



Deterrence by Reinforcement

The Strengths and Weaknesses of NATO's
Evolving Defence Strategy

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Summary

In 2014, NATO began a transformation from out-of-area crisis management operations to deterrence and defence at home. NATO's current force posture of a limited forward presence on the eastern flank puts a premium on the capability for rapid reinforcement if credible deterrence is to be achieved. However, the practical, legal-bureaucratic and infrastructural obstacles to rapid reinforcements are many.

Within NATO, the many initiatives launched to facilitate reinforcements have created ambiguities and overlapping mandates in the command and force structure. While capabilities have improved, greater access to national forces available at high readiness, early decision-making, enhanced mandates for NATO's commanders, and large-scale deployment exercises seem important to strengthen NATO's evolving defence strategy. At the national level, regular rotations of US forces to the eastern flank have enhanced the US logistic support machinery. European NATO members could invest more in infrastructure and logistical support capabilities.

Fundamentally, NATO's posture and defence strategy are products of its member states' diverse threat perceptions and priorities. Thus, compromises and work-around solutions to maintain Alliance cohesion have created a mix of symbolism and real capabilities. The heart of the issue is whether NATO should aim for deterrence or also prepare for defence, which is more costly.

Keywords: Baltic states, command and control, defence, defence planning, defence strategy, deterrence, EU, Germany, logistics, military mobility, movement, NATO, Poland, readiness, reassurance, reinforcement, sustainment, US.

Sammanfattning

2014 påbörjade Nato en stor omställning från att ha fokuserat på krishanteringsinsatser till att prioritera avskräckning och kollektivt försvar i Europa. Natos närvaro i de baltiska staterna och Polen utgörs för närvarande av små frambaserade förband som behöver understödjas av en förmåga till snabba förstärkningar. Samtidigt finns det många praktiska, legala och infrastrukturella hinder för förstärkningsoperationer.

De många initiativ som lanserats inom Nato för att underlätta förstärkningar har dock skapat otydlighet och överlappande mandat när det gäller lednings- och styrkestrukturen. Förmågan har förbättrats, men ytterligare åtgärder för att ställa förband i hög beredskap, skynda på beslutsfattande och utöka Natos befälhavares mandat, samt storskaliga förstärkningsövningar bedöms som nödvändiga för att stärka Natos framväxande försvarsstrategi. USA har förbättrat sin logistiska förmåga genom att på egen hand genomföra rotationer av amerikanska förband till Central- och Östeuropa. Europeiska Nato-medlemmar skulle kunna investera mer i infrastruktur och logistikförmågor.

I grund och botten är Natos militära närvaro och försvarsstrategi ett resultat av medlemsstaternas skilda hotbilder och prioriteringar. Behovet av att bibehålla sammanhållning har lett till en blandning av symboliska och reella förmågeförbättringar. Frågan huruvida Nato ska sikta på att uppnå avskräckning eller även förbereda sig för försvar, vilket utgör ett dyrare alternativ, är central.

Nyckelord: avskräckning, Baltikum, beredskap, EU, förflyttningar, förstärkning, försvar, försvarsplanering, försvarsstrategi, ledning, logistik, militär rörlighet, Nato, Polen, Tyskland, underhåll, USA, återförsäkring.

Preface

FOI's project on Northern European and Transatlantic Security (NOTS) continuously tracks security and defence policy developments in Sweden's neighbourhood, the rest of Europe, and the United States for the Swedish Ministry of Defence. Developments within multilateral organisations, such as the EU and NATO, constitute an important area of research.

This study follows from a number of analyses undertaken in recent years to assess NATO's ability to respond to a Russian attack on the Baltic states. In 2017, FOI made a comprehensive assessment of Western military capability in Northern Europe, which aimed to identify the forces available and ready to deploy in case of a Russian attack on the Baltics. The present study seeks to deepen the understanding of NATO's ability to move forces to the Baltic states and Poland. Hopefully, the study will contribute to further reflection on future steps to enhance NATO's deterrence and defence posture.

The authors would like to extend their gratitude to all the officials and experts who have shared their knowledge and contributed to the study. Special thanks are due to Per Wikström and Jules Bergman, FOI, who designed the maps and figures in the report. The authors would also like to thank Johan Eellend and Örjan Ström, Swedish Armed Forces, who reviewed the report, for interesting discussions and valuable comments on an earlier draft.

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Acronyms and abbreviations

ABCT	Armored Brigade Combat Team
ACO	Allied Command Operations
ACT	Allied Command Transformation
AFV	Armoured Fighting Vehicle
APOD	Air Point of Debarkation
AWACS	Airborne Warning and Control System
BCT	Brigade Combat Team
CAB	Combat Aviation Brigade
EDI	European Deterrence Initiative
eFP	enhanced Forward Presence
EU	European Union
HQ	Headquarters
JFC	Joint Force Command
JLSG	Joint Logistic Support Group
JSEC	Joint Support and Enabling Command
MNC-NE	Multinational Corps North-East
MND-N	Multinational Division North
MND-NE	Multinational Division North-East
NAC	North Atlantic Council
NFIU	NATO Force Integration Units
NRF	NATO Response Force
NRI	NATO Readiness Initiative
PESCO	Permanent Structured Cooperation
PoD	Point of Debarkation
PoE	Point of Embarkation
RSOM	Reception, Staging and Onward Movement
RSOM&I	Reception, Staging, Onward Movement and Integration
SACEUR	Supreme Allied Commander Europe
SDDC	Surface Deployment and Distribution Command
SHAPE	Supreme Headquarters Allied Powers Europe
SJLSG	Standing Joint Logistic Support Group
SPOD	Sea Point of Debarkation
Ten-T	Trans-European Network
TSC	Theater Sustainment Command
VJTF	Very High Readiness Joint Task Force

1 Introduction

NATO's members face a significantly changed security environment compared to only five years ago. Russia's illegal annexation of Crimea in 2014, the continuing aggression in Eastern Ukraine, and the increasingly aggressive Russian behaviour in NATO's vicinity have put a renewed focus on the collective defence of NATO members' territory. NATO has begun a military transformation, from out-of-area crisis management operations, to deterrence and defence at home. This represents a daunting task that will take time to implement. NATO has to address the significant military modernisation undertaken by Russia since the 2008 war in Georgia and regain the capability to fight against a near-peer adversary. At the same time, NATO members' differing perceptions on how to deal with the threat from Russia and the urgency of undertaking reforms complicate the transformation.

NATO's response to the new security situation has been a balancing act between strengthening its posture on the eastern flank, maintaining the cohesion of the Alliance, and not provoking Russia. NATO has so far attempted to stay in line with the perceived restrictions of the NATO-Russia Founding Act from May 1997, which was agreed by NATO's members and Russia prior to the accession of former Warsaw Pact countries in Central and Eastern Europe to the Alliance. The agreement states, among other things, 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".¹

Contrary to widespread belief, the Founding Act's wording is not specifically linked to the territory of the new members, nor has the meaning of "substantial combat forces" been specified explicitly or implicitly. Moreover, it could be argued that Russia, not least by invading Georgia and Ukraine, has failed to live up to the reciprocity stipulated later in the same clause: "Russia will exercise similar restraint in its conventional force deployments in Europe". Still, some allies prefer both to abide by the agreement and to apply an extensive interpretation of its content, which makes the presence of allied forces on the eastern flank controversial. This has resulted in a search for workaround solutions, such as maintaining a moderate and rotational presence on the eastern flank, and an emphasis on a capability for rapid reinforcement.

Nevertheless, measures adopted at the NATO summits in Wales, Warsaw, and Brussels have moved from providing reassurance to NATO's members on the eastern flank to building a capability for deterrence that may eventually expand to a more robust territorial defence. Currently, NATO's force posture in the North East consists of four multinational battalion-sized battlegroups deployed to the Baltic states and Poland. They are primarily designed and intended as a tripwire force, ensuring an engagement across the Alliance in case of an attack. Although this is seldom mentioned explicitly, they also serve as a link to the nuclear deterrence that underpins the Alliance. In addition to the eFP, the US has increased its force presence on the eastern flank since 2017 by continually rotating forces. This relatively modest forward presence is backed up by an enhanced rapid response capability, consisting of the NATO Response Force (NRF) and including the Very High Readiness Joint Task Force (VJTF), as well as national follow-on forces.²

¹ NATO, Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation signed in Paris, France, 1997. An in-depth discussion of the context, content, and meaning of the NATO Russia Founding Act is found in Alberque, William, "Substantial Combat Forces" in the Context of NATO-Russia Relations, *NDC Research Paper*, No. 131, 2016. See, also, Vershbow, Alexander and Breedlove, Philip M, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, Washington: Atlantic Council, 2019. The workaround character of many of the proposals in Vershbow and Breedlove's report is rather obvious.

² Allers, Robin and Hilde, Paul Sigurd, Is NATO ready? *IFS Insights* No. 11, 2018, p. 5.

NATO's current force posture represents a considerable change compared to what it was during the Cold War. Before the fall of the Berlin Wall, NATO had a substantial force presence in West Germany. Large army formations from the US and European NATO members were placed along the border with the Warsaw Pact. These forces, supported by strong air forces and, if necessary, by tactical nuclear weapons, were supposed to provide deterrence by denial and, in the event of an attack, ensure an across the Alliance engagement. They were supplemented by further reinforcements, with prepared stockpiles of equipment, in case of war. NATO regularly conducted exercises of the large-scale transportation of forces from the US to West Germany during the Reforger exercises.³ However, even during the Cold War, threat perceptions differed between NATO's members, with the US and the European members recurringly debating the military's preparedness to handle a conflict.

After the collapse of the Soviet Union, the US and other NATO members substantially reduced their military footprint in Europe. The national formations were replaced by multinational groupings led by rapidly deployable commands that would be able to undertake a broader set of tasks, including global crisis management operations.⁴ Even though NATO developed plans to defend Poland, the enlargement of the Alliance in 1999 and 2004, did not result in any major changes to NATO's defence strategy or force posture.⁵

Today, many commentators argue that the resulting conventional force imbalance, in Russia's favour, on the eastern flank may have given Russia a window of opportunity for a quick and limited attack on NATO territory, thereby establishing a *fait accompli*. Russia's ability to act swiftly in its neighbourhood with conventional forces, and NATO's ability to counteract, have resulted in a time-distance gap, to NATO's disadvantage.⁶ Seeking to address this gap, NATO leaders, at the Brussels summit in July 2018, emphasised the need to increase the responsiveness of NATO's political and military decision-making, heighten the readiness of national forces, and improve the capability for moving reinforcements across NATO territory.⁷

In sum, the measures undertaken by NATO, both within the organisation and by individual NATO members, are parts of an evolving defence strategy. Alexander Vershbow and Philip Breedlove argue that since 2014 NATO has moved towards a strategy of deterrence by rapid reinforcement.⁸ However, Sara Bjerg Moller points to the lack of an overall strategy for the measures adopted and the risk of overlapping mandates between new entities in the NATO command and force structure.⁹ This study delves further into the components that form NATO's evolving defence strategy.

1.1 Aim and research questions

The aim of the study is to analyse NATO's capability to send reinforcements to the eastern flank. It examines the reforms undertaken within NATO to facilitate reinforcements as well as the practical conditions for moving ground forces from the US and Western Europe to the Baltic states and Poland. The study is guided by the following research questions:

³ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 23.

⁴ Moller, Sara Bjerg, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, *NDC Policy Brief*, No. 11, 2019, p. 2-3.

⁵ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, Tallinn: International Centre for Defence and Security, 2019, p. 1.

⁶ Boston, Scott et al., *Assessing the Conventional Force Imbalance in Europe: Implications for Countering Russian Local Superiority*, RAND Corporation, 2018, RR-2402, p. 1-2 and Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 30-31.

⁷ NATO, Brussels Summit Declaration, 11-12 July 2018, paragraph 12-17.

⁸ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 30-31.

⁹ Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 5-7.

- What measures have NATO adopted to improve the capability to send reinforcements to the eastern flank and what is the status of implementation?
- What are the current time frames for moving reinforcements from the US and Western Europe to the eastern flank?
- What are the major strengths and weaknesses of NATO's evolving defence strategy?
- What additional measures could be envisaged to enhance NATO's deterrence and defence posture?

1.2 Key concepts

The study takes its departure in a conceptual model of factors influencing NATO's capability for reinforcement. It takes into consideration factors highlighted in previous studies that sought to assess NATO's ability to respond to a Russian attack on the Baltic states.¹⁰ The key factors identified for assessing NATO's capability for reinforcements are:

- Availability and readiness of national forces;
- NATO command and control, including decision-making, mandates, planning;
- Ability to move forces to the area of operations;
- Protection and logistical support to the movement of forces and to the forces in the area of operations;
- Exercises.

The study seeks to cover all these aspects, but the emphasis differs between the chapters. The main focus is to evaluate the capability to move forces from the US and across Europe. The analysis relating to NATO decision-making does not cover the topical issue of whether allies in fact can agree to take action in a crisis, but focuses on processes and procedures that ensure that decisions can be taken at short notice.

The study furthermore takes its departure in the relevant NATO doctrines on logistics, particularly relating to movement and transportation. NATO distinguishes between three types of military movement:

- National movement encompasses the movement of forces from their home base to the point of embarkation (PoE) and is a national responsibility.
- Strategic movement starts at the PoE and ends at the point of debarkation (PoD). This movement is a shared responsibility between NATO (coordination and prioritisation), nations (planning and transports), and host nations (facilitation of border crossings).
- Operational movement starts at the PoD and ends at the area of operations. NATO commanders are responsible for the operational movement in coordination with nations and host nations.¹¹

An important part of the operational movement is the reception, staging, and onward movement of forces (RSOM). Through this process, units, materiel, equipment, and personnel are transferred from their PoDs to their final destination in the area of operations. Put shortly, RSOM involves:

¹⁰ See Pallin, Krister (ed.) et al., *Västlig militär förmåga: En analys av Nordeuropa 2017* [Western Military Capability: An analysis of Northern Europe 2017], Stockholm: Swedish Defence Research Agency, 2018, FOI-R--4563--SE and Shurkin, Michael, *The Abilities of the British, French and German Armies to Generate and Sustain Armored Brigades in the Baltics*, RAND Corporation, 2017, RR-1629-A, and Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*.

¹¹ NATO Standardization Office, *Allied Joint Doctrine for Logistics*, December 2018, p. 5-3f.

- Reception of forces from strategic lift assets through handling areas to staging areas in the PoD.
- Staging areas where units are held to assemble, organise, and prepare for onward movement.
- Onward movement of self-sustaining units, materiel, and personnel who provide their own protection, from staging areas to the area of operations.¹²

Reception, Staging and Onward Movement (RSOM)

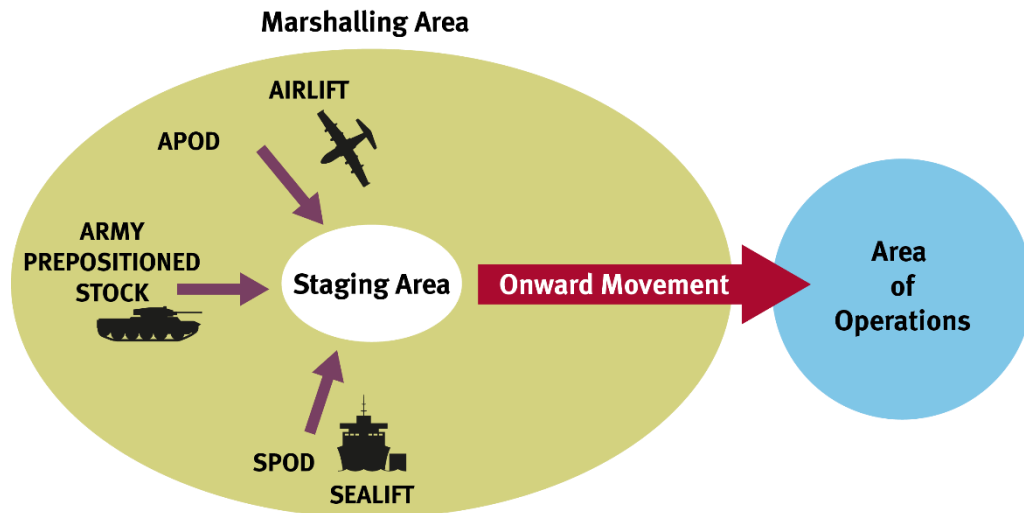


Figure 1: Reception, Staging and Onward Movement (RSOM). Inspired by Green, Eloisa, Reception, Staging, Onward Movement and Integration, Center for Army Lessons Learned, No. 97-7.

The main part of RSOM activity is conducted at the PoD, but iterations of staging and onward movement continue throughout the deployment. The main activities are outlined in Figure 1. RSOM activities are the responsibility of the operational commander, usually conducted by the Joint Logistic Support Group (JLSG). These activities can be complemented by integration, i.e. RSOM&I, which entails a transition to combat readiness, placing units at the operational commander's disposal.¹³ Integration is a task of the operations section of the operational command, rather than the JLSG.¹⁴

Although the process of moving forces might seem clear-cut, according to the doctrines, there are overlapping responsibilities, between NATO commanders, troop-contributing nations, and host nations, which may complicate reinforcements. The question of where in continental Europe the movement of forces would shift from strategic movement to operational movement may differ depending on the situation and on which PoD is used. In the case of a conflict, the command and control of forces is also complicated by the fact that the forces currently present on the eastern flank are either part of NATO's multinational formations or purely national formations. If a coalition of the willing, rather than NATO, responds to an attack, other command and control arrangements would likely come into play.

¹² NATO Standardization Office, *Allied Joint Doctrine for the Joint Logistic Support Group*, December 2018, p. 3-2f.

¹³ NATO Standardization Office, *Allied Joint Doctrine for the Conduct of Operations*, February 2019, p. 2-13.

¹⁴ NATO Standardization Office, *Allied Joint Doctrine for Logistics*, p. 4-2.

1.3 Method

The present analysis of NATO's capability to send reinforcements to the eastern flank is divided into two parts. The first takes a top-down approach, examining reforms adopted or being discussed in NATO to enhance the capability for reinforcement. The analysis covers NATO decisions since 2014, with a particular focus on reforms discussed in 2018 and 2019.

The second part of the study uses a bottom-up methodology and examines the time frames and practical steps involved in deploying heavy ground forces from the US and Western Europe to NATO's North East. This part includes three case studies, in the form of real force movements that have been undertaken either as part of rotational deployments or as part of exercises during the first half of 2019. It examines the movement of a US heavy brigade and its equipment from the US to Poland during a planned rotation, the movement of a German heavy brigade and its equipment from Germany to Poland as part of a NATO exercise, and a short-notice deployment of a reduced brigade from the US to Poland, falling in on equipment prepositioned in Europe.

The bottom-up approach, of examining a few cases of force movements to NATO's North East, was chosen for several reasons. Firstly, it constitutes a viable way of understanding and collating estimates of actual deployment times, information which is often not publicly available or collated in a coherent and uniform manner.¹⁵ Secondly, it is a way of indirectly assessing what reinforcements, military movements, and logistics operations might look like in the event of crisis, or war. In this, the study contributes to establishing a baseline, which can be used in estimating deployment times in crisis and war.

1.4 Assumptions and delimitations

The examination of NATO's capability to send reinforcements to the eastern flank is based on a number of assumptions and delimitations. The analysis focuses on conventional reinforcements to the Baltic states and Poland. It does not cover nuclear capabilities or nuclear deterrence as such. Neither does it cover measures taken to facilitate reinforcements to northern Norway or the southern part of the eastern flank, e.g. to Romania and Bulgaria. The study uses the notion "eastern flank" to signify NATO's eastern border area in Europe, even though the term is undefined and somewhat misleading as it implies that there is another main direction of confrontation.

The first part of the study focuses on NATO reforms that aim to strengthen the combined capability for reinforcement, largely leaving aside the capabilities of individual member states. In contrast, the second part of the study is based on a selected number of case studies, putting the national capabilities of the US and Germany in focus. Consequently, several other countries with similar capabilities have been left out of the study.

The aim of the case studies in the second part of the report is to examine the actual deployments of armoured formations capable of dealing with a near-peer adversary in NATO's North East. The ability to send military reinforcements against the backdrop of a serious crisis, or a war, with Russia is of particular interest. Arguably, the response to an attack by a mechanised force would likely be a joint operation, involving all branches of the armed forces. However, this study focuses on the deployment of heavy ground forces, as they would be critical to the success of the response and most likely take the longest to deploy. The analysis does not cover the deployment of airborne units, as their movement is more contingent upon the circumstances (peace, crisis, or war). For the same reason, the study does not involve air and maritime forces, even though they would be important to offset any ground force imbalance. They would equally be crucial to support and protect the transportation of ground forces. Given these delimitations, the case studies only cover

¹⁵ Shurkin, *The Abilities of the British, French and German Armies to Generate and Sustain Armored Brigades in the Baltics*, p. 2.

deployments to Poland; those likely constitute a first step in reinforcing NATO's North East with heavy ground forces.¹⁶

The case studies furthermore examine the peacetime deployment of forces. This means that current policy postures, normal jurisdiction, and peacetime procedures for planning and movement of forces are in place. Such an analysis is relevant for initial reinforcement operations that might be sent forward long before special wartime jurisdiction is activated. A valid question only partly addressed is what value the analysis of peacetime rotational reinforcement operations and exercises have for judging capabilities in a crisis or war. Some political, legal, and procedural obstacles are likely to be removed should an escalated military situation emerge on the eastern flank. Other frictions relating to physical infrastructure, current force availability, and the level of joint logistics training are more difficult to overcome. Adversary-initiated non-conventional operations to delay or sabotage reinforcement operations would present considerable challenges, as might logjams caused by urgency, confusion, and the prospect of enemy action. Finally, actual enemy military action to limit or delay reinforcements, e.g. dropping bridges or bombing ports, might radically change the capability to deploy troops to the Baltic states and Poland. None of these issues are extensively covered in the study, although they are touched upon. Finally, the case studies do not address the ability of reinforcing nations and host nations to protect the movement of forces and sustain forces in theatre. These are crucial capabilities that require further study, but that fall outside the focus of the case studies.

1.5 Sources

The study draws on several types of sources. The published sources include official NATO declarations, NATO doctrines, research reports, shorter analytical pieces, and news articles. In addition, a few semi-structured non-attributable interviews were held with officials in Stockholm and Brussels to deepen the understanding of the official picture. They serve to complement the written sources. A list of the organisations and entities interviewed is provided in the bibliography.

Given that the actual reinforcement and contingency plans in the case of a crisis or war are classified, the study has drawn on a number of open sources to obtain an idea of the time frames and logistical steps involved in moving forces from the US and Western Europe to the eastern flank. This includes information published by the US and German armed forces on the Internet and social media. A list of the web pages used in the study is included in the bibliography.

Using social media accounts of military units to map deployments constitutes an explorative approach, which provides an opportunity to follow each step of a rotation in greater detail. An associated risk is that the units under study omit some parts of their movements from their respective social media outlets.

1.6 Structure of the report

Following the introduction, Chapter 2 takes a top-down approach, to analyse the measures adopted and discussed within NATO to strengthen the capability for reinforcement. To start with, the chapter outlines the decisions taken since 2014, during the NATO summits in Wales, Warsaw, and Brussels. Thereafter, NATO reforms related to the identified key factors influencing the capability for reinforcements and their status of implementation are discussed in their respective sections.

¹⁶ The potential impact of Western airpower on Russian ground forces in the context of a battle for the Baltics is analysed in a forthcoming study: see Dalsjö, Robert *Västliga fjärrstridskrafter: En operationsanalytisk studie av kapaciteten för markmålsbekämpning vid krig i närområdet* [Western Air Power – An assessment of the capacity for attack of ground targets in case of war in the Baltic region], Stockholm: Swedish Defence Research Agency, 2019, FOI-R--4798--SE.

Chapter 3 uses a bottom-up methodology to analyse, specifically, the time frames and logistical steps involved in deploying heavy ground forces from the US and Western Europe to NATO's North East. This is done by examining three cases of force movements to Poland.

Chapter 4 discusses the overall conclusions that can be drawn from employing top-down and bottom-up perspectives on NATO's capability for reinforcement. It seeks to address the following questions: How far has NATO come in the transformation to deterrence and defence at home? What are the strengths and weaknesses of NATO's evolving defence strategy? What further measures could be envisaged?

2 Strengthening NATO's capability for reinforcements

This chapter employs a top-down approach to analyse NATO measures adopted since 2014. It explains the historical background to NATO's current force posture and defence strategy, and then utilises the conceptual model of factors influencing the capability for reinforcement, introduced in Chapter 1, to review recent NATO initiatives. The focus is on NATO, but also contributes to the overall picture by including bilateral measures adopted by the US and actions undertaken by the EU.

2.1 An evolving defence strategy

The accession of Poland and the Baltic states, among others, to NATO in 1999 and 2004 did not result in any forward deployment of troops to the territory of the new member states. Even though NATO initially developed plans to defend Poland, which in 2010 were expanded to the Baltic states, the overall trend was a downsizing of allied forces in Europe and a shift of focus towards expeditionary operations outside of Alliance territory. Nevertheless, NATO established a token presence to support its new members. This included the Baltic Air Policing mission set up in 2004 to protect the air space of the Baltic states, a joint force training centre in Bydgoszcz, and the Multinational Corps Northeast (MNC-NE) HQ in Szczecin, to support the transformation of the Polish Armed Forces.¹⁷

In the spring of 2014, NATO's initial reaction to Russia's illegal annexation of Crimea and aggression in Eastern Ukraine was a set of reassurance measures aiming to demonstrate the Alliance's support to the countries on the eastern flank by enhancing the military activities and exercises in the region. NATO strengthened the Baltic Air Policing mission, deployed NATO Airborne Warning and Control System (AWACS) aircraft to operate over Poland and Romania and sent two maritime groups to patrol the Baltic and Mediterranean Seas. The US, together with other allies, deployed additional forces to conduct military exercises in the Baltic states and Poland. The US established a forward presence of one airborne infantry company in each of these countries, using forces already based in Europe.¹⁸

Subsequently, at the summit in Wales, in September 2014, the NATO leaders adopted a Readiness Action Plan, combining the reassurance measures on the territories of the eastern members with more long-term measures to enhance NATO's rapid response capabilities and the command structure. NATO decided to triple the size of the NATO Response Force (NRF), from 13,000 to 40,000 soldiers, including a Very High Readiness Joint Task Force (VJTF), consisting of a brigade-sized formation and supported by maritime and air force elements, which is supposed to be able to deploy within 5–7 days. NATO's standing maritime forces were also strengthened.¹⁹ In addition, NATO upgraded the MNC-NE HQ, in Szczecin, to a status of higher readiness in order to support activities in the region. The MNC-NE HQ has a declared regional focus, even though NATO has not assigned formal areas of responsibility in its current command structure. Furthermore, in February 2015, NATO defence ministers agreed to establish small military staff units, NATO Force Integration Units (NFIUs), in the countries on the eastern flank. They were tasked to support defence planning, coordinate training activities and exercises, and facilitate the deployment of the VJTF and the NRF to the countries on the eastern flank.²⁰

¹⁷ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe* p. 23.

¹⁸ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 24.

¹⁹ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 2.

²⁰ Moller, *Building the airplane while flying: adapting NATO's force structure in an era of uncertainty*, p. 4.

In the run up to the Warsaw summit in July 2016, NATO's limited forward presence was judged to be insufficient to provide deterrence on the eastern flank. At the summit, NATO leaders decided to establish an enhanced Forward Presence (eFP) in the Baltic states and Poland, consisting of four multinational battalion-sized formations led by a framework nation. Between January and April 2017, the eFP battlegroups led by the United Kingdom, Canada, Germany, and the US replaced the US infantry companies in the Baltic states and Poland. Most of the other NATO members contribute to the eFP rotations on a regular basis and in total the eFP amounts to approximately 4,800 soldiers.²¹ Following the Warsaw summit, Poland proposed to establish a Multinational Division North-East (MND NE) HQ in Elblag, Poland, to act as a divisional-level command between MNC NE HQ and the eFP battlegroups. The MND NE HQ was activated in late 2017 and coordinates the training activities of the eFP.²²

The multinational eFP battlegroups were essentially designed as a tripwire force, which would ensure an engagement across the Alliance in the case of an attack, linking an attack on them – not only, but importantly – to strategic nuclear deterrence.²³ Their continuous presence and close link to the national forces in the Baltic states and Poland also mean that they might directly help defend NATO territory against an aggression, and thus conceivably act as a speed-bump as well as a tripwire.²⁴ However, the forward presence needs to be underpinned by a viable capability for reinforcement, both in order to provide credible deterrence and to provide options for counteraction in a crisis. This became the focus of the Brussels summit, in July 2018, which launched a number of measures to enhance NATO's responsiveness, readiness, and reinforcement.

In order to improve political and military responsiveness, NATO leaders agreed to strengthen the Alliance's intelligence-sharing, strategic awareness, advance planning, and decision-making. Seeking to establish a culture of readiness, NATO leaders adopted a readiness initiative, based on the so-called Four Thirties plan proposed by the US, to heighten the readiness of European forces. The initiative requires NATO allies to be able to deploy 30 manoeuvre battalions, 30 air fighter squadrons, and 30 major naval combatants, with enabling forces, within 30 days or less. In order to facilitate reinforcements across NATO territory, the summit supported a number of measures outlined in the Enablement Plan for the Supreme Allied Commander Europe's (SACEUR) Area of Responsibility. Both the EU and NATO adopted a military mobility pledge to facilitate cross-border movement in Europe.²⁵

Furthermore, NATO leaders agreed to reform the NATO command structure and establish a Joint Force Command (JFC) in Norfolk, in the US, to protect the sea lines of communication and transport between North America and Europe, and a Joint Support and Enabling Command (JSEC), in Ulm, Germany, to facilitate, not least, the movement of troops across Europe. In order to strengthen command and control on the eastern flank, NATO supported the establishment of a Multinational Division North (MND-N) HQ by Denmark, Estonia, and Latvia. The new divisional level command will have a forward location in Adazi, Latvia, and a rear facility in Karup, Denmark.²⁶

²¹ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 2.

²² Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 4.

²³ The logic of a tripwire force is not so much about making an aggressor trip, but in ensuring a meaningful engagement from the country or countries that have provided the tripwire force. This was famously captured by an exchange between the French and the British general staffs in the run-up to 1914. – “What is the smallest British military force that would be of any practical assistance to you?” – “A single British soldier – and we will see to it that he is killed”. See Tuchman, Barbara W., *The Guns of August*, New York: Macmillan Company, 1962, p. 49.

²⁴ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 5-7.

²⁵ NATO, Brussels Summit Declaration, 11-12 July 2018, paragraph 13-17.

²⁶ NATO, Brussels Summit Declaration, 11-12 July 2018, paragraph 29-30.

In the coming years, NATO will most likely continue to adapt to the new security situation and take further measures to develop its deterrence and defence. New initiatives are likely to be launched during the NATO Leaders meeting in London, scheduled for December 2019.

2.2 Availability and readiness of national forces

In peacetime, all military forces available to NATO, with the exception of a few jointly operated capabilities, are under national command. The measures taken since 2014 have attempted to increase the availability of forces that would be able to respond to a crisis or war on the eastern flank. The multinational eFP battlegroups deployed to the Baltic states and Poland, together with the national forces in these countries, are to constitute a first line of defence in a crisis.

The eFP battlegroups are multinational battalions reinforced by combat support and combat service support. They have their own staff elements and are deployed together with heavy equipment, e.g. tanks, infantry fighting vehicles, and artillery. According to recent reports, the eFP battlegroups are well-integrated into the host nations' brigades in peacetime and contribute to national defence efforts. The fact that several NATO members regularly provide rotations of forces to the eFP may also increase the pool of fully equipped and trained national forces. However, it is uncertain whether all eFP units are configured to fight, or have the authority to fight, as some NATO members primarily view the eFP as either a gesture of solidarity, or a training activity.²⁷ Furthermore, the eFP battlegroups might have to await a NATO and/or national decision to take action in a crisis or conflict. If NATO assumes responsibility for an operation, the contributing nations would have to transfer authority over their forces to SACEUR. There is currently no streamlined process for doing this.²⁸

In addition to the eFP, the US has significantly increased its rotational force presence on the eastern flank since 2014. These forces would play an essential role in any crisis. The large US force presence in Germany during the Cold War was significantly reduced after the collapse of the Soviet Union. After the withdrawal of its last two heavy brigades stationed in Germany as well as the remaining US tanks and heavy equipment in 2012, the US army had only two light brigade combat teams left in Europe.²⁹ However, as noted above, the US, rapidly responded to the illegal Russian annexation of Crimea by deploying company-sized units to Estonia, Latvia, Lithuania, and Poland. In addition, it reinforced the Baltic Air Policing with six F-15s and deployed an aviation detachment of twelve F-16s to Łask, Poland, by redistributing forces already present in Europe. These deployments were part of the US Operation Atlantic Resolve and were funded by the European Reassurance Initiative.³⁰

In 2017, the US started rotational deployments of forces from the US to the eastern flank. This represents a shift from reassurance to deterrence and is funded by the consequently renamed European Deterrence Initiative (EDI). As part of Operation Atlantic Resolve, the US regularly undertakes three types of rotational deployments to Europe:

- an Armored Brigade Combat Team (ABCT);
- a reduced Combat Aviation Brigade;
- a Sustainment Task Force.

The ABCT consists of approximately 3500 soldiers and has its HQ in Żagan, Poland. It continually rotates detachments and conducts exercises across the countries on the eastern

²⁷ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 2-3, 6-7 and 11.

²⁸ Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 8.

²⁹ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 23.

³⁰ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 26.

flank. The rotating Combat Aviation Brigade is made up of 1900 soldiers, who operate attack/reconnaissance and medium- and heavy-lift helicopters. The brigade's base is in Germany, but parts of it are forward deployed to Powidz, Poland, and Lielvarde, in Latvia. The battalion-sized logistics force, the Sustainment Task Force, consists of approximately 900 soldiers. A Division Tactical Command Post in Poznan, Poland, serves as HQ for the rotational US deployments to the eastern flank. In addition, the US armed forces are building a missile defence interceptor site in Redzikowo and operate reconnaissance drones out of Mirosławiec airbase.³¹

The US presence in NATO's North East is thus primarily concentrated in Poland, with rear facilities in Germany. In part, this is the result of a lack of infrastructure and space to support an enhanced US presence in the Baltic states, but the chosen approach also reflects the fact that political and military considerations have made the US reluctant to place forces closer to the Russian border. The current force posture is judged to be in line with even an extensive interpretation of the NATO-Russia Founding Act from 1997. In this sense, Polish territory constitutes an attractive middle ground and it is an important staging ground for activities on the entire eastern flank.³² The NATO and US force presence in Poland and the Baltic states is outlined on Map 1.

In a crisis, the forces already in place on the eastern flank are supposed to be reinforced by the rapid response capabilities assigned to the NRF. The brigade-sized formation constituting the VJTF is a spearhead force, tasked to be ready to deploy within 5–7 days. The two brigades that are either preparing to stand up or stand down from the VJTF make up the Initial Follow-On Forces Group that should be ready to deploy within 30–45 days. In addition, the NRF has a Reserve Forces Pool, with lower readiness.

The large European NATO members take turns acting as framework nations of the VJTF and contribute the core of the brigade-sized battle group held at high readiness. Other NATO members and partners contribute additional forces or capabilities. In 2019, Germany is acting as the framework nation of the VJTF and contributes the main part of an armoured brigade, complemented by units from Norway and the Netherlands. As in the case of eFP, the certification process and exercises related to the NRF and VJTF may contribute to an increased readiness of national forces.

In addition to the NRF, individual NATO members are supposed to be able to deploy national follow-on forces in the event of a crisis or war. These forces are not identified beforehand, but need to be made available during a force-generation conference. The NATO Readiness Initiative (NRI) launched at the Brussels summit aims to raise the culture of readiness and identify forces available to NATO commanders in a crisis.³³ The ambition is to add forces consisting of up to 80,000 soldiers to the already existing NRF by 2024.³⁴ The initiative was mainly pushed by the US and there is some resistance among European NATO members to assign forces to the NRI, as they have only a limited number of forces with higher readiness, which might be needed for other operations.

³¹ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 4 and Egnash, Martin, Troops Arrive in Europe in time for anniversary of D-day. *Stars and Stripes*, February 21, 2019 and Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 29.

³² Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 35.

³³ NATO, Brussels summit declaration, 11-12 July 2019, paragraph 14.

³⁴ Bramsen, Trine, Orientering om danske tilmeldinger til NATO Readiness Initiative og NATO Response Force, Forsvarsministeriet, September 9 2019.



Map 1: NATO and US presence in the Baltic states and Poland.

The purpose of the NRI is to increase the readiness of existing forces and facilitate SACEUR's operational planning. It is a reaction to the longer-term NATO defence planning process, which has failed to deliver forces at higher readiness. The forces offered to the NRI are supposed to go beyond the forces already assigned to the eFP and NRF, including the VJTF, but will most likely draw on already existing multinational and national units held at higher readiness. In June 2019, NATO member states pledged contributions at a force generation conference. This was followed by dialogue between NATO's political and military structures and individual NATO members to fill the required numbers. The national forces needed will most likely be identified before the NATO Leaders' Meeting in London, in December 2019. Reaching the required readiness levels of 30 days or less will, however, constitute a significant challenge in implementing the initiative.³⁵

Other uncertainties regarding the implementation of the NRI concern how the identified forces should be organised in larger formations and how they should train and conduct exercises. It is furthermore unclear how the forces identified in the NRI would organisationally relate to the NRF, including the VJTF. For example, they could significantly increase NATO's rapid response capability by forming a second VJTF. This would enable a deployment in two directions and create an opportunity for regionally aligned rapid response forces. However, NATO has so far been reluctant to assign regional responsibilities to its headquarters and forces. For political reasons, NATO seeks to maintain alliance cohesion by keeping in line with its 360 degree approach and to avoid provoking Russia.³⁶

To conclude, the response to a crisis on the eastern flank would most likely be made up of a mix of multinational and national forces held at various degrees of readiness. This state of affairs could complicate command and control, which is discussed in the following section.

2.3 NATO command and control

For a long time, US officials have complained that NATO's political decision-making would be too slow in response to a crisis. This stems from the fact that decisions in the North Atlantic Council (NAC), where all NATO members are represented, are taken by consensus and that many nations require parliamentary approval before deploying their national forces. However, other commentators point out that the NAC has been able to take decisions quickly when needed, for example after 9/11. Nevertheless, discussions are ongoing in NATO HQ on how to ensure that the NAC can meet and take action at short notice.³⁷

An equally important question, however, regards the measures that NATO as an organisation can take prior to the eruption of a crisis and the authority that is delegated to its highest commander in Europe, SACEUR, to prepare forces, before a decision can be taken in the NAC.³⁸ A key issue in enabling rapid decision-making is to improve intelligence-sharing and to identify and agree upon indications and warnings that would authorise SACEUR to begin mobilisation and prepare the deployment of forces. During the Cold War, SACEUR had permanent authority to deploy NATO-assigned forces once an activation warning order had been declared. Today, NATO's reaction to any upcoming crisis follows the NATO Crisis Response System, in which a limited number of measures have been permanently delegated to SACEUR. He can only undertake other measures once the NAC has decided to take further action. For example, SACEUR has the authority to alert,

³⁵ Interviews, Stockholm and Brussels, June 2019.

³⁶ NATO's 360 degree approach to deterring threats and defending allies against any adversary was coined in 2015 to demonstrate Alliance solidarity and maintain its cohesion. It is seen as a workaround solution to Southern and Northern allies' diverse threat perceptions, through which Southern allies contribute to deterrence measures in the Baltics and Poland, and Northern allies contribute to crisis management operations and border security in the South. See Allers and Hilde, *Is NATO ready?* p. 3.

³⁷ *The Economist*, NATO at 70, March 16 2019 and Allers and Hilde, *Is NATO ready?* p. 6 and Interviews, Stockholm and Brussels, June 2019.

³⁸ Allers and Hilde, *Is NATO ready?* p. 6.

prepare, and stage, but not deploy, the VJTF as well as to move the jointly-operated AWACS and NATO's standing maritime forces.³⁹

NATO's response to a crisis takes its departure in the existing plans for defending NATO territory. NATO's defence planning for the countries on the eastern flank has gradually evolved over the past ten years.⁴⁰ The first NATO contingency plans drawn up for Poland were expanded to include the Baltic states in 2010.⁴¹ At the Wales summit in 2014, NATO decided to initiate more detailed advance planning for deterrence, rapid reinforcement, and collective defence. Since then, NATO has developed a set of Graduated Response Plans, covering different parts of NATO's border area with Russia, from Northern Norway, through the Baltics, Romania, Bulgaria, and Turkey to the Mediterranean. As NATO's defence planning is classified, it is difficult to assess how elaborate the plans for defending NATO's territory are. However, recent exercises have reportedly tested the Graduated Response Plans and demonstrated that the plans for example need to be tied closer together at the strategic level.⁴²

In addition, the NATO command structure has undergone gradual changes since 2014, in order to strengthen NATO's capability for collective defence. The two new operational commands launched in Brussels – JFC Norfolk and JSEC in Ulm – will be under national command in peacetime but, upon a transfer of authority, will become part of the NATO command structure in a crisis.⁴³ In total, the adaptation of the command structure has added 1200 posts to the NATO structure, which now has 8000 posts.⁴⁴ However, it is important to keep in mind that NATO members have historically had problems in filling all the posts in the agreed command structure.

NATO's command structure currently consists of two strategic commands: Allied Command Operations (ACO), responsible for operations, and Allied Command Transformation (ACT), responsible for the development of allied forces and capabilities. The ACO is made up of a number of headquarters at strategic, operational, and tactical levels. SACEUR exercises the overall command of operations and executes his responsibilities from the Supreme Headquarters Allied Powers Europe (SHAPE), in Mons, Belgium. SACEUR is also double-hatted as the commander of all US forces in Europe.

SACEUR can assign the command of an operation to one of the two operational commands – either the JFC Brunssum, in the Netherlands, or the JFC Naples, in Italy – or to the respective air, land, and maritime component commands. In addition, SACEUR has access to a NATO Communications and Information Systems Group and a Standing Joint Logistic Support Group in order to ensure communications and logistic support to operations.⁴⁵ See Figure 2 for an overview of the adapted NATO command structure.

³⁹ Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 32 and Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 8 and interviews, Stockholm and Brussels, June 2018.

⁴⁰ According to Fredrik Lindvall, drawing on congressional sources, these plans have been elaborated with studies from RAND as a basis. Lindvall, Fredrik, Luftoperationer och Väpnad konflikt i Nordeuropa: Reflektioner kring förutsättningar och konsekvenser, *Kungl. Krigsvetenskapsakademiens Handlingar och Tidskrift*. No. 2, 2019.

⁴¹ Traynor, Ian, Wikileaks cables reveal secret Nato plans to defend Baltics from Russia, *The Guardian*, December 6 2010.

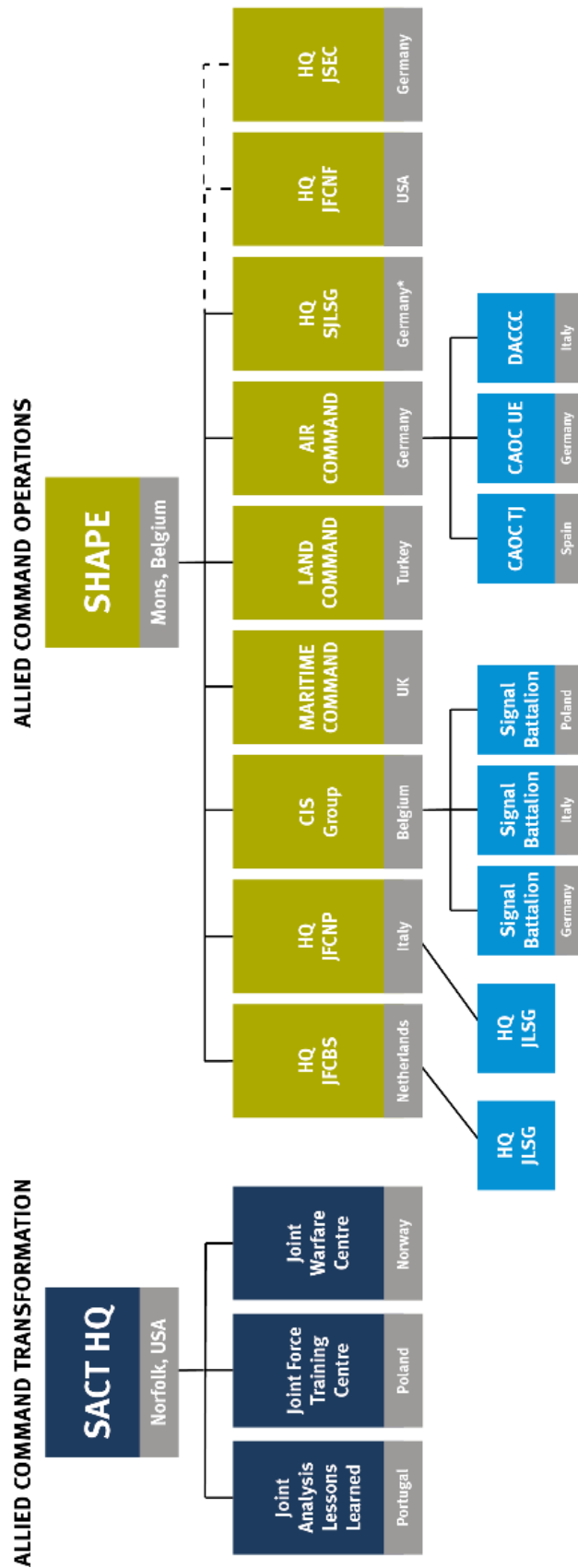
⁴² Allers and Hilde, Is NATO ready? p. 4-5.

⁴³ These new commands are discussed in greater detail in Sections 2.4 and 2.5 respectively.

⁴⁴ Interviews, Stockholm and Brussels, June 2019.

⁴⁵ Olshausen, Klaus, NATO's Readiness Action Plan for Assurance and Deterrence – Progress & Challenges on the Road from Wales to Warsaw, *ISPSW Strategy Series*, No. 402, 2016, p. 3.

Adapted NATO Command Structure 2018



- JFCBS Joint Force Command Brunssum
- JFCNP Joint Force Command Naples
- JFCNF Joint Force Command Norfolk
- JSEC Joint Support and Enabling Command
- SJLSG Standing Joint Logistic Support Group
- JLSG Joint Logistic Support Group
- CAOC TJ Combined Air Operations Centre Torrejon
- CAOC UE Combined Air Operations Centre Uedem
- DACCC Deployable Air Command and Control Centre

*Currently in Belgium.

Figure 2: Adapted NATO Command Structure.

Since 2014, NATO has strengthened the regional focus of the command structure, albeit without assigning regional areas of responsibilities, as was the case during the Cold War. The regional focus of the commands means that JFC Brunssum primarily maintains situational awareness and oversees NATO's activities in the northern part of Europe.⁴⁶ But below that level, as outlined earlier, command arrangements seem both complicated and convoluted, with several commands competing for command of rather few troops.⁴⁷

The presence of several commands at different levels has created uncertainties regarding the command and control of the multinational forces in NATO's North East in the event of a conflict. The regionalisation of the command structure might alleviate this, but it is still not given which land force command will be assigned to lead the units already deployed to the region, or to lead a deployment of the NRF or the VJTF to the Baltic states and Poland. The latter task could either be delegated to the regionally focused MNC NE HQ or the land force command on standby for the particular NRF and VJTF-rotation.⁴⁸ Furthermore, it is unclear how the command of the US, British, Canadian, and German forces present on the eastern flank would coordinate with the respective NATO commands in case of a crisis or war. NATO members may choose to act nationally or as a coalition of the willing, at least before a NATO operation is launched. This is most likely an important reason for those countries on the eastern flank that are seeking to promote bilateral defence ties with the US and other allies, in addition to the established NATO presence.

2.4 Military mobility

The 2018 Brussels summit put a renewed focus on military mobility. Forces capable of deploying quickly from the US and Western Europe are necessary if the tripwire forces deployed to the eastern flank are going to have the desired deterrent effect. However, many years of post-Cold War out-of-area operations left European military transport infrastructure, logistics, and bureaucracy to wither.

Movement of forces to and within Europe is wrought with many challenges and difficulties, even in peacetime, when the need for protection may be more or less excluded. The obstacles are two-pronged: infrastructural-logistical and legal-bureaucratic. The shortcomings range from roads, railways, and bridges that cannot support heavy military equipment to overly complicated customs and border-crossing procedures and regulations. Commanders complain about having to account for every vehicle and its contents when crossing European borders, thus decreasing the speed of force assembly. Time-consuming procedures, such as gaining diplomatic clearance, dealing with transport safety, and adhering to widely different hazardous materials and ammunition transport standards in different transit countries create friction. A 2017 US Army study concludes that today's "reality is that it is extremely difficult to provide sustainment to exercises and forces deployed into Eastern Europe and the Baltic regions due to cumbersome and time-consuming requirements to gain diplomatic

⁴⁶ NATO, Wales Summit Declaration, paragraph 9 and interviews, Stockholm and Brussels, June 2019.

⁴⁷ Under JFC Brunssum, the MNC-NE HQ, in Szczecin, Poland, constitutes a hub for regional cooperation and for the coordination of the eFP battlegroups deployed to the Baltic states and Poland. Poland has also set up the divisional level MND-NE HQ in Elblag to supervise and coordinate the training activities of the four eFP battlegroups. In addition, Denmark, Estonia, and Latvia have decided to establish the divisional level MND-N HQ with a forward location in Adazi, Latvia. The MND-N HQ will be responsible for command and control of the eFP battlegroups in Estonia and Latvia as well as other Danish, Estonian, and Latvian land forces. Furthermore, the NFIUs established in the Baltic states and Poland serve as a link between the host nation and the allies deploying forces to these countries. The NFIUs are also tasked to facilitate the rapid deployment of the NRF, including the VJTF; support defence planning; and coordinate training and exercises. Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 2, 8-9.

⁴⁸ Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 7.

and security clearances for convoys. The long lead time (normally 30 days), specificity required, and inability to change requests make the process a great hindrance".⁴⁹

Complicating matters further, the plans and supply routes that were in place earlier did not involve NATO's newer member states, some of whom had, and have, infrastructure ill-suited for NATO equipment. The number of less than sturdy bridges in Central and Eastern Europe is a well-known problem. The main battle tanks that several allies operate are in effect too heavy to cross many road bridges. Another documented deficiency is the lack of specialised railway cars that can carry the heaviest equipment.⁵⁰

At the 2018 Brussels summit, NATO announced a number of measures to facilitate military mobility. As for legal hurdles, allies agreed to revise and harmonise national legislation and procedures to make border crossings more efficient. For example, receipt of diplomatic clearances should not take more than five days. To facilitate this procedure, allies are to set up national civil-military Points of Contact for border crossings. As for infrastructure and logistics, NATO pledged to identify main and alternative supply routes, and to increase transport capabilities. Furthermore, NATO members are to upgrade European transport infrastructure and hold more frequent exercises of military mobility.⁵¹

In all of the above, NATO is cooperating closely with the European Union (EU). A joint communique released in conjunction with the Brussels summit identified military mobility as a key area for EU-NATO cooperation.⁵²

NATO now seeks to implement these initiatives under the heading of *Enabling SACEUR's Area of Responsibility*, which includes four main themes:

- Authorities and legislation for border crossings;
- Command and control for logistics;
- Transport capabilities;
- Infrastructure.⁵³

Firstly, NATO seeks to harmonise national and EU legislation, diplomatic clearance procedures, and NATO planning to avoid bottlenecks at border crossings. The effort to make diplomatic clearance procedures more efficient is one of two concrete mobility targets that NATO members have pledged to resolve by December 2019. The unofficial aim is even more ambitious than the five days communicated at the Brussels summit.⁵⁴

However, it is likely that procedures to facilitate more efficient border crossings in crisis or war exist. According to some NATO officials, SACEUR would deploy as necessary regardless of regulations in an Article 5 scenario.⁵⁵ Even so, some obstacles will probably remain. Furthermore, peacetime military mobility is an important element of deterrence, as the VJTF must be able to deploy before a crisis escalates, i.e. during peacetime conditions.

⁴⁹ Michel, Leo, Lift the Tollgates: Europe needs greater cross-border military mobility, *FIIA Comment*, No. 22, 2017, p. 1 and Center for Army Lessons Learned, Strategic Landpower in Europe Special Study, *Center for Army Lessons Learned*, No. 18, Vol. 5, 2017, p. 63.

⁵⁰ Kepe, Marta, Preparing for the NATO Summit: Why Military Mobility Should Be on Top of the Agenda, The Rand Blog, February 26 2018 and Sprenger, Sebastian, EU pushes new plans to rapidly move combat gear across Europe, *Defense News*, March 29 2018.

⁵¹ NATO, Brussels Summit Declaration, 11-12 July 2018, paragraph 17.

⁵² NATO, Joint Declaration on EU-NATO Cooperation by the President of the European Council, the President of the European Commission, and the Secretary General of the North Atlantic Treaty Organization, July 10 2018.

⁵³ Koster, Timo S., Reinforcement of NATO forces and military mobility, *Atlantisch Perspectief*, No. 4, 2018, p. 17.

⁵⁴ Interviews, Stockholm and Brussels, June 2019.

⁵⁵ Michaels, Daniel, NATO Dusts Off a Cold War Skill: Moving Troops, *The Wall Street Journal*, October 24 2018 and Finabel European Army Interoperability Center, On the Way Towards a True Military Mobility, *Finabel Food for Thought Paper*, December 2018, p. 2.

Additionally, existing deficiencies present a challenge to exercises and planning, further undermining deterrence.

Secondly, NATO's capability to direct troop transfers to, from, and within Europe might improve by the creation of two new logistics commands (JFC Norfolk and JSEC, in Ulm). JFC Norfolk is a US-led multinational command which is co-located with the command of the re-established US 2nd fleet. Its main task will be to secure the sea lines of communication in the North Atlantic and to protect transatlantic reinforcements sent to Europe.

NATO has also started working to identify the main supply routes in crisis and war. During the 2019 Crisis Management Exercise, these routes were part of the scenario. It is unclear, however, whether alternative routes have been identified. Finding main and alternative routes at the planning level does not necessarily imply that detailed maps for reinforcements are available to support the tactical movement of forces. Notably, while the exercise's scenario had NATO reinforcements deployed to the Baltics, it reportedly did not exercise how they got there.⁵⁶

Thirdly, member states are to increase national transport capabilities and to improve the collective access to lift capacity. During the Cold war, national rail authorities had access to vast amounts of rail cars at short notice to move troops and equipment. The privatisation of transport infrastructure implemented since then have complicated such arrangements.⁵⁷ Allies are encouraged to pre-negotiate contracts on transport capacities with private contractors, in line with the NATO Logistics Doctrine. Such arrangements, however, are expensive and complicated by the many possible destinations. The Graduated Response Plans are likely to ease planning and make possible the sharing of strategic movement assets.⁵⁸

Lastly, NATO planners are reviewing European infrastructure, making sure that roads, bridges, and ports meet military requirements. When this work started, planners realised that their knowledge of the eastern member states' infrastructure was severely lacking. Planning is further complicated by the unwillingness of some states to inform NATO of deficiencies. Furthermore, the staggering costs of infrastructure adaptation can explain some governments' reluctance to act.⁵⁹ It is possible that some governments prefer to sit tight and await possible financial contributions from the EU and/or NATO allies.

The work on legislation, transports, and infrastructure is complicated by the fact that necessary measures go beyond the military domain. The military can state their requirements, but these policy areas are closely interconnected with civilian authorities and private actors. As national ministries of defence need to coordinate and cooperate with other national authorities, the risk of time-consuming procedures and buck-passing increases.⁶⁰

2.4.1 EU-NATO Cooperation on military mobility

NATO, with the US as a driving force, holds high hopes for EU-NATO cooperation, especially with regards to EU funding for enabling European infrastructure. NATO has informed the EU of its military requirements for transport infrastructure and its standards for military mobility through regular staff-to-staff meetings, which the EU has incorporated into its planning.⁶¹

⁵⁶ Interviews, Stockholm and Brussels, June 2019.

⁵⁷ Michaels, NATO Dusts Off a Cold War Skill: Moving Troops.

⁵⁸ Koster, Reinforcement of NATO forces and military mobility, p. 17 and Fortune, Tom, Meeting the Enhanced Nato Response Force (ENRF) Readiness Requirement, *Allied Rapid Reaction Corps Journal*, 2016, p. 26.

⁵⁹ Michaels, NATO Dusts Off a Cold War Skill: Moving Troops and Finabel European Army Interoperability Center, On the Way Towards a True Military Mobility, p. 2.

⁶⁰ Kepe, Preparing for the NATO Summit: Why Military Mobility Should Be on Top of the Agenda.

⁶¹ Interviews, Stockholm and Brussels, June 2019 and NATO, Third progress report on the implementation of the common set of proposals endorsed by EU and NATO Councils on 6 December 2016 and 5 December 2017, June 8 2018, p. 6.

Since the EU is able to draw on its legal experience and its infrastructure funds, it is well equipped to address infrastructural and legal hurdles to mobility and has launched a number of projects on military mobility, including an Action Plan on Military Mobility, released in March 2018. The action plan identifies two main areas for the EU's work on military mobility: transport infrastructure and regulatory and procedural issues.

Regarding the former, the Commission will evaluate the trans-European transport network's (Ten-T) capacity to handle military transports, in order to identify the upgrades that are needed and the possible synergies between civilian and military needs. A list of prioritised dual-use projects will be finalised in 2020. Financial support to dual-use infrastructure could amount to 6.5 billion EUR in the next Multiannual Financial Framework, for 2021 to 2027. The Commission will also investigate whether the current technical requirements for Ten-T projects are sufficient to accommodate military needs.⁶² This is where NATO's requirements for transport infrastructure and standards for military mobility come into play.

As for regulatory and procedural issues, the Commission aims to harmonise national rules and standards regarding military transports containing dangerous goods, and to rationalise customs procedures and promote uniform interpretations of existing customs legislation. Furthermore, the Commission will investigate whether to revise any customs acts and encourage member states to evaluate what restrictions can be removed to promote efficiency. Additionally, the Netherlands initiated a Permanent Structured Cooperation (PESCO) project aimed at removing administrative and bureaucratic obstacles to cross-border movement in 2017.⁶³

Historically, the EU-NATO relationship has experienced some institutional rivalry. The two organisations now claim that the relationship is characterised by “unprecedented practical collaboration” with military mobility as a “flagship”.⁶⁴ Some commentators, however, believe that work on military mobility is in fact two parallel processes, with some degree of coordination. While the fact of EU and NATO working together is in and of itself a step forward, EU's budget processes take time and its military mobility work is mainly focused on enabling peacetime mobility. The EU and NATO both see 2024 as a deadline for initiatives aimed at enabling military mobility in Europe. This has frustrated some allies, fuelling calls to show decisiveness by addressing “low-hanging fruit”.⁶⁵

2.5 Logistical support

The question of how reinforcements are received and sustained in the theatre of operations remains. Since Russia's 2014 illegal annexation of Crimea, NATO has launched a number of initiatives to facilitate more rapid RSOM in Europe. The shifted focus towards deterrence and defence at home and subsequent creation of higher readiness units such as the VJTF have led to new demands on reception and sustainment capabilities.

The Joint Logistic Support Group (JLSG) HQ usually carries out NATO theatre command of RSOM. The JLSG is a deployable headquarters comprised of a permanently manned HQ core staff element (consisting of 25 posts) from either of the Joint Force Commands (Brunssum and Naples), which is augmented by personnel and resources from NATO and

⁶² Tania Lațici, Military Mobility, European Parliamentary Research Service, March 2019, p. 2 and European Commission and High Representative of the Union for Foreign Affairs and Security Policy, Joint Communication to the European Parliament and the Council on the Action Plan on Military Mobility, March 28 2018. Funding would come via the Connecting Europe Facility (CEF), which “*is a key EU funding instrument to promote growth, jobs and competitiveness through targeted infrastructure investment at European level*”. See European Commission, Connecting Europe Facility, 2019.

⁶³ Ibid.

⁶⁴ EU Council and NATO Council, Fourth progress report on the implementation of the common set of proposals endorsed by NATO and EU Council on 6 December 2016 and 5 December 2017, June 17 2019, p. 1.

⁶⁵ Kepe, Marta, Exploring the Allied Decisions on Military Mobility in Europe, *Defense News*, July 26, 2018 and Interviews, Stockholm and Brussels, June 2019.

allies (88 posts), and logistics units from troop-contributing nations to command in case of deployment.⁶⁶

As a force-generation process is required for the JLSG to become operational, the introduction of the VJTF created a need for a logistics command with a higher level of readiness. NATO thus decided to add a Standing JLSG (SJLSG) HQ to its command structure in 2015. Currently, the SJLSG is situated at SHAPE, in Belgium, but it is to be co-located with the JSEC in Ulm, Germany. In peacetime, the SJLSG is responsible for preparatory and enabling activities for rapid reinforcement and sustainment of NATO forces in Europe. In addition, the command maintains readiness to exercise command and control of RSOM for the VJTF until the JLSG is operational, should such a situation occur. However, some officials find that the SJLSG may not deploy in time, possibly leaving the question of which HQ will conduct RSOM for the VJTF unresolved.⁶⁷

Concurrently, the NFIUs were launched to facilitate the rapid deployment of the VJTF. They are responsible for planning and facilitating RSOM of NATO forces to host nations. Some see them as a key function for enabling reinforcement operations. However, the deployment of the eFP battlegroups and the establishment of multinational divisional commands in Poland and Latvia might have contributed to the loss of some of the purpose of the NFIUs in the Baltics and Poland.⁶⁸

The introduction of the eFP battlegroups has enhanced reception capabilities in the Baltic states and Poland by leading to improvements in infrastructure, storage sites, and training facilities. The deployments have been valuable for framework nations, too, as rotations allow for exercising reinforcement operations and mobility. The eFP battlegroups have also contributed to an increase in the amount of prepositioned equipment – even though this varies between framework nations – which paves the way for more efficient RSOM. However, the host nations' focus on supporting the eFP battlegroups might have come at the expense of planning for the reception of the NRF and follow-on forces.⁶⁹

Thus, although a number of different initiatives aiming to improve RSOM have been launched since 2014, questions regarding readiness levels and how different initiatives relate to each other remain. The JSEC, which reached Initial Operating Capability in September 2019, might serve as a remedy. It is planned to function as a single hub for logistics and coordinate all RSOM activities in Europe. The aim is that JSEC will reach full operational capability in 2021. It is meant to ensure freedom of movement and security in the rear area of operations and facilitate forward deployment of reinforcements to the area of operations. Furthermore, it is to coordinate with host nations.⁷⁰

A number of questions regarding the JSEC's future role also remain. It is to be activated as a NATO command only in a situation where “imminent clashes with a well-matched adversary” are underway, prompting questions regarding whether it will actually function as a central logistics and RSOM hub for Europe. Furthermore, the relationship between the JSEC and the NFIUs, which are tasked with facilitating NATO reinforcements in their respective host nations and fall under the command of MNC-NE HQ, in Szczecin, is

⁶⁶ NATO Standardization Office, *Allied Joint Doctrine for the Joint Logistic Support Group*, p. 3-5f and Lankow, Wolfgang, The Joint Logistic Support Group, *Northern Star*, July 2018, p. 8.

⁶⁷ Olshausen, Klaus, NATO's Readiness Action Plan for Assurance and Deterrence – Progress & Challenges on the Road from Wales to Warsaw, p. 3 and NATO Standardization Office, *Allied Joint Doctrine for Logistics*, p. A-4f and Fortune, Meeting the Enhanced Nato Response Force (ENRF) Readiness Requirement, p. 26.

⁶⁸ Interviews, Stockholm and Brussels, June 2019 and Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 3f. Currently, eight NFIUs are active, in Poland, Lithuania, Estonia, Latvia, Romania, Bulgaria, Slovakia, and Hungary.

⁶⁹ Interviews, Stockholm and Brussels, June 2019.

⁷⁰ Schelleis, Martin, Joint Support and Enabling Command (JSEC) and NATO Burdensharing, *Bonn International Security Forum 2018 – full report*, Bonn: Center for International Security and Governance, p. 67 and Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 5f and NATO, New NATO Command Declared Operational, September 17 2019.

unclear.⁷¹ In addition, the adaptation and expansion of the NATO command structure and force structure might cause a high demand for specialists in logistics. Taken together, this could prove to be a challenge ahead.

In parallel to NATO initiatives, the US has bilaterally addressed deficiencies in reception facilities, training areas, and logistics on the eastern flank, and sought to improve enabling functions such as artillery, ISR, and air and missile defence to protect and support reinforcing forces. Through the EDI, the US has increased its presence and enabled operational movement in Europe through prepositioning and infrastructure upgrades.⁷²

Under the EDI, the US aims to preposition material and equipment for a full US army division in Poland, Germany, Belgium, and the Netherlands. The Powidz airbase in Poland has been identified as a prepositioning site where armoured vehicles, ammunition, and weapons for an armored brigade combat team will be stored. In addition, a bulk fuel storage facility and a rail extension and railhead project, in order to facilitate the loading of equipment on rail cars, will be built.⁷³ The EDI also funds upgrades of infrastructure, prepositioning of equipment, training, and exercises for the US air force and navy units in Europe.⁷⁴

In June 2019, Poland and the US agreed to increase the US presence in Poland by approximately 1000 soldiers. They will mainly reinforce already existing deployments and will not introduce any new units. Furthermore, Poland will establish and finance a number of infrastructural projects, including a US Division HQ, training grounds, and support facilities. This may be more important than it appears, as it would facilitate the reception and build-up of combat units in an emergency.⁷⁵

2.6 Exercises

Until 2014, NATO's exercises were characterised by its expeditionary focus. Interoperability was achieved through joint operations in Afghanistan and elsewhere. However, with NATO's engagement in Afghanistan winding down, plans for more frequent exercises were in the works. These plans were accelerated by Russia's illegal annexation of Crimea. At the NATO summit in Wales, in 2014, NATO decided to strengthen its exercise program and, particularly, to prioritise collective defence, including large-scale exercises. From 2014 to 2015, the number of exercises increased from 115 to 280.⁷⁶

Most national, multinational, and NATO-led exercises conducted in Europe since 2014 train and test the ability of battalions and brigade-size units to conduct movements. Units of US

⁷¹ Moller, Building the airplane while flying: adapting NATO's force structure in an era of uncertainty, p. 5f.

⁷² In 2019, 3.2 billion USD was requested for prepositioning and 828.2 million USD for RSOM&I enhancements and infrastructural upgrades; see Shevin-Coetzee, Michelle, The European Deterrence Initiative, Center for Strategic and Budgetary Assessments, January 2019, p. 9-13. These figures concern initiatives in Europe writ large. However, as the Trump administration has declared a national emergency to build a wall on the US-Mexican border, funds allocated to the EDI may be delayed or reduced to finance the wall. See Sonne, Paul and Min Kim, Seung, Pentagon takes money from Puerto Rico, European projects to fund Trump's wall, *The Washington Post*, September 4 2019.

⁷³ Marson, James, NATO Plans Facility in Poland to Store U.S. Military Equipment, *The Wall Street Journal*, 22 March 2019 and Sprenger, Sebastian and Bodner, Matthew, As NATO banks on Poland, is the country becoming the new face of a nervous Europe? *Defense News*, 7 April 2019.

⁷⁴ Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 4-5 and Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*, p. 26-28.

⁷⁵ The White House, Joint Declaration on Defense Cooperation Regarding U.S. Force Posture in Poland, June 12 2019 and Freedberg Jr., Sydney J., Poland Deal Lays Groundwork For Division-Strength Deployment, *Breaking Defense*, June 13 2019. In September 2019, a joint declaration provided further details on this agreement. See President of the Republic of Poland, Joint Declaration on Advancing Defense Cooperation, September 23 2019.

⁷⁶ Ottosson, Björn and Aronsson, Albin. *Västlig övningsverksamhet [Western military exercises]*, Stockholm: Swedish Defence Research Agency, 2020 (Forthcoming).

army Europe train alongside allies and partners more than 50 times a year.⁷⁷ Sabre Strike is a long-standing US Army-led exercise that usually includes the movement of large troop formations to the Baltic states and Poland. In 2018, it was centred in the Polish-Baltic corridor and involved the four eFP battlegroups.⁷⁸ NATO's exercises Noble Jump and Brilliant Jump are specifically tailored to test the mobility and rapid reaction deployment of the VJTF.⁷⁹

In 2018, reinforcement exercise Trident Juncture 18 was held in Norway. Some 50,000 troops participated in NATO's largest live exercise since 2015, which saw the deployment of its high readiness units and follow-on forces.⁸⁰ During the exercise, Norway transferred command of logistics support to the JLSG. In coordinating the effort, the JLSG found that information on the resources that were needed and what the host nation had to offer was lacking. A Norwegian study of Norway's host nation support and part in the logistics effort found the overall performance to be satisfactory. However, it also found that the RSOM in general suffered, because different actors performed the same functions and a disproportionate amount of time was spent on coordination and communication between NATO and Norway.⁸¹ During the exercise, the VJTF was deployed in full but did not travel overland as it likely would have if it had been reinforcing eastern allies in a real-life crisis. While commentators point to Trident Juncture as just the kind of reinforcement exercise needed, NATO reportedly plans to discontinue the exercise.⁸²

However, in 2020, the US Army will conduct a large reinforcement exercise called Defender Europe 2020. It will test the ability to move a full US armoured division – with its heavy equipment – from continental US to the European theatre. The exercise will also test echelons-above-brigade units in warfighting and sustainment.⁸³ It is similar in concept to the Reforger exercises conducted during the Cold War, albeit smaller in size.⁸⁴

The exercise will involve around 37,000 US and European soldiers. 20,000 US soldiers and equipment will move across the Atlantic via air and sea, whereas other equipment will be retrieved from five Army Prepositioned Stocks in Germany and Belgium. Five American ports and 14 airports and ports across Europe will be used to send and receive reinforcements. US participants will include a division command post, three ABCTs, a fires brigade and a sustainment brigade, as well as units from other service branches. 15 other NATO members and two partners (Finland and Georgia) will participate in the exercise.⁸⁵

As the US forces arrive in Europe, RSOM&I of a division-sized element and the setting-up of intermediate staging bases throughout Europe will be tested. Thereafter, units will spread across the continent and participate in five other exercises linked to Defender Europe 2020, for example Saber Strike and Swift Response. These exercises will involve multinational

⁷⁷ Fraser, Edward A. and Abernethy, Robert V., Strong Europe: A continental-scale combat sustainment laboratory, *Army Sustainment*, April-June 2019.

⁷⁸ NATO, 19 NATO Allies and partners wrap up exercise Saber Strike 2018, June 15 2018.

⁷⁹ Tortora, Davide, Exercise Brilliant Jump Ensures NATO Troops Are Ready to Deploy in Time of Crisis, *Northern Star*, December 2018 – December 2019, 2019 and NATO, NATO Spearhead Force deploys to test readiness, June 6 2019.

⁸⁰ Joint Force Command Naples, Trident Juncture 18.

⁸¹ Birkemo, Alice and Graarud, Emil and Krogh Halvorsen, *Ett troverdig alliert mottak – erfaringar fra Trident Juncture 2018*, Oslo: Forsvarets Forskningsinstitutt, May 8 2019, 19/01068, p. 29-33; 37 and JFC Naples Public Affairs Office, NATO's Joint Logistic Support Group Takes Charge of the Main Logistics Effort for Trident Juncture, October 2018.

⁸² NATO, Trident Juncture 2018 Press Conference, October 9 2018 and Stoicescu, Kalev och Järvenpää, Pauli, *Contemporary Deterrence: Insights and Lessons from Enhanced Forward Presence*, p. 15 and Interviews, Stockholm and Brussels, June 2019.

⁸³ Fraser and Abernethy, Strong Europe: A continental-scale combat sustainment laboratory.

⁸⁴ Freedberg Jr, Poland Deal Lays Groundwork For Division-Strength Deployment.

⁸⁵ U.S Army Europe Public Affairs Office, Fact Sheet: DEFENDER-Europe 20, U.S. Army Europe, October 6, 2019.

joint fires integration, river crossings, division command post exercises, large-scale live exercises, and joint forcible entries.⁸⁶

NATO will be participating, from the corps to the tactical level, and will have the opportunity to exercise its RSOM&I capability. Since the exercise will test theatre mobility, it will also serve to evaluate the progress of the military mobility initiatives undertaken.⁸⁷ On a similar note, NATO's exercise Steadfast Defender 2021 will reportedly see about 10,000 US soldiers and 1100 vehicles deploy to Europe.⁸⁸

2.7 Summary

In 2014, NATO began the long transformation from out-of-area operations towards the reassurance of eastern allies and deterrence. Given NATO's limited forward presence, reinforcements are crucial to ensure deterrence. During the past five years, NATO has adopted several measures to improve the key factors affecting the reinforcement operations identified in Chapter 1.

Firstly, several measures have sought to improve the availability and readiness of national forces. While the US has taken up rotational deployments from continental US to the eastern flank since 2017, the European NATO members are lagging behind. Even though providing regular rotations to the eFP and to the stand-by periods of the VJTF and NRF will most likely lead to a greater number of fully manned, equipped, and trained units, the ability of European member states to reach the required readiness level of the NRI may constitute a significant challenge. Furthermore, uncertainties regarding the warfighting capability of the eFP battlegroups and the process of transferring authority to NATO commanders may impede their effective use in a crisis.

Secondly, given the current force imbalance vis-à-vis Russia, it is important to be able to take action before a crisis erupts into open conflict. In this respect, NATO has attempted to improve the sharing of intelligence between member states and have them identify and agree on indications and warnings that would authorise SACEUR to begin mobilisation and prepare the deployment of forces. NATO's advance planning has also developed in recent years, but needs to be continually updated and tested through exercises. Furthermore, NATO has started to adapt its command and force structure to enable deterrence and defence. However, the many new entities added to the structure in recent years have led to ambiguities regarding areas of responsibility and the relationship between different staffs and HQs, which may cause confusion and delays in a crisis or war.

Thirdly, NATO has addressed infrastructural and legal obstacles to military mobility and, in effect, to speedy reinforcement operations. It has made headway in identifying and resolving some of these issues. However, as this work has only recently begun, obstacles remain. Some stem from the national arena, others from within the Alliance. As national ministries of defence must secure support and funds from other budget areas, a whole-of-government approach is required to speed up implementation. Nevertheless, EU-NATO cooperation on enabling European infrastructure is promising. If the initiatives bear fruit and show tangible benefits for members and non-members alike, they might contribute to burden-sharing and ease some of the friction that PESCO has caused in transatlantic relations.

Fourth, the higher readiness implemented since 2014 has led to a demand for higher-readiness logistics functions and commands. NATO has launched a number of initiatives,

⁸⁶ U.S. Army Europe Media Desk, Defender-Europe 20 Tri-fold Flyer, US Army Europe (undated). A joint forcible entry is defined as "an operation meant to seize and hold a lodgement against armed opposition", in which a Brigade Combat Team is deployed in a contested environment and seeks to open the area for further reinforcements. See LaBrecque, Michael F., McGurk, Ronald and Swedlow, Ryan, "Sustaining joint forcible entry operations", *Army Sustainment*, October 4, 2018.

⁸⁷ Judson, Jen, "Fighting the bureaucracy: For NATO, the Defender 2020 exercise in Europe will test interoperability", *Defense News*, October 14 2019.

⁸⁸ Die Welt, Ranghoher Nato-General kritisiert deutsche Infrastruktur, May 15 2019.

most importantly the NFIUs, the SJLSG, and the JSEC, to address this. Consequently, logistics specialists are in high demand, which could become a bottleneck. Additionally, a certain lack of clarity on how the new functions relate to each other remains to be worked out over the coming years.

Fifth, exercises have become increasingly important to enhancing military mobility within Europe. Officials have pointed to Trident Juncture as just the kind of exercise needed. At the same time, NATO has reportedly decided to review its exercise programme and to discontinue Trident Juncture exercises. Moreover, the VJTF did not travel overland during Trident Juncture 18, rendering the exercise's takeaways less valid for real-life reinforcement operations to the eastern flank. Even though the VJTF has exercised overland movement on other occasions, the same pattern is evident in Crisis Management Exercise 19, in which the strategic and operational parts of the movement were reportedly left out of the scenario. However, the US is planning to conduct large-scale reinforcement exercises, such as Defender Europe 2020, which NATO will participate in. Furthermore, NATO exercise Steadfast Defender will test NATO's ability to conduct reinforcement operations.

3 Army reinforcements to NATO's North East

Following the preceding chapter's discussion of NATO's initiatives to strengthen the capability for reinforcements, this chapter focuses on the actual ability of the Alliance and its member states to move army reinforcements to staging areas and possible areas of operations in Poland and beyond. Three case studies are used to assess the current capability to move heavy ground combat units to the eastern flank and the hurdles such movements face.

The case studies rely primarily on information the respective military units provide on social media. This is a useful way of understanding the time frames involved, but at the same time runs the risk of not covering all parts of a movement operation. It should also be stressed that while the case studies can indicate the approximate time frames involved in these examples, they are not representative of all the kinds of movement of ground forces from the US and Western Europe to the Baltic states and Poland.

3.1 Army forces for the European theatre

As NATO now, post-Crimea, attempts to rebuild its military mobility skills in order to strengthen the deterrence and defence of the Alliance against a resurgent Russian threat, it cannot simply relearn lessons from the Cold War.⁸⁹ A key similarity between then and now is the need to move large troop formations, equipment, and supplies from continental US to Europe. A key difference, however, is that troops and gear now have to travel further to reach staging areas on NATO's new eastern border.

Before going into the details of moving heavy military units in Europe, the following section briefly touches upon the assets already deployed in the theatre.⁹⁰

3.1.1 US army forces in and for Europe

In 2019, the US maintains roughly 65,000 troops in Europe, of which 38,000 are Army ground forces.⁹¹ The US has retained only two permanently based Brigade Combat Teams (BCTs) in Europe, neither of them heavy: a Stryker brigade (lightly mechanised with wheeled vehicles) in Vilseck, Germany, and an airborne brigade, in Vicenza, Italy.⁹² It has also retained a reduced Combat Aviation Brigade (CAB), at Katterbach/Ansbach, Germany. This unit has 1300 soldiers (of which only 800 are permanently deployed) and around 64 helicopters.⁹³

The main logistics force in Europe is the 21st Theater Sustainment Command (TSC).⁹⁴ The command conducts Reception, Staging, Onward Movement, and Integration (RSOM&I) across the European theatre. Troops of the 21st TSC are stationed both in Europe and the

⁸⁹ Koster, Reinforcement of NATO forces and military mobility, p. 15-16.

⁹⁰ Our first assessment of available forces and force readiness in select NATO countries plus Finland was published in early 2018, and an update is planned for early 2021. Pallin (ed.) et al., *Västlig militär förmåga: En analys av Nordeuropa 2017*.

⁹¹ Wood, Dakota L. (ed.), *2019 Index of U.S. Military Strength*, Washington, DC: The Heritage Foundation, 2019 and U.S. Army Europe Public Affairs Office, Fact Sheet: U.S. Army Europe, June 7 2019. Most probably authorised strength, not actual strength.

⁹² 173rd Infantry Brigade Combat Team (Airborne), Sky Soldiers! Standards, March 15 2018 and 2d Cavalry Regiment Public Affairs Office, 2d Cavalry Regiment, May 25 2018. The US changed the name from brigade to brigade combat team in the 2000s, as part of Donald Rumsfeld's reforms in making the army lighter and more agile. Initially, a BCT had only two manoeuvre battalions, as compared to three in a brigade during the Cold War. Nonetheless, in this chapter, the term "brigade" is used interchangeably with the more cumbersome term, "brigade combat team".

⁹³ Tan, Michelle, Army restructures CAB in Germany, cuts 1,900 troop jobs, *Army Times*, April 29 2015.

⁹⁴ 21st Theater Sustainment Command. 21st Theater Sustainment Command Fact Sheet. May 31 2018.

US, but the exact number of troops is not clear. The command also supports US operations in Africa and the Middle East. The logistics operations of the 21st TSC are augmented by the Surface Deployment and Distribution Command's (SDDC) 598th Transportation Brigade, based in Kaiserslautern, Germany.⁹⁵

Key parts of the US Army's post-2014 reinforcements to Europe are conducted on a rotational basis as part of Operation Atlantic Resolve.⁹⁶ The activities and exercises taking place as part of Atlantic Resolve are organised under bilateral and multilateral agreements with the participating nations: Estonia, Latvia, Lithuania, Poland, Hungary, Romania, and Bulgaria, with Germany hosting the elements of the aviation rotation.⁹⁷ The regional command headquarters in Poznan, Poland, manages and oversees the rotations.

The US regularly undertakes three types of rotational deployments to Europe, as part of Operation Atlantic Resolve. These consist of an ABCT of roughly 3500 soldiers, a CAB of about 1900 soldiers, and a Sustainment Task Force (a logistics support force) of more than 900 soldiers. Since the beginning of 2017, the US has (as of 2019) rotated four armoured brigades to Europe.⁹⁸ Elements of these brigades have been split up and spread out across participating European countries, with the largest element based in Poland. The total number of US army troops present in Poland at any given time is between 4000–5000.⁹⁹

The overall readiness and availability of US ground force combat formations is a topic increasingly kept out of the public domain.¹⁰⁰

The total number of globally available US Army Brigade Combat Teams (BCTs) is: 11 armoured, 7 Stryker (wheeled mechanised, named after the principal fighting vehicle it employs) and 13 infantry BCTs, of which 5 are airborne.¹⁰¹ The National Guard will have an additional 5 armoured, 2 mechanised (Stryker) and 20 infantry BCTs, once an ongoing reorganisation is complete. This gives the US a total of 58 BCTs, but only 16 armoured, if both regular and National Guard brigades are counted.

There are concerns, however, that the US is currently lacking in full-spectrum readiness of forces.¹⁰² According to an independent assessment from 2019, only about half of the total force is considered to be ready.¹⁰³ This is to be compared to the Army's goal of having 66 percent of the BCTs operationally ready at any given time. Moreover, a congressional testimony from 2018 states that of the 15 BCTs considered "ready", only eight are considered "fully ready".¹⁰⁴

The US Army has a number of major ground combat forces continuously deployed around the world. Two forward-deployed BCTs are permanently stationed in Europe and one in South Korea.¹⁰⁵ Another 5–6 rotationally deployed BCTs are on assignment outside the US at any one time. As the number of ready-to-deploy army BCTs is 15 and the number of fully

⁹⁵ The SDDC is one of three major commands in the US military transport organisation, the United States Transportation Command. See United States Transportation Command, Component and Subordinate Commands (undated).

⁹⁶ Egnash, Troops Arrive in Europe in time for anniversary of D-day.

⁹⁷ US Army Europe Public Affairs Office, Fact Sheet: Atlantic Resolve, September 1 2019.

⁹⁸ Department of Defense News, Defense Media Activity, EUCOM commander: US armored brigade's deployment to Poland 'significant', *US Army*, January 13 2017.

⁹⁹ Sprenger and Bodner, As NATO banks on Poland, is the country becoming the new face of a nervous Europe?.

¹⁰⁰ Wood (ed.), *2019 Index of U.S. Military Strength*, p. 1.

¹⁰¹ South, Todd, New in 2019: From tanks to Strykers, major brigade combat team conversions are coming this year, *Army Times*, January 2 2019.

¹⁰² House Armed Services Committee, Subcommittee on Readiness Hearing on the Fiscal Year 2020 Budget Request for Military Readiness, May 9 2019.

¹⁰³ Wood (ed.), *2019 Index of U.S. Military Strength*, p. 13.

¹⁰⁴ Wood (ed.), *2019 Index of U.S. Military Strength*, p. 327.

¹⁰⁵ 1 Stryker brigade in Vilseck, Germany, 1 airborne BCT in Vicenza, Italy, and 1 BCT as part of the larger US Forces Korea.

ready is 8, there are not many brigades available that could be quickly sent to Europe should reinforcements and surge operations become necessary.

3.1.2 German army

After cuts and reforms earlier this decade, the new all-volunteer German army has 61,000 soldiers formed around a core of three divisions: two armoured (*Panzer*) and one rapid reaction division (*Division Schnelle Kräfte*). Of the 12,000 soldiers serving in the rapid reaction division, 2300 are from the Netherlands.¹⁰⁶

The core of the 1st armoured division consists of two armoured and two mechanised infantry (*panzergrenadier*) brigades, each with a paper strength of around 4500. The 1st armoured division also includes artillery, pioneer, support, and communications battalions and fields roughly 16,000 soldiers, if fully manned.¹⁰⁷ The 10th armoured division to some degree mirrors the 1st, but includes brigades specialising in mountainous operations, as well as the Franco-German brigade. There is a total of five armoured and thirteen mechanised battalions in the German Army, according to the official order of battle as of September 2019.¹⁰⁸

However, the German Armed Forces (*Bundeswehr*) face formidable problems related to political neglect, funding, equipment, and personnel. The 2019 defence budget amounted to roughly 1,2 per cent of GDP, or €43 billion. Current projections are that Germany will not meet its target of spending 1,5 per cent of GDP on defence by 2024.¹⁰⁹

This may compound a key deficiency of the German Army: its lack of equipment, especially serviceable equipment.¹¹⁰ In 2016, only 70 per cent of the equipment available to the army units was in serviceable condition, because the accounts for maintenance and procurement of spare parts had been cut. In effect, this means that units that conducted operations or exercises have had to borrow equipment from other formations to fill their numbers.¹¹¹ According to the Parliamentary commissioner for the Armed Forces, Hans-Peter Bartels, the situation had not improved by 2019.¹¹² The full resourcing of all units in the *Bundeswehr* is not expected until 2031.¹¹³

In late 2017, FOI assessed the capability of Germany to quickly marshal and deploy heavy (armoured or tracked mechanised) formations of brigade size as low. The situation in 2019 may have improved somewhat, mainly due to Germany's contributing the major part of an armoured brigade to NATO's VJTF, together with units from Norway and the Netherlands. The German contribution consists of parts of the 9th Armoured Demonstration Brigade (*Panzerlehrbrigade*), based in Münster. This brigade has probably been given and borrowed enough equipment to make it functional. However, the standing up of a fully functional armoured brigade is likely to have taken a serious toll on the readiness of the rest of the armoured and mechanised forces of the Army. It is thus unlikely that any other armoured formations could be mustered to deploy as a functional force at short notice.

¹⁰⁶ Deutsche Heer, Dienststellen, January 29 2019.

¹⁰⁷ Deutsche Heer, 1. Panzerdivision Gliederung, November 11 2019.

¹⁰⁸ See order of battle for the army at <https://www.bundeswehr.de> and Pallin (ed.) et al., *Västlig Militär Förmåga: En analys av Nordeuropa 2017*, p. 126.

¹⁰⁹ Sprenger, Sebastian, Germany's plan to boost defense spending hits a snag, *Defense News*, February 5 2019.

¹¹⁰ German Bundestag, *Information from the Parliamentary Commissioner for the Armed Forces, Annual Report 2018*, Printed Paper 19/7200, January 29 2019.

¹¹¹ Pallin (ed.) et al, *Västlig militär förmåga*, p. 126.

¹¹² Bartels, Hans-Peter, Presentation of the 60th annual report of the Parliamentary Commissioner for the Armed Forces, 29 January 2019.

¹¹³ German Bundestag, *Information from the Parliamentary Commissioner for the Armed Forces: Annual Report 2018 (60th Report)*, January 29 2019, p. 40.

3.2 Movement of a US Armored Brigade Combat Team to Poland

The 1st Armored Brigade Combat Team of the 1st Infantry Division, based at Fort Riley, Kansas (nicknamed the Devil Brigade), conducted a planned nine-month rotation from the US to Zagan, Poland, in early 2019.

National movement – Preparation and transport within continental US

In October 2018, the Department of the Army announced that the brigade would undertake a rotation to Europe in 2019.¹¹⁴ The first indications of practical preparations can be found from late November 2018, when a post on the Facebook account of the 1st Battalion (also known as the Iron Rangers), of the 16th Infantry regiment, 1st Infantry Division, states that they “begin another week working on our vehicles and readying them for transport”.¹¹⁵ The Iron Rangers are one of three Combined Arms battalions that make up the 1st ABCT.¹¹⁶ The disclosed numbers for personnel and materiel of the 1st ABCT are found in Chart 1. Obviously, the ABCT’s vehicles needed to undergo maintenance and preparation before being shipped out to Europe. Under non-congested time schedules, this preparation probably takes at least two weeks.

Fort Riley is situated in western Kansas, roughly 1700 km from the main naval stations from which military transports cross the Atlantic. The Devil Brigade shipped out from Joint Base Charleston, South Carolina, which is a combined naval port and Air Force facility.¹¹⁷ A press release issued from Joint Base Charleston states that the brigade will be transported by rail from Fort Riley, Kansas, to Charleston Naval Weapons Station, between December 3 and 12, 2018. The national movement of the brigade thus stretched over 10 days.¹¹⁸



Chart 1: 1st ABCT of the 1st Infantry Division: Personnel and materiel (approximate).

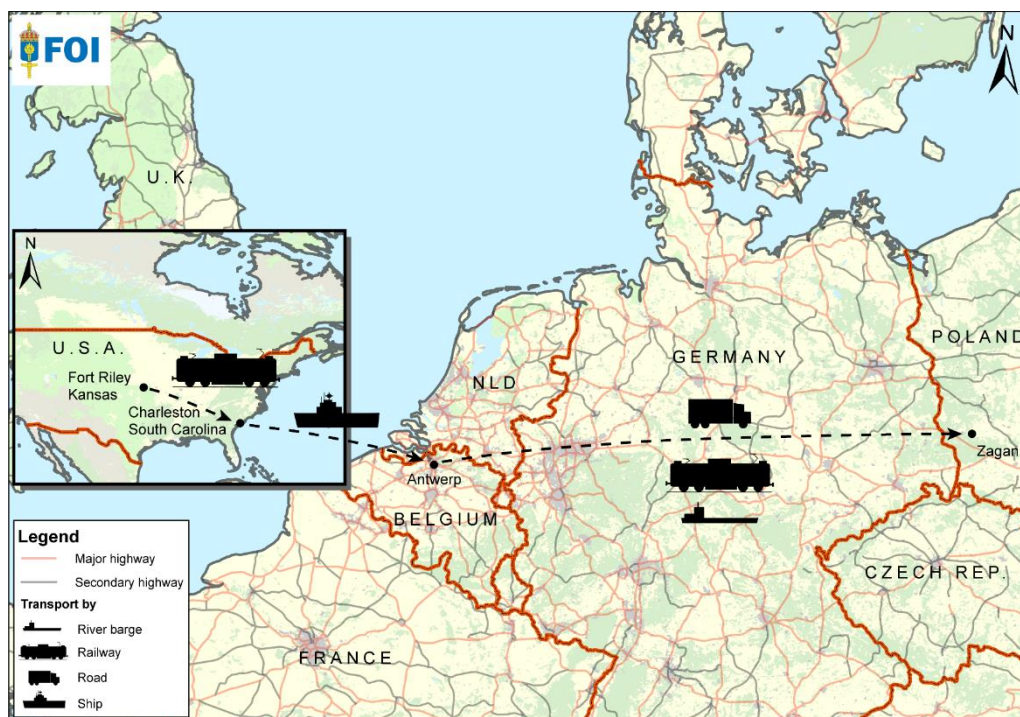
¹¹⁴ U.S. Army Public Affairs, Department of the Army announces upcoming 1st Infantry Division units’ rotation, October 18 2018.

¹¹⁵ Facebook account of the Iron Rangers Battalion. See <https://www.facebook.com/IronRangers/>.

¹¹⁶ The battalion’s heavy vehicles, according to a generic order of battle figure from 2016, consist of 29 Abrams tanks, around 60 Bradley armoured fighting vehicles and roughly 40 wheeled vehicles, mostly jeeps, but also some towing vehicles and trucks. Congressional Budget Office, *The U.S. Military’s Force Structure: A Primer*, Congress of the United States, 2016, p. 24.

¹¹⁷ Military.com, Joint Base Charleston (undated). Another primary base that supports sea transport of US military equipment across the Atlantic is Beaumont Port, in Texas, which according to one publication is the busiest military port in the US. Port of Beaumont. Facilities Guide. 2018. Naval Station Norfolk, Virginia is the largest naval base in the US, but it remains unclear whether it is also used for shipping out troops.

¹¹⁸ Joint Base Charleston Public Affairs, Trains transporting U.S. Army equipment between Fort Riley, Kansas, and Joint Base Charleston scheduled for Dec. 3-12, December 4 2018.



Map 2: Movement of the 1st ABCT of the 1st Infantry Division from Fort Riley, Kansas, to Zagan, Poland.

The rolling stock (flatcars or wagons, etc.) for the transport of military equipment within the US was supplied and organised by the Defense Freight Railway Interchange Fleet (DFRIF). This is a Department of Defense land transportation asset that supplements commercial transportation industry capability.¹¹⁹ An SDDC transport battalion, the 842nd out of Charleston, South Carolina, organised and managed the movement of equipment from Fort Riley to Charleston.¹²⁰

Strategic movement – Continental US to Europe

The brigade's heavy equipment was primarily transported across the Atlantic on ships. The last elements of the Devil Brigade arrived in Charleston on December 12. On January 12, a month later, the first loading operation at Charleston port began. By that time, the equipment of the brigade had been organised at the facility and some last-minute repairs were undertaken.¹²¹ The 30-day period between arrival at Charleston and embarkation onto ships in this case is probably not indicative of the actual time necessary to organise the equipment for departure at port marshalling areas. Reasons for the extended delay in this case could include planned Christmas leave for outbound troops, but the exact nature of the delay remains unclear.

The first ship began offloading brigade equipment in the port of Antwerp, Belgium, on January 20, 2019. The actual loading and transatlantic transport had thus taken the first ship 8 days, with an unknown number of days at the home port facility necessary to organise and

¹¹⁹ The DFRIF is a subsidiary of the SDDC, as mentioned earlier. The railway corps handles and administers over 2,000 railcars on behalf of all branches of the Armed Forces. See US Transportation Command, Defense Transportation Regulation Part III, Appendix AA: Rail Operations, 2016 and Army Logistician Staff, *Going to War on the Rails*, *Army Logistician*, Vol. 32, No. 5, 2000.

¹²⁰ Northcutt, Benjamin, 1st Armored Brigade Combat Team arrives in Europe as part of Atlantic Resolve, *Defense Visual Information Distribution Service*, January 20, 2019.

¹²¹ Doane, Loran, *It Takes an Army... to move an Army*, US Army, January 16 2019.

ready the equipment. The last ship of the brigade seems to have arrived in Antwerp on February 2.¹²² The brigade's total time on ships was thus 22 days.

The Military Sealift Command (MSC) had the primary responsibility for providing vessels with which to move the brigade's heavy equipment across the Atlantic.¹²³ The brigade was moved by a total of four US-flagged ships chartered by the MSC from civilian contractors.¹²⁴

Operational movement – Trans-European transport

As the first of the four vessels carrying about 1000 pieces of equipment arrived in Antwerp, they were met by personnel from the 838th SDDC battalion of the 598th Transportation Brigade, the unit in charge of transport logistics for the European leg of the rotation. The logistics troops discharged the ship and parked the equipment at the marshalling area of the docks within 36 hours.¹²⁵ The equipment was organised into four categories, depending on the mode of transport for the continued onward movement (discussed below). For force protection and maintenance at the port facility, US forces relied on both commercial partners and the Belgian Armed Forces (to provide port security).

Once the brigade's equipment had been debarked and organised, onward movement commenced. Some of the brigade's heavy equipment, such as the Abrams tanks and Bradley armoured fighting vehicles (AFVs), were directly moved onto *rail cars* at rail yards in Antwerp. The rest of the heavy equipment was loaded onto river *barges*. The eleven barges used in the rotation were sent up the Rhein river to three additional railway junctions in Germany. At these locations, the equipment was loaded onto rail cars and moved east. This was the first time in over two decades that barge transport of heavy military equipment was undertaken. The objective was to achieve redundancy and prepare logistical procedures to avoid any "single point of failure".¹²⁶

Lighter equipment stored in containers was shipped east by *line haul* trucks. Wheeled military vehicles were driven through Belgium, Germany, and into Poland in *convoys*. Although exact information has not been found on the mode of transport for the majority of the brigade's personnel, this was most likely done by air transport. Map 2 outlines the route travelled and the modes of transportation of the brigade.

The following sections outline the European leg of the rotation of the Iron Rangers battalion, as well as of the entire Devil Brigade.

The personnel of the Iron Rangers battalion left the US on January 30. On February 2, infantry troops started training with small arms in Poland. The same day, the battalion's heavy equipment started arriving in Antwerp. On February 7, vehicles transported via road started arriving in Zagan, Poland, then underwent maintenance. Between February 11 and 17, exercises and tests of the battalion's heavy equipment were undertaken in Zagan. Thus, the European leg of the 1st battalion's movement to Poland took around five days, with another three days to get equipment ready for use, and six days for operational validation, test-firing, and calibration of weapons.

After a short stop in Poland, the Iron Rangers battalion, or most parts thereof, continued their onward movement to Bulgaria, which would be their base for their 2019 European rotation. On February 23, the battalion began loading heavy vehicles onto trains in Poland and, by the 25th, the first rail cars had arrived in Bulgaria.¹²⁷

¹²² Facebook account of the Iron Rangers Battalion. See <https://www.facebook.com/IronRangers/>.

¹²³ Northcutt, 1st Armored Brigade Combat Team arrives in Europe as part of Atlantic Resolve.

¹²⁴ Ibid.

¹²⁵ Department of Defense Videos, 1st Armored Brigade Combat Team Arrives in Europe: Interviews, U.S. Department of Defense, January 20 2019.

¹²⁶ Ibid.

¹²⁷ Primarily compiled from the official Facebook account of the Iron Rangers Battalion. See <https://www.facebook.com/IronRangers/>.

The first two ships carrying the heavy equipment of the full ABCT, the Devil Brigade, are reported to have arrived in Antwerp on January 20-21. This was followed by debarkation and organisation at the port, commencing on January 22.¹²⁸ A US Army Europe statement clarifies that the equipment of the brigade would be arriving during a two-week period and that the first convoy operations, from Belgium to Poland, would involve 100 vehicles passing through Germany during a four-day period.¹²⁹ A total of 400 wheeled vehicles would be moved by road in convoys at night.

The Devil brigade began Antwerp to Zagan convoy operations on January 27. By the next day, personnel of the brigade's artillery battalion had arrived in Poland. On February 1, convoys were reported to be in Germany and continuing east. The first exercises with Bradley AFVs were conducted in Zagan on February 8. Convoy operations were reported to be continuing through Germany on February 11, at the same time as the first live-fire exercises were carried out in Zagan. On February 13, the official transfer of authority ceremony, between the outgoing ABCT and the Devil Brigade, took place in Zagan.

The brigade thus arrived in Europe and conducted its onward movement to Poland during a prolonged two-week period from January 27 to February 11. The official transfer of command to the brigade was held 25 days after the first equipment began arriving in Antwerp. Figure 3 outlines the time schedule for the movement of the 1st ABCT of the 1st Infantry division, from its home base in the US to Poland.

Conclusion and summary of ABCT movement

This example suggests that the total time for deployment from Fort Riley to Zagan was approximately two months. This excludes a 30-day period over New Year 2018-2019, which may have contained Christmas breaks and other non-identifiable activity, but includes a 14-day period at home base, said to have been used to prepare equipment for deployment. If the two weeks of advanced preparation for transport at home base is excluded, the transport took approximately six weeks. Out of this total, the national movement stretched over about one and a half weeks, the strategic movement took some three weeks, and the operational movement some 2 weeks.¹³⁰ It is unclear how long the organisation and staging of equipment in Charleston took.

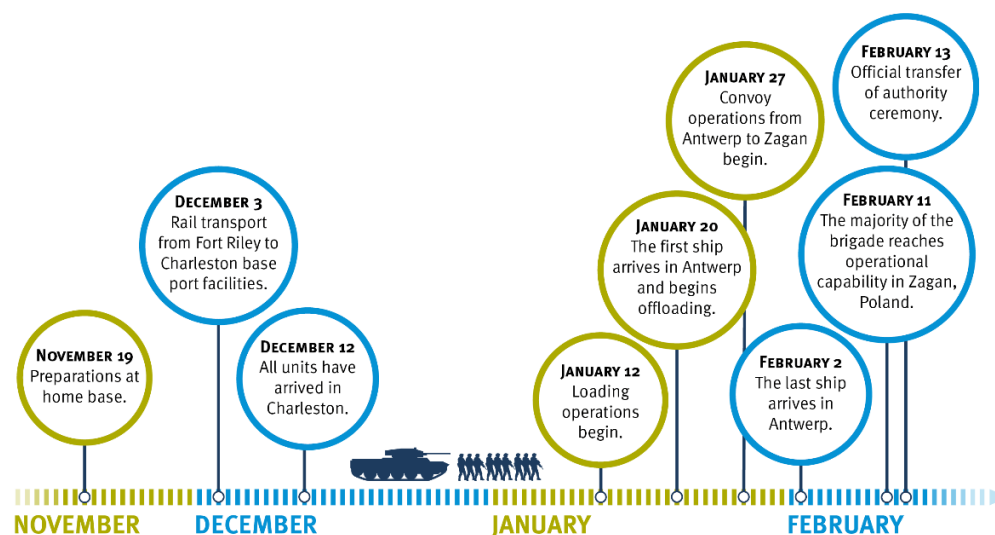


Figure 3: Movement schedule of the 1st ABCT, Devil Brigade, of the 1st Infantry Division, from Fort Riley, Kansas, to Zagan, Poland.

¹²⁸ Primarily compiled from the Facebook account of the Devil Brigade. See <https://www.facebook.com/1ABCTDevilBrigade/>.

¹²⁹ U.S. Army Europe, Upcoming movements for U.S. Army equipment for Atlantic Resolve, Jan 23 2019.

¹³⁰ Importantly, different kinds of movement can be conducted in parallel and overlap, e.g. one unit can start operational movement, while strategic movement is still in progress for others.

3.3 Movement of a reduced German armoured brigade to Poland

In the spring of 2019, the 9th Armoured Demonstration Brigade (*Panzerlehrbrigade*), which was the lead formation in NATO's VJTF, took part in the third iteration of NATO's strategic mobility exercise, Noble Jump. First held in 2015 to test the newly formed VJTF, Noble Jump is considered to be a way to "ensure that the Alliance is ready to respond swiftly and firmly to new security challenges, arising on the uncertain borders of the Allied countries".¹³¹



Map 3: Movement of the VJTF from Germany and Norway to Zagan, Poland.

Noble Jump 2019 was held at the Zagan training facility, in Poland, and included 2500 troops from Germany, the Netherlands, and Norway. According to an official NATO press release, the exercise started on May 24, with NATO HQ alerting the VJTF. The first unit to respond was a so-called Spearhead Battalion. It was reported as ready to deploy within the mandated time limit of 48 hours.¹³² Once the elements of the battalion were organised, transport to the training areas started. After a further three days, the remaining elements of the brigade had been put on standby.¹³³

This is in line with the Facebook account of the *Bundeswehr* in Niedersachsen, where the 9th Armoured Demonstration Brigade is based. On May 29, an update shows Leopard II tanks and Marder infantry fighting vehicles moving out of barracks. The text states that most

¹³¹ NATO Allied Command Transformation Public Affairs Office, A "Noble Jump" for NATO's Spearhead Force, June 18 2015.

¹³² Joint Force Command Naples Public Affairs, Exercise Noble Jump 2019 in Full Swing in Poland, June 6 2019.

¹³³ The number of troops involved suggests that the VJTF was a reduced brigade. It most likely consisted of one German panzer battalion and two Dutch and Norwegian mechanised battalions. The Norwegian forces are reported to have consisted of around 500 soldiers and 100 vehicles. Bundeswehr, Die Speerspitze der NATO, April 8 2019.

heavy equipment will be loaded onto rail cars for transport to Poland.¹³⁴ The German parts of the VJTF were first transported via air and rail to a staging area in Oberlausitz, in eastern Germany, where an RSOM exercise was held. From this training area, the *Bundeswehr* conducted onward movement to Zagan.¹³⁵ On June 1, the first Leopards started arriving in Poland.¹³⁶ On June 5, convoys of Dutch and German wheeled vehicles were still moving into Poland.¹³⁷ By June 6, the exercise reportedly was in “full swing”.¹³⁸

For comparison, the main Norwegian force, the Telemark Battalion, was transported via rail and ship to Szczecin, Poland, arriving on June 2. Some of the armoured vehicles were transported via rail to Zagan, where the force arrived between June 3 and 5. More Norwegian and Dutch soldiers arrived by air on June 5.¹³⁹ They were ready to initiate exercise operations on June 7, after a few days of preparations. The routes travelled and modes of transportation used are outlined in Map 3.

This rough time schedule suggests that the reduced VJTF brigade achieved operational status 14 days after activation. Figure 4 outlines the movement schedule of the unit.

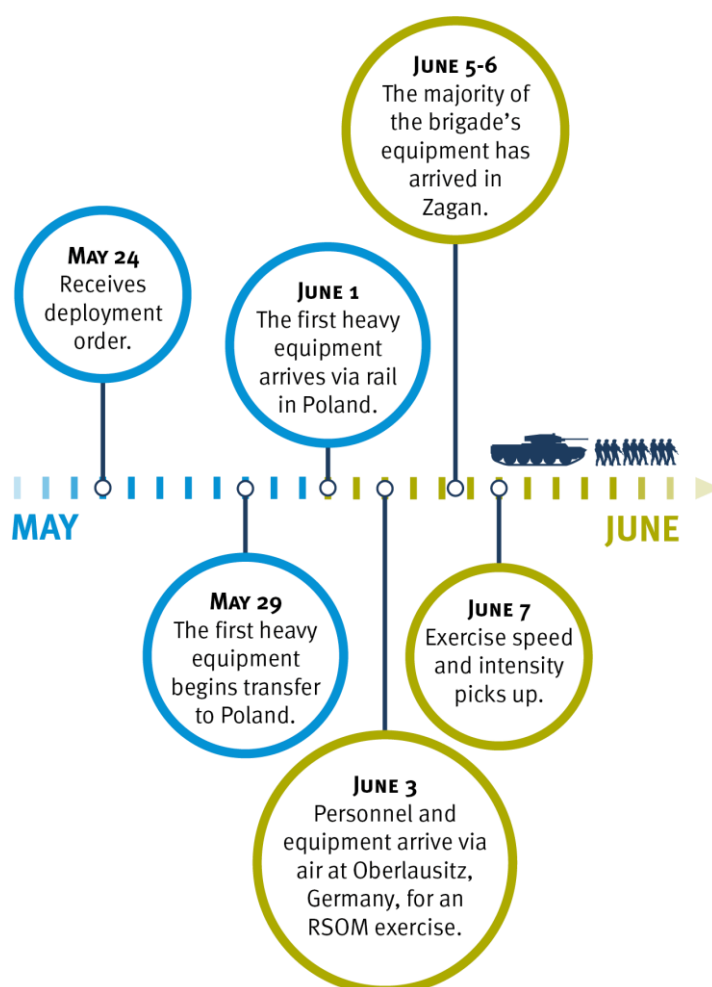


Figure 4: Movement schedule of the reduced German VJTF brigade from Münster to Zagan, Poland.

¹³⁴ Facebook account of Bundeswehr in Niedersachsen. See

<https://de-de.facebook.com/Bundeswehr.Niedersachsen/>

¹³⁵ Bundeswehr, Übung für die Speerspitze der NATO in Deutschland und Polen, May 27 2019.

¹³⁶ NATO JFC Naples, Twitter post, June 1 2019 and Defence24, Norwegian Telemark Battalion Deployed to Żagań, Poland, June 6 2019.

¹³⁷ Defense Visual Information Distribution Service, Noble Jump 2019 – Dutch and German armored vehicles cross into Poland for NATO exercise, June 5 2019.

¹³⁸ Joint Force Command Naples Public Affairs, Exercise Noble Jump 2019 in Full Swing in Poland.

¹³⁹ NATO JFC Naples, Twitter posts, June 3-5 2019.

3.4 US rapid deployment exercise to Poland

The US army aims to increase its capability for rapid deployment to the eastern flank with troops that are not given notification in advance, i.e. snap deployments. As a part of this effort, a non-notice deployment to Europe of a reduced Brigade Combat Team from continental US took place in March 2019. A press release states that the 2nd ABCT of the 1st Armored Division deployed to Europe to exercise its ability to rapidly alert and deploy. This is a test of the so-called Dynamic Force Employment concept, which was introduced in the 2018 US National Defense Strategy.¹⁴⁰ Briefly, it is a concept for compensating for a lack of numbers by having a capability to flexibly and rapidly deploy forces across the globe under unpredictable circumstances. According to an interview with army personnel, this was about as “real world” as it gets.¹⁴¹



Map 4: Movement of the 2nd ABCT of the 1st Armored Division from Fort Bliss, Texas, to Drawsko Pomorskie, Poland.

The actual force was a reduced ABCT of two battalions and a tactical command post composed of about 1500 soldiers.¹⁴² It was given one week’s notice to travel from Fort Bliss, Texas, to Germany, then proceed to fall in on prepositioned equipment, and start exercises in Poland.¹⁴³ The prepositioned equipment was taken out of an Army Prepositioned Stock site at Eygelshoven, in the Netherlands, as well as from a storage site in Mannheim, Germany. Units serving under the 21st Theater Sustainment Command readied and moved the equipment east by rail and by line haul trucks. The logistics troops of the 21st TSC had received “slightly more notice to prep sites and get the prepositioned gear ready for the incoming armour soldiers”.¹⁴⁴

¹⁴⁰ U.S. Department of Defense, Summary of the 2018 National Defense Strategy of The United States of America, 2018, p. 7.

¹⁴¹ South, Todd, Rapid deployment of Fort Bliss soldiers to Poland tests Army’s force flexibility, *Army Times*, March 21 2019.

¹⁴² Ibid.

¹⁴³ Kimmons, Sean, New capabilities, rotations to bolster Army presence in Eastern Europe, *US Army News Service*, March 6 2019.

¹⁴⁴ South, Rapid deployment of Fort Bliss soldiers to Poland tests Army’s force flexibility.

The forces singled out for the snap deployment exercise were in the middle of gunnery exercises at their home base in Fort Bliss, Texas, on March 11, when the call came in from division headquarters with orders to deploy to Poland.¹⁴⁵ On March 19, troops had begun arriving in Berlin by air.¹⁴⁶ From Berlin, the troops moved to the Drawsko Pomorskie Training Area, in western Poland, via road-bound convoy. By March 22, the first elements of the reduced ABCT began training and exercises with heavy equipment.¹⁴⁷ Throughout the week, more units undertook training and manoeuvres. It is not clear at what time the full 1500 soldier ABCT gained operational status, but most elements seem to have been up and running after a week. The routes travelled and the modes of transportation of the unit and the equipment are outlined in Map 4.

All in all, the time from notification of the troops in Texas on March 11 to initial operational status in Poland was around 15 days, but would have been slightly longer if it had been a complete ABCT.

However, there was also the matter of taking the heavy equipment out of storage, preparing it for use and transportation, and finally its transportation from the Netherlands and Germany. How long did that take and was the notice that the logistics troops were given really only “slightly” longer? According to a local newspaper article, transport operations from Eindhoven started on March 4.¹⁴⁸ Judging by the example of the Devil Brigade’s logistics for Atlantic Resolve, as outlined above, it is clear that the time needed to ready material for transport is between one and two weeks. Before that, troops have to receive their orders and move to storage facilities. This might not take many days. A conservative guess is that two to four days is enough. If these estimates are correct, the logistics units in question would have received their orders 9–16 days before the movement of equipment could start, i.e. mid-to-late February.

It is thus not possible to pinpoint the exact schedule as related to the prepositioned equipment used for the rapid deployment discussed above. Figure 5 illustrates an approximation of the time schedule for moving the reduced 2nd ABCT from Fort Bliss to Drawsko Pomorskie.

Since this was a snap deployment without advance notification, clearances for crossing borders may have been more of a problem than in the previous examples. In March of 2019, a senior Dutch official lamented that, “Currently, such requests are still received by fax or in complicated Excel spreadsheets. This is not only cumbersome, but also error-prone and insecure”.¹⁴⁹ In addition to the procedures, there are fixed notification times that reportedly cannot be altered or accelerated (at least not in times of peace). These include various issues related to security, road logistics, safety, et cetera. For US forces, these notification timelines are reported to be 10 working days for the Netherlands, 10 for Germany, and 5 for Poland.¹⁵⁰

Other known local frictions that have to be taken into account are the different safety standards applicable to Dutch and German railways. The same Dutch official remarked that it is practically impossible to transport such equipment directly across the border from Eindhoven to Germany, just a few kilometres away, due to the different railway safety standards between the two countries. “To reach Germany, a huge detour has to be taken, sometimes taking up to six extra days”.¹⁵¹

¹⁴⁵ Vandiver, John, “We got zero notice”: Army resumes Cold War-era snap deployments to Europe, *Stars and Stripes*, March 29 2019.

¹⁴⁶ Associated Press, The Army has a new plan to fight in Europe, and 1,500 troops from Texas just arrived to test it out, *Business Insider*, March 20 2019.

¹⁴⁷ Facebook account of the 2nd Armored Brigade Combat Team. See <https://www.facebook.com/2ABCT1AD>.

¹⁴⁸ Wagenvoort, Wil, Meer militair verkeer in Eindhoven, *De Limburger*, March 6 2019.

¹⁴⁹ de Vries, Aukje, Keynote Speech Over Militaire Mobiliteit, March 10 2019.

¹⁵⁰ U.S. Army Europe, Strong Europe Powerpoint presentation held at the Combat Logistics Conference, January 21 2019.

¹⁵¹ de Vries, Keynote Speech Over Militaire Mobiliteit.

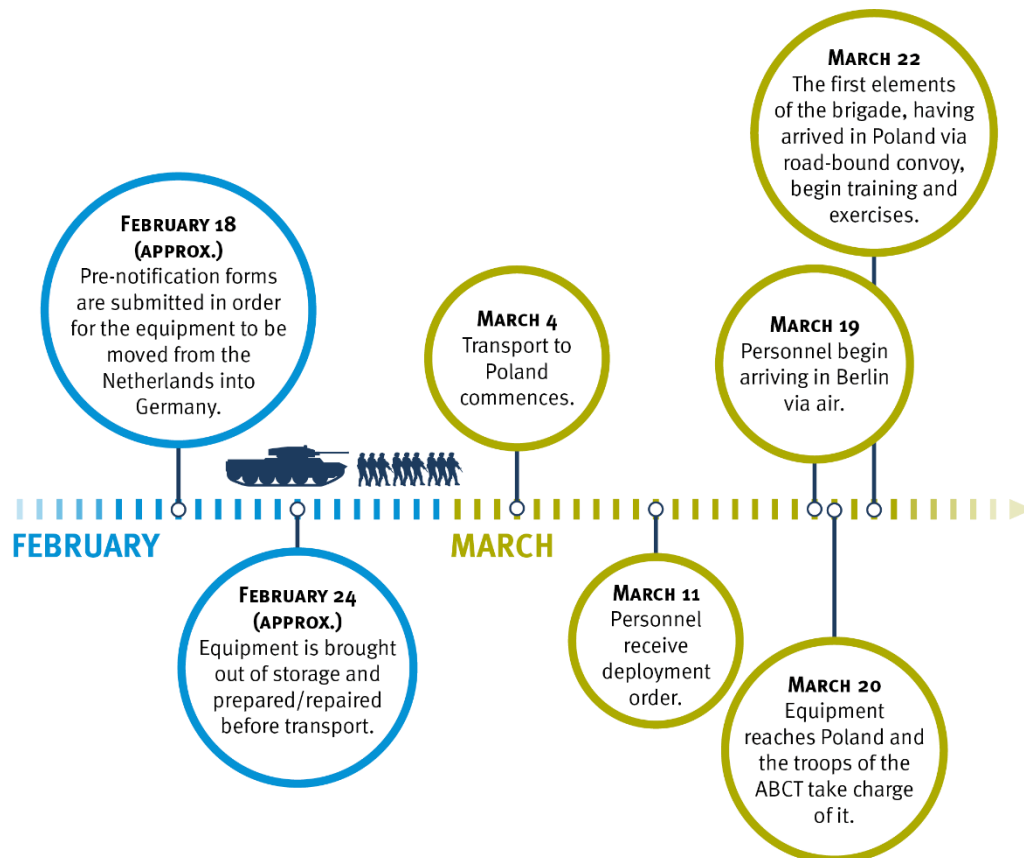


Figure 5: Movement schedule of the 2nd ABCT of the 1st Armored Division from Fort Bliss, Texas, to Drawsko Pomorskie, Poland.

This example suggests that while the transport of personnel by air can be done in a matter of days, the notification times and preparations required to reach operational readiness amount to a period of two weeks. Additionally, the preparation for and expedition of logistics for the prepositioned heavy equipment needed for a combat-ready ABCT seems to take more than a month.

3.5 Summary

The case studies described in this chapter show that NATO members currently have some ability to conduct strategic reinforcements to the eastern flank within a reasonable time frame. In a crisis, or war, however, the time frames currently displayed may not be sufficient.

US forces are essential reinforcement assets in NATO, whether for surge deployments to enhance deterrence or to conduct defensive combat operations. They are the most ready, apt, well-trained, and experienced in military mobility. The regular rotation of forces to Europe during Operation Atlantic Resolve has increased transportation proficiency and is used to train and hone logistics support. European-based forces, such as the German, Dutch, and Norwegian units that in 2019 make up the VTJF, also have some capability. Yet a standard US rotation takes roughly 7–8 weeks and a deployment of the VJTF about two weeks. That is still quite far from attainment of US and NATO goals. It is simply also a very long time, if one contemplates a surprise scenario wherein Russia conducts a land grab in the Baltic states, an operation that might take one to two weeks.

Several programs, processes, and initiatives have been launched to enhance NATO's capacity to send reinforcements to the eastern flank. Training to enhance the capability and reduce the times necessary for military movement is satisfied both by the regular rotation of forces and annual exercises that either focus on or contain elements of military mobility. As

improvements are implemented, NATO forces are likely to reduce the time necessary to move reinforcements to the eastern flank.

The realities of moving large forces over long distances will remain, however. This is especially true for force transports from continental US. Crucial time-consuming activities, such as moving heavy equipment to ports, crossing the Atlantic, or moving forces across the European continent, can only be honed so much. The example above suggests that six weeks is necessary for trans-Atlantic movement of heavy ground forces. This excludes preparation time for equipment. Of these timelines, neither embarkation, Atlantic transport, nor debarkation can be cut significantly, while ports such as Antwerp are unlikely to be able to handle more than two ships at once. Transport schedules in North America and Europe might be cut, but not by weeks. It is also unclear how many brigades could be moved concurrently at the same speed, but it is nevertheless limited by saturation of strategic sealift assets, port availability, and railway transport capacity in Europe.

In addition, the times needed for diplomatic clearances and customs declarations and for safety and security procedures prior to transit or deployment, differ from country to country, but usually take weeks, not days. A 2017 study concluded that the “cumbersome and time-consuming requirements to gain diplomatic and security clearances for convoys (normally 30 days), make the process a great hindrance”.¹⁵² While improvements may have been made since 2017, work remains to reduce the frictions associated with notification and clearance for military movements. Although clearance regulations may change in wartime, important parts of any reinforcement operation – if early warnings are heeded – will probably take place prior to the start of hostilities. The frictions caused by regulations and clearance procedures would likely still be in place in such a situation. Examination of peacetime rotational deployments and rapid reaction exercises may for this reason have more merit than first envisioned. The reality of current and ongoing mobility operations is that they to a large extent are carried out under the same conditions that would prevail in a crisis, but without the fog and friction of war.

The added friction associated with modern-day conflict can range from physical sabotage, conventional attack, and threats cum blackmail. There are also the challenges associated with disruptions to various systems that support and enable logistics in Europe. These range from GPS availability to databases and systems for coordination, distribution, and contract orders. The high level of reliance on civilian contractors in the chain of today’s military logistics, exemplified above, presents a particular problem from this point of view. How resilient to disruptive activity and network-based attacks are key civilian service providers? Which links in the logistics chain would fail first? There are few answers, but a working hypothesis is that civilian capabilities would face substantial disruption in times of crisis and war. This would further restrict effective military mobility, and increase reinforcement times.

This assessment suggests that much progress has yet to be made, but that peacetime improvement arrangements will have diminishing returns. It further suggests that NATO cannot realistically count and rely on a strategy of robust deterrence using ground forces without altering current force posture doctrines. Prepositioning more heavy material might be a way of shortening timelines. Permanently stationing troops in Europe would likely have an even greater effect, especially if implemented on the eastern flank.

¹⁵² Center for Army Lessons Learned, Strategic Landpower in Europe Special Study, p. 63.

4 Deterrence by reinforcement – a concluding discussion

This study applies both a top-down and bottom-up perspective to examine NATO's capability to send reinforcements to the eastern flank. Chapter 2 discusses the various initiatives NATO has launched in recent years to strengthen the capability for reinforcements and their status of implementation. Chapter 3 focuses on the actual time frames and practical steps involved in deploying forces to NATO's North East in peacetime conditions. This concluding chapter summarises the findings and adds a discussion of the strengths and weaknesses of NATO's evolving defence strategy and the possible future steps to further strengthen NATO's deterrence and defence posture.

4.1 A defence strategy of compromises

The initiatives relating to reinforcements and military mobility are a product of a much broader discussion on NATO's defence strategy. The decisions adopted since 2014 constitute the beginning of a profound transformation from out-of-area stabilisation operations back to the original task of national and collective defence. NATO's measures have moved from the initial reassurance of eastern allies facing an aggressive and revisionist Russia, to building a capability for deterrence. If the trajectory continues, it could eventually lead to a more robust defence of NATO territory. But NATO is still only at the start of this process. The limited forward deployment of tripwire forces to the Baltic states and Poland, underpinned by rapid reinforcements coming from the US and Western Europe, is supposed to ensure sufficient deterrence. However, taking the full step towards forward defence of the countries on the eastern flank has not yet been judged politically or military viable.

A number of compromises between members shape NATO's current defence strategy. Fundamentally, the allies have diverging perceptions of the Russian threat and the appropriate measures to deal with it. NATO thus has to strike a balance between measures to build credible deterrence, while trying not to provoke the Kremlin or disturb Alliance cohesion. The differing perceptions between member states are reflected in discussions about the choice between a permanent or rotational presence on the eastern flank. Thus far, NATO has opted to stick to an extensive interpretation of the commitment in the NATO-Russia Founding Act from 1997 and refrained from the permanent stationing of combat forces in Central and Eastern Europe.

The views of NATO's members also differ regarding the sense of urgency in undertaking the transformation towards deterrence and defence of NATO territory. The different approaches of the allies are, naturally, linked to their respective geopolitical positions and threat perceptions, but are also formed by other national political considerations and budget concerns. Planning and building capabilities for national and collective defence is costly. This means that NATO has to make a trade-off between the minimum effort required to ensure deterrence – by implication deterrence by punishment anchored in US nuclear weapons – and the maximum effort needed to prepare for the conventional defence of NATO territory – ensuring deterrence by denial.¹⁵³

A tension between these two very different perspectives – a less costly gamble with limited conventional capabilities or a safer bet with a more expensive set of capabilities – is something NATO has lived with since the early 1960s, and it seems unlikely to disappear soon, although the appetite for the nuclear dimension of deterrence seems diminished on both sides of the Atlantic. Perhaps not all European decision-makers are aware of the fact that by settling for a less robust posture on the eastern flank, and relying instead on the threat

¹⁵³ A distinction between deterrence and defence was a fact of life in Nato for much of the Cold War and now seems to resurface again. See for example Lidell Hart, B. H., *Deterrent or Defence: A Fresh Look at the West's Military Position*, New York: Praeger, 1960.

of deterrence by punishment, they are raising the risk of having to face the dilemma between accepting defeat or nuclear war. Moreover, the current force posture makes it hard for NATO to respond gradually to an escalation of a crisis or of hostilities, thus giving Russia an advantage in terms of escalation control. Figure 6 constitutes an attempt to capture NATO's dilemma and to illustrate the tension between the risk and cost of different kinds of deterrence postures.

NATO's deterrence dilemma

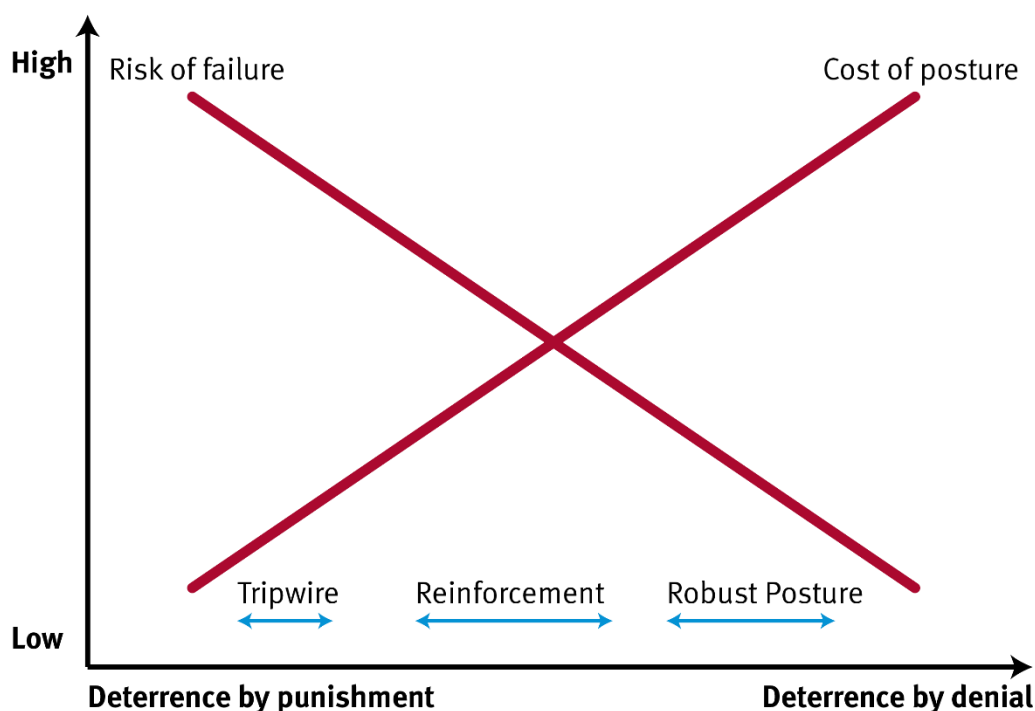


Figure 6: NATO's deterrence dilemma.¹⁵⁴

These underlying tensions make the strategic messaging around NATO's reforms important. Measures adopted are supposed to have a deterrent effect. To achieve this, there is a risk that they are framed as more robust than they actually are. This makes it essential for the outside observer to adopt a critical approach towards official declarations and study the practical conditions of moving forces on the ground.

At the end of the day, the fundamental question is whether Russia considers NATO's strategy as credible and including the necessary military capabilities. Words that are not backed up by action risk creating a lose-lose situation, in which Russia is antagonised and the security relationship deteriorates, but the necessary capability improvements are not achieved.

4.2 Reinforcing the eastern flank

Given NATO's current force posture of a limited forward presence, the capability to send reinforcements to the eastern flank is crucial to achieve deterrence. Since 2014, NATO has launched a number of reforms to address many of the key factors influencing its reinforcement capability. Furthermore, the enhanced US presence on the eastern flank since

¹⁵⁴ This figure addresses the deterrence dilemma seen from a NATO perspective. Critics could argue that it does not cover potential Russian reactions to NATO's force posture and the risk of an arms race.

2017 has increased the practical experience of regularly moving forces from the US and through Europe. Although much has been achieved over the past five years, many obstacles to effective reinforcement operations remain.

The large amount of initiatives and measures adopted since 2014 have led to ambiguities and overlapping mandates between new entities in the NATO command and force structure, which may lead to confusion and delays in case of crisis or war. This has resulted in calls for a comprehensive framework for NATO's evolving defence strategy. The signing in May 2019 of NATO's first military strategy since the Cold War, and the development of a concept for deterrence and defence of the Euro-Atlantic area, may be a first step to developing an overarching framework for the measures undertaken.¹⁵⁵ That said, an ever so clever plan developed at the strategic level will not be sufficient to solve all the obstacles to reinforcements. Gaining practical experience of moving forces and addressing problems as they arise at the tactical level may be equally important to strengthen NATO's capability for reinforcement.

The measures adopted by NATO should be viewed in conjunction with the national efforts of NATO's members. The US has developed a well-functioning logistics machinery that supports the regular rotations of forces to the eastern flank. The rotations studied in this report, however, demonstrate that moving large forces over long distances consists of several time-consuming activities, which can only be honed so much. Although progress is still possible, further measures will likely have diminishing returns. At the same time, the European NATO members are lagging behind. They could examine if they can learn from US logistics solutions and best practices, for example when it comes to securing access to rail transportation. As the US is a driving force in enabling military mobility, European investments in infrastructure and logistical support capabilities could also be a way to alleviate current tensions relating to burden-sharing within the Alliance. NATO could accommodate this by counting members' investments in dual-use infrastructure as defence spending.¹⁵⁶

However, as noted by Jim Townsend, such attempts to achieve fairer burden-sharing might come at the expense of European combat capability. To offset American spending, the current US administration has sought increased German contributions to NATO administration and infrastructure costs. This, however, leaves less funds for much-needed German spending on actual combat capability.¹⁵⁷ Also, while the EU can make a valuable contribution to military mobility by investing in dual-use infrastructure, its appetite for catering to military needs could diminish in times of economic recession. Likewise, important infrastructure projects financed by the European Deterrence Initiative are sensitive to political and economic changes, as the EDI budget request needs to be approved yearly by the US Congress.

On a practical level, the armed forces have to relearn the art of moving and sustaining heavy ground forces across Europe. However, the conditions are more complex today than during the Cold War. To a large extent, infrastructure has been privatised, or, as in the case of NATO's newer members in Central and Eastern Europe, was not previously part of the same system. Furthermore, NATO has to abide by complex rules and regulations relating to dangerous goods. At the same time, the obstacles to military mobility should not be exaggerated. Civilian actors continuously handle the movement of huge amounts of goods in today's globalised economy.

The practical steps and hurdles involved in moving forces from the US and through Europe could be viewed as the normal friction involved in any military operation. It may be possible

¹⁵⁵ NATO, NATO Chiefs of Defence discuss future Alliance adaptation, 2019 and NATO, Press Briefing on USEUCOM Priorities, 2019.

¹⁵⁶ Hodges, Ben and Bugjanski, Janusz and Doran, Peter, *Securing the Suwalki Corridor: Strategy, Statecraft, Deterrence and Defense*, Washington DC: Center for European Policy Analysis, 2018, p. 8.

¹⁵⁷ Townsend, Jim, Trump's Defense Cuts in Europe Will Backfire, *Foreign Policy*, September 17 2019.

to find innovative solutions to many of the problems identified. For example, the inadequate load capacity of bridges in Central and Eastern Europe could be handled by letting engineering troops build temporary bridges or by loading armoured vehicles on line-haul trucks or heavy-equipment transporters. The US Army has started stocking up on the latter for this very reason.¹⁵⁸ The question of civilian resilience in times of crisis and war does, however, remain a challenge and potential threat. Furthermore, the protection of transports and the sustainment capabilities and contributions of host nations constitute vital parts of reinforcements, an aspect that has not been analysed in greater detail in this study.

The study focuses on the movement of forces during peacetime conditions. The examples of deployments under study suggest that it takes about two weeks for intra-European, and about two months for US, brigade-sized reinforcements to arrive. This includes time at home base to prepare equipment for deployment, and time at the final destination to ready equipment for use. Furthermore, the time frames are contingent upon the size of the reinforcing units. The movement of a battalion-sized or a smaller unit probably takes less time. It is uncertain whether the time frames would be significantly shorter in case of a real crisis. Several factors suggest that the reality of current and ongoing mobility operations is that they to a large extent are conducted under conditions similar to those that would prevail in a crisis, but without the fog and friction of war. Rotational deployments and exercises are certainly planned long in advance, ensuring access to transportation capabilities and allowing time to follow established rules and regulations. However, if early warning is heeded and troops are deployed for deterrence purposes rather than defence, the movement of forces would in many ways be similar to a peacetime rotation.

In an urgent crisis or a war, indications are that NATO, on the one hand, has crisis procedures in place to lift restrictions on movements, or that SACEUR has the authority to deploy forces as necessary, which removes many obstacles. On the other hand, the access to transportation capabilities remains critical and many of the logistical steps involved in moving forces would still be in effect in a crisis. Significantly shortened time frames might be difficult to achieve. In a crisis or war, the movement of reinforcements to the eastern flank would probably be impeded by the fog and the frictions of war, congestion and logjams, and roads filled with fleeing civilians, not to mention enemy action – hybrid or conventional. Consequently, early decision-making and mandating SACEUR to mobilise and deploy forces before a crisis erupts seem to be essential. Improving the readiness of national forces is equally important for effective rapid reinforcement operations.

Large-scale deployment exercises are central to train logistic support capabilities and test the movement of forces across Europe. There are indications that NATO will discontinue the large-scale deployment exercise Trident Juncture in the future. Nevertheless, the US is planning for the Defender Europe 2020 exercise, which will see a US division reinforce the European theatre. The exercise will be conducted under demanding timelines and focus on the national, strategic, and operational legs of movement. NATO is also preparing to hold exercise Steadfast Defender, in 2021 in which 10,000 US soldiers and 1100 vehicles will reportedly deploy to Europe.¹⁵⁹ A way to enhance deployment exercises for the European NATO members would be to introduce more realistic short notice exercises of the VJTF.

4.3 Future steps to enhance NATO's deterrence and defence posture

NATO's current force posture of a limited forward presence of ground forces on the eastern flank – underpinned by reinforcements – is probably not sufficient to outweigh NATO's time-distance gap in the event of a Russian attack on the Baltic states. However, air and maritime forces, which are not part of the study, would likely be important to reduce the force imbalance vis-à-vis Russia. Thus, while the current defence strategy may not be quick

¹⁵⁸ Freedberg Jr., Poland Deal Lays Groundwork For Division-Strength Deployment.

¹⁵⁹ Die Welt, Ranghoher Nato-General kritisiert deutsche Infrastruktur, May 15 2019.

enough in providing NATO with the response capabilities and numbers necessary to meet a surprise attack, it might serve to ensure deterrence backed up by air power and by nuclear weapons, while maintaining Alliance cohesion.

The number of initiatives launched to strengthen the capability for reinforcement furthermore indicates that NATO is aware of the problems. The resulting ambiguities or uncertainties regarding NATO's command and force structure might serve to increase the room for manoeuvre of the member states in a crisis or war, as defence may have to rely on both national and combined action. It seems that in the future, however, it will be necessary to strengthen the regional focus of NATO's command and force structure, to ensure situational awareness, intelligence sharing, and the availability of national forces for rapid reinforcement.

Several US researchers and former defence officials have argued for a more substantial and permanent forward presence in order to defend NATO members on the eastern flank.¹⁶⁰ If NATO sticks to the current compromise of a limited forward deployment, preparations for and exercises of reinforcement operations need to step up and include European capabilities to a larger extent. Prepositioning of equipment and ammunition in the countries on the eastern flank is one way to speed up reinforcements.

The NATO Leaders Meeting in London, in December 2019, is not expected to result in any major initiatives relating to NATO's defence strategy or force posture. However, NATO leaders are likely to complete the process of identifying national forces for the NATO Readiness Initiative (NRI). Ultimately, the initiative aims to muster an additional 80,000 soldiers to the NATO force structure. While the results will not be known until 2024, the NRI demonstrates NATO's potential to spur reforms, as it is hard to envisage any other Western organisation taking on such a task. NATO is also likely to continue its work on the Enablement Plan for SACEUR's Area of Responsibility, which might ease procedures and strengthen infrastructure for reinforcement operations.

In the coming years, NATO has to address all the factors that influence reinforcement operations outlined in this report. This will strengthen the capability to send reinforcements to the eastern flank and, ultimately, enhance NATO's deterrence and defence posture.

¹⁶⁰ See for example Shlapak, David A. and Johnson, Michael W., *Reinforcing Deterrence on NATO's Eastern Flank, Wargaming the Defense of the Baltics*, RAND Corporation, 2016 and Vershbow and Breedlove, *Permanent Deterrence: Enhancements to the US Military Presence in North Central Europe*.

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As a response to Russia's illegal annexation of Crimea in 2014, NATO has begun a military transformation from out-of-area crisis management operations to deterrence and defence at home. This includes several reforms to heighten the readiness of national forces, enhance NATO's political and military decision-making, improve military mobility and strengthen logistical support capabilities.

NATO's current force posture of a limited forward presence in the Baltic states and Poland, puts a premium on the capability to rapidly send reinforcements to the eastern flank. Moving large forces over long distances consists of several resource and time consuming activities. The Alliance has taken significant steps to improve this capability, including large-scale deployment exercises. However, many practical, legal-bureaucratic and infrastructural obstacles remain.

This study examines the measures adopted by NATO to facilitate reinforcements and the practical conditions for moving ground forces from the US and Western Europe to the Baltic states and Poland. It discusses the strengths and weaknesses of NATO's evolving defence strategy and possible future steps to further strengthen NATO's deterrence and defence posture.