

DETECTING TO DEFEND :
DELIVERING ON NATO'S PROMISE



Hon. Michael R. Turner

President of the NATO Parliamentary Assembly



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President of the NATO Parliamentary Assembly since November 2014

Biography

Congressman Turner was first elected to the United States' Congress in 2002. In Congress, he serves as a member of the Armed Services Committee, Intelligence Committee, and the Oversight and Government Reform Committee. Congressman Turner is one of only two members of Congress to serve on both the House Intelligence Committee and as a Subcommittee Chairman on the House Armed Services Committee.

Currently, Congressman Turner serves as the Chairman of the House Armed Services Tactical Air and Land Forces Subcommittee, which oversees ammunition programs, Army and Air Force acquisition programs, all Navy and Marine Corps aviation programs, National Guard, and Army and Air Force National Guard and Reserve. Congressman Turner previously served as the Chairman of the House Armed Services Subcommittee on Strategic Forces, where he had jurisdiction over the nation's nuclear arsenal, the Department of Defense's intelligence programs, and missile defense systems.

In January of 2011, Congressman Turner was appointed Head of the U.S. Delegation to the North Atlantic Treaty Organization Parliamentary Assembly, the interparliamentary organization of legislators from NATO's 28 member countries. In November 2014, Congressman Turner was elected President of the NATO Parliamentary Assembly.

Prior to his service in Congress, Congressman Turner served as Mayor of the City of Dayton for eight years. During his tenure, he was a strong proponent of neighborhood revitalization, crime reduction, increased funding for safety forces, economic development and job creation.

Congressman Turner received a bachelor's degree from Ohio Northern University; an MBA from the University of Dayton; and a Juris Doctorate from Case Western University School of Law. He practiced law in Dayton for over 17 years and opened his own private legal practice specializing in real estate and corporate law in 1991.

Congressman Turner is married to Majida Turner and is the proud father of two daughters, Carolyn and Jessica Turner.



Table of contents

- INTRODUCTION..... 1
- I. NEW STRATEGIC REALITIES 5
 - A. 21st century security: a complex mix of old and new challenges..... 5
 - B. Russia’s challenge 8
 - 1. Russia’s words..... 9
 - 2. Russia’s deeds 12
 - Russia’s policy of coercion against its neighbors and global activism 12
 - Provocations and violations: Russia’s conventional and nuclear saber-rattling 16
 - Seeking to “divide and conquer” Allied leaders and public opinion 21
 - 3. Russia’s means 22
 - Conventional forces 23
 - Cyber and information warfare 24
 - Nuclear forces 25
 - C. NATO, Russia and Missile Defense 28
 - D. Russia’s Goals..... 32
- II. STRENGTHENING NATO’S DETERRENT POSTURE..... 33
 - A. The requirements of credible collective defense and deterrence..... 34
 - 1. Collective defense: NATO’s raison d’être..... 34
 - 2. The concept of deterrence 35
 - B. NATO’s collective defense and deterrence in a changing strategic environment 40
 - 1. Is there sufficient emphasis on collective defense in NATO’s declared policies?..... 41
 - 2. Does NATO’s current nuclear policy properly take into account the evolution in Russia’s doctrine? 43
 - 3. Is NATO’s force structure adequate to face Russia’s challenge?..... 47
 - 4. Is Allies’ current investment in defense sufficient to deter?..... 52
 - C. Strengthening NATO’s deterrent: a central priority for the 2016 Warsaw Summit 53
 - 1. Acknowledge the threat from Russia..... 54
 - 2. Reaffirm NATO’s nuclear deterrence..... 54
 - 3. Strike the right balance between forward defense and rapid reinforcements..... 56
 - 4. Give NATO Missile Defense a New Impetus 59
 - 5. Continue to reverse cuts in defense budgets 59
- CONCLUSIONS..... 61



Graphs and information boxes

- The Growing Threat from Ballistic Missile Proliferation 7
- 25 years of NATO-Russia partnership 8
- Comparing Russia’s past promises with its stated intentions today 10
- Hybrid Warfare Techniques Described by Russian General Valery Gerasimov,
Chief of the General Staff in February 2013 11
- What Russian officials have said about using nuclear weapons 12
- Hybrid Warfare in Practice 14
- The 1994 Budapest Memorandums 15
- Russian Violation of the INF Treaty 18
- Russian treaty violations... among others: 18
- Russian Defense Investment and Output 22
- Defense spending trends and military strength around the world 23
- Debunking Russian myths about NATO’s missile defense system 29
- Missile Defense – A Short History 30
- NATO’s Article 5 34
- The terrorist attacks of 11 September 2001 and the invocation of Article 5 35
- Some concepts and principles of deterrence 36
- Some examples of declared nuclear policies 37
- NATO’s Cold War Deterrent Strategies: from massive retaliation to flexible response 39
- NATO’s Cold War military posture and the United States’ commitment to
the defense of Europe 39
- Collective defense and deterrence in NATO’S 2010 Strategic Concept 41
- The Wales Summit Declaration – 5 September 2014 – Russia’s aggression against Ukraine
and NATO’s response 42
- NATO’s nuclear weapons 44
- NATO’s nuclear policy 45
- NATO’s contribution to nuclear arms reduction as defined in the 2012
Deterrence and Defense Posture Review 46
- Western Europe: the dramatic decline in combat battalion numbers 1990-2015 48
- The 2014 NATO Readiness Action Plan 49
- The United States’ bilateral reassurance measures 50
- Reduction of US Army Forces in Europe 1990-2015 51
- Defense spending trends in NATO countries 52
- The necessary modernization of Allies’ nuclear deterrent 55
- Would a permanent NATO presence in the East violate the NATO-Russia Founding Act? 58
- Defense spending as a share of GDP in NATO countries 60





INTRODUCTION

Russia's invasion and illegal occupation of parts of Ukraine in March 2014 was a wake-up call for the international community. It also shattered the already fragile relations between Russia and the West. With these actions, Vladimir Putin's Russia had shown itself to be not just uncooperative but belligerent, unpredictable, and mendacious. Its rhetoric and its military posture became aggressive, and its word could no longer be trusted.

Yet Russia's actions should not have come as a surprise. There were plenty of warning signs, but Western policy was for too long driven by a misguided belief that Russia was necessarily headed on a long-term path towards Western-type democracy, liberalism, and international cooperation. While collective defense remained the acknowledged central mission for NATO, forces were decreased and – gradually – reconfigured to meet the demands of more “expeditionary” contingencies from the Western Balkans to Afghanistan which were seen as more immediate and relevant to the post-Cold War security environment.

Even the occupation of 20 per cent of Georgia's territory in 2008 was effectively swept under the carpet by the West which placed a higher value on its hopes for cooperation with Russia than on international law and supposedly inviolable principles.

Russia, it seemed, was a difficult and uncooperative partner but not a perceived risk. Thus, when the global financial crisis struck just a month after the Russia-Georgia war, there seemed to be no reason why investment in defense should escape the cuts and austerity which were applied to other areas of government spending. Indeed, in some countries, forces were reduced and capabilities abandoned with a haste which left little time for consideration of the collective consequences. Again, there were plenty of warning signs that these uncoordinated deep cuts were both weakening NATO's ability to respond to increasingly unpredictable security challenges and creating tensions among NATO members. The sharing of the burden for defending the security of the Euro-Atlantic area had grown increasingly uneven.

It took President Putin's hostile and brutal aggression against Ukraine, and a pattern of Russian provocation directed against NATO Allies and partners for Western leaders to question the premises of the policies implemented since the end of the Cold War, and rediscover the importance of NATO's main mission: the collective defense of Allied populations and territory.

To achieve his goals, President Putin had blatantly ignored international law and any number of international treaties and agreements and shown that he is willing to use force to change international borders. All this was done in the name of protecting Russian speakers who in reality faced no threat whatsoever. But it had the effect of alarming all those nations with substantial Russian-speaking minorities – including several NATO Allies. If Russia was prepared to intervene in Ukraine, one of the largest nations in Europe, would others suffer the same fate?

Russia – as it continually states – is a formidable military power, possessing the full spectrum of conventional and nuclear capabilities. Those capabilities in conjunction with its behavior and rhetoric place it at the forefront of the challenges facing NATO. No other challenge on the horizon raises the specter of such wholesale destruction. Deterring conflict and Russia's attempts to reassert its sphere of influence is therefore a central priority.

NATO, however, faces many other severe challenges which must also be addressed. International terrorism in particular is a grave concern and direct threat to all our nations. A growing number of Western cities have suffered terrorist attacks inspired and supported by Daesh¹ or other terrorist groups. In Syria, Iraq, Libya, Yemen, Afghanistan and elsewhere, the spread of these terrorist groups threatens to undermine states and create dangerous regions of essentially ungoverned space. One consequence of this less stable environment is the greatest migration crisis for over 70 years which as well as being a human tragedy threatens to undermine the European Union.

Today, NATO must continue to address these many actual and potential sources of instability while also reasserting the primacy of collective defense in the face of Russia's challenge.

And the first lesson of collective defense is that it should be a means to an end: its main purpose is not to mount a robust defense of NATO territory, nor to punish an aggressor with unacceptable damage. Its main purpose is to deter an attack against NATO territory by having the credible capacity to defend itself and ensure that an aggressor could be made to pay an unacceptable price for aggression.

In other words, the first purpose of collective defense is deterrence.

This report looks at the meaning and requirements of deterrence in today's environment. In so doing, it will see what lessons can be learned from yesterday and how they might apply to today and to tomorrow.

In July 2016, NATO Heads of state and government will meet in Warsaw to discuss how to adapt NATO to an increasingly complex security environment. Strengthening NATO's deterrent must be at the very top of their agenda. This report suggests a number of pressing priorities: acknowledge the nature and extent of the challenge posed by Russia; bolster nuclear deterrence; enhance NATO's forward defense in the East; give NATO's missile defense a new impetus; and continue efforts to reverse past cuts in defense budgets.

The NATO Parliamentary Assembly was the first interparliamentary organization to sanction Russia's unacceptable aggression against Ukraine. As early as April 2014, the Assembly decided to expel the Russian Parliament from its structures. At the same time, the NATO Parliamentary Assembly has consistently warned of the risks that hasty and uncoordinated cuts in defense spending and capabilities pose to NATO's ability to fulfill its missions and to NATO solidarity. The unique commitment that Europe and North America have made to defend each other is a fundamental and irreplaceable guarantee of our citizens' way of life and well-being. Members of

1 Arabic acronym of the terrorist organization "Islamic State in Iraq and Syria"

the NATO Parliamentary Assembly are committed to doing all they can to preserve and reinforce the transatlantic bond. I hope this publication can contribute towards this important goal.²



Unveiling of the Warsaw summit logo (NATO)

2 The views expressed in this report are my own. I have benefited enormously from many formal and informal meetings in the NATO Parliamentary Assembly and from the advice of my many friends and colleagues within the Assembly. This report also builds upon two previous reports published ahead of the 2014 Wales Summit by my predecessor, the NATO PA's former President, Sir Hugh Bayley of the United Kingdom: "Why NATO Matters? A Parliamentary Case for Strengthening the Transatlantic Pillars of the Alliance" and "A Citizen's Guide to NATO's Priorities after the Wales Summit". I suspect that some of my colleagues might take issue with elements of my analysis and some of my proposals, but I doubt that any will disagree with the central thesis which is that NATO has no choice but to enhance its defense and deterrent capabilities.



I. NEW STRATEGIC REALITIES

In the aftermath of the Cold War, Western countries assumed that a more cooperative relationship with Russia would prevail, and invested heavily into creating the conditions for a new strategic partnership. However, Russia's invasion and illegal annexation of Crimea in March 2014 marked a major geopolitical shift which has profoundly transformed the Euro-Atlantic and global security environment. It was the most ambitious manifestation of a revisionist global strategy directed against the United States and against NATO. As such, it brought the importance of deterrence and collective defense back to the fore.

At the same time, however, Allies continue to grapple with many other difficult challenges: the prolonged conflict in Syria and the disintegration of Iraq which have created an environment where a worldwide terrorist threat can flourish; a major refugee crisis in the region and in Europe; widespread instability in an arc of crisis and state failure running across North Africa and the Middle East; rising tensions in Asia; accelerating proliferation of weapons of mass destruction and missile technology; the growing threat of cyberattacks; the risks of disruption of energy supplies; ongoing instability in Afghanistan which could put at risk the achievements of 15 years of international assistance; persistent fragility and tensions in the Western Balkans.

NATO, therefore, must address all these challenges while adapting to Russia's overt antagonism by refocusing on traditional deterrence as a matter of priority. Russia has long been given the benefit of the doubt, and concerns too quickly dismissed. But the evidence clearly shows that President Putin's Russia poses a challenge which is far more severe and extensive than the many others facing the Alliance.

A. 21st century security: a complex mix of old and new challenges

The security environment in which Allied governments operate today is particularly complex, and combines old and new challenges. Russia's abandonment of partnership with NATO and violations of the norms and laws of international relations stand firmly at the forefront of these challenges. These actions are so serious that they are forcing an in-depth rethink of NATO's relations with today's Russia, which will have broad and lasting repercussions. The next sections review the various aspects of Russia's challenge in detail.

However, Allied governments do not have the luxury of focusing on this challenge alone. They face a range of other threats, which directly affect the security of citizens in Europe and North America, and which NATO must therefore address: regional instability in its neighborhood, globalized terrorism, the growing proliferation of advanced lethal technologies, cyber threats, potential disruption of energy supplies, etc.

An arc of instability has formed in the Alliance's neighborhood. While NATO continues to support long-term stability in the Western Balkans and Afghanistan, conflicts in Syria and Iraq confront Allies with a mix of interethnic rivalries, weakness of state institutions and globalized terrorism – to which one must add regional competition for influence. These conflicts have had tragic consequences for the countries and populations concerned, and have triggered repercussions, directly affecting the security of citizens in Europe and North America. Daesh and its affiliates have drawn thousands of young people from around the world to fight in Iraq and Syria, and they

have inspired terrorist attacks in a growing number of cities around the world including Ankara, Brussels, Copenhagen, Paris and San Bernardino. Lastly, they have caused a major humanitarian disaster, forcing millions out of their homes and into overcrowded camps in Lebanon, Jordan, and Turkey. Large numbers have also sought refuge in Europe, overwhelming reception and hosting capabilities there.



(NATO / Bundeswehr / NATO PA)

The ongoing conflicts in Syria and Iraq therefore pose a number of immediate and direct challenges to Allied governments. The same is true of Libya, where local rivalries and the weakness of state institutions are providing fertile ground for Daesh’s expansion.

All Allies support global efforts to combat Daesh, reach a lasting political settlement in Iraq, Syria and Libya, and address the humanitarian consequences of these conflicts. All Allies also contribute to the international military coalition against Daesh in Iraq and Syria. They have channeled some of their efforts in support of stability in these regions through NATO, which helps strengthen the capacity of local states, provides intelligence, surveillance and reconnaissance, and assists with the management of refugee flows in the Mediterranean.

Developments in the Middle East have also fueled fears about the proliferation of weapons of mass destruction (WMD). The Syrian conflict has seen the confirmed use of chemical weapons by the Assad regime. Western governments also suspect that Daesh possesses chemical agents and weapons, and there have been plausible reports of their use, raising the alarming specter of potential terrorist attacks using WMDs.

Just as alarming are the proliferation risks posed by Iran and North Korea, despite persistent international condemnation. It remains to be seen what the actual impact of the 14 July 2015 international deal on Iran’s nuclear program will be. Iran has a long history of deceiving the international community, and just weeks into the implementation of the agreement tested nuclearcapable missiles in violation of United Nations resolutions.

The proliferation of missile technology in Iran and elsewhere confront Allies with a particularly worrying prospect, a threat that NATO seeks to address through the development of a ballistic missile defense system which aims to protect Allied territory and populations against a ballistic missile attack.

The Growing Threat from Ballistic Missile Proliferation

Although rockets of various kinds have been used in warfare for centuries, the modern missile age began during the Second World War with the German V-2 which was used to attack cities mainly in Belgium and the United Kingdom.

In the 70 years since then, missile capabilities have increased dramatically, and an increasing number of nations are developing their own missiles with ever-greater ranges.

Today, over 30 countries either have or are acquiring the technologies needed to build military capable ballistic missiles able to deliver significant payloads over hundreds or even thousands of kilometers.

Some of these already could threaten parts of NATO territory, and as capabilities continue to improve, there can be no doubt that all NATO nations will eventually be within reach of ballistic missiles being acquired by nations such as Iran and North Korea, or by terrorist groups such as Hamas or Hezbollah.



Iranian salvo launch / North Korean Taepo Dong II (DoD)

Just as ballistic missile technology is becoming more readily available, so are the technologies needed to produce nuclear, chemical, and biological weapons. International treaties and agreements have succeeded in slowing the spread of such technologies, but continuing technological progress continues to lower the technical barriers preventing more widespread proliferation.

For instance, there is strong evidence that Islamic State in Syria has already acquired chemical weapons and it is certainly possible that further threats could emerge from the anarchy of failing states or the ascent to power of hostile or even fanatical regimes in hitherto stable countries.

The uncomfortable conclusion is that it would be imprudent and irresponsible for NATO to assume that no new ballistic and cruise missile and WMD threats will emerge.

Similarly, both states and non-state actors are developing advanced cyber capabilities, which have the potential to paralyze vital services, such as banking, electricity, emergency services, telecommunications, etc.

Last but not least, despite efforts to diversify energy markets, energy supplies could still be highly vulnerable to various forms of disruption – from maritime piracy to embargoes - with potentially disastrous consequences.

B. Russia's challenge

In today's complex security environment, the first and most urgent priority for NATO is to take the full measure of the challenge posed by President Vladimir Putin's Russia. This challenge is serious, multi-faceted and long term.

Russia's annexation of Crimea effectively ended debates about Russia's political and strategic direction under Mr Putin. It also put a brutal end to 25 years of efforts by NATO to build a strategic partnership with Russia.

25 years of NATO-Russia partnership



Former NATO Secretary General Javier Solana with former Russian President Boris Yeltsin, May 1997 (NATO) / Joint NATO-Russia naval exercise in St Petersburg, October 2013 (NATO)

Ever since the fall of the Berlin wall, NATO collectively and NATO Allies individually have sought to build a strategic partnership with Russia. Allies have gone to great lengths to try to integrate Russia in a common Euro-Atlantic space of peace, stability and freedom. As early as 1991, NATO established the North Atlantic Cooperation Council (NACC) as a forum for dialogue and cooperation with former members of the Warsaw Pact. In May 1997, the NATO-Russia Founding Act – the landmark document which laid the foundations of the post-Cold War NATO-Russia relationship – affirmed the shared commitment of both parties “to build a stable, peaceful and undivided Europe, whole and free, to the benefit of all its peoples”. In 2002, NATO-Russia cooperation was taken to the next level with the establishment of the NATO-Russia Council, a joint decision-making body bringing together the 28 Allies and Russia on an equal footing in a format “at 29”. Allies even went as far as suggesting that Russia could have a role in support of the Missile Defense system put in place to defend Allies against potential ballistic missiles attacks from the Middle East.

In Ukraine, Russia used military force and other forms of warfare to acquire territory, decisively breaking international law, renegeing on its commitments to international agreements, and unashamedly lying to the world in order to buy time for the implementation of its land grab.

Furthermore, Russia's actions rang alarm bells because the pretext for Russia's actions – protection of a Russian-speaking minority – might just as easily be used as a subterfuge for Russian action against many of its neighbors.

Russia has made no secret of its belief that its neighbors should be firmly within its “sphere of influence”, effectively denying their sovereignty by requiring Moscow's approval for their political decisions and orientation.

The reasons for all this become evident by looking at Russia's words – what it says about its intentions and about NATO.

1. Russia's words

Russia's track-record of the past 15 years shows that it is quite open about its intentions, its hostility to NATO and the European Union, and its scant regard for international law and norms. In fact, the international community should not have been surprised by Russia's actions in Crimea and its subsequent interference in eastern Ukraine, or for that matter by the war it conducted against Georgia in 2008.

Russia's official strategic documents make its views very clear, for instance.

The December 2014 Military Doctrine and the December 2015 National Security Strategy states that **Russia sees the United States and NATO as adversaries and Russia as the leader of a new anti-NATO alliance in a multipolar world.**

Comparing Russia's past promises with its stated intentions today

There is a striking contrast between sections of the NATO-Russia Founding Act from 1997 and Russia's 2014 Military Doctrine and the 2015 National Security Strategy



(NATO)

Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation, May 1997

NATO and Russia do not consider each other as adversaries. (...) They intend to develop, on the basis of common interest, reciprocity and transparency a strong, stable and enduring partnership.

"[NATO and Russia] share the goal of overcoming the vestiges of earlier confrontation and competition and of strengthening mutual trust and cooperation."

The Russian Federation's Military Doctrine (December 2014) and National Security Strategy (December 2015)

*"The main external military risks are:
a) build-up of the power potential of the North Atlantic Treaty Organization (NATO) and vesting NATO with global functions carried out in violation of the rules of international law, bringing the military infrastructure of NATO member countries near the borders of the Russian Federation, including by further expansion of the alliance" (MD, par. 12)*

"The Russian Federation's implementation of an independent foreign and domestic policy is giving rise to opposition from the United States and its allies, who are seeking to retain their dominance in world affairs." (NSS, par. 12)

Similarly, all the techniques of what is now referred to as **"hybrid warfare"** were signaled well before their use in Crimea.

Hybrid Warfare Techniques Described by Russian General Valery Gerasimov, Chief of the General Staff in February 2013³



(Russian Ministry of Defense)

“The very ‘rules of war’ have changed. The role of non-military means of achieving political and strategic goals has grown, and, in many cases, they have exceeded the power of force of weapons in their effectiveness.

The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other non-military measures -- applied in coordination with the protest potential of the population.

All this is supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special operations forces. The open use of forces -- often under the guise of peacekeeping and crisis regulation -- is resorted to only at a certain stage, primarily for the achievement of final success in the conflict.”

All this makes Russian statements about **nuclear weapons** especially disturbing. Although Russia’s military doctrine only envisages the use of nuclear weapons “in response to the use of nuclear and other types of weapons of mass destruction against it and/or its allies, as well as in the event of aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is in jeopardy”, Russian officials suggest a far less restrained approach to nuclear first use. A number of them have stated as early as 2003 and many times since that Russia would be prepared to consider a limited first use of nuclear weapons to force an adversary into ceasing hostilities. In other words, Russia says that it would use nuclear weapons as a preventive tool to “deescalate conflicts”. This is a shocking proposal to resort to the use of nuclear weapons effectively to end an opponent’s resistance to an attack. At the very least, such statements can be seen as efforts to intimidate and divide Allies, but they are actually more alarming because they dangerously blur the line between conventional and nuclear deterrence. Furthermore, contrary to NATO’s position that there can be no victors in a nuclear exchange, Russia’s view – as the Soviet Union’s before it – is that a nuclear war can be won.

Disturbingly, some statements explicitly threaten the use of nuclear weapons against NATO Allies.

3 General Valery Gerasimov, “The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations” in *Voyenno-Promyshlenny Kurier (VPK)* (Military-Industrial Courier), 27 February 2013, http://vpk-news.ru/sites/default/files/pdf/VPK_08_476.pdf

What Russian officials have said about using nuclear weapons

*“In a situation critical for national security, we don’t exclude preventive nuclear strike at the aggressor.”
(Gen. Nikolai Patryushev, Head of Russia’s National Security Council, June 2010)*

“Let me remind you that Russia is one of the world’s leading nuclear powers...it’s best not to mess with us.” (President Putin, August 2014)

“We were ready to do this [put out nuclear forces on alert]... It was a frank and open position. And that is why I think no one was in the mood to start a world war.” (President Putin talking about Russia’s invasion of Crimea, March 2015)



(Russian Presidency)

“In a conventional war, they [the Strategic Nuclear Forces] ensure that the opponent is forced to cease hostilities, on advantageous conditions for Russia, by means of single or multiple preventive strikes against the aggressors’ most important facilities.” (Lieutenant General Andrey Shvaychenko, then-Commander of the Russian Strategic Missile Troops, December 2009)

“If Denmark joins the American-led missile defense shield, Danish warships will be targets for Russian nuclear missiles.” (Mikhail Vanin, Russian Ambassador to Denmark, March 2015)

“I cannot rule out that should the country’s military-political leadership make such a decision, some of our ICBMs could be targeted at missile defence sites in Poland and the Czech Republic, and subsequently at other facilities.” (Col. Nikolai Solovtsov, then-Commander of Russia’s strategic military force, September 2008)

2. Russia’s deeds

Russia’s policy of coercion against its neighbors and global activism

As the people of Georgia and Ukraine know only too well, Russia readily resorts to threats and the use of force to impose its will on others. Every other country in Russia’s neighborhood – from Belarus and the Republic of Moldova to the South Caucasus and Central Asia - has been subjected to increased pressure as Russia seeks to establish control over the former Soviet space.

Combining political and economic pressure and intimidation (nurturing of Russia-friendly political leaders, economic embargoes, energy blackmail) Russia has coerced Belarus, Armenia and parts of

Central Asia to join its **Eurasian Union** – Russia’s hollow reflection of the European Union – and its **Collective Security Treaty Organization** – Russia’s wholly unconvincing equivalent to NATO.

Russia resorted to force, however, in efforts to crush Georgia and Ukraine’s freedom of choice. In August 2008, invoking an alleged threat to its so-called “peacekeeping” forces in **Georgia’s** provinces of Abkhazia and South Ossetia, Russia engaged in a direct armed invasion and occupation of Georgia’s sovereign territory. There is no doubt that this war was planned in advance as a way to punish Georgia for choosing the path of integration into the European Union and NATO. Russia’s military aggression was totally disproportionate to the initial skirmish it contrived in South Ossetia, and allegedly included Russia putting its nuclear forces on alert. It allowed Moscow to expand and consolidate its military control over Abkhazia and South Ossetia. Russia’s actions were conducted in direct violation of international law, including no less than 32 resolutions of the United Nations Security Council – of which it is a permanent member – referring to Abkhazia as an integral part of Georgia. These counted for nothing, however, and Russia recognized the selfdeclared “independence” of the two entities, an action supported by only three UN member nations: Nicaragua, Venezuela, and Nauru.



NATO PA visit to Gori district in Georgia, September 2008 (NATO PA)

To this day, Russia maintains several thousand troops in both provinces. It continues to progressively expand and consolidate the areas under its *de facto* control in Abkhazia and South Ossetia through what is referred to as “borderization”, i.e. fencing of the administrative boundary line beyond the officially recognized demarcation and setting up hardened crossing posts.

Emboldened by the West’s weak and relatively short-lived response to its actions in Georgia, Russia had no hesitation in pressuring **Ukraine’s** then President Viktor Yanukovich into abandoning negotiations on an Association Agreement with the European Union. In the turmoil that followed, President Putin sent Russian troops in disguise to seize and later annex Crimea and attempt to seize the Donbas province in Eastern Ukraine. As of February 2016, 38,000 Russian troops were deployed in Crimea, several hundred were still believed to be operating in Eastern Ukraine, and Russia maintained 20,000 to 30,000 troops on the border with Ukraine.⁴

4 International Institute for Strategic Studies, *The Military Balance 2016*, February 2016.

Hybrid Warfare in Practice

Actions against Ukraine were a showcase for Russia's new hybrid warfare tactics. Moscow's actions combined:

- *Political pressure;*
- *The massive use of propaganda to build support among the Russian-speaking populations of Crimea and the Donbas;*
- *An active campaign of cyberattacks;*
- *The deployment of "little green men" – special forces in unmarked uniforms – to serve as the advanced party for the full-scale occupation;*
- *Blatant lying to the international media by denying any connection with the "little green men" until this became unsustainable at which point President Putin himself stated that these were Russian troops on leave who spontaneously mobilized in support of their Ukrainian brethren;*
- *A series of large-scale snap military exercises on the border with Ukraine for intimidation purposes; and finally*
- *A major military invasion of Crimea and parts of Eastern Ukraine with tens of thousands of Russian troops and heavy equipment.*

As a footnote, President Putin stated afterwards that, at the time, he was ready to put Russian nuclear forces on alert. He also later admitted that "of course" the little green men were Russian military personnel.

The seriousness of Russia's actions in Ukraine cannot be overstated. The conflict has already cost the lives of over 9,000 people, injured 20,000 and displaced thousands more.



*Wreckage of Malaysian airlines flight MH17 in rebel-control area in Donetsk Oblast
(OSCE Special Monitoring Mission in Ukraine)*

Russia's annexation of Crimea is the first example of a state seizing territory from another sovereign state in Europe since the Second World War. It is a direct and blatant violation of the United Nations Charter and many of Russia's commitments under international law, first among which are the 1994 Budapest Memorandums through which Russia explicitly committed to respect Ukraine's territorial integrity in exchange for Kyiv's decision to transfer all nuclear weapons on its territory to Russia.

The 1994 Budapest Memorandums

The dissolution of the Soviet Union took place formally on 26 December 1991 following declarations of independence and growing unrest in several of its constituent republics.

One immediate consequence was that the former Soviet Union's arsenal of some 37,000 nuclear weapons was dispersed among many of the new republics.

Approximately 14,000 tactical nuclear weapons were dispersed throughout the non-Russian states, and about 3,200 strategic nuclear warheads were deployed on missile systems in Belarus, Kazakhstan and Ukraine.

Even before the dissolution, Soviet authorities had started to transfer tactical nuclear weapons onto Russian territory, and this process was continued by the Russian government. The United States in particular provided political, financial and technical assistance with the transfer of the former Soviet nuclear arsenal to Russia.

With one exception, the non-Russian republics had neither the capacity nor the desire to retain nuclear weapons. The exception was Ukraine where there was serious consideration of remaining a nuclear weapons state, mainly as a means of guaranteeing its continued independence from Russia.

Ultimately, however, concerns about the associated costs, the provision of international assistance, and security assurances persuaded Ukraine's leaders to renounce nuclear weapons and become a signatory of the Nuclear Non-Proliferation Treaty as a non-nuclear weapons state.

Among the security assurances were the Budapest Memorandums on Security Assurances, signed by Ukraine, Russia, the United Kingdom and the United States in December 1994.



*Signing of the Budapest Memorandum,
December 1994*

While not having the binding provisions of a treaty, the Memorandums represented political commitments by Russia, the United Kingdom and the United States to:

- to respect the independence and sovereignty and the existing borders of Ukraine;*
- to refrain from the threat or use of force against the territorial integrity or political independence of Ukraine, and that none of their weapons will ever be used against Ukraine except in self-defense or otherwise in accordance with the Charter of the United Nations;*
- to refrain from economic coercion designed to subordinate to their own interest the exercise by Ukraine of the rights inherent in its sovereignty and thus to secure advantages of any kind.*

Russia has also stepped up its political activism and military presence well beyond its immediate neighborhood, ranging from the Middle East to Latin America, Asia and the Arctic.

The most visible example is its ongoing military operation in **Syria**. Presented as Russia's contribution to the global counterterrorist coalition, Russia's air campaign aims in reality to prop up the murderous regime of Bashar al Assad. Independent reports suggest that, in the first five months, Russian air strikes killed hundreds of civilians. Indeed, there are suggestions that that this part of a deliberate effort to fuel the refugee crisis to erode European solidarity. Russia's military operation is also complicating – if not undermining – efforts to find a peaceful solution to the conflict.

Provocations and violations: Russia's conventional and nuclear saber-rattling

Russia's rhetoric against NATO and individual Allies - including threats of a nuclear attack - is backed by provocative actions involving both conventional and nuclear capabilities. These are not isolated incidents; they are part of a deliberate strategy of intimidation and coercion.

First, Russia has increased the number of flights – including with strategic bombers – and maritime patrols close to the borders of several NATO Allies and partners, from the United States, across Northern and Southern Europe and all the way to Japan. In many cases, Russian planes turn off their transponders, thus creating a hazard for civilian air traffic. According to NATO, over the last two years, **Russian air activity** close to European airspace has increased by around 70%, leading to over 400 intercepts of Russian aircraft. In October 2015, one such incursion led to the downing by Turkey of a Russian plane which had violated Turkish airspace, a clear illustration of how destabilizing these incessant provocations can be.

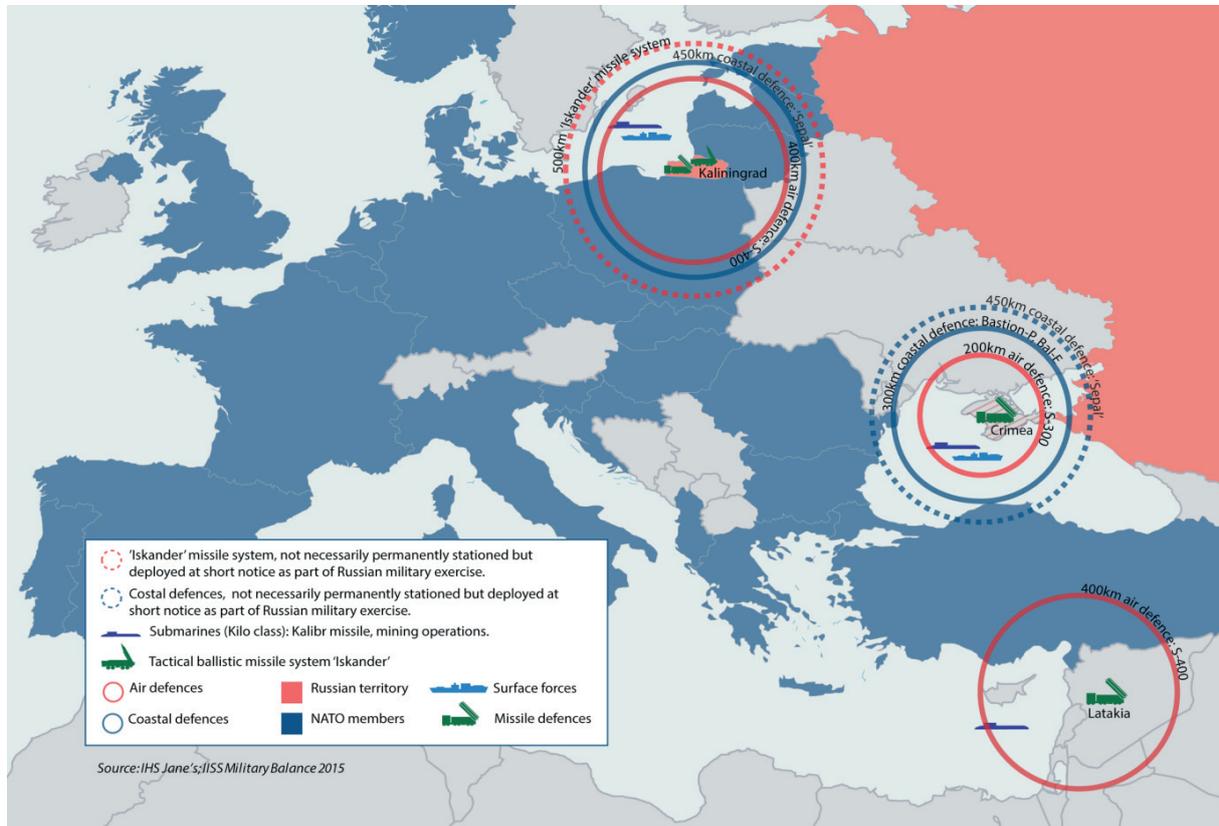


A Russian Su-24 buzzing the USS Donald Cook in the Baltic Sea, April 2016 (US Navy)

Second, Russia is conducting more **military exercises**, with a growing share simulating nuclear strikes against Allies or partners. Again according to NATO, between 2013 and 2015, Russia conducted at least 18 large-scale snap (unannounced) exercises, some of which involved more than 100,000 troops. In contrast, NATO's much-publicized 2015 Trident Juncture, though the largest in over a decade, only mobilized 36,000 troops.

Third, and even more worryingly, Russia has accelerated the **deployment of conventional capabilities along NATO's borders** aimed at intimidating Allies and turning the balance of forces to its advantage. In May 2016, the Russian Defense Minister announced that Moscow was planning to deploy two additional divisions in its Western military district. Other measures include deployments of air defense systems, coastal defense systems and other so-called "Anti-Access

Area Denial” (A2/AD) capabilities in Kaliningrad and Crimea. These systems’ reach extends into NATO airspace, a clear effort to increase the difficulty for NATO in reinforcing nearby areas in the event of a Russian attack on one of the Eastern Allies. Geography is on Russia’s side particularly in relation to the Baltic States. Any ground reinforcements would have to transit through the narrow land corridor of Suwalki linking Poland and Lithuania in-between Kaliningrad and Belarus.



Source: “No denial: How NATO can deter a creeping Russian threat” by Rem Korteweg and Sophia Besch, <http://www.cer.org.uk/insights/no-denial-how-nato-can-deter-creeping-russian-threat>, Designed by Kate Mullineux, Centre for European Reform.

Fourth, expanded conventional deployments along NATO’s eastern flanks are complemented by Moscow’s increasingly aggressive **nuclear saber-rattling**. In particular, Russia has repeatedly threatened to deploy nuclear-capable missiles and bombers in Kaliningrad and Crimea. In fact, reports suggest that some of these capabilities were indeed deployed to those regions during recent snap exercises. Whether the nuclear warheads themselves were moved to those locations remains unclear.⁵ Combined with Moscow’s new doctrine of pre-emptive use of nuclear weapons for de-escalating crises, these threatened deployments constitute a particularly dangerous development.

Fifth, despite its official statements, Russia has demonstrated a growing disregard for its international commitments. In the light of all other developments described in this section, Russia’s numerous

⁵ See for instance:

<http://www.cbsnews.com/news/russian-forces-capable-of-being-nuclear-moving-to-crimea-nato-chief-says/>;
<http://www.wsj.com/articles/moscows-nuclear-provocation-goes-unpunished-1415041417>;
<http://sputniknews.com/military/20141017/194194493/Russian-Aviation-Regiment-Receives-New-Su-34-Fighter-Bombers.html>; http://www.jamestown.org/programs/edm/single/?tx_ttnews%5Btt_news%5D=43711&cHash=330e25b4e1372af93c72f67eaa1d5242#.VsnYvfrLIU

violations of its international commitments can only be seen as forming part of a pattern, and not as isolated incidents.

Worryingly, these violations extend to some of the landmark agreements on conventional and nuclear weapons limitations. Among these is the Intermediate-Range Nuclear Forces (INF) Treaty of 1987 which banned all nuclear-capable ground-launched cruise missiles (GLCM) with a range between 500km and 5,550 km, as well as all launchers of these missiles. The United States administration stated in 2014 that Russia had violated the INF treaty by testing a prohibited missile, a concern repeated in 2015 and 2016.⁶

Russian Violation of the INF Treaty

Several types of systems could constitute violations of the INF: either a short-range missile which would be tested at a range of above 500km, or a long-range system tested at a range lower than 5,500 km, or a sea-launched cruise missile tested from a mobile land-based launcher. Russia is currently developing a number of missile systems, such as the GLCM Iskander K, the sea-launched Kalibr or the ballistic missile RS-26 – presented in the following section – which indeed raise serious questions of compliance with, or at a minimum of circumvention of, the INF or other arms control agreements.⁷ The US government has stated that the missile concerned is a GLCM⁸, but has failed to provide significant information. In addition, its response has so far been confined to officially communicating its concern to Russian authorities.

The table below illustrates a broad range of Russian treaty violations. These highlight the obvious risk of a growing imbalance in doctrine, posture and capabilities between a compliant West and non-compliant Russia.

Russian treaty violations... among others:

Respect for the independence, sovereignty and territorial integrity of states

United Nations Charter 1945 / Helsinki Final Act 1975

<u>What the agreements say:</u> <i>Affirm the principle of the independence, sovereignty and territorial integrity of states, and commit Russia to respecting this principle particularly in relations with its neighbors.</i>	<u>What Russia does:</u> <i>Invades and illegally occupies parts of Georgia and Ukraine.</i>
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⁶ United States Department of State, “2016 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments”, April 2016.

⁷ <https://www.fas.org/sfp/crs/nuke/R43832.pdf>

⁸ United States Department of State, “2016 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments”, April 2016.

Budapest Memorandums 1994

<p><u>What the agreement says:</u> Commits Russia to respecting Ukraine's independence and territorial integrity and to refraining from the use of economic coercion or the threat or use of force.</p>	<p><u>What Russia does:</u> Invades, illegally occupies and annexes parts of Ukraine.</p>
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NATO Russia Founding Act 1997

<p><u>What the agreement says:</u> Affirms Allies and Russia's commitment to a common Euro-Atlantic "space of security and stability, without dividing lines or spheres of influence limiting the sovereignty of any state". Commits Russia to refrain from the threat or use of force against Allies as well as against any other state; to respect the inherent right of all states to choose their foreign policy priorities; and to mutual transparency in its defense policy and military doctrines.</p>	<p><u>What Russia does:</u> Seeks to recreate the former Soviet Union in a different form. Coerces its neighbors. Invades and illegally occupies parts of Georgia and Ukraine.</p>
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Conventional arms control commitments and transparency

Treaty on Conventional Armed Forces in Europe 1990⁹

<p><u>What the treaty says:</u> Limits the number and type of conventional forces based in Europe.</p>	<p><u>What Russia does:</u> Withdraws from the treaty to get a free hand.</p>
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Istanbul commitments 1999

<p><u>What the agreement says:</u>¹⁰ Commits Russia to withdraw all its troops from the Republic of Moldova by 2002. Commits Russia to decrease its military presence in Georgia and close its bases in Gudauta and Vaziani by 1 July 2001. Commits Russia to complete negotiations with Georgia regarding its other military bases in the year 2000.</p>	<p><u>What Russia does:</u>¹¹ Still maintains so-called peacekeeping troops in the Republic of Moldova. Occupies parts of Georgia. Maintains an increasing number of military bases in the Georgian provinces of Abkhazia and South Ossetia.</p>
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9 United States Department of State, "Compliance With the Treaty on Conventional Armed Forces in Europe Condition (5) (C) Report", January 2016.

10 OSCE, Istanbul Document 1999

11 United States Department of State, "Compliance With the Treaty on Conventional Armed Forces in Europe Condition (5) (C) Report", January 2016.

Vienna Document 2011¹²

<p><u>What the agreement says:</u> Commits Russia to transparency on military planning, forces and activities, prior notification of military exercises, observation of exercises, and inspection of certain military sites.</p>	<p><u>What Russia does:</u> Develops an increasingly opaque defense policy. Repeatedly fails to respond to requests for explanation of unusual military activity, particularly in and around Ukraine. Fails to truthfully report military exercises.</p>
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Treaty on Open Skies 1992¹³

<p><u>What the treaty says:</u> Commits Russia to receive short-notice unarmed aerial observation flights of its military facilities by participating states.</p>	<p><u>What Russia does:</u> Imposes restrictions on flights over certain areas, e.g. Kaliningrad, Chechnya and the border with Abkhazia and South Ossetia.</p>
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Nuclear arms control commitments

Intermediate-Range Nuclear Forces Treaty 1987¹⁴

<p><u>What the treaty says:</u> Bans all nuclear-capable ground-launched cruise missiles (GLCM) with a range between 500km and 5,550 km, as well as launchers of these missiles.</p>	<p><u>What Russia does:</u> The US administration has stated that Russia has developed a new GLCM in violation of the INF Treaty. Experts suggest that several other systems could be considered violations or circumventions of the Treaty as well.</p>
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Presidential Nuclear Initiatives 1991-1992¹⁵

<p><u>What the agreement says:</u> Commits Russia to eliminate battlefield nuclear weapons by the year 2000. Commits Russia not to develop new types of nuclear sea-launched cruise missiles (SLCM). Commits Russia not to develop new heavy nuclear bombers.</p>	<p><u>What Russia does:</u> Retains and modernizes some of its tactical nuclear weapons. Develops Kalibr, a nuclear capable SLCM. Announces the production of 50 new Tu-160 nuclear bombers.</p>
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12 United States Department of State, "2016 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments", April 2016.

13 Ibid.

14 Ibid.

15 National Institute for Public Policy, "Russian Strategy: Expansion, Crisis and Conflict", 2016, p.91.

Arms control commitments regarding other Weapons of Mass Destruction

Chemical Weapons Convention - 1993¹⁶

<i>What the Treaty says: Bans the production, possession and use of chemical weapons.</i>	<i>What Russia does: Submitted incomplete declaration of its facilities and stockpiles.</i>
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Biological Weapons Convention – 1972¹⁷

<i>What the Treaty says: Bans the production, possession and use of biological weapons.</i>	<i>What Russia does: Has failed to satisfactorily document whether it has destroyed or diverted to peaceful purposes the offensive biological weapons program it has inherited from the Soviet Union.</i>
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Seeking to “divide and conquer” Allied leaders and public opinion

The last pillar of Russia’s strategy against NATO is a traditional “divide and conquer” approach. Russia consistently seeks to create and exploit differences of opinion among Allies, and particularly to drive a wedge between Europe and North America. These efforts have naturally intensified following the adoption by all Allies and by NATO of sanctions against Russia in response to its aggression in Ukraine.

Besides the use of traditional diplomacy, Russia has engaged in a longer-term, intensive and comprehensive effort aimed at creating and nurturing pro-Russian constituencies and undermining political stability in Allied countries. It has done this through an active propaganda and lobbying campaign.

Russia has invested massive resources in its **information war**. Its flagship project is the TV channel Russia Today (recently renamed RT), a mouthpiece for the regime’s anti-NATO ideology. RT’s annual budget increased by more than 40% between 2014 and 2015. The channel claims a viewership of 700 million people in more than 100 countries, and provides content in German, French, Spanish and Arabic, in addition to English.

16 United States Department of State, “Compliance With the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction Condition 10(C) Report”, April 2016.

17 United States Department of State, “2016 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments”, April 2016.



(RT)

Russia's media presence is not limited to RT, however. Russian outlets are actively investing in all types of media across Europe and North America. Furthermore, it is exploiting armies of online activists (so-called "trolls") to post pro-regime anti-NATO comments on news and social media sites. It is increasing its outreach to Russian-speaking communities, and intensifying efforts to promote Russian culture abroad. More worryingly, it is infiltrating NGOs and think tanks in Allied countries, as well as developing increasingly close links with certain centers of power such as specific political parties. Allied countries have so far failed to develop an adequate response to this aggressive policy.

3. Russia's means

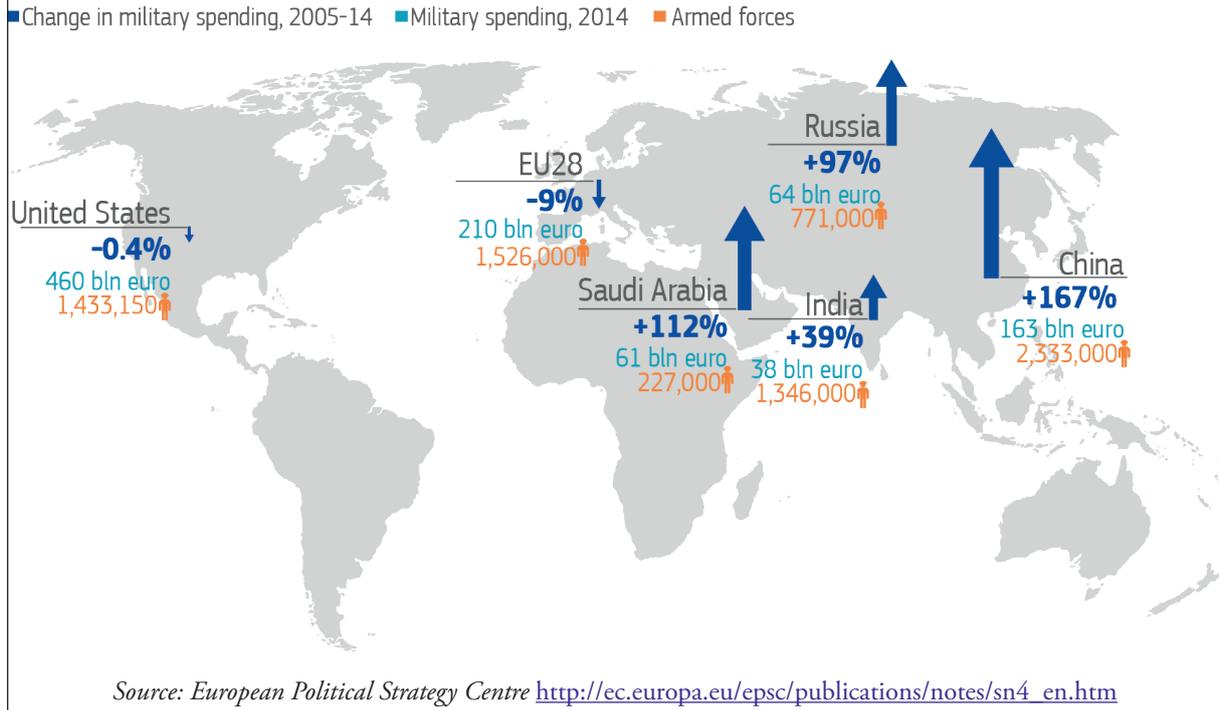
Since 2008 when Russian forces performed less well than expected against the greatly outnumbered Georgians, Russia has been engaged in a comprehensive effort to modernize its armed forces, labelled "New Look". The centerpiece of this effort is the 2010 State Armaments Program (SAP) whose stated aim is the modernization of 70-80% of Russia's military equipment by 2020. The modernization program covers the full spectrum of its military capabilities and is intended to redress deficiencies in the readiness, effectiveness, structure and equipment of Russian armed forces.

Russian Defense Investment and Output

To achieve its objectives, Russia is planning to spend RUB 20.7 trillion over a decade for new armaments. While Allies cut their defense spending by 20% between 2008 and 2014, Russia increased hers by 50%. Between 2014 and 2015 alone, Russia's defense spending increased by some 20 % to USD 65 billion, accounting for over 5% of GDP in 2015. The gap in terms of actual dollars devoted to defense remains significant with NATO, whose members spend a total of USD 900 billion on defense – equivalent to 2.4% of GDP. However, as the graphs below show the trend is clearly one of massive Russian reinvestment in defense. In addition, while Russia's economy suffers from the impact of economic sanctions and historically low oil prices, the Kremlin chose to preserve levels of defense spending and investment to the detriment of other sectors of the economy.¹⁸ As a result, and despite delays in some flagship programs, six years into the implementation of the 2010 armaments program, Russia is on track or even ahead of the interim objectives set in the SAP. The Russian defense industry also adapted quickly to sanctions targeting defense sales to Russia by developing domestic production. As a result, military equipment output grew by a record 20% in 2014.

¹⁸ Startlingly, military expenditure exceeded 9% of GDP in the first quarter of 2015.
<http://uk.businessinsider.com/russian-economist-kremlin-military-spending-is-indefensible-2015-5?r=US&IR=T>

Defense spending trends and military strength around the world



Conventional forces

Reforms of the conventional forces have focused on **restructuring and professionalizing the force** – with a goal of reaching a ratio of two thirds professionals-one third conscripts by 2020, and a fully professional Non-Commissioned Officer (NCO) corps. Russia is also investing in a broad range of new systems for ground, air and naval forces, including the procurement of 1,150 helicopters, over 4,000 Unmanned Aerial Vehicles (UAVs), over 2,300 tanks, and some 30,000 other armored and unarmored vehicles by 2020.

New **ground** vehicles – such as the flagship Armata Universal Combat Platform – will bring improvements in armor protection and crew survivability.



Military Parade in Moscow, 9 May 2016 (Russian Presidency)

New **navy** capabilities already include a modernized submarine force, as well as plans to modernize the coastal defense fleet; procure large destroyers for long-range, blue-water missions; and build new classes of amphibious ships.

Air force modernization includes the new T50 stealth fighter aircraft – branded as a competitor to the F-35 Joint Strike Fighter - three new types of combat UAVs of one, five and twenty tons respectively, and by 2020 a thirty-fold increase in the stockpile precision-guided missiles compared with 2013 levels.¹⁹

In the field of **air defense**, Russia has two “flagship” air and theatre missile defense projects: the S400 and S-500, with operational ranges of 400 and 600km respectively. Russia is also upgrading its nuclear-armed ballistic missile defense system around Moscow with the A-235 Samolyet-M, which includes a new road-mobile element.

Missile system	Operational range	Function	Stage of development
S-400	400km	Air defense Defense against short- and medium range missiles	Objective of 56 battalions by 2020
S-500	600km	Air defense Defense against long-range ballistic missiles	In development

Furthermore, Moscow is investing heavily in **electronic warfare** capabilities aimed at jamming the adversary’s communications, surveillance, and command and control, as evidenced by its recent military operations in Ukraine and Syria. Western military officials have recognized Russia’s expertise in this area, with US Army Lt Gen Hodges calling Russia’s capabilities “eye-watering”.²⁰ The situation is doubly worrying: first, because their post-Cold War experience of military interventions in largely non-contested environments has led Allied forces to invest less in electronic warfare; and second, because their technologically-advanced militaries are increasingly dependent upon electronics-enabled capabilities.

Cyber and information warfare

Russia is also investing in the cyber domain which it sees as an essential new dimension of modern warfare. Its strategic documents and military doctrine make the development of cyber capabilities a central priority and Russia’s recent actions demonstrate that it has indeed taken this objective very seriously. Russia’s concept of cyberwarfare is particularly broad, encompassing not only military defensive and offensive capabilities, but also the use of cyberattacks and information warfare as part of its broader hybrid warfare strategy. Again, its aggression against Ukraine provides a particularly enlightening case study, in which covert infiltration by “little green men” and full scale military aggression were preceded and accompanied by a massive propaganda operation, as well as a broad range of cyberattacks conducted against Ukrainian and Western official websites, as well as Ukrainian civilian infrastructure and media. For purposes of deniability, this effort is largely sub-contracted to a private army of “trolls” and cyber-hacktivists.

¹⁹ http://www.pravdareport.com/russia/economics/10-07-2013/125077-high_precision_weapons_russia-0/

²⁰ On this issue, see for instance: <http://www.defensenews.com/story/defense/policy-budget/warfare/2015/08/02/us-army-ukraine-russia-electronic-warfare/30913397/>; <http://nationalinterest.org/blog/the-buzz/how-russias-edge-electronic-warfare-could-ground-the-us-air-15932>; <http://intersectionproject.eu/article/security/do-not-underestimate-russian-military>



Logo of the Cyberberkut hacktivist group (Cyberberkut) / (NATO)

Russia's cyberwar against Ukraine built upon previous large-scale cyberattacks against Estonia in 2007 – which targeted government institutions, as well as the banking sector and other essential services – and against Georgia in 2008 – in conjunction with Russia's military aggression. However, the scope, scale, and sophistication of attacks conducted against Ukraine show how far Russia has gone since 2007-2008. Two recent incidents are particularly worrying, and illustrate how Western governments may have for too long underestimated Russia's cyber capabilities. In December 2015, a cyberattack conducted against the Ukrainian electricity grid provoked the first known power outage caused by a cyberattack. Three electricity distribution centers and 30 substations supplying 230,000 residents were taken down for up to six hours.²¹ While Russia naturally denies any responsibility, this incident raises serious concern that Russia has mastered the ability to conduct cyberattacks susceptible to cause damage to physical infrastructure. A cyberattack conducted against Kyiv's main international airport in January 2016 raises further alarm bells.²² Russian authorities recently announced they were planning to invest USD 200 to 250 million per year into the development of offensive cyber capabilities.²³

Nuclear forces

Alongside conventional forces modernization and the development of cyber capabilities, Russia is investing in each component of its strategic nuclear triad (air, ground and sea), as well as its non-strategic (short-range / theatre) nuclear capabilities, with the aim of replacing aging Soviet-era systems. Estimates are that Russia's current nuclear weapons stockpile stands at around 7,700 warheads, including some 1,735 deployed strategic warheads. In comparison, the United States inventory is estimated at around 7,200 warheads, of which 1,481 are deployed strategic warheads. There is, however, a striking imbalance in tactical nuclear weapons: Russia is suspected of deploying some 2,000 tactical weapons, or ten times the United States' estimated deployment.²⁴

In this context, serious questions must be asked about the timeliness and effectiveness of recent efforts to engage Russia in nuclear arms reductions. All the developments described below have taken place during or since the conclusion of the New START treaty which commits the United

21 See for instance; <https://www.wired.com/2016/03/inside-cunning-unprecedented-hack-ukraines-power-grid/>

22 See for instance: <http://www.reuters.com/article/us-ukraine-cybersecurity-malware-idUSKCN0UW0R0>

23 See: <http://www.scmagazineuk.com/russia-to-spend-250m-strengthening-cyber-offensive-capabilities/article/470733/>

24 Data for the total number of US warheads based on information released by the Department of State, US National Report to the Nuclear Non Proliferation Treaty Review Conference 2015, <http://www.state.gov/documents/organization/242102.pdf> Data for deployed US and Russian strategic warheads based on the New START Treaty latest exchange of data, April 2016. <http://www.state.gov/t/avc/rls/2016/255377.htm>

States and Russia to further reductions of their nuclear arsenals. In other words, while seeking to bind the United States' hands, Russia was itself investing in new systems, some of which certainly violate the spirit, if not the letter, of New START, INF and other arms control agreements. The following sections highlight the breadth of Russia's nuclear modernization.

Air:

Russia is currently modernizing three classes of strategic bomber aircraft and investing in a new stealth bomber.

Type of aircraft	Upgrade or new model	Prospected completion
Tu-95MS (Bear)	upgrade	2020
Tu-160 (Blackjack)	upgrade	
Tu-160M2	upgrade / new	50 new planes to be delivered after 2023
PAK-DA stealth bomber	new	2030



Russian Tu-95MS and Tu-160 strategic bombers (Russian MoD)

Inter-Continental Ballistic Missiles (ICBMs):

Russia is renewing its ICBM force, with a heavy emphasis on increasing its mobility. In addition, it is developing a hypersonic glide vehicle (HGV), intended to maneuver aerodynamically upon entering the atmosphere and thereby evade interception.

Type of missile	Existing or new	Prospected completion
RS-24 Yars (SS-27 Mod 2)	Existing – but development of silo-based and rail-mobile	2020 – will replace SS-19
RS-26 Rubezh / Yars-M	New – road-mobile, multiple warheads	2016
Sarmat	New – heavy, liquid-fuelled, silo-based, multiple warheads	2020 – will replace SS-18
Barguzin	New – rail-mobile, multiple warheads	2040



Yars and Rubezh Russian missile launchers (Russian MoD)

Sea-based force

As to the maritime component of the force, Russia is aiming to replace its entire fleet of Ballistic Missile Submarines (SSBNs) with a new fleet equipped with new Submarine-Launched Ballistic Missiles (SLBMs). It is also reportedly developing a nuclear-armed submarine drone / torpedo with a range of 10,000 km, known as Oceanic Multipurpose System – Status 6.

Type of capability	Upgrade or new	Units contracted / delivered
Borei class SSBN	New	8 to be delivered by 2020 to replace the current Delta class SSBNs
RSM-54 Sineva and Liner SLBM	Upgrade – for Delta class SSBNs	
RSM-56 Bulava SLBM	New multiple warheads for Borei class SSBNs	



The new Borei class Russian SSBN Alexander Nevsky (Russian MoD)

Non-strategic nuclear weapon systems

Many elements of Russia's non-strategic nuclear arsenal are being modernized. This includes upgrades to the Tu-22M3M (Backfire) and Su-24 M (Fencer) bombers, as well as the development of the new SU-34 (Fullback) fighter bomber. Russia is also introducing a number of new ground-, sea- and air-launched ballistic and cruise missile systems, several of which could pose new and direct threats to NATO Allies. Among these are the R-500 Iskander K system carrying nuclear-capable cruise missiles and the Iskander-M road-mobile ballistic and cruise missile launcher. Moscow has on several occasions threatened to permanently deploy the Iskander M in Kaliningrad and Crimea. From these locations, the nuclear-capable missiles whose range extends to 500km could hit parts of NATO's territory. Worryingly, reports suggest that Iskander-M have already been deployed to Kaliningrad and Crimea as part of snap exercises. Moscow has ordered 120 of these systems.



The Iskander M missile launcher (Russian MoD)

Furthermore, the new Kalibr sea-launched cruise missile, which can carry either conventional or nuclear payloads, enhances Russia's ability to strike targets on land from both surface ships and submarines. Russia is suspected to have already used Kalibr as part of its military intervention in Syria. It recently fired what is suspected to be the Kalibr at targets inside Syria from warships over 1,500km away in the Caspian Sea. If deployed in the Black Sea or the Baltic Sea, Kalibr-equipped warships could easily reach targets within Europe. Similarly, one could very well imagine Kalibr-equipped submarines deployed all the way to the Atlantic and able to reach the continental United States.²⁵

C. NATO, Russia and Missile Defense

No analysis of the relationship between NATO and Russia can be complete without addressing the subject of missile defense. NATO viewed this as a likely area of fruitful cooperation but Russia chose to make it a profoundly divisive issue by willfully misrepresenting the facts of the matter.

NATO's 2010 Strategic Concept stated that the Allies 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. We will actively seek cooperation on missile defense with Russia and other Euro-Atlantic partners".

NATO's rationale for developing and deploying missile defenses is to provide protection from the type of limited missile attack that could plausibly be mounted in the years ahead by a nation such as North Korea or Iran, or even by a terrorist group such as ISIL if it managed to occupy a country which had developed missile capabilities. Such missile defenses would make NATO less susceptible to intimidation by states or groups with relatively small arsenals which could nevertheless otherwise threaten to inflict substantial casualties and damage. They also provide protection against an attack by a "non-rational" aggressor – perhaps sharing ISIL's "ideology" – who would not be deterred by possible consequences, as well as against an accidental or unauthorized launch.

25 See for instance: <http://freebeacon.com/national-security/russia-nearing-deployment-of-new-intermediate-range-naval-missile/> http://www.nytimes.com/2015/10/09/world/middleeast/russias-kalibr-cruise-missiles-a-new-weapon-in-syria-conflict.html?_r=1 <http://www.nti.org/gsn/article/could-us-face-cruise-missile-threat-gulf-mexico/>

Russia, too, has already developed a variety of highly capable missile defense systems, and NATO's concept was that systems could be coordinated to maximize opportunities for interception, with Russia and NATO each benefiting from the other's detection, tracking, and – if necessary – interception systems.

However, Russia has stalled efforts to cooperate, insisting that NATO's missile defense system was aimed at undermining Russian security. Despite the evidence of the laws of physics, and the development of its own impressive missile defense systems, Russia has not wavered from the view that NATO's missile defenses would somehow erode Russia's defenses and indeed even pose a threat.

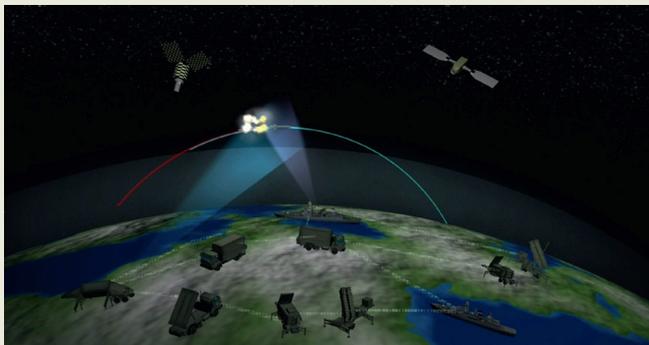
Debunking Russian myths about NATO's missile defense system

In 2010, when NATO decided to develop its missile defense system, Allies offered for Russia to be associated with this effort. In fact, efforts to cooperate on missile defense with Russia made little or no progress due to Russia's repeated insistence that NATO's missile defense system was aimed at undermining Russian security. Indeed, Russia's 2014 military doctrine lists missile defenses as the fourth external military risk to Russia.²⁶

Why is this fantasy?

Russian strategic nuclear missiles launched towards the United States would follow trajectories over the polar regions, nowhere near the operating area of NATO's missile defenses.

If any did pass close to their operational areas, their speed and trajectory would put them beyond the reach of those defenses.



(NATO)

NATO's missile defenses are intended to defend against a limited ballistic missile attack launched against Western Europe by a rogue state, Russia's large tactical weapons capability would circumvent or overwhelm NATO's few tens of interceptors. And why would Russia's missiles be aimed at Western Europe in the first place?

Despite Russia's intense criticism of NATO's missile defense, it has itself developed extremely effective missile defense systems,

and NATO had hoped that these could be coordinated with NATO's so the systems could work in concert to defeat threats emanating from beyond Russian and NATO territory.

The Russian S300 is a highly capable mobile air defense system able to intercept aircraft and short-range missiles. The newer S400 is described by Russian sources as being able to intercept air targets

²⁶ <http://www.nato.int/docu/Review/2015/Russia/Ballistic-Missile-Defence-Putin/EN/index.htm>
and <http://www.theatrum-belli.com/the-military-doctrine-of-the-russian-federation/>

The first risk is the build of the "power potential" of NATO and vesting NATO with global functions in violation of the rules of international law. Second is the destabilization of individual states. Third is the deployment of foreign military contingents in states and waters neighboring Russia.

at ranges of up to 400 kilometers and missiles at altitudes of 60 kilometers and speeds of up to 4.8 kilometers a second.²⁷

Russia also has its A-135 (designated ABM-3 by NATO) missile defense system around Moscow. This currently consists of 68 SH-08 “Gazelle” nuclear-armed interceptors, plus associated radars and control systems.

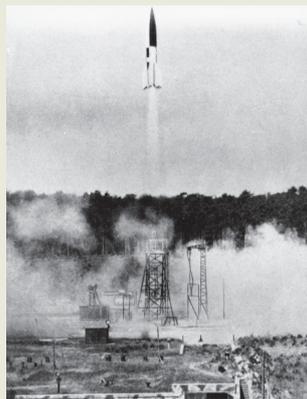
Since the end of the Cold War, NATO has never objected to Russia’s missile defenses or its right to protect itself from missile attack. Indeed, it sought to cooperate in missile defense.

Missile Defense – A Short History

Ballistic missiles are more like stones and spears than aircraft. After a large initial “push” from their engines, they “coast” to their destination following a trajectory governed mainly by gravity.²⁸ They are thus ballistic projectiles. Like a stone, the harder it is “thrown”, the further it will go. And to go as far as possible, it has to be thrown quite steeply upwards.

The V-2 used in the Second World War had a range of about 320 kilometers and reached an altitude of about 80 kilometers. Its speed at impact – about five minutes after launch – was almost 3,000 kilometers per hour.²⁹

There was no defense against the V-2 and attacks only ceased when their launch sites were overrun by the Allied advance in Europe.



Launch of a V2, 1943 (Bundesarchiv, Bild 141-1880 / CC-BY-SA 3.0)

During the Cold War, ballistic missiles – launched from land or from submarines – were seen as an essential means for delivering nuclear weapons. The only feasible defenses against them were interceptors armed with a nuclear warhead which would have been detonated in the vicinity of an incoming warhead. It was simply not technically or economically feasible to provide nationwide protection using the technology available.³⁰

²⁷ <http://sputniknews.com/military/20151111/1029903504/russia-s400-missile-defense-weaponry.html>
<https://www.rt.com/news/323596-s400-russia-syria-airbase-turkey/>

²⁸ Aerodynamic forces – “wind resistance” for instance - must be taken into account for the portions of the trajectory within the atmosphere, in the same way that a ball or a bullet might be buffeted by the wind and slowed down by air resistance, but ballistic missiles do not fly like airplanes.

²⁹ “V-2 Rocket Facts” in “World War 2 Facts” Will Harney, 7 April 2013.
<http://www.worldwar2facts.org/v2-rocket-facts.html>

³⁰ The Nike-Hercules interceptors used in the US “Safeguard” system, for instance, had a range of about 140 kilometers so thousands would have been needed to cover the land area of the United States.

In the Anti-Ballistic Missile (ABM) Treaty of 1972, the United States and the Soviet Union agreed to limit their defenses to two sites each employing no more than 100 interceptors. This was reduced to one site each in a 1974 protocol. The following year, the United States shut down its only operational missile defense site because the costs were deemed too high for the limited protection it offered. The Soviet Union maintained its missile defense system with nuclear-armed interceptors around Moscow and continues to operate and update it to this day.

The microelectronic revolution effectively reopened the missile defense issue. During the late 1970s, research indicated that tracking and guidance technologies were improving to the point where missile interception might be possible without the need for the interceptor to employ a nuclear weapon to destroy the incoming warhead. In other words, it appeared possible to steer an interceptor into a direct collision with an incoming warhead. With closing speeds of almost 10 kilometers per second, this has been described as like hitting a bullet with another bullet.

On 23 March 1983, then US President Ronald Reagan announced the “Strategic Defense Initiative” (SDI), a research program intended to establish whether missile defense technologies could be developed which would render nuclear-armed missiles obsolete.

In fact, the large-scale interception of strategic ballistic missiles remains a far-off prospect, but technology has progressed to the point where defenses against short-range systems are now well established. The MIM-104 “Patriot”, for instance, first saw action in the 1991 Gulf War where it was used to provide protection against Iraqi “Scud” missiles. The “Patriot” and similar systems are now in service in many countries, and other systems are being developed and deployed to defend against longer-range missile threats.

As noted earlier, Russia maintains a fixed missile-defense system with nuclear-armed interceptors around Moscow, and it has deployed the highly capable S-400 missile defense system. The even more capable S-500 is in advanced development.

The United States has deployed the Ground-Based Midcourse Defense System in Alaska and California to provide protection against the type of limited attack that might be mounted by a state such as North Korea. This system consists of 30 interceptors plus a network of support components such as early-warning satellites, ground and sea-based radars, and a variety of command and communications systems. The United States also has deployed the Aegis Ballistic Missile Defense system aboard certain cruisers and destroyers. This is designed to intercept short to intermediate range ballistic missiles.

NATO has decided to deploy missile defenses to protect its territory. A key element of these defenses is the Aegis system, with current plans calling for four ship-based systems to be based in Spain, along with two “Aegis Ashore” land-based sites in Romania and Poland. Various other components – “Patriot” batteries, air-defense frigates, land-based radars, and eventually a missile defense variant of the European “Aster 30” air defense missile – will be incorporated into a NATO Integrated Air and Missile Defense System (NATINMDS).



Elements of NATO's missile defense system (NATO)

Many other nations have also decided to deploy missile defenses. Israel has a particularly well developed “multi-layered” set of systems as a result of its strategic situation which includes regular missile attacks from the Gaza Strip. Many other countries in the Middle East have acquired the “Patriot” system, and elsewhere, China, Japan, South Korea and Taiwan are all developing or acquiring missile defenses.

D. Russia's Goals

As early as 2005, in his address to the nation, President Putin called the collapse of the Soviet Union “the greatest geopolitical catastrophe of the century”³¹, and Russia is evidently seeking to regain the status of a global power. This status would in part be achieved by regaining control over its neighborhood and recreating a modern version of the Soviet Union. However, Russia is also seeking to expand its influence and presence globally, and, despite major strains in its economy, it is continuing to invest massively in the modernization of its armed forces.

In Russia's official view, these objectives can only be achieved in opposition to the United States and to NATO. Moscow has stated in terms that leave no room for ambiguity that it views NATO as a threat and has issued aggressive statements on the role of nuclear weapons.

Russian forces have shown the ability to mobilize large numbers extremely rapidly in “snap” exercises. Their “Crimea-style” infiltration, subversion, and then occupation also shows a sophisticated ability to blur the distinction between a civil emergency and an external threat, potentially complicating NATO decisions on collective defensive military counter-action. Last but not least, Russia has deployed conventional forces – and threatened to deploy nuclear forces – on NATO's borders, thereby complicating Allies' ability to come to the rescue of its Eastern members in the event of an attack.

All these developments make the scenario of a Russian intervention in NATO's East a disturbingly realistic threat. One could for instance imagine an attempt at a limited takeover of part of a NATO nation, under the pretext of protecting ethnic Russians, and in the hope this would create a division

³¹ See for instance: <http://fas.org/irp/news/2005/04/putin042505.html> and <http://news.bbc.co.uk/2/hi/europe/4481455.stm>. The Kremlin's official translation of the address uses the wording “a major geopolitical disaster of the century” <http://en.kremlin.ru/events/president/transcripts/22931>

among NATO Allies with some wavering about when or even whether to invoke Article 5 over an initially ambiguous territorial incursion. For obvious reasons, those NATO member nations bordering Russia and with substantial ethnic Russian populations feel especially vulnerable to such a “Crimea-style” contingency.

It is impossible and imprudent to ignore Russia’s efforts to intimidate its neighbors; its use of force against Georgia and Ukraine; its often-stated antagonism to NATO; its numerous Cold War style military provocations; its disregard for international law, treaties and agreements; its flagrant use of misinformation and disinformation; and its impressive build-up of military capabilities.

Russia has abandoned any pretense at partnership with NATO leaving NATO little choice but to ensure that Russia excludes the use of force as a policy option in its dealings with NATO. Unfortunately, under current circumstances the only reliable means of achieving that is through deterrence: ensuring that in making a decision to use force the likely benefits would be outweighed by the likely costs.

II. STRENGTHENING NATO’S DETERRENT POSTURE

As the previous chapter illustrates, Russia has made clear through both words and deeds that it perceives NATO as a threat, that it is prepared to use of force, that it has the capacity to do so, and that if its strategic interests require, it will not hesitate to violate its obligations under international law.

It is more than a quarter of a century since the Alliance has had to contemplate the conduct of a major collective defense mission, and – equally importantly – consider how best to deter threats to its territorial integrity.

And unfortunately, it is not possible just to blow the dust off Cold War plans, update them, and put them into practice. Since the end of the Cold War, all NATO nations have – understandably – reduced the proportion of GDP spent on defense, and the global financial crisis which began in 2007 led to still more severe cuts in overall defense spending by Allies. As a result, the armed forces personnel in the larger European NATO nations are at about half their level at the end of the Cold War. Furthermore, the mainstay of NATO’s Cold War defense and deterrent - United States forces in Europe - have been reduced even more dramatically. For instance, the United States Army had some 220,000 personnel in Europe at the end of the Cold War compared with 28,000 today.

NATO’s first and most important mission is to provide for the collective defense of its members. Allied leaders must therefore urgently prepare NATO to address the renewed threat to Allies’ territories and populations.

The following sections review the requirements of credible collective defense and deterrence, identify the shortfalls of NATO’s current strategy and posture, and highlight the most urgent priorities which NATO leaders must tackle when they next meet in Warsaw in July 2016.

A. The requirements of credible collective defense and deterrence

1. Collective defense: NATO's *raison d'être*

Collective defense - the principle whereby a group of nations commits themselves to defending any member of the group should they come under attack - is enshrined in **Article 5 of the NATO founding Treaty**, signed on 4 April 1949 by ten Western European nations, the United States and Canada. Four years after the end of the Second World War, and in the context of rising tensions in an increasingly divided Europe, the creation of NATO helped seal the United States' continued commitment to European security. The 28 members that make up NATO today remain bound by this unique, exceptional bond which states that an attack on any NATO Ally would be considered as an attack on them all.

NATO's Article 5



The North Atlantic Treaty (NATO)

“The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.”

On 11 September 2001, Al Qaeda terrorists conducted a horrific series of attacks against the United States. For the first time in its history, NATO invoked Article 5 – the collective defense commitment - of the NATO Treaty. Thereby, Allies indicated that collective defense extends not only to instances of traditional conventional armed attacks – as was thought before, but also to other forms of attacks even if not conducted with military means nor by a state.

The terrorist attacks of 11 September 2001 and the invocation of Article 5



10 year commemoration ceremony for the victims of the 9/11 terrorist attacks at NATO Headquarters (NATO)

Who would have thought that, Article 5, which had always been envisioned first and foremost as a US guarantee in the event of an attack against Europe, would first be invoked following a terrorist attack directed against the United States?

To demonstrate their solidarity with the United States, NATO Allies deployed surveillance aircraft to the United States' airspace to help prevent any further attacks, and surveillance ships in the Mediterranean to intercept any potential terrorist-related traffic.

The 9/11 attacks marked the emergence of the threat from non-state actors – individuals and groups acting independently from state structures and interests. By invoking Article 5 in response to a terrorist attack, Allies effectively adapted NATO's collective defense to this new reality. Since 2001, they also confirmed that a cyberattack could be considered an "armed attack" as defined in Article 5, and thus could trigger collective action.

Because the 9/11 attacks were planned by Al Qaeda from its base in Taliban-controlled Afghanistan, they led the United States to intervene in Afghanistan to dismantle Al Qaeda and deny it a safe haven. As of 2003, NATO took over the leadership of the multinational coalition in Afghanistan. While NATO's combat mission in Afghanistan ended on 31 December 2014, the Alliance retains a training and assistance mission in the country.

2. The concept of deterrence

Better than having to repel an attack, however, is to convince potential adversaries that the cost of an attack would be prohibitive: in other words, to deter a potential aggressor. NATO's concept of collective defense is therefore not just about being prepared to defend Allies, but to deter an attack by ensuring that NATO forces could plausibly inflict sufficient damage on an attacker that he would consider that the potential costs of aggression would be higher than the potential gains. To achieve this, NATO Allies have, since 1949, sought to maintain strong, credible defenses able to provide **deterrence**.

Credibility is a fundamental requirement of deterrence. To be effective a deterrent must be both **capable** and **credible**. In other words, an effective deterrent must convince a potential adversary that in the face of aggression, the victim would use a capability that would make the cost of aggression unacceptable. This concept is simple in principle, but complex in practice largely because although capabilities can be assessed and quantified with some confidence, credibility is essentially subjective. A great deal of debate about deterrence – particularly nuclear deterrence – therefore focuses on how to ensure the credibility of deterrent forces as perceived by a potential adversary.

For those countries which possess **nuclear weapons** – i.e. within NATO: the United States, the United Kingdom and France -, the concept of deterrence must include both conventional and nuclear dimensions. Nuclear forces naturally provide the ultimate guarantee of those states' security, but the devastating lethality which constitutes the distinct feature of these weapons also adds a layer of complexity when defining the state's deterrence posture.

Some concepts and principles of deterrence

Deterrence by denial: convince the adversary that its attack would necessarily fail to achieve its intended goals. For instance, a potential aggressor would be deterred from attacking if he judged that his forces could not prevail against the defending forces.

Deterrence by retaliation: convince the adversary that if its attack succeeded, the victim would nevertheless have the ability and the will to retaliate by inflicting unacceptable damage on the aggressor. For instance, a potential aggressor possessing no nuclear-weapons capability would be deterred from attacking a nuclear-armed state because its attack could provoke a nuclear response.

In both cases, the goal is to prevent conflict by convincing a potential aggressor that the costs of aggression would exceed the gains.

Credibility: the heart of deterrence

The effectiveness of deterrence lies in convincing the adversary that it faces a credible threat. Credibility depends upon military posture and capabilities and - just as importantly – ensuring that an aggressor believes that his opponent is willing to use those capabilities.

Extended deterrence is the notion that one nation's deterrent forces will deter not only an attack on that nation itself but also upon an ally or allies. The best example, of course, is the extension of the United States' nuclear "umbrella" over its NATO Allies.

Shared risks and burdens. There are several ways of bolstering the credibility of extended deterrence, both conventional and nuclear. Most obviously, committing armed forces to the defense of allies – especially by placing forces on allies' territory – shows solidarity and greatly complicates an aggressor's calculations because an attack would engage the forces of additional allied nations. Those calculations can be further complicated by the stationing of nuclear weapons on the territory of allies.

Separate centers of decision. Within an Alliance like NATO, decisions are made not by any supranational authority but by 28 sovereign nations. The same is true naturally on nuclear matters. While SACEUR (Supreme Allied Commander Europe) - NATO's top commander - has authority over the nuclear weapons assigned to NATO, the nations which own these weapons each retain the sovereign right to use them independently as well. The fact that each nuclear-weapon state within the Alliance acts as a separate center of decision means that a potential aggressor must assess how each would respond, and would not be able to determine which of these nuclearcapable nations had responded.

Survivability and Stability. Generally speaking, a conventional military attack involves a concentration of forces close to the area of operations. However, when forces are concentrated, they are also vulnerable, particularly to certain forms of attack. Traditional "Cold War" thinking, for instance, was that an opponent might well consider using tactical nuclear weapons against heavily concentrated conventional forces in order to preempt an attack. Similarly, certain types of nuclear delivery system were seen as potentially destabilizing "first-strike" weapons because they were considered particularly vulnerable to **preemptive attack**. In other words, there would be temptation to use them early and quickly, a situation referred to as "Use 'em or lose 'em".

To minimize the risk of conflict, therefore, force concentrations and systems which provide an incentive to strike first are best avoided.

For nuclear systems in particular, survivability is a crucially important factor. For the United States, that means having a diverse nuclear "triad" (described below in this report) while nations with more modest arsenals favor nuclear-armed submarines which are deemed to be the most invulnerable to hostile action.

All nuclear weapon states have a stated policy regarding the use of their nuclear weapons. Just as for conventional forces, however, nuclear doctrines preserve a certain level of "strategic ambiguity" so that the adversary cannot readily predict the exact scenarios in which the use of nuclear weapons would be envisaged.

Some examples of declared nuclear policies

As part of their deterrence strategy, nuclear weapons states sometimes choose to openly reveal elements of their nuclear doctrine through statements of intent. Below are three examples of such statements:

"No first use": indicates that a state will not be the first party in a conflict to resort to the use of nuclear weapons. Superficially, this might appear to be a stabilizing measure but in practice it could embolden the side which felt it had an advantage in conventional forces and therefore be destabilizing.

Negative security assurance: a commitment not to use or threaten to use nuclear weapons against a non-nuclear weapon state. The five major nuclear weapons states have all issued various forms of negative security assurances.

Positive security assurance: a commitment to support a non-nuclear weapon state if threatened or attacked by a nuclear weapon state.

The Cold War experience: the archetype of traditional deterrence

The goal of deterring Warsaw Pact aggression was central to NATO's Cold War security strategy. That experience provides a useful illustration of the requirements of traditional deterrence in a scenario of confrontation between two clearly defined adversaries.

NATO and the Warsaw Pact were divided by opposing ideologies. On the one hand, the NATO nations represented a community of free, democratic nations which voluntarily committed themselves to mutual defense. On the other hand, the Warsaw Pact was an undemocratic Soviet hegemony which maintained an aggressive, expansionist rhetoric backed up by military forces and a force posture which were based on providing the Warsaw Pact the ability to overrun and overcome Western Europe.

The Warsaw Pact maintained levels of conventional forces which greatly outnumbered those of the West and which were clearly structured for the offensive. As a defensive Alliance, NATO did not need to match Warsaw Pact forces by seeking to pose an equivalent threat. NATO's forces and strategy were based on robust defense and deterrence through a combination of conventional and nuclear forces.

As Soviet policies and capabilities developed, NATO's deterrence strategy evolved from the threat of massive retaliation using nuclear weapons to the concept of flexible response. At the same time, the United States increased its presence in Europe so as to leave no doubt about its commitment to defend European Allies.



(US Army, EUCOM Comd Rept, 1951, p. 214-A)

The two dimensions of credible deterrence – strong defenses and the perceived willingness to use them – were therefore at the forefront of NATO's deterrent strategy.

NATO's Cold War Deterrent Strategies: from massive retaliation to flexible response

Several months after NATO was formed in 1949, the Soviet Union detonated its first atomic device. Even so, for several years, the United States continued to enjoy a clear and unchallenged nuclear superiority because the Soviet Union lacked the means of large-scale delivery.

The balance of conventional forces, however, was very much in the Soviet Union's favor. NATO's conventional forces would have been unable to hold back a Soviet advance into Western Europe. However, it was reasoned, they would not have to. NATO would retaliate with a nuclear strike against the Soviet Union. NATO strategy was therefore based - implicitly at first - on the threat of massive nuclear retaliation. In other words, nuclear weapons served as the ultimate guarantee of Allies' security and the United States committed its nuclear arsenal to provide "extended deterrence" to the other Allies.

Inevitably, as the Soviet Union's strategic nuclear delivery capabilities grew, doubts arose about the credibility of extended deterrence. The threat of massive retaliation could reasonably be expected to deter a nuclear attack against the United States, but did that necessarily apply to an attack against the United States' Allies? Crucially, would the Soviet Union believe that an attack on Western Europe would be met with American nuclear retaliation?

The appearance of Soviet nuclear forces targeted on Europe fueled these doubts and in 1959 the United States stationed nuclear missiles in Europe to supplement its strategic nuclear forces and to bolster European confidence. But faith in the strategy of massive retaliation waned on both sides of the Atlantic as the Soviet Union nuclear arsenal continued to grow.

In 1967, NATO formally adopted the strategy of 'flexible response', which had de facto started to emerge many years earlier. Flexible response committed NATO to respond to an attack by matching its "level" and, if necessary, increasing the level in order to bring about the termination of the conflict in defense of NATO territory. Deterrence thus relied on the threat of progressive escalation rather than the threat of immediate, massive retaliation.

NATO's Cold War military posture and the United States' commitment to the defense of Europe

During the Cold War, the United States' commitment to defending Europe was demonstrated through a variety of means:

- A permanent presence of US forces stationed in Europe, which at its peak counted some 220,000 men;*
- The deployment of US nuclear forces in Europe: at its peak, this deployment counted 7,300 nuclear warheads;*
- Prepositioned equipment to support reinforcements of up to six divisions ready to deploy from the United States within 10 days (POMCUS – Prepositioning of Material Configured in Unit Set);*

- *An annual large-scale exercise simulating the deployment of US troops to Germany (REFORGER - Return of Forces to Germany); in 1988, REFORGER involved 125,000 troops, 7,000 light armored vehicles and 1,000 tanks.*



(US Army Europe)

B. NATO's collective defense and deterrence in a changing strategic environment

The end of the Cold War naturally brought about enormous changes in Allies' policies and capabilities. The confrontational relations with former Cold War adversaries were replaced by cooperation and partnerships. Accordingly, Allied forces were reduced to reflect this new strategic environment.

Meanwhile, the single massive and global threat posed by the Warsaw Pact gave way to diverse and multidirectional risks: interethnic conflict – as in the former Yugoslavia, instability and state failure, proliferation of weapons of mass destruction, international terrorism, to name just a few. While Allies' attention focused on these new threats, the prospect of a traditional military attack by a conventional army against a NATO member was seen as very unlikely.

While these adaptations seemed well founded in the wake of the collapse of the Soviet bloc, Allied governments are now having to place renewed emphasis on deterrence, while not losing sight of the need to be able to address a broad array of other challenges. The Summit of NATO Heads of State and Government which took place in the United Kingdom in September 2014 drew the lessons from Russia's actions in Ukraine and made far-reaching decisions on both capabilities and resources. However, Allied leaders also recognized that the decisions they took in Wales were the beginning of a long process.

The following sections will review NATO's stated policies on collective defense and deterrence and on nuclear weapons, as well as its force structure and resources with a view to assessing what further measures could and should be taken.

1. Is there sufficient emphasis on collective defense in NATO's declared policies?

The official expression of NATO's current strategy is contained in two key documents: the 2010 Strategic Concept and the 2012 Defense and Deterrence Posture Review (DDPR).

NATO's Strategic Concept identifies three core tasks for the Alliance:

- Collective defense;
- Partnerships and cooperative security; and
- Crisis management.

Collective defense is still referred to as “the greatest responsibility of the Alliance”, and the DDPR stresses that “no one should doubt NATO's resolve if the security of any of its members were to be threatened.” However, both the Strategic Concept and the DDPR mention that “the Alliance does not consider any country to be its adversary”.

Collective defense and deterrence in NATO'S 2010 Strategic Concept



(NATO)

16. The greatest responsibility of the Alliance is to protect and defend our territory and our populations against attack, as set out in Article 5 of the Washington Treaty. The Alliance does not consider any country to be its adversary. However, no one should doubt NATO's resolve if the security of any of its members were to be threatened.

(...)

19. We will ensure that NATO has the full range of capabilities necessary to deter and defend against any threat to the safety and security of our populations. (...)

The 2014 NATO Summit in the United Kingdom sought to reinterpret some of these principles in the light of Russia's renewed aggressiveness. The Declaration issued at the conclusion of the Summit makes clear that Russia's actions put into question NATO's goal of a strategic partnership with Russia. In fact, NATO decided in Wales to suspend all practical cooperation and lower-level political dialogue with Russia while keeping open channels of communication at the highest level. All these were important statements to make in those circumstances. However, the language used in relation to collective defense and deterrence differs only slightly compared with the 2010 Strategic Concept and the DDPR. While the Declaration omits the statement made in the Strategic Concept that NATO does not consider any country as its adversary, it nevertheless stresses that “the Alliance (...) poses no threat to Russia”.

The Wales Summit Declaration – 5 September 2014 – Russia's aggression against Ukraine and NATO's response



Family photo at the Wales Summit (NATO)

Defining the consequences of Russia's actions

1. (...) *Russia's aggressive actions against Ukraine have fundamentally challenged our vision of a Europe whole, free, and at peace. (...)*

16. *We condemn in the strongest terms Russia's escalating and illegal military intervention in Ukraine. (...)*

18. *We are also concerned by Russia's pattern of disregard for international law, including the UN Charter; its behavior towards Georgia and the Republic of Moldova; its violation of fundamental European security arrangements and commitments, including those in the Helsinki Final Act; its long-standing non-implementation of the Conventional Armed Forces in Europe Treaty (CFE); and its use of military and other instruments to coerce neighbors. (...)*

22. (...) *We continue to aspire to a cooperative, constructive relationship with Russia (...) We regret that the conditions for that relationship do not currently exist. As a result, NATO's decision to suspend all practical civilian and military cooperation between NATO and Russia remains in place. Political channels of communication, however, remain open.*

23. *The Alliance does not seek confrontation and poses no threat to Russia. But we cannot and will not compromise on the principles on which our Alliance and security in Europe and North America rest. NATO is both transparent and predictable, and we are resolved to display endurance and resilience, as we have done since the founding of our Alliance. The nature of the Alliance's relations with Russia and our aspiration for partnership will be contingent on our seeing a clear, constructive change in Russia's actions which demonstrates compliance with international law and its international obligations and responsibilities.*

Reaffirming the three core tasks

3. Today we reaffirm our commitment to fulfil all three core tasks set out in our Strategic Concept: collective defense, crisis management, and cooperative security.

Restating the principles of collective defense and deterrence

48. The greatest responsibility of the Alliance is to protect and defend our territory and our populations against attack, as set out in Article 5 of the Washington Treaty. No one should doubt NATO's resolve if the security of any of its members were to be threatened. NATO will maintain the full range of capabilities necessary to deter and defend against any threat to the safety and security of our populations, wherever it should arise.

In light of Russia's new global strategy, one can legitimately wonder whether the statement of NATO's strategy as laid out in the 2010 Strategic Concept and the 2012 DDPR and reinterpreted in 2014 remains relevant today:

- Can and should Allies still contend that NATO has no adversary when Russia itself designates NATO as its adversary?
- Should collective defense and deterrence not be treated as a fundamental existential mission, separate from the other two core tasks identified in the Strategic Concept – partnerships and crisis management?

In other words, should NATO's Strategic Concept and DDPR not be updated?

2. Does NATO's current nuclear policy properly take into account the evolution in Russia's doctrine?

Russia's actions should also lead Allies to take another look at NATO's current nuclear policy.

As mentioned in the previous section, nuclear weapons have always formed part and parcel of NATO's collective defense and deterrence. Since the end of the Cold War, the number of nuclear weapons assigned to NATO and deployed in Europe has declined dramatically. Russia, however, is believed to maintain about 2,000 operational tactical nuclear weapons and is believed to hold many more in reserve. Furthermore, the number of nations possessing nuclear weapons has grown and is likely to continue doing so. It is more than 70 years since the first nuclear weapons were designed and built, and the necessary expertise and technology could be acquired by many nations if they so choose.

For all these reasons, NATO has stated very clearly that it intends to remain a nuclear-weapons Alliance.

NATO's nuclear weapons

Since its very beginning, NATO has been a nuclear Alliance. Indeed, in the early days of the Cold War, nuclear weapons were viewed as being the only practical way that NATO could deter the Soviet Union from using its much larger conventional forces to occupy or at the very least intimidate Western Europe.

Maintaining the credibility of NATO's strategy meant deploying a wide variety of nuclear systems, ranging from very short range weapons for use at the level of the battlefield, through longer-range systems based in Europe but able to strike targets deep behind the front line, all the way up to strategic weapons systems embodied most evidently in the United States "triad" of land-based intercontinental ballistic missiles (ICBMs), nuclear-armed bomber aircraft, and submarine-launched ballistic missiles.

While most systems were exclusively under the control of the United States, many in Europe were operated under "dual-key" arrangements whereby the United States retained custody of the nuclear warheads to be fitted on delivery systems – missiles or aircraft – operated by a NATO Ally.

Such arrangements were an important demonstration of Allied solidarity. They ensured that many Allies were directly engaged in the implementation of NATO's nuclear strategy, and this had the effect of sharing risks and capabilities while also complicating the planning of a potential adversary.

Today the United States' strategic "triad" remains the "backbone" of NATO's nuclear deterrent. While this triad has been radically reduced since the end of the Cold War, it retains the essential mix of systems that provide varied capabilities – including survivability – essential to a solid and stable deterrent posture.



USS Tennessee (US Navy) / HMS Victorious (Royal Navy)

Mention must also be made of France and the United Kingdom's independent nuclear systems which play a vital – most would argue, indispensable – role in ensuring the credibility of NATO's deterrent posture. Both have fleets of four nuclear powered ballistic missile carrying submarines (SSBNs) and France also possesses air-launched nuclear systems. All the United Kingdom's are assigned to NATO although they could still be used uniquely by the United Kingdom if necessary. France does not assign any of its nuclear weapons to NATO. As a member of NATO, however, its nuclear forces contribute significantly to the Alliance's nuclear posture.



French Rafale ASMP-A (French MoD)

In addition, several Allies continue to host elements of the United States' tactical nuclear arsenal and/or provide the delivery vehicles for these weapons. These arrangements for nuclear burdensharing provide a fundamentally important demonstration of Allied solidarity.

NATO's Nuclear Planning Group (NPG) is the body responsible for nuclear policy and deployment issues. Created in 1966, it originally consisted of seven Allies with the United States, the United Kingdom, Italy and West Germany as four permanent members and the three other seats rotating among other eligible nations on a yearly basis. The rotational arrangement was ended in 1979 in recognition of the increasing importance to all members of NATO's nuclear policy and posture. Today, all Allies are members of the NPG except France which decided not to participate.

France and the United Kingdom each have their own nuclear policies and doctrine, but both provide separate "centers of decision" within NATO. This must be taken into account by any potential aggressor and could only be seen as increasing the risks and costs of aggression.

Both the Strategic Concept and the DDPR stress the importance of NATO's nuclear deterrent as the supreme guarantee of Allies' security, and affirm that "as long as nuclear weapons exist, NATO will remain a nuclear alliance". At the same time, they state that "the circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote". The 2014 Wales Summit Declaration reaffirms those principles in almost identical terms.

NATO's nuclear policy

2010 Strategic Concept

17. Deterrence, based on an appropriate mix of nuclear and conventional capabilities, remains a core element of our overall strategy. The circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. As long as nuclear weapons exist, NATO will remain a nuclear alliance.

18. The supreme guarantee of the security of the Allies is provided by the strategic nuclear forces of the Alliance, particularly those of the United States; the independent strategic nuclear forces of the United Kingdom and France, which have a deterrent role of their own, contribute to the overall deterrence and security of the Allies.

DDPR 2012

8. Nuclear weapons are a core component of NATO's overall capabilities for deterrence and defense alongside conventional and missile defense forces. The review has shown that the Alliance's nuclear force posture currently meets the criteria for an effective deterrence and defense posture.

9. The circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. As long as nuclear weapons exist, NATO will remain a nuclear alliance. The supreme guarantee of the security of the Allies is provided by the strategic nuclear forces of the Alliance, particularly those of the United States; the independent strategic nuclear forces of the United Kingdom and France, which have a deterrent role of their own, contribute to the overall deterrence and security of the Allies.

Wales Summit Declaration 2014

49. Deterrence, based on an appropriate mix of nuclear, conventional, and missile defense capabilities, remains a core element of our overall strategy.

50. As long as nuclear weapons exist, NATO will remain a nuclear alliance. The strategic nuclear forces of the Alliance, particularly those of the United States, are the supreme guarantee of the security of the Allies. The independent strategic nuclear forces of the United Kingdom and France have a deterrent role of their own and contribute to the overall deterrence and security of the Alliance. The circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote.

At a time when Russian officials threaten the pre-emptive use of nuclear weapons against NATO Allies, it might be sensible for Allies to at least mandate another comprehensive review of NATO's nuclear policy. The more problematic aspects of NATO's current doctrine are most certainly the extremely conciliatory statements made regarding nuclear weapon reductions. The 2012 DDPR endorsed the goal of creating the conditions for a world without nuclear weapons and signaled a willingness to consider cuts in tactical nuclear weapons. However qualified and conditioned these statements are, the question remains whether NATO formal policy should continue to hint at possible reductions in the number of tactical nuclear weapons when Russia not only maintains an arsenal ten times larger, but is also developing new capabilities.

NATO's contribution to nuclear arms reduction as defined in the 2012 Deterrence and Defense Posture Review

11. While seeking to create the conditions and considering options for further reductions of nonstrategic nuclear weapons assigned to NATO, Allies concerned will ensure that all components of NATO's nuclear deterrent remain safe, secure, and effective for as long as NATO remains a nuclear alliance. (...)

12. (...) Allies agree that the NAC will task the appropriate committees to develop concepts for how to ensure the broadest possible participation of Allies concerned in their nuclear sharing arrangements, including in case NATO were to decide to reduce its reliance on non-strategic nuclear weapons based in Europe. (...)

24. The Alliance is resolved to seek a safer world for all and to create the conditions for a world without nuclear weapons. (...)

26. (...) NATO is prepared to consider further reducing its requirement for non-strategic nuclear weapons assigned to the Alliance in the context of reciprocal steps by Russia, taking into account the greater Russian stockpiles of non-strategic nuclear weapons stationed in the Euro-Atlantic area.

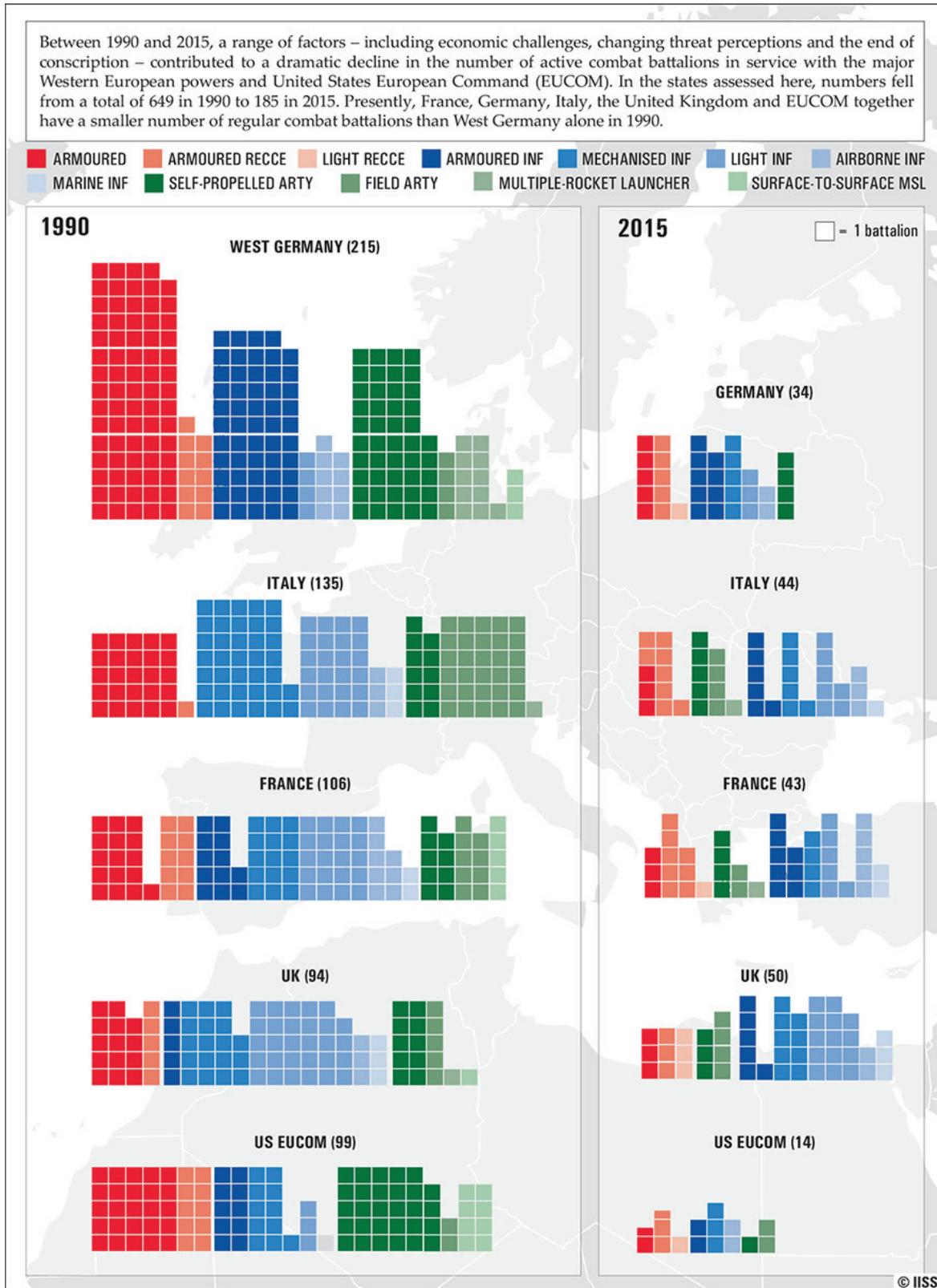
3. Is NATO's force structure adequate to face Russia's challenge?

The assumptions and key principles enshrined in the strategic documents examined above are naturally reflected in NATO's current force structure. This has undergone a profound transformation in the past 25 years.

The end of the Cold War and the new emphasis placed on partnerships led to a major reduction in Allies' armed forces and arsenal. Meanwhile, NATO's growing involvement in crisis management beyond the Alliance's borders in support of the United Nations led to major efforts to transform Allies' armed forces from large, static, forward deployed forces – suited for Cold War-type deterrence, to smaller and rapidly deployable forces – better able to support peacebuilding and peacekeeping missions abroad. Throughout this transformation, the premium was put on deployability – the capacity to move and sustain forces in distant and unfamiliar theatres; interoperability – the ability to integrate seamlessly with forces of other nations; and a broadening of the military's mandate – to include not only combat but also “winning the hearts and minds” of local populations through support for governance and development.

In light of the new challenge from Russia, Allies must refocus on the task of collective defense and on deterring Russia.

Western Europe: the dramatic decline in combat battalion numbers 1990-2015



Source: International Institute for Strategic Studies, *Comparative defence statistics, The Military Balance, Vol.116:1 (2016)*, p. 24, copyright © The International Institute for Strategic Studies, reprinted by permission of Taylor & Francis Ltd, www.tandfonline.com on behalf of The International Institute for Strategic Studies.

At the NATO Summit in Wales in September 2014, and in response to Russia's aggression against Ukraine, NATO's leaders agreed upon a "Readiness Action Plan" (RAP), a series of measures intended to improve the Alliance's ability to defend its territory, deter aggression, and reassure all member nations of the Alliance's unwavering commitment to collective defense. These measures have been further refined since.

The RAP includes three main lines of effort:

- Immediate deployments of land, air and maritime forces in the NATO members neighboring Russia to provide a reassuring visible NATO presence and deter a potential Russian aggression;
- A process of adaptation of NATO's military posture, combining an increased forward deployed presence on the Alliance's Eastern flank, and an improved ability to project and sustain forces rapidly in the event of an attack;
- An enhanced schedule of exercises, including a greater focus on scenarios aimed at testing preparedness for collective defense.

The 2014 NATO Readiness Action Plan

The RAP's assurance measures include new air, sea and land activities and exercises in and around NATO's eastern flank. Examples include more fighter jets on air-policing patrols over the Baltic States, additional maritime patrols in the Baltic Sea, the Black Sea and the Mediterranean, and the deployment of ground troops to eastern parts of the Alliance for training and exercises on a rotating basis.



Baltic Air Policing Mission (NATO)

The RAP also includes longer-term adaptation measures to NATO's forces and command structure. Key examples are the tripling of the strength of the NATO Response Force (NRF), from 13,000 to 40,000, and within that the creation of a Very High Readiness Joint Task Force (VJTF) consisting of 5,000 ground troops supported by air, maritime, and Special Operations Force component with lead elements able to begin deploying in just 48 hours.

Eight NATO Force Integration Units (NFIU) consisting of about 40 specialists are being created to facilitate the deployment of the VJTF and any subsequent forces, and enhance cooperation and coordination between NATO and national forces. Two high-readiness multinational headquarters in Poland and Romania will provide command and control capabilities for these units.

The RAP also involves improvements in logistics – including the prepositioning of equipment and supplies.

The third line of effort is an increased number of military exercises with a stronger focus on collective defense. Over 100 of the nearly 300 exercises conducted in 2015 were in support of NATO's assurance measures.



(NATO / JF Brunssum)

In addition to the NATO measures, several Allies have shown their support by increasing their military presence in the eastern parts of the Alliance. The United States' main initiatives include Operation Atlantic Resolve – an enhanced series of military cooperation activities with Eastern Allies conducted by a small persistent rotational US presence, and the European Reassurance Initiative (ERI) – a proposed \$3.4 billion investment in enhanced presence, prepositioned equipment, infrastructure and exercises.

The United States' bilateral reassurance measures

The United States has enacted a series of measures which complement NATO's own efforts to provide reassurance and visible presence in NATO's East.

Operation Atlantic Resolve

As part of Operation Atlantic Resolve, the United States has deployed a small persistent rotational presence of around 150 troops in Poland and each of the three Baltic States, as well as periodic rotational deployments to Romania and Bulgaria. These forces conduct continuous, enhanced multinational training and security cooperation activities with allies and partners in Eastern Europe on land, air and sea. In 2015, this included 50 exercises at battalion level or larger.



US 2nd cavalry regiment, mounted march through Romania, May 2015 (NATO)

European Reassurance Initiative

The United States' administration has launched its "European Reassurance Initiative" – with a proposed budget of \$3.4 billion in 2017 – to increase its persistent, rotational presence in Central and Eastern Europe, conduct exercises, pre-position equipment, improve infrastructure, and build the capacity of Allies and partners for training.

The ERI would fund the continuous rotation of an armored brigade combat team (BCT) into Europe.

European Activity Set augmentations

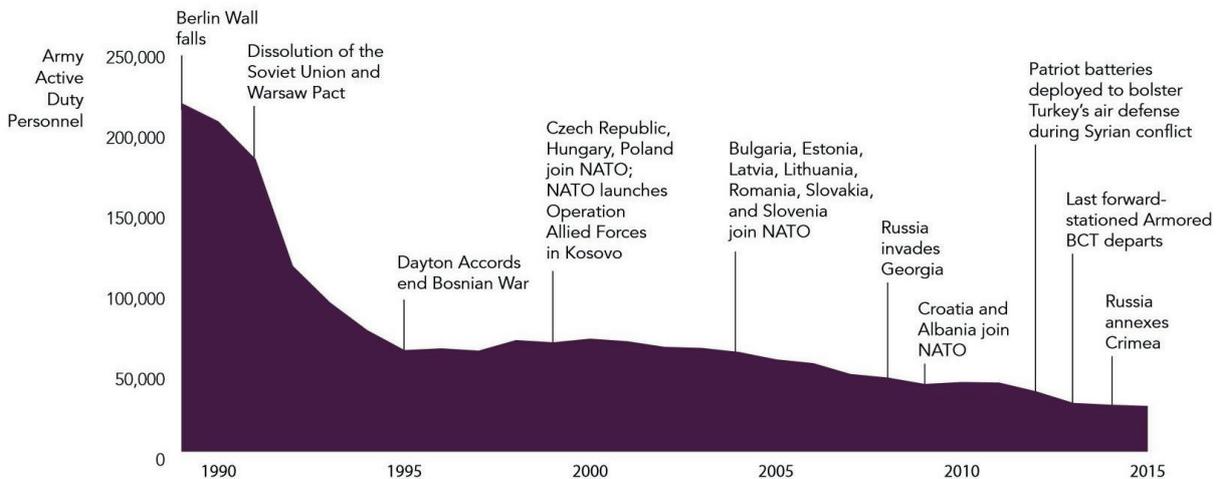
The European Activity Set is a combined-arms, battalion-sized group of vehicles and equipment pre-positioned at the US Army's Training Area in Grafenwoehr, Germany. It is designed to outfit US Army forces when they deploy to Europe for training, exercises or operations.

The decision was announced in June 2015 to augment the European Activity Set with 250 armored vehicles (M1 Abrams tanks, Bradley fighting vehicles and M109 howitzers) as well as other tracked and wheeled support systems. This additional equipment will be pre-positioned in Eastern Europe, and would be sufficient to support a brigade-sized group.

The RAP and other complementary measures certainly represent an important improvement over the Alliance's previous posture. Nevertheless, they remain vastly inadequate.

NATO's actual footprint in the East remains limited to mostly small command headquarters, and a few planes and ships at any one time. The increases in the US footprint barely make up for the cuts enacted before the invasion of Ukraine by Russia, including the 2012 decision to withdraw the two US Army heavy brigades previously stationed in Europe (170th and 172nd) together with all their tanks and other heavy vehicles. As a result the US Army presence in Europe was reduced by 10,000 between 2012 and 2015 to some 28,500 today. As Lt. Gen. Ben Hodges, Commander of the United States Army Europe, recently put it: "We used to have 300,000 soldiers in Europe and the mission then was to deter the Soviet Union. We have 30,000 soldiers in Europe now and the mission is to deter Russia -- ten times more space, but with about 10 percent of the troops. So, our task is to make 30,000 look and feel like 300,000."

Reduction of US Army Forces in Europe 1990-2015



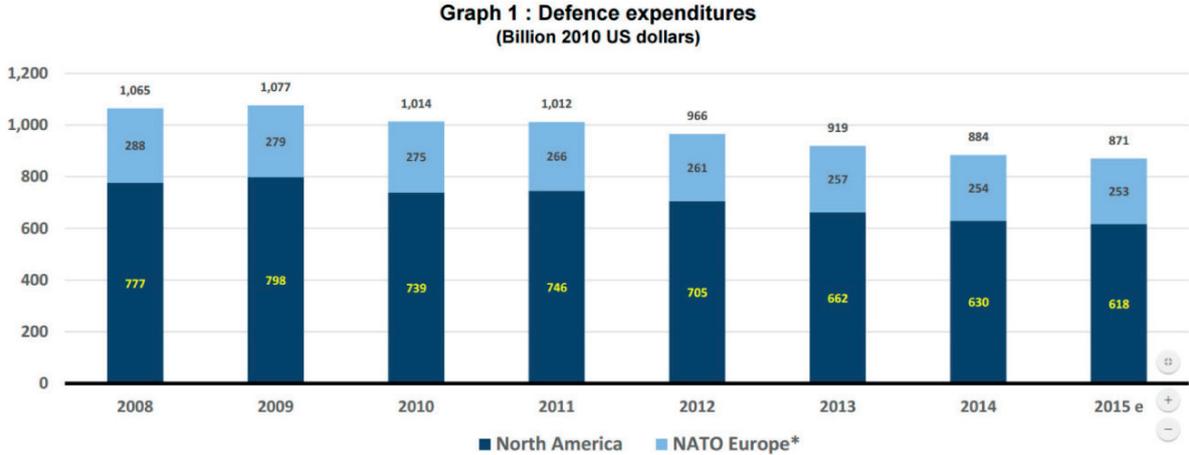
Source: Report of the National Commission on the Future of the Army, 28 January 2016

A recent study by the RAND Corporation also came to the stark conclusion that “NATO cannot successfully defend the territory of its most exposed members”³². In all the scenarios tested by the RAND team, Russian forces reached the outskirts of Riga and Tallinn within 60 hours, a progress NATO forces would be unable to stop. The study concludes that it would take a force of about six or seven brigades, including at least three heavy armored brigades, ready to fight from day one to avoid losing the war in the first few days. In the authors’ view, this would therefore constitute the minimum presence needed for Allies to hope to change Russia’s calculus.

4. Is Allies’ current investment in defense sufficient to deter?

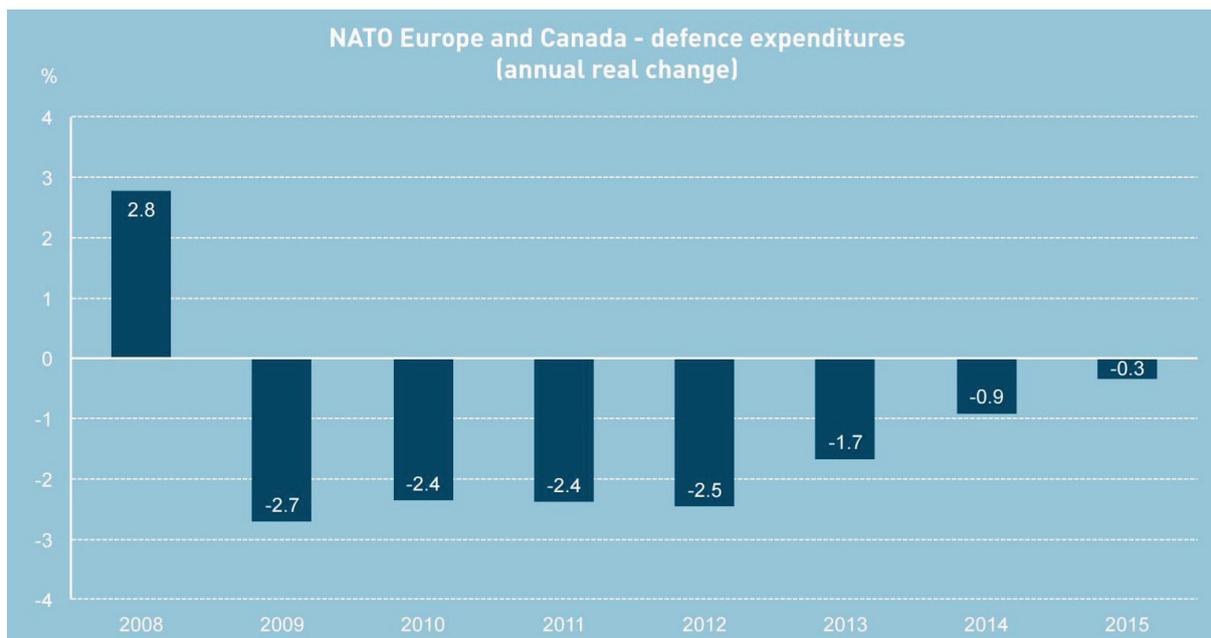
As mentioned above, the armed forces of all NATO states have undergone major reductions since the end of the Cold War. The 2008 global financial crisis dealt a further severe blow to Allies’ investment in defense. Allies’ overall defense spending was cut by close to 20% between 2008 and 2015. As a result, at the beginning of 2014, at the time when Russia invaded Ukraine, only 4 Allies – the United States, the United Kingdom, Greece, Estonia – were still reaching the NATO agreed guideline of 2% of GDP spent on defense.

Defense spending trends in NATO countries



Source: NATO; *Defence Expenditure of NATO Countries 2008-2015*

32 Shlapak, David A. and Michael Johnson. Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics. Santa Monica, CA: RAND Corporation, 2016. http://www.rand.org/pubs/research_reports/RR1253.html.



Source: NATO Secretary General Annual Report 2015

At the 2014 NATO Summit, Allied governments pledged to seek to stop defense budget cuts, and progressively move towards meeting the 2% guideline by 2024. They also committed to increase the share of investment to reach a target of 20% of defense spending dedicated to new major equipment.

Welcome progress has been achieved since. According to NATO, 19 countries have stopped cuts in 2015, 16 have increased defense budgets in real terms, and 12 have increased the defense share of their GDP. Poland joined the group of four other Allies which spend 2% or more on defense.

In addition, 23 countries increased the share of defense spending invested in new equipment. Eight Allies are at or above the 20% target (France, Lithuania, Luxembourg, Norway, Poland, Turkey, the United Kingdom and the United States).

Nevertheless, NATO defense spending decreased overall due to cuts in larger economies. More progress is needed therefore, faster and better balanced.

C. Strengthening NATO's deterrent: a central priority for the 2016 Warsaw Summit

The previous sections have shown that despite the important measures already adopted by Allies both individually and within NATO, Europe and North America have not yet fully taken the measure of the challenge posed by a resurgent Russia, a challenge which comes in addition to a broad range of other complex threats. When they next meet in Warsaw in July 2016, Alliance leaders must therefore agree upon further steps to ensure that NATO can fulfil its commitments in the prevailing strategic environment.

Five areas should receive priority attention:

- NATO's declared doctrine should fully acknowledge Russia's threat;
- Allies should underline their enduring commitment to NATO's nuclear deterrent;
- NATO and Allies should strengthen their forward presence in the East;
- Missile defense should receive new impetus;
- Allies should continue to reverse cuts in defense spending and capabilities.

1. Acknowledge the threat from Russia

As a first priority, NATO leaders must acknowledge in unambiguous terms the real, present and comprehensive threat that Russia poses to our security. They must recognize that Russia's actions against Ukraine are a consequence of a much broader problem: Russia seeks to redraw borders in Europe and challenge the most fundamental rules of the international system and its overall balance. Allied leaders must make clear that Russia's threats – including the threats of use of military conventional or nuclear force against NATO Allies – are unacceptable and will not be tolerated. They must reaffirm Allies' unwavering commitment to the Article 5 collective defense clause, including in the event of a Crimea-style hybrid attack against one of the Allies.

It is difficult to see how relations with Russia can improve unless and until Moscow takes significant steps to de-escalate the crises it is fueling in Ukraine, Syria, and elsewhere. In the absence of such steps and continuing Russian belligerence, NATO has no alternative but to press ahead with its intentions to enhance its deterrent capabilities and posture.

Calling for a review of NATO's current strategic documents – the 2010 Strategic Concept and 2012 Deterrence and Defense Posture Review – might send an important signal of Allied resolve in the face of Russia's threat.

2. Reaffirm NATO's nuclear deterrence

Russia's tactical nuclear arsenal greatly outnumbers NATO's, and Russia's leaders frequently indulge in nuclear "saber-rattling" in both word and deed. All this provides a compelling rationale for NATO to remain a nuclear Alliance.

The Warsaw Summit should reaffirm the role of nuclear weapons as the ultimate guarantee of Allies' security, while rejecting Russia's blurring of the line between conventional and nuclear deterrence through its concept of "escalate to de-escalate". NATO Secretary General Jens Stoltenberg put it well when he stated at the Munich Security Conference in February 2016: *"Our deterrence also has a nuclear component. Russia's rhetoric, posture and exercises of its nuclear forces are aimed at intimidating its neighbors. Undermining trust and stability in Europe. For NATO, the circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. But no one should think that nuclear weapons can be used as part of a conventional conflict. It would change the nature of any conflict fundamentally. NATO has continued to reduce the number of our nuclear weapons. We keep them safe, secure and effective. For deterrence and to preserve the peace. Not for coercion or intimidation."*

Furthermore, Allies should reaffirm current nuclear burdensharing arrangements and move forward with the necessary modernization of their arsenals. This would provide a profoundly important demonstration of Allied resolve and solidarity.

The necessary modernization of Allies' nuclear deterrent

Retaining a nuclear weapons capability is an ongoing process. As with any technologically advanced system, regular maintenance is needed to ensure that the systems remain viable. Even so, degradation and obsolescence cannot be staved off indefinitely. The decay of nuclear materials in the warheads affects the viability of the nuclear material itself, and the decay products can degrade a weapon's other components. In addition, the conventional explosive and various other components also suffer from age-related breakdown and degradation. These natural processes mean that it eventually becomes impractical to keep an old warhead in service.

*The United States' B61 tactical nuclear warheads assigned for delivery by European NATO nation aircraft are part of the oldest family of nuclear weapons in the country's inventory. They are being refurbished as part of a life extension program, which will lead to the consolidation of different versions of the B61 weapon into the B61-12. The life extension program includes refurbishment of both the nuclear and non-nuclear components to address aging, assure extended service life (for an additional 20 years), and improve the bomb's safety, effectiveness, and security. The refurbishment will not only allow a reduction in the number of gravity bombs, but also reduce the amount of special nuclear material in deployed weapons.*³³



B-61 warhead undergoing tests (Sandia National Laboratories)

Nuclear delivery systems too have finite operational lives. Indeed, decisions will have to be made in the not-too-distant future regarding the replacements for the aircraft available for nuclear missions by certain European Allies, and there are inevitable extra expenses involved in acquiring “dual-capable” aircraft – able to perform both conventional and nuclear missions.

Many US systems are also ageing and cannot be expected to remain operationally effective indefinitely. Perhaps the most remarkable example is the B-52 bomber which first entered service in 1955 and which is expected to remain in service until the 2040s. However, other elements of the triad are hardly in the first flush of youth: the most modern United States strategic bomber, the B-2 “Spirit”, entered service in 1997; the AGM 129 Air-Launched Cruise Missile in 1982; the Minuteman III ICBM in 1968; and the Ohio-class SSBN in 1981.

³³ United States National Nuclear Security Administration, FY 2016 Stockpile Stewardship and Management Plan, Report to Congress, March 2015, http://www.nnsa.energy.gov/sites/default/files/FY16SSMP_FINAL%203_16_2015_reducedsize.pdf



B-52 bomber (DoD)

Such weapons systems have a long gestation period so work has already begun on certain of their replacements.

Allies should not engage in any further nuclear arms reductions, or permit these to take place “by default”. NATO’s nuclear arsenal has been reduced dramatically since the Cold War and - if and when Russia decides to abide by the laws and norms of the rest of the international community – further reductions might well be realized. For the moment, however, Russia’s behavior and nuclear posture as well as the growing threat of proliferation of weapons of mass destruction mean that it would be imprudent to the point of folly for NATO to abandon its status as a nuclear Alliance.

3. Strike the right balance between forward defense and rapid reinforcements

Russia has amassed troops on NATO’s borders, which it exercises regularly in large-scale scenarios explicitly directed against NATO Allies. It has deployed nuclear-capable equipment in Kaliningrad and Crimea, and has developed an elaborate A2/AD capability. NATO’s current posture – which relies on a small forward presence coupled with limited arrangements for reinforcement – is inadequate to face the scale of this challenge.

More forces – especially ground forces – need to be available and available sooner. These forces should include contributions by as many Allies as possible.

The need for more forces needs little elaboration. But how much is enough? And what is the right balance between forward deployed forces and reinforcements?

The RAND study mentioned earlier proposed that to avoid losing a war within the first few days, NATO would need a “total force of six or seven brigades, including at least three heavy armored brigades, backed by NATO’s superior air and naval power and supported by adequate artillery, air defenses, and logistics capabilities, on the ground and ready to fight at the onset of hostilities”.³⁴

³⁴ Shlapak, David A. and Michael Johnson. Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics. Santa Monica, CA: RAND Corporation, 2016. http://www.rand.org/pubs/research_reports/RR1253.html.

According to that study, not all those forces would need to be forward stationed but could be transported in from locations elsewhere in Europe and some even from the United States. But certain heavy assets could not be moved into theatre rapidly and therefore would have to be prepositioned or in place through regular rotation. For the same reason, the National Commission on the Future of the Army for instance recommends in its January 2016 report to the President and Congress that the United States go back to permanently stationing at least one Armored Brigade Combat Team in Europe. Another conclusion of the RAND study was that land and air forces would have to be able to act together very effectively to avoid being overwhelmed.³⁵

Much of the necessary equipment is in long-term storage so would not need to be acquired from scratch. But this should not all fall upon the shoulders of the United States: effective deterrence and Alliance cohesion would both be enhanced by substantial contributions from other Allies.

Firstly, for maximum deterrent effect, collective defense must demonstrate the notion of “28 for 28”: engaging one means engaging all. Deploying forces to defend fellow Allies shows solidarity, and also ensures that an aggressor would directly engage the Alliance as a whole, or at least a large number of Allies, in line with the “trip-wire” concept.

In this regard, a greater European contribution to enhanced conventional defenses would alleviate the tension created by the transatlantic disparity in both funding and capabilities. Quite simply, American taxpayers cannot be expected indefinitely to be more committed to the defense of Europe than the Europeans themselves. The announcement made at the meeting of Allied Foreign Ministers in May 2016 that NATO is considering options for the forward presence of several multinational battalions in a number of Eastern Allies, is welcome news. A final decision on this enhanced forward presence must be taken without further delay.

Second, building an effective conventional deterrent might well require a very serious reconsideration of NATO’s policy regarding forces deployments on the territory of former Warsaw Pact members which have joined the Alliance. Currently, NATO maintains what it calls a persistent rotational presence on its Eastern flank, i.e. forces that are not permanently stationed in the region but which rotate in and out so that there is always a presence at any one time. The Alliance has established small multinational logistics hubs which are based on the territory of eight Eastern Allies. Time has come perhaps to consider taking the next step and deploying permanent NATO forces. These would provide a more credible “trip-wire”, and go a long way towards changing Russia’s calculus, even if numbers and speed would still favor Russia. As then SACEUR (and Commander of EUCOM) Gen. Philip M. Breedlove noted in October 2015, “The temporary presence of rotational forces complements, but does not substitute for an enduring forward deployed presence that is tangible and real. Virtual presence means actual absence.”³⁶ It is worth pointing out as well that permanent stationing mobilizes less forces than a rotational presence. Unlike basing, rotations typically involve three units at any one time: one deployed, one preparing to deploy and one returning from deployment.

Eastern Allies have already suggested that NATO permanently station a battalion on each of their territories, bringing the overall number of deployed forces in the region to a brigade.

35 Ibid.

36 United States European Command: Theater Strategy. Gen Philip M. Breedlove, USAF, Commander October 2015, P.9

Would a permanent NATO presence in the East violate the NATO-Russia Founding Act?

Some argue that NATO permanent deployments on the territory of Eastern Allies would contravene the 1997 NATO-Russia Founding Act.

In the Act, NATO states that it has “no intention, no plan and no reason to deploy nuclear weapons on the territory of new members”, but the wording on conventional forces and facilities is more qualified: “NATO reiterates that in the current and foreseeable security environment, the Alliance will carry out its collective defense and other missions by ensuring the necessary interoperability, integration, and capability for reinforcement rather than by additional permanent stationing of substantial combat forces. (...) Russia will exercise similar restraint in its conventional force deployments in Europe.”

Russia’s actions have certainly exceeded the bounds of the “current and foreseeable security environment”, and – as illustrated in the previous chapter – have surely violated other provisions of the Act.

Furthermore, the parties committed themselves to concluding a framework agreement on an adapted CFE Treaty, a Treaty from which Russia has withdrawn.

NATO might well decide to retain the moral “high ground” by pretending that the NATO-Russia Founding Act is still applicable and adhering to its terms, but there is little doubt that Russia has already torn this Act apart.

Third, Allies must continue to enhance their rapid response capability. This means in particular:

- addressing the issue of the cost-sharing for the NRF and the VJTF;
Under current arrangements, costs for the deployment of those forces would fall exclusively on those nations which make up the force at the time when it is deployed (according to the principle of “costs lie where they fall”). There should be a mechanism for cost-sharing or else NATO might run the risk that Allies will be reluctant to commit to future rotations.
- addressing the issue of decision-making;
For the VJTF to act as a credible rapid reaction force, it must be ready to deploy within 48 hours as per the force’s original concept. Allies already agreed to give SACEUR the authority to alert, stage and prepare the force on his own authority. The actual deployment of the force requires a decision by the 28 Allied governments, however. Allies should consider whether they are prepared to give SACEUR pre-authorization to deploy the VJTF. At a minimum, governments and parliaments should regularly exercise rapid decision-making, a habit lost since the end of the Cold War.
- finding ways to circumvent or counter Russia’s A2/AD capabilities;
In the current situation, the A2/AD capabilities that Russia is consolidating on NATO’s borders would make troops reinforcements particularly challenging.

- addressing logistics obstacles.

Another habit lost is that of crossing NATO's land borders with heavy equipment, and all the logistics involved in the rapid deployment of large contingents. The creation of the Joint Logistic Support Group Headquarters Core Staff Element at NATO's Joint Forces Command Brunssum is a good first step. However, more needs to be done to ensure reinforcements can be deployed quickly without legal or other types of obstacles.

The fourth priority is thus logically for NATO forces to regularly conduct larger and more realistic exercises to train their ability to respond quickly and effectively to a threat coming from Russia. These must include a strong focus on the land component in order to develop responsive, adaptive and interoperable NATO land forces.

4. Give NATO Missile Defense a New Impetus

In its 2010 Strategic Concept, in light of the growing threat of missile proliferation particularly from Iran, NATO made the development of ballistic missile defense the third pillar of its collective defense strategy alongside conventional and nuclear capabilities. NATO is still a long way from a fully operational ballistic missile defense capability covering all of its territory, however. In addition, the NATO system remains highly dependent on the United States' European Phased Adaptive Approach (EPAA). The United States provides most of the radars and interceptors for the NATO system. Several Allies – including Turkey, Romania, and in the future Poland – host some of the land-based elements of the US "Aegis ashore" system. Spain is hosting four BMD-capable Aegis ships at its naval base in Rota. Several other Allies (Netherlands, Denmark) have offered various other components.

Beyond these national contributions, the only element of NATO's missile defense that is genuinely held in common is the command and control capability.

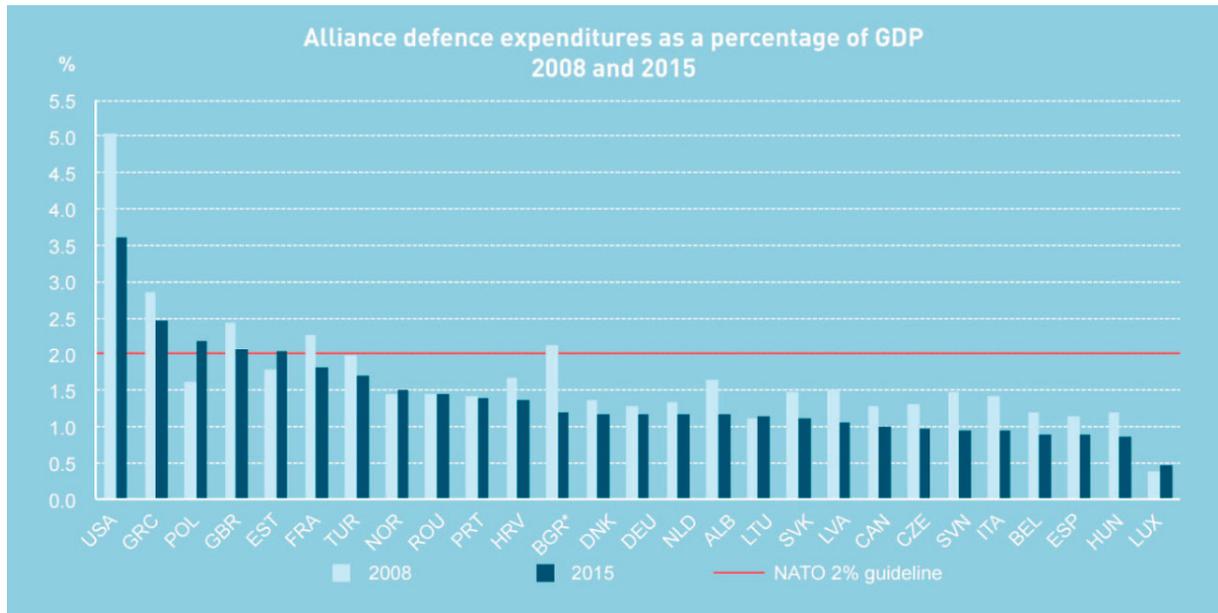
NATO's missile defense project is both an appropriate and important response to the growing threat posed by the proliferation of missile technology and weapons of mass destruction, and an essential demonstration of Allied solidarity and burdensharing. Allied leaders should therefore give missile defense a new impetus in Warsaw. This should entail:

- reaffirming the US commitment to NATO's missile defense system on the basis of full coverage of all Allies;
- encouraging further concrete European contributions to the system, including investment in a European interceptor; and
- a commitment to accelerate preparations towards the system's full operational capability.

5. Continue to reverse cuts in defense budgets

The past year has seen some progress in fulfilling the pledges made by Allied governments in 2014 to seek to reverse defense spending cuts and move towards 2% of GDP spent on defense and 20% of that dedicated to investments in new capabilities.

Defense spending as a share of GDP in NATO countries



Source: NATO Secretary General's Annual Report 2015

However, more needs to be done for NATO to even begin to compensate for the massive cuts of the past years. In Warsaw, Allied leaders should therefore commit to accelerating implementation of the Wales commitments on defense spending and investment, in order to reach the agreed targets by 2020 instead of 2024. This effort must also be better balanced between Europe and North America as well as among Europeans. In the current environment, NATO cannot afford another crisis of solidarity over the question of burdensharing. The American public and decisionmakers are prepared to defend Europe's security, but they need to see Europeans do more for their own security as well.

Furthermore, increased resources should translate into actual capabilities suited for today's threats. Allies should take better advantage of the valuable forum that NATO provides for the development of shared capabilities – so-called “smart defense”.

Land forces have been most affected by recent cuts in spending and capabilities. Yet, they provide an indispensable dimension of territorial defense. In light of Russia's renewed threat, Allies must reinvest in and modernize their land capabilities.

CONCLUSIONS

Russia's aggression against Ukraine which began in 2014 was a reflection of Russia's rejection of fundamental international laws and norms. This has changed the nature of Russia's relations not just with NATO but with the overwhelming majority of the international community. There is no short-term prospect of a return to a partnership with Russia.

In light of this new situation, at their Wales Summit in September 2014, NATO's leaders set out an ambitious agenda to provide immediate reassurance to Allies and at the same time begin the longer term process of enhancing NATO's deterrent capabilities and posture.

The Summit in Warsaw in July 2016 will allow them to take stock of progress in implementing that agenda and take further steps to respond to the constantly evolving strategic landscape.

It is the contention of this report that a central priority should be further strengthening of NATO's deterrent.

The changed relationship with Russia means that certain key NATO documents – notably the 2010 **Strategic Concept** and 2012 **Deterrence and Defense Posture Review** – have been overtaken by events and **should be updated** to reflect the realities of today's strategic environment.

NATO should reaffirm that it remains a nuclear Alliance and robustly explain the need to extend the life of its tactical nuclear weapons and modernize the means of their delivery as and when necessary bearing in mind that Russia's tactical nuclear arsenal is approximately ten times as large as NATO's.

NATO should take further steps to **enhance** its collective defense capabilities, including by further increases in its **forward presence**.

Allies should **keep under continuous review the balance between rotational deployments, repositioning of equipment, the capacity for rapid reinforcement, and the need for additional permanent facilities** on the territory of Eastern Allies. It should be clear to all that even short of the establishment of permanent bases, forward presence is needed to allow for, and manage, rotational deployments.

Allies should also regularly **exercise collective defense scenarios and practice their governmental decision-making and parliamentary approval processes** to ensure that these would be in keeping with the timescales envisaged for the rapid deployment of forces.

The United States European Reassurance Initiative represents an additional commitment to defense and deterrence. All other NATO members should enhance their commitments in order to provide additional capabilities, enhance deterrence, and help **redress the transatlantic imbalance in providing capabilities and resources to NATO**.

In that regard, **the Wales defense spending pledge** – 2% of GDP for defense and 20% of that for defense investment – **should be seen as a minimum commitment, and Allies should** make every effort to **reach agreed targets** ahead of the original 10-year deadline, **by 2020**.

In order to address the growing threat of the proliferation of weapons of mass destruction and the means of their delivery, **NATO must ensure that its missile defense system meets its schedule for becoming fully operational. Additional efforts should be made to incorporate European contributions to the system.**

Any decision that will be taken in Warsaw on these issues will need to be explained clearly to our citizens. They need to understand the challenges that we face, and what their leaders are doing to address them. It is therefore my intention to revise and update this document following the Warsaw Summit in order to provide an account of the meeting's decisions. It is one of the NATO Parliamentary Assembly's essential missions to help promote transparency and democratic debate on the requirements and priorities of our defense. I offer this document as my contribution.





NATO Parliamentary Assembly

3 Place du Petit Sablon • 1000 Brussels | Belgium
Tel. : +32 (0) 2 513 2865 • Fax: + 32 (0) 2 514 1847
E-mail: press@nato-pa.int • Web site: www.nato-pa.int

