial resources to protect networks critical to the operation of government agencies or the military. Third, there are divergences within and between states on the issue of cyber security. Within the Atlantic Alliance some states that have taken or are taking extraordinary measures to meet the threats to cyber space (the US and UK), while other have not (Germany and Spain). Moreover, the responsibility for protecting the integrity of military networks and those of the private sector are divided between government agencies (in the US, the Department of Defense and Department of Homeland Security), and responsibility for private sector cyber-security has been delegated to the private sector despite private sector ownership of cyber networks on which the government is dependent.[28]

The Alliance confronts three major political difficulties in crafting a credible cyber security system: The first is internal to the Alliance. NATO has not yet addressed the implications of a cyber attack on a member state with respect to the obligations of the Washington Treaty under Articles 2, 4 and 5.[29] As important, any Alliance policy of cyber deterrence requires a proportionality standard: What are the ranges of responses proportional to a specific cyber attack? Finally, is a common NATO policy on cyber security (and the security of NATO networks) possible if information-sharing between the allies is restricted and allied interoperability is subsequently compromised?[30]

p. 5.

24 ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 9; see also Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, p. 35.

25 See ACT, *NATO in the Cyber Commons. Survey from the Fifth ACT Workshop*; see also Jeffrey Hunker, *Cyber War and Cyber Power: Issues for NATO Doctrine*, Research Paper No. 62, Rome, 2010: NATO Defense College, available at: http://www.ndc.nato.int/download/downloads.php?icode=230, p. 2

26 See NATO, *NATO and the Cyber Domain of the Global Commons*, Tallinn, 2010: NATO, available at: http://www.act.nato.int/, p. 1; Dmitry I. Grigoriev, 'Russian Priorities and Steps Towards Cyberspace', in Andrew Nagorski (ed.), *Global Cyber Deterrence: Views from China, the US, Russia, India, and Norway*, New York, 2010: East-West Institute, pp. 5-8; Clay Wilson, *Information Operations, Electronic Warfare, and Cyberwar: Capabilities and Related Policy Issues*, CRS Report for Congress, RL 31787, Washington, DC, 2007: CRS, pp. 4-7; ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 10; Hunker, *Cyber War and Cyber Power: Issues for NATO Doctrine*, pp. 3-5; Eneken Tikk, 'Global Cyber Security – Thinking about the Niche for NATO', *The SAIS Review of International Affairs*, 30(2), 2010, p. 105.

27 See ACT, *ACT Workshop Report. NATO in the Global Commons: Global Perspectives*, p. 4; and Denmark, *Managing the Global Commons*, p. 165.

28 See ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 9; Ames, *Cyber Security: A Transatlantic Perspective*, p. 9; Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, pp. 41-42; Wilson, *Information Operations, Electronic Warfare, and Cyberwar: Capabilities and Related Policy Issues*, p. 10; Hunker, *Cyber War and Cyber Power: Issues for NATO Doctrine*, p. 10; and The White House, *The National Strategy to Secure Cyberspace*, Washington, DC, 2003: White House.

29 Tikk, *Global Cyber Security – Thinking about the Niche for NATO*; Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, p. 43; Scott Jasper, 'Protect Global Commons: Leverage Integrated Domain of Cyberspace', *Defense News*, 20 June 2011, p. 53.

30 NATO, *Alliance Maritime Strategy*, Annex 1, C-M(2011)0023,

There are also significant external barriers to the creation of a viable international regime creating a cyber-commons. First, any regime must first address the problem of attribution and state responsibility. The difficulty of attribution in a cyber attack reduces the current international legal standards for assigning state responsibility (the effective control and overall control standards) to 'a free pass to State sponsors of cyber attacks'.[31] Secondly, there is good reason to question whether NATO, despite its stake in cyber-commons security, is the appropriate institution for crafting such a regime, particularly since the critical vulnerabilities of western societies are economic and financial data networks, and the legitimacy of a prominent NATO role is contested in the Asia-Pacific.[32] A final barrier to an effective international regime protecting access to the commons is the opposed strategic objectives of the major cyber-antagonists in the international system, the United States and China: each seeks cyber-dominance and the ability to disrupt the networks of potential adversaries.[33]

Outer Space Commons

The outer space and cyberspace commons are partially substitutable: each can be used to transmit data. Access to the space commons, however, is essential for the important (military) task of data collection, whereas cyberspace remains the key location for storing and analyzing data. Like the maritime and cyberspace domains, the outer space commons domain has taken on the role of 'critical enabler of the globalized economy' and is central to any NATO expeditionary operation.[34]

The vulnerabilities plaguing the outer space commons are not dissimilar to those found in cyberspace and, like cyberspace, the securitization of space has virtually erased the distinction between the civilian and military functions of space-based communications assets.

This inseparability is owed to private sector ownership and management of those assets; NATO member states have refrained from relying solely on dedicated military satellites and are 'highly dependent on the commercial space industry' for access to this critical commons.[35] An additional factor threatening unfettered access to this domain is the very real problem of congestion owing to the conjunction of greater demands for data transmission, a growing number of state and non-state participants in space, the finite number of radio frequencies available, and the limited number of geostationary and sun synchronous orbits available for the purposes of data collection and transmission.

The saliency of space for NATO can hardly be overstated. NATO operations are dependent on space-based assets for at least five critical functions: 1) environmental monitoring; 2) missile warning; 3) position, navigation and timing; 4) command and control; and 5) intelligence, surveillance and reconnaissance (ISR).[36] NATO access to space-based assets is the *sine qua non* for expeditionary operations, a state of affairs driven by the transition to net-centric warfare. The over-riding goal of NATO in the outer space commons is developing an international space regime that will establish rules for orbital (and spectrum) allocations that will not degrade or impede NATO's military mission: satellites in sun synchronous low earth orbits, for example, collect imaging and weather data critical for planning and operations, while satellites in geostationary orbit are critical for telecommunications, ISR, and UAV operations.[37]

Commercial ownership of space platforms has reduced

2010: NATO, available at: http://www.nato.int/nato_static/assets/pdf/pdf_2011_03/20110318_alliance_maritime-strategy_CM_2011_23.pdf.

31 See Scott J. Shackelford, *State Responsibility for Cyber Attacks: Competing Standards for a Growing Problem*, Proceedings of the NATO CCD COE Conference on Cyber Conflict held in Tallinn, Estonia, on July 15-18, 2010, Tallinn, 2010: CCD COE, available at: http://ssrn.com/abstract=1535351, p. 198; Harry D. Raduege, Jr., 'Fighting Weapons of Mass Disruptions: Why America Needs a "Cyber Triad"' in Andrew Nagorski (ed.), *Global Cyber Deterrence: Views from China, the US, Russia, India, and Norway*, New York, 2010: East-West Institute, p. 4; and Soules, *Assured Access to Global Commons*.

32 See Dowdall and Hasani, *Protecting the Global Commons*, p. 8; Stein Schjølberg, 'Wanted: A United Nations Cyberspace Treaty' in Andrew Nagorski (ed.), *Global Cyber Deterrence: Views from China, the US, Russia, India, and Norway*, New York, 2010: East-West Institute, p. 11; and ACT, *ACT Workshop Report. NATO in the Global Commons: Global Perspectives*, p. 5.

33 Wolfgang Rathgeber and Nina-Louisa Remuss, *Space Security: A Formative Role and Principled Identity for Europe*, Vienna, 2009: European Space Policy Institute, pp. 28-33.

34 See ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 5, and *ACT Workshop Report. NATO in the Global Commons*; see also Dowdall and Hasani, *Protecting the Global Commons*.

35 See ACT, *ACT Workshop Report. NATO in the Space Commons*, Kalkar, 15 October 2010: Joint Air Power Competence Centre, available at: http://www.act.nato.int/air-and-space, p. 8; see also Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*, pp. 24-25.

36 See Phil Verroco, *What are NATO's stakes in the Space Commons?*, available at: http://www.act.nato.int/air-and-space.

37 See ACT, *ACT Workshop Report. NATO in the Space Commons*, p. 1, and ACT, 'Initial Findings of AAGC's Air & Space Domains Workshop Survey Analysis', 2010, in Mehmet Kinaci (ed.), *Assured Access to the Global Commons Workshop Survey Analyses*, available at: http://www.act.nato.int/globalcommons-reports, par. g.

the state to one actor among many competing for the necessary bandwidth to undertake operations. Rented space communication links are adjudged to be of questionable reliability, and the state could conceivably be priced out of the telecommunications market.[38] More generally, the more nations and commercial firms that seek to enter the space commons, the greater will be the competition for a finite, critical resource. In the absence of an effective, mutually recognized and enforceable allocation mechanism, unrestrained competition in space could engender terrestrial conflicts or degrade the commons.[39]

NATO access to space-based assets are threatened by any number of malefactors—states, terrorist or criminal organizations or hackers—only matched by the number of threats to access: electronic warfare, anti-satellite weapons, kinetic attacks on ground stations, and space debris that threatens the integrity of space-based platforms ((United States General Accounting Office 2002; ACT 2010c: 5-8).[40] Space-based assets are also vulnerable to a range of unintentional events that have the same effect as intentional actions; namely, denial of access.

There exists a rudimentary UN-sponsored regime governing the outer space commons, notably the 1967 Outer Space Treaty, which provides, *inter alia*, that 'one country's use of space should neither interfere with other countries' current space activities nor degrade the space environment for future users', the 1972 Liability Convention and 1976 Registration Convention that jointly created a compensation procedure and assigned responsibility to launching states, and the 1989 Nice Constitution which established a framework for allocating the radio frequency spectrum and geostationary orbits. This nascent framework, which is binding for the signatory states, has been overtaken by the commercialization of space. ACT concluded that this development has created 'pell mell race with little concern for rules or procedure' in this commons.[41]

38 See Soules, *Assured Access to Global Commons*; see also Dowdall and Hasani, *Protecting the Global Commons*, p. 6

39 See ACT, *ACT Workshop Report. NATO in the Space Commons*, p. 3.

40 See United States General Accounting Office, *Critical Infrastructure Protection: Commercial Satellite Security Should be more Fully Addressed*, GAO-02-781 (Washington, DC, 2002: GAO), available at: http://www.gao.gov/new.items/d02781.pdf; see also ACT, *ACT Workshop Report. NATO in the Space Commons*, pp. 5-8.

41 See ACT, *Pre-decisional Interim Report. The Global Commons Project*, p. 5; see also Rathgeber and Remuss, *Space Security: A formative role and Principled Identity for Europe*, pp. 13-15.

42 Ibidem. p. 45.

NATO is likely to be hamstrung in any effort to arrive at a common approach for strengthening this regime. A common space policy within NATO is problematic owing to the competitive nature of the European and American space programs. Both parties seek to reap the commercial benefits of a robust space industry and the EU is explicitly seeking an autonomous space-based intelligence capability as a critical component of the Common Security and Defense Policy. Moreover, the American transition to net-centric warfare and the policy objective of space dominance create another set of barriers to a unified NATO position: the former has made US armed forces extremely vulnerable to an interruption of space-based communications and information gathering platforms, while the latter requires an offensive as well as defensive capability in space—an option the European Union has explicitly rejected.[42] Outside the Alliance, there is little evidence that NATO possesses the legitimacy to insist on a regime that would effectively back NATO (and American) access to space in support of out-of-area operations that would conceivably infringe on the interests of regional powers. Most important, perhaps, is the unlikely role of China as a constructive partner in forging any international agreement given the recognized and easily exploited vulnerability of the space-based platforms critical to US (or NATO) military operations.

Conclusion: Institutional Exaptation and the Global Commons

In evolutionary biology, adaptation explains the acquisition of characteristics allowing an organism to survive and reproduce through the process of natural selection. Adaptation is a specific response to the demands of the external environment, has an identifiable historical origin, and over time produces the best fit between the environmental demands and function. NATO's evolution as a collective defense organization, for example, was a direct response to the postwar international system; its institutional elaboration provided the best fit between allied security needs and the Treaty-defined obligations of the Alliance.

The process of adaptation in NATO over the course of the postwar period was and remains the preservation of the Alliance's ability to execute two functions: collective defense and nuclear deterrence. The endurance of

NATO – and the strategic conflicts within the Alliance on how to execute NATO's functions – may be ascribed in large part to the evolutionary process for resolving those challenges to NATO's survival and viability in a changed and changing international system. The process of adaptation continues unabated in the post-Cold War period; collective defense and deterrence remain as relevant as ever even if the specific content of each has changed (Barrett 2011).[43] Where access to the global commons is essential for the execution of those tasks, then the Alliance faces the relatively 'simple' task of adaptation.

Adaptation to this changed definition of collective defense and deterrence suggests, however, that NATO should endeavor to draw a sharp line between military and commercial access to the global commons rather than forging a stronger bond between government and the private sector. The commercial interests of the private sector are only coincidentally aligned with the security interests of the government – a point initially overlooked in early ACT studies but belatedly acknowledged in the ACT Final Report.[44]

Where access to the global commons is essential to protect commercial assets, particularly in cyberspace and outer space, NATO is involved in a process n that has been driven by far-reaching technological changes and the securitization processes attending the emergence of the post-Westphalian state. These twin developments have devalued the primacy of territorial defense as understood in the Washington Treaty, the ill-defined boundaries of the common zone of security that are outside that demarcated in Article 6 the Washington Treaty, the precise origin and nature of threats, and uncertainty over the appropriateness of NATO as the vehicle for responding to those threats. The Alliance, in redefining its purpose and nature, has inadvertently called into question the viability of the original contract binding the allies together and their mutual rights and responsibilities.

The challenges of the commons have consequently initiated a process of exaptation in the Alliance unparalleled since NATO's founding in 1949.[45] Exaptation occurs when an already existing institutional feature is seized upon and modified in order to perform a specific role that was not essential or intrinsic to the institution's primary function; in the case of NATO, collective defense and nuclear deterrence. There are two forms of exaptation: the first occurs when an institutional feature originally developed for one function is co-opted for another (e.g., the cooptation of the intra-Alliance consultation on regional strategic matters in order to create the basis for intra-Alliance consultation on global strategic matters); the second category occurs when a dormant institutional feature inessential to its survival is co-opted to meet a current challenge (e.g., the reliance on the general language in Article 2 and Article 4 designed to cope with unanticipated contingencies arising from the Soviet threat to address the vulnerabilities posed by rapid technological change, particularly the civilian and military dependence on unimpeded access to cyber- and outer space). The securitization of critical domestic infrastructures, regional instability outside the North Atlantic area, and vulnerability of national economies to exogenous disruptions (intentional or otherwise) require this latter form of institutional exaptation; namely, an *ex post* modification of the North Atlantic Treaty with respect to rights, responsibilities, and purpose of the Alliance.

43 See Mark Barrett, *Deterrence: the Need to Rethink a Strategic Definition*, 2011, available at: https://academicor.sharepoint.com/sites/academicOR/Managing%20Change/Document%20Library/I/Deterrence_-_the_need_to_rethink_a_strategic_definition_2IJUN2011%20-%20Converted.docx.

44 See Barrett, Bedford, Skinner, and Vergles, *Assured Access to the Global Commons*.

45 The distinction between the various forms of exaptation is adapted from Stephen Jay Gould, Elisabeth S. Vrba, 'Exaptation – A Missing Term in the Science of Form', *Paleobiology*, 8(1), 1982: 4-15.

NATO's Contribution to Safeguarding the Global Commons

Dick Bedford
NATO Supreme Allied Command Transformation

NATO's Contribution to Safeguarding of the Global Commons

Dick Bedford [1]

At the direction of Supreme Allied Commander Transformation General Stephane Abrial, ACT spent a year studying emerging issues in the global commons, and published its final report in May 2011.[2] During the course of the year, seven workshops were held in Europe, the United States, and Singapore, where researchers from ACT met with subject matter experts (SMEs), national representatives, academics, and representatives from private industry to define the global commons. Over a six months period they examined emerging issues, vulnerabilities, and threats to the commons, and conceptualized possible roles for NATO in assuring access to the commons over both the near and long term.

Partnerships are an important part of any relationship and in NATO they play a vital role in the provision of collective security. One of the chief findings of the report on Assured Access to the Global Commons (AAGC) is that in today's complex security environment no one nation, organization, or alliance acting alone can possibly secure the health and accessibility of even a single domain of the commons. Globalization has made access to these domains – for trade, transportation, information, and security – vital to the economies of virtually every nation in the world.

The paper Dr. Sperling presented at the Conference, relied primarily on the "Global Commons Interim Report" (GCIR) which ACT made public in November 2010. In the period following the release of the GCIR, ACT continued to study the subject and made substantial revisions to the report. The most important contribution was the "Findings and Recommendations" (F&R) which proposed a series of roles and responsibilities for NATO. These revisions were integrated in The Final Report, but not included in Dr. Sperling's analysis. As a consequence, while the working paper was interesting, it did not address the most important conceptual conclusions of the Final Report.

This created within the working group a "conceptual gap" between those who had read the ACT final report, and those who had only read Dr. Sperling's paper. Because the two works were based on profoundly different premises and supported by very different analysis, with the time allotted, there was little opportunity to close the gap.

The global commons have been studied as a political/economic principle for some thirty years, but it is only recently, with the globalization of trade, shifts in geostrategic relations, and the advent of transnational terrorism, that the commons have evolved as a system of systems of concern to all nations. Noting this, the Final Report and the accompanying Finding and Recommendations was developed to inform and support strategic dialogue within the Alliance. To this end the report examines the relevance and security implications of the notion of a global common, particularly through the lens of agreed tasks, roles and missions for NATO.

During the discussion in the Working Group, one of the key differences that emerged was how the participants envisioned NATO's role in assuring access to and use of the commons. Some, following Dr. Sperling's analysis focused on defence and security, implying first and foremost a military-only solution. Others contested that based on the Final Report NATO was in fact primarily concerned with the freedom of access to and use of the Commons. One participant, drawing from Dr. Sperling's analysis advocated that in dealing with the Global Commons, NATO was attempting to find relevance by acting "as a guarantor or stabilizing force within (and between) each domain."[3] Still others, referring to the Final Report directly, stated that the distinctive feature of NATO's stance towards the Commons was to encourage participation from all stake-holders "to find common ground on their future interests, roles and responsibilities."[4] Some of the participants went as far as to propose that the objective of the Alliance implied an intent that NATO dominate each common. This view was contested on the basis that such was never considered by the Alliance. Quite to the contrary, one of

1 The author is currently the Branch Head of the Strategic Issues & Engagement Branch of NATO HQ SACT in Norfolk, Virginia, USA.

2 The four domains of the commons are maritime (international waters), international airspace, outer space, and cyberspace. See Barrett et al., *"Assured Access to the Global Commons,"* Allied Command Transformation, Norfolk, Virginia, May 2011; http://www.act.nato.int/globalcommons

3 James Sperling, *NATO and the Global Commons: a Perspective on Emerging Challenges*, in this volume, p. 47

4 Maj. Gen. Mark Barrett, Dick Bedford, Elizabeth Skinner, Eva Vergles, *Assured Access to the Global Commons*, Supreme Allied Command Transformation, NATO, Norfolk, Virginia, April 2011, xvii, p. 46

the participants noted that the Final Report openly stated that "the efforts nations put into keeping the Commons accessible must be for the good of all responsible users, equally and without exception."[5]

Participants agreed that partnerships among all shareholders, from governments and multinational organizations, nongovernmental organizations and academia, to private enterprise and individuals, are a vital aspect of preserving the health and vitality of the commons. Disagreement, however, arose on the nature and scope of these partnerships. Some of the participants argued that as an alliance that included many of the world's leading globalized nations, NATO has a natural role to play in promoting dialogue and consultation. Others rebutted this interpretation inferring that, for example, trading nations have an asymmetrical interest in freedom of the seas. In this light NATO's concern could be constructed to be primarily the want to project power in the service of western security, rather than in ensuring an uninterrupted flow of trade. In response to this, it was noted that protection of commerce is neither an usurpation of a political role, nor an overstretch by NATO, but rather the historical role of any naval military force. Trade is not a zero-sum game, and NATO's interests in protecting the free flow of goods across the "globalized market" is in the interest of all nations.

On a more theoretical level, the Working Group failed to reach a common conceptual understanding and characterization of the Commons. Dr. Sperling offered an interpretation in which each domain was paired with what he called a "technology of public good production," assuming that each domain entailed specific degrees of sovereignty. Consequently, he found the classification of the four domains problematic, noting that each domain ascribed varying degrees of sovereignty. Although this view was also shared by various participants, this interpretation was challenged by those who – drawing from the findings of ACT Final Report – argued that such an interpretation oversimplified the complexity of the subject. One of the objections was that the Global Commons are precisely those areas of international waters, airspace, outer-space and cyber-space that do not fall under sovereign control, and therefore are unenforceable in the international environment.

As an example, one participant noted that, from a military perspective, one of the main complexities of cyber-space is that the system relies primarily on private, not State ownership and authority for security.[6] Over 90% of networks are private and competitive in nature, while most of the Web content is privately owned and typically governed according to local laws.

When discussing the possible strengths of NATO in dealing with the Global Commons, one of the participants argued that the Alliance's political and military experience, as well as its long history of consultation and standardization, could be used to help identify and analyze issues and problems endemic to the commons. In response it was noted that historically NATO has always served as a forum for helping to resolve disputes among both members and partners. This was seen as beneficial, especially in cases such as the opening of the Arctic Sea to shipping and exploration, an area with significant interest to the Alliance.

Questions were also raised as to whether the United States, an historic guardian of the commons, would continue in that role or revert to a more isolated or hegemonic view of the world shrouded in self-interest. In response to this, several expressed the opinion that freedom of access to and use of the commons is a core interest of all NATO members, not just the United States. They argued therefore that if nations find access to the commons important to their own wealth and prosperity, they would concomitantly be interested in protecting and assuring access to those same commons.

In summary, due to a lack of time and initial differences over the idea of the access to and use by all of the global commons, the debate in the workshop never really moved beyond definitional terms. While this workshop did not break new ground or fully achieve the purpose for which it was envisioned, it did demonstrate that the global commons are indeed *terra incognita* for many. However, as stated in the ACT Final Report, the goal of the study "is to stimulate debate that will aid the development of appropriate policy and planning in the immediate and near terms." The discussion of the Working Group on Global Commons proved that the information and findings contained in that, and other studies both current and forthcoming, will need time to germinate and flower. Nonetheless, the debate has commenced and hopefully it will contribute to a richer and fuller understanding of the importance of our global trading system and our mutual interest in assuring access to the global commons.

5 Ibid., 46

6 Ibid., 35

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