



REPORT

UNTIL SOMETHING MOVES

REINFORCING THE BALTIC REGION IN CRISIS AND WAR

| BEN HODGES | TONY LAWRENCE | RAY WOJCIK |

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After his first assignment as an infantry Lieutenant in Germany, he commanded infantry units at the company, battalion and brigade levels in the 101st Airborne Division and in Operation Iraqi Freedom. He also served as Director of Operations, Regional Command South, in Kandahar, Afghanistan.

Lieutenant General Hodges has served in a variety of Joint and Army Staff positions, including: Tactics Instructor at the Infantry School; Chief of Plans, 2nd Infantry Division in Korea; Aide-de-Camp to the Supreme Allied Commander Europe; Army Congressional Liaison Officer; Task Force Senior Observer-Controller at the Joint Readiness Training Center, Fort Polk, LA; Coalition/Joint – 3 (CJ3) of Multi-National Corps-Iraq in Operation Iraqi Freedom; Chief of Staff, XVIII Airborne Corps at Fort Bragg; Director of the Pakistan Afghanistan Coordination Cell on the Joint Staff; Chief of Legislative Liaison for the United States Army; and Commander, NATO Allied Land Command. His last military assignment was as Commander, United States Army Europe from 2014 to 2017.

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Between 2005 and 2013, Tony was also an Assistant Professor at the Baltic Defence College, responsible for the design and delivery of around 50% of the annual Higher Command Studies Course. Tony spent the first half of his career as a civil servant in the UK Ministry of Defence, including appointments in scientific research and procurement, and policy positions dealing with NATO issues, operational policy in the Balkans, the European Union’s security and defence dimension—now CSDP—and ballistic missile defence.

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During his 32 years of service in the US Army, Colonel Wojcik, served as a soldier, non-commissioned officer, and officer in a variety of tactical to strategic assignments. Upon completing his degree at the Embry Riddle Aeronautical University, he was commissioned as an infantry officer. Colonel Wojcik served in numerous Command, Staff, Army, Joint and Foreign Area Officer assignments in Europe and the United States culminating in his final tour as Army Attaché, American Embassy, Warsaw. His significant strategic contributions centre on enhancing US and regional security, through assisting allies and partners to increase their defence capacities, capabilities and interoperability.

EXECUTIVE SUMMARY AND RECOMMENDATIONS

At successive summits since 2014, NATO leaders have agreed a range of measures to enhance their deterrence and defence posture, including the establishment of an enhanced Forward Presence in Poland and the three Baltic states. They have further acknowledged that credible deterrence would require these small multinational forces to be underpinned by a robust reinforcement strategy: the Allies would need to have, and be able to demonstrate, an ability to move large and heavy military units, at speed, to and across Europe. In this report, we examine this key aspect of NATO's deterrence posture as it relates to the Baltic region.

The crisis-time movement of armed forces is likely to face three sets of challenges: legal and procedural obstacles; constraints imposed by the limited capacity of infrastructure; and issues related to coordination, command and control. The nature and severity of these challenges would vary according to the crisis scenario. For an operation to restore the Alliance's territorial integrity, the sheer scale of military movement, which NATO has barely rehearsed since the Cold War, would present a major challenge. A preventative deployment to respond to a potential crisis, meanwhile, would put a premium on speed of movement.

NATO and the EU have initiated work aimed at mitigating the legal and procedural challenges of moving armed forces across the European continent, and the two organisations have cooperated widely in these efforts. However, the legal processes necessary to move armed forces into and across Europe remain numerous and complex. While dealing with these processes is unlikely to be the greatest problem facing the managers of large-scale military movements, for a rapid response operation the timescales for completing the required paperwork are of the same order of magnitude as the timescales for the movement itself. Legal and procedural delays may thus have operational impact.

NATO and the EU have also collaborated on the harder task of ensuring that transport infrastructure is suited to military needs. Shortcomings in the physical capacity of infrastructure—for example weight limits on roads and bridges and traffic volume limitations for rail transport—alongside a range of constraints related to the procedural and contractual arrangements that enable the use of civilian infrastructure for military movement would pose substantial challenges to large-scale deployments. While there are adequate civilian assets for military road and rail movements during peacetime, it may be difficult to meet the armed forces' requirements for large-scale movement during crisis. Furthermore, the Baltic region also lacks supporting logistics infrastructure, for example for receiving and staging (and sustaining for extended periods) forces that have arrived in the region.

A further set of challenges arises from the need for coordination among the multiple agencies involved in the movement of armed forces. There is no clear picture, even amongst movement specialists, as to how these agencies would work together during crises and how movements would be prioritised to serve the operational needs of the Joint Force Commander. There is also a wide expectation that the Joint Support and Enabling Command is the key to solving at least some of these problems, but at the same time only a limited understanding of this new organisation's role.

Effective Host Nation Support is a further essential component, allowing incoming forces to prioritise combat presence over the presence of supporting units. The countries of the Baltic region are confident of their abilities to provide sufficient HNS if sufficient guidance is provided; although they acknowledge that, with only limited NATO exercises in the region, HNS processes have not been stress-tested.

We recommend that Allies and Member States should:

LEGAL AND PROCEDURAL

- continue to work in NATO and the EU to reduce potential barriers to movement created by cross-border and in-country movement regulations, customs and taxation requirements, and other administrative and legislative procedures. They should make best use of existing fora, such as the NATO Movement and Transport Working Group, EU Permanent Structured Cooperation military mobility project, and the Management Committee for Optimizing Cross Border Movement Permissions in Europe, to share best practice and seek to standardise arrangements as far as possible;
- ensure that legal and procedural obstacles to movement should be given high visibility and that appropriate political pressure is applied to ensure that solutions are found and implemented;

INFRASTRUCTURE

- recognise the importance of Europe's railway networks to military movement. Railways should be primary means for military movement, certainly for heavy equipment, from the very beginning of a crisis, and from port of debarkation to operational area. The Allies should invest in improving rail infrastructure;
- continue to upgrade road networks and ensure that major supply routes meet the minimum standards for moving military equipment. While the railway network should bear a substantial proportion of military movements, the road network will still be necessary to maximise traffic volumes and to provide redundancy in transportation options;
- ensure that prior arrangements are in place to guarantee priority access to the assets necessary for military movement, both on the railways and roads—for example, heavy load rail wagons, guard vans and Heavy Equipment Transporters. These arrangements should allow for the movement of more than just NATO's very high readiness response forces. Allies should examine mechanisms for ensuring this capacity on a multinational basis, for example through pooling arrangements or centralised funding;
- recognise the synergies between military and civilian needs for infrastructure improvements, and encourage the continued and wider use of EU processes and funding (such as the Connecting Europe Facility) to satisfy both sets of needs;
- make use where possible of regional defence and other cooperation formats, such as the Bucharest 9 and the Three Seas Initiative, to advocate for and fund infrastructure projects that also support military movement;
- work to standardise procedures for the escort of military movements across Europe. Allies should ensure that there are adequate numbers of gendarmes, movement companies and others who provide military escorts, and consider the use of reserve forces and territorial defence units to provide surge capacity for escort missions (as well as for the Host Nation Support mission more broadly);
- discuss options for and seek agreement to the extent to which funding for infrastructure to enhance military movement might be credited by NATO as defence expenditure. Alongside this, Allies should consider whether and how targets for infrastructure development might be included within the NATO Defence Planning Process;
- identify, and invest in, static infrastructure—perhaps former Soviet or Warsaw Pact military facilities—to permit the holding and assembly of large military formations, and to pre-position stocks (and for the US, equipment) to reduce the movement burden;

COORDINATION, COMMAND AND CONTROL

- invest in the Joint Support and Enabling Command (JSEC) and ensure that it is adequately staffed (including personnel from the Baltic region) both to enable the Supreme Allied Commander Europe's Area of Responsibility in peacetime and to execute the vital task of coordinating movement through the rear area during crisis. It is also essential, if the JSEC is to add value, that the Allies should provide it, in a timely fashion, with all the information that will be necessary for it to provide coordination services. The JSEC itself will need to do more to persuade Allies that accepting this additional overhead will bring about substantial benefit;
- provide the JSEC with the mandate and means to develop and maintain a recognised logistics picture that includes an overview of movement status;
- conduct, as a matter of some urgency, table top exercises and scenario-based discussions to properly define the coordination, command and control concepts, issues, and roles and responsibilities for movement that have arisen through a combination of the establishment of the JSEC and the uncertainties that remain around the Joint Logistics Support Group concept;
- review the role and functions of the NATO Force Integration Units (NFIU) with regard to military movement. The NFIUs have evolved since their establishment, often in different directions, and their place and value may be impacted by the establishment of the JSEC;

HOST NATION SUPPORT

- provide greater detail in NATO and US reinforcement planning, to allow host nations to prioritise infrastructure investment, and justify expenditure;
- work to standardise Statements of Requirement for Host Nation Support (HNS) for the Very High Readiness Joint Task Force (VJTF) (or at least to simplify the process of their generation) and ensure that these are agreed and put in place before the handing over of VJTF framework nation responsibilities;
- seek to coordinate HNS arrangements across the Baltic region in order to ensure efficiency and provide a single set of arrangements for deploying states;

EXERCISES

- stress-test legal and procedural systems, infrastructure and coordination, command and control, through exercises in the Baltic region. The exercise programme should include both large scale reinforcement exercises, similar to Trident Juncture 2018 or Defender-Europe 20, and a healthy mix of small and large emergency readiness deployment exercises (i.e. no-notice or snap exercises) to force the military movement apparatus to respond and become more agile. Forces should 'train as they fight';
- be ready for exercises to 'fail' due to Reception, Staging and Onward Movement (RSOM) issues. It is always possible to find ad hoc solutions to make exercises work, but declaring success and glossing over RSOM problems misses important opportunities to rectify systems and processes. Similarly, ensure that exercises are subject to robust after action review in order to ensure that lessons are learned, solutions are found, and doctrine and procedures are updated and implemented; and

OTHER

- make particular efforts to overcome the difficulties between NATO and the EU in sharing information relevant to military movement. Dealing with the challenges of military movement is already sufficiently complex, without duplication or competition between the two organisations primarily responsible for it. Together, NATO and the EU have an opportunity to play a game-changing role in mitigating the difficulties of rapid military movement.

LIST OF ABBREVIATIONS

AMCC	Allied Movement Coordination Centre
AOR	Area of Responsibility
BCT	Brigade Combat Team
CAB	Combat Aviation Brigade
CBMP	Cross Border Movement Permission
CEF	Connecting Europe Facility
DIP	Defence Investment Pledge
EDA	European Defence Agency
EDI	European Deterrence Initiative
eFP	Enhanced Forward Presence
EUCOM	(US) European Command
HET	Heavy Equipment Transporter
HNS	Host Nation Support
JFC	Joint Force Command
JLSG	Joint Logistics Support Group
JOA	Joint Operations Area
JSEC	Joint Support and Enabling Command
MD	Military District
NFIU	NATO Force Integration Unit
NMCC	National Movement Coordination Centre
NRF	NATO Response Force
OIF II	Operation Iraqi Freedom II
PESCO	Permanent Structured Cooperation
RSOM	Reception, Staging and Onward Movement
SACEUR	Supreme Allied Commander Europe
SOR	Statement of Requirement
TEN-T	Trans-European Transport Network
USAREUR	US Army Europe
VJTF	Very High Readiness Joint Task Force

Nothing happens until something moves.

Albert Einstein, frequently quoted approvingly by
military logisticians

... it sometimes appears that the logistics aspect of war is nothing but an endless series of difficulties succeeding each other. Problems constantly appear, grow, merge, are handed forward and backward, are solved and dissolved only to reappear again in a different guise.

Martin van Creveld¹

INTRODUCTION

At the Wales Summit in 2014, in response to Russia's aggression against Crimea and eastern Ukraine, NATO heads of state and government recognised an urgent need to strengthen the Alliance's deterrence and defence posture. The NATO Readiness Action Plan agreed at the Summit contained measures to reassure Allies including Allied military presence and military activity, on a rotational basis, in the eastern part of the Alliance. It also contained measures for NATO adaptation, including: increasing the capabilities of the NATO Response Force (NRF) and establishing the Very High Readiness Joint Task Force (VJTF); establishing a permanent command and control presence and force enablers on the territories of the eastern Allies focused on the core task of collective defence; and enhancing NATO's ability to reinforce the eastern flank, by preparing infrastructure, pre-positioning equipment, and designating bases.² The US, meanwhile, initiated Operation Atlantic Resolve, under which US-based armoured, aviation and sustainment task forces are deployed to Europe on a rotational basis; at any time around 6 000 US personnel participate, conducting operations and exercises across 17 countries.³

¹ Martin van Creveld, *Supplying War. Logistics from Wallenstein to Patton* (New York: Cambridge University Press, 2004), 231.

² NATO, "Wales Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales, 5 September 2014," press release (2014) 120, 5 September 2014, paragraphs 7-8.

³ U.S. Army Europe, "Atlantic Resolve Fact Sheet," 6 June 2018, <https://www.eur.army.mil/Newsroom/Fact-Sheets-Infographics/Fact-Sheet-Article-View/Article/1451471/atlantic-resolve-fact-sheet/>.

In 2016, at the Warsaw Summit, in the context of continued Russian aggression, NATO took additional steps to strengthen its deterrence and defence posture on the eastern flank. Among the new measures adopted, NATO leaders agreed to establish an enhanced Forward Presence (eFP) in the three Baltic states and in Poland.⁴ The eFP, which comprises four multinational battalion-sized battlegroups integrated into local host force structures and each led by a framework nation, first deployed in

In 2016, at the Warsaw Summit NATO took additional steps to strengthen its deterrence and defence posture on the eastern flank

early 2017. The additional defensive capability they bring to their host nations increases deterrence, in particular in the Baltic states, where their size is significant when compared to the size of the local active armed forces. However, based on the size and readiness of

Most analysts conclude that local Baltic forces and their eFP components would be unable to hold off a short-notice Russian attack

the military units that Russia maintains in its Western Military District (MD), most analysts conclude that local Baltic forces and their eFP components would still be unable to hold off a short-notice Russian attack.⁵ The key role of eFP is thus to deter – to "make clear that an attack on one Ally would be considered an attack on

⁴ NATO, "Warsaw Summit Communiqué. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw, 8-9 July 2016," press release (2016) 100, 9 July 2016, paragraph 40.

⁵ The most widely quoted assessment – that Russian forces could reach Tallinn or Riga within 60 hours – is based on a series of table top exercises conducted by the RAND corporation: David A. Shlapak, and Michael W. Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica, CA: The RAND Corporation, 2016), 4-5. For other assessments, see for example: R. Reed Anderson, Patrick J. Ellis, Antonio M. Paz, Kyle A. Reed, Lendy "Alamo" Renegar, and John T. Vaughan, *Strategic Landpower and a Resurgent Russia: an Operational Approach to Deterrence* (Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2016), 55; Eric Edelman, and Whitney M. McNamara, *U.S. Strategy for Maintaining a Europe Whole and Free* (Washington, DC: Center for Strategic and Budgetary Assessments, 2017), 40; Kathleen H. Hicks et al., *Perspectives on Security and Strategic Stability: A Track Two Dialogue with the Baltic States and Poland* (Washington, DC, Center for Strategic and International Studies, 2016), 12.

the whole Alliance,” and to demonstrate the “Allies’ solidarity, determination, and ability to act by triggering an immediate Allied response to any aggression.”⁶

The credibility of this forward deterrent role has since been further bolstered by NATO initiatives to improve the readiness of other combat forces that could deploy to the region in a crisis. Notably, at the Brussels Summit in 2018, NATO leaders launched the NATO Readiness Initiative, through which they agreed to make available for NATO operations 30 major naval combatants, 30 heavy or medium manoeuvre battalions, and 30 kinetic air squadrons in 30 days or fewer.⁷ At the same time, they announced the creation of two new headquarters with a particular role in military movement: Joint Force Command (JFC) Norfolk will focus on protecting transatlantic sea lines of communication, while the Joint Support and Enabling Command (JSEC) will “ensure freedom of operation and sustainment in the rear area in support of the rapid movement of troops and equipment into, across, and from Europe.”⁸ Both JFC Norfolk and the JSEC are part of the NATO Force Structure, with the US and Germany respectively acting as framework nations.

As NATO leaders acknowledged in establishing eFP, their forces present at all times in the Baltic region would also need to be “underpinned by a viable reinforcement strategy”

These are all important measures. But as NATO leaders acknowledged in establishing eFP, their forces present at all times in the Baltic region would also need to be “underpinned by a viable reinforcement strategy.”⁹ In this report, we examine this key aspect of NATO’s

deterrence posture as it relates to the Baltic region.¹⁰ For deterrence to succeed – and for NATO to prevail in a conflict should deterrence fail – the Allies need to have, and be able to demonstrate, the ability to move large and heavy military units, at speed, to and across Europe. Broadly, a movement of this type is likely to face three sets of challenges: legal and procedural obstacles; constraints imposed by the limited capacity of infrastructure; and issues related to coordination, command and control.

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Our report is based on a study of the available literature, and on the findings of a series of interviews conducted in late 2019 with key individuals involved in the processes of military movement. Our interviewees included personnel from: NATO headquarters; US European Command (EUCOM); US Army Europe (USAREUR); NATO’s JSEC; the Ministries of Defence and/or Defence Staffs of Estonia, Latvia, Lithuania and Poland; the NATO Force Integration Units (NFIU) located in Estonia, Latvia, Lithuania and Poland; the Ministry of Economic Affairs and Communications of Estonia; and Estonian Railways (AS Eesti Raudtee) and Lithuanian Railways (AB Lietuvos geležinkeliai) (see Figure 1). In order

to encourage frankness, all interviews were conducted on the basis of anonymity and the comments and views of interviewees, while reflected in this report, are not attributed here to particular individuals or organisations.

We have divided our report into seven chapters. Chapter 1 describes, by way of background, the efforts that NATO and the EU have already made to address the challenges involved in moving NATO (and EU) forces across Europe. Chapter 2 considers the scale of movement

⁶ NATO, “Boosting NATO’s presence in the east and southeast,” 21 Jan 2019, https://www.nato.int/cps/en/natohq/topics_136388.htm; NATO, “Warsaw Summit Communiqué,” paragraph 40.

⁷ NATO, “Brussels Summit Declaration. Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Brussels 11-12 July 2018,” press release (2018) 074, 11 July 2018, paragraph 14.

⁸ Ibid., paragraph 29.

⁹ NATO, “Warsaw Summit Communiqué,” paragraph 40.

¹⁰ That is the three Baltic states of Estonia, Latvia and Lithuania, and Poland.

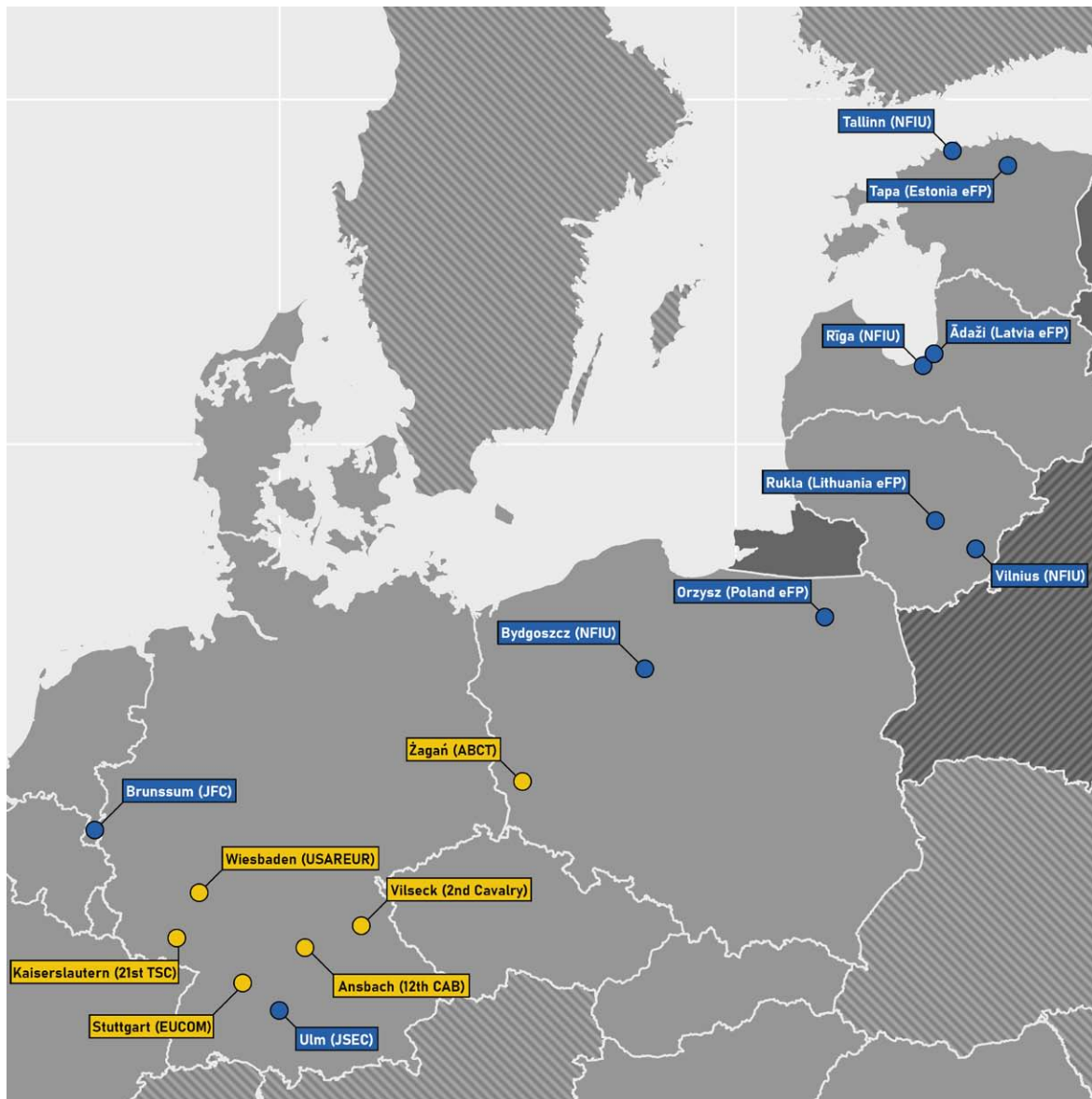


Figure 1. Key Locations and Organisations Cited in Report

that might be involved in reinforcing the Baltic region and sketches two scenarios that would stretch the capacities of the Allies in different ways, which we have used to explore the challenges to military movement in Europe. Chapter 3 outlines some issues of broader context that are related to military movement, but are not addressed in any detail in our report. Chapters 4, 5, and 6 explore the potential obstacles to military movement in Europe: legal and procedural obstacles, infrastructure constraints, and coordination, command and control challenges. In Chapter 7, we briefly outline the key role of Host Nation Support (HNS) in supporting military movement. Finally, we draw conclusions and make recommendations.

1. ENABLING REINFORCEMENT: PROGRESS IN NATO AND THE EU

Both NATO and the EU have recognised the importance of identifying and implementing measures to mitigate the challenges of moving armed forces across the European continent, and have initiated work to meet this goal. To further enhance the credibility of its defence and deterrence posture, the Alliance has begun a series of initiatives specifically aimed at easing the movement of forces across the Atlantic Ocean and through Europe. The efforts related to military movement, collectively falling under

the heading of 'enabling the Supreme Allied Commander Europe's Area of Responsibility'

NATO and the EU have recognised the importance of identifying and implementing measures to mitigate the challenges of moving armed forces across the European continent

(SACEUR's AOR) include measures: to facilitate border crossing by military units; to improve command and control of logistics movements (including the creation of the JSEC); to ensure that NATO has sufficient lift capabilities to move troops and equipment; and to ensure that infrastructure is able to cope with large and heavy military equipment.¹¹

As part of these efforts, for example, the NATO Movement and Transport Working Group has been tasked to standardise the paperwork required for moving military cargo.

NATO and the Allies have also begun to exercise larger-scale movement across and reinforcement of the European theatre

NATO and the Allies have also begun to exercise larger-scale movement across and reinforcement of the European theatre. The most notable example is Trident Juncture 2018, an exercise that involved a total of 50 000 personnel and saw Norway receive around 180 flights and 60 ship loads of equipment and troops.¹² In October 2019, meanwhile, the UK carried out the routine rotation of 200 vehicles and 800 personnel of its eFP contingent in Estonia as a simulated operational reinforcement. Operation Tractable, which used sea, air, road and rail movements was carried out over a ten-day period.¹³ The US exercise Defender-Europe 20, the largest deployment of US troops to Europe in 25 years, will involve 20 000 personnel (i.e. a division-sized movement) deploying from the US, drawing prepositioned

equipment (13 000 pieces to supplement the 20 000 pieces transported from the US), and spreading out across Europe in smaller units to participate in a range of complementary exercises with Allies, before redeploying to home bases.¹⁴

In much of its work on enabling SACEUR's AOR, NATO is working closely with the EU. The two organisations recognise military mobility as a "flagship" of the wider cooperation programme they

The US exercise Defender-Europe 20, the largest deployment of US troops to Europe in 25 years, will involve 20 000 personnel

formalised in December 2016.¹⁵ Indeed, as the EU institutions have responsibility for cross border regulation for the single market and as the European Commission has proposed to allocate funds for the modernisation of dual-use infrastructure as part of its 'European Defence Union' agenda, it is natural that the EU has taken the lead on many of these issues. The EU has identified three action areas: the identification of military requirements

for military mobility; the enhancement of dual-use civilian-military transport infrastructure to meet the requirements for the transport of military personnel and equipment; and the standardisation and simplification of regulations and procedures that hinder military movement, in particular rules for the carriage of dangerous goods, customs and VAT procedures, and Cross Border Movement Permissions (CBMP).¹⁶

The military requirements for military mobility, developed by the EU Military Staff in

¹¹ Timo Koster, "Reinforcement of NATO forces and military mobility," *Atlantisch Perspectief* 42:4 (2018), 17.

¹² Norwegian Armed Forces, "Facts and information. Exercise Trident Juncture 2018 (TRJE18)," fact sheet, 3.

¹³ "Tractable exercise comes to end in Estonia," ERR News, 5 November 2019, <https://news.err.ee/999590/tractable-exercise-comes-to-end-in-estonia>.

¹⁴ US Army Europe, "DEFENDER-Europe 20 Fact Sheet," available at <https://www.eur.army.mil/DefenderEurope/>.

¹⁵ NATO, European Union, "Fourth progress report on the implementation of the common set of proposals endorsed by NATO and EU Councils on 6 December 2016 and 5 December 2017," 17 June 2019, available at https://www.nato.int/cps/en/natohq/topics_49217.htm, 1. NATO, "Joint declaration by the President of the European Council, the President of the European Commission, and the Secretary General of the North Atlantic Treaty Organization," press release (2016) 119, 8 July 2016.

¹⁶ European Union, 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 for Military Mobility," JOIN(2018) 5 final, 28 March 2018, 3-9.

coordination with other relevant bodies and with inputs from NATO, cover several areas, including “planning and conduct support, transport infrastructure, legal and regulatory aspects, access to transport resources and support, coordination and information exchange, security, training, and environmental considerations.”¹⁷ A key aim of EU-NATO cooperation is to ensure that the requirements used by the two organisations in their work on military mobility are coherent.¹⁸ NATO has also shared with the EU the mobility corridors it would expect to make use of during crises.

A key aim of EU-NATO cooperation is to ensure that the requirements used by the two organisations in their work on military mobility are coherent

To deal with physical infrastructure barriers, the Commission has proposed making available EUR 6.5 billion to fund civilian-military dual-use projects (this figure is subject to agreement on the Multiannual Financial Framework for 2021-2027; in late 2019 the then Finnish Presidency proposed a reduction to EUR 2.5 billion).¹⁹ The source of the proposed funding is the Connecting Europe Facility (CEF), which in turn finances key projects of the Trans-European Transport Network (TEN-T), a policy that aims to develop a “Europe-wide network of railway

The EU regards the ability to create synergies between military needs and existing EU polices as an important opportunity to add value

lines, roads, inland waterways, maritime shipping routes, ports, airports and railroad terminals.”²⁰ The EU regards the ability to create synergies between military needs and existing

EU polices as an important opportunity to add value.²¹ Member States will be able to apply for this funding for projects that meet the (still to be finalised) dual-use requirements. They will be required to co-finance projects on a 50-50 basis, and cross-border projects are likely to have a greater chance of support. Meanwhile, the European Defence Agency (EDA) has coordinated on the basis of submissions by the Member States, a definition of the geographic scope of all transport infrastructure that the Member States have identified as being required for military movement.²²

In the field of regulations and procedures, EU Member States have agreed to be able to issue movement permissions within 5 days (3 days for high readiness forces), to develop national implementation plans for enhancing military mobility, and to appoint national points of contact who are able to coordinate movement issues internally while presenting a single face to external customers. The EDA, meanwhile, has conducted a survey of the Member States’ regulations for the transport of dangerous goods, with a view to identifying measures to improve military mobility by removing or reducing barriers to such transport.²³ Work is also underway to amend EU legislation to allow Allies to use the existing NATO Form 302 for wider customs purposes than are currently permitted, and to create a parallel, ideally identical EU Form 302 for non-NATO movement by EU Member States.²⁴ The eventual aim is to produce a digital version of the consolidated Form 302.

The EDA has also coordinated a programme to harmonise and simplify cross-border procedures for military surface and air movements, which has resulted in the establishment, under Lithuania’s chairmanship, of the 14 Member State Management Committee for Optimizing Cross Border Movement Permissions in Europe to

¹⁷ European Union, European Commission and High Representative of the Union for Foreign Affairs and Security Policy, “Joint Report to the European Parliament and the Council on the implementation of the Action Plan for Military Mobility,” JOIN(2019) 11 final, 3 June 2019, 2.

¹⁸ NATO, European Union, “Fourth progress report,” 8.

¹⁹ European Union, Council of the European Union, “Multiannual Financial Framework (MFF) 2021-2027: Negotiating Box with Figures,” 14518/1/19 REV 1, 15 December 2019, 41.

²⁰ European Union, European Commission, “Trans-European Transport Network (TEN-T),” https://ec.europa.eu/transport/themes/infrastructure/ten-t_en.

²¹ European Union, “Joint Report to the European Parliament,” 3.

²² Ibid., 2.

²³ Ibid., 6.

²⁴ Ibid. NATO Form 302 currently applies only to transit of goods, but might also be extended to cover, for example, import and export.

take forward practical work.²⁵ Meanwhile, a Dutch-led project on military mobility has been established under Permanent Structured Cooperation (PESCO) to serve as a framework for current and anticipated programmes, projects, initiatives, and activities within the three areas identified in the Commission/High Representative action plan. The project provides a political-strategic platform for discussing progress in the military mobility programme and for sharing best practice.²⁶

Finally, in addition to NATO and EU – and, of course, national – resources, US forces in Europe have some funds available through the European Deterrence Initiative (EDI) to “improve theater Joint Reception, Staging, Onward Movement, and Integration (JRSO&I) capabilities.”²⁷ For example, in 2019, US Naval Forces Europe and USAREUR coordinated the removal of the wreck of a dredging barge named “Olga”, which had sunk in 2010 beside the pier of the Greek Port of Alexandroupolis, reducing pier availability in this key logistics port from 500m to 200m.²⁸ In another example more directly relevant to the Baltic region, EDI and Estonian funding has been used to construct ramps at

Tapa garrison to allow heavy armoured vehicles to be unloaded from and loaded onto trains.

2. CRISIS MOVEMENT SCENARIOS

While a Russian military attack on the Baltic region is considered unlikely by most analytical assessments, it represents the most dangerous threat to the countries there.²⁹ Russia depicts NATO as a threat, and claims that NATO’s military presence in countries formerly part of the Soviet Union or Warsaw Pact is a violation of the NATO-Russia Founding Act.³⁰ Russia itself has undertaken substantial and wide-ranging military reforms in the period since 2008 – the ‘new look’ reforms – but would still be unable to prevail in a large-scale, prolonged and conventional conflict with NATO.³¹

In the Baltic region, Russia enjoys significant advantages of time and space, and also of force ratios and in key capabilities such as air defence

However, in the Baltic region, Russia enjoys significant advantages of time and space, and also of force ratios and in key capabilities such as air defence.³² These advantages might, if Moscow believed the costs and consequences to be manageable, tempt it towards military adventurism; indeed the Russian armed forces reportedly rehearsed an attack on NATO countries in their most recent western

²⁵ Ministry of National Defence (Lithuania), “Lithuania to head EU programme for simplified military mobility procedures,” http://www.mond.gov.lt/en/news_1098/news_archives/new_archive_2019/news_archive_2019_-_05/lithuania_to_head_programme_for_simplified_military_mobility_procedures.html?pbck=10.

²⁶ “Permanent Structured Cooperation (PESCO)’s projects – Overview,” available at European Union, Council of the European Union, “Defence cooperation: Council launches 13 new PESCO projects,” press release, 12 November 2019, <https://www.consilium.europa.eu/en/press/press-releases/2019/11/12/defence-cooperation-council-launches-13-new-pesco-projects/>.

²⁷ Like all defence commitments, infrastructure improvements to support military movement will primarily fall to national budgets. As part of Poland’s USD 2 billion commitment to securing US presence on its territory, for example, it will fund rail head expansions near deployment bases and also, potentially bridge upgrades to cope with heavy armour. A further example is Poland’s decision to construct, by 2027, a ‘hub-and-spoke’ transportation network, the country’s largest infrastructure project since 1989, which aims to increase civilian transport capacity and improve military mobility: Chelsea Michta, *Poland’s Role in Securing NATO’s Eastern Flank. Military Mobility and the Central Transportation Hub* (Washington, DC: Center for European Policy Analysis, 2019), 7-10. Through the EDI, the US made USD 282 million available for improving RSOM in Europe in 2019: Department of Defense (US), Office of the Under Secretary of Defense (Comptroller), “European Deterrence Initiative. Department of Defense Budget FY 2019,” February 2018, 14.

²⁸ Matthew Bradley, “Salvaging Olga The Barge,” DVIDS, 13 September 2019, <https://www.dvidshub.net/video/709457/salvaging-olga-barge>.

²⁹ Alexander Lanoszka, and Michael A. Hunzeker, *Conventional Deterrence and Landpower in Northeastern Europe* (Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2019), 77-79.

³⁰ Janusz Bugajski, “Moscow’s Anti-NATO Deception. Why Does Moscow View NATO as a Threat?” Center for European Policy Analysis, 23 July 2019. <https://www.cepa.org/moscows-anti-nato-deception>.

³¹ Keir Giles, “Assessing Russia’s Reorganized and Rearmed Military,” Carnegie Endowment Task Force White Paper, May 2017, <https://carnegieendowment.org/2017/05/03/assessing-russia-s-reorganized-and-rearmed-military-pub-69853>.

³² Scott Boston, Michael Johnson, Nathan Beauchamp-Mustafaga, and Yvonne K. Crane, *Assessing the Conventional Force Imbalance in Europe. Implications for Countering Russian Local Superiority* (Santa Monica, CA: The RAND Corporation, 2018), 7-10.

direction strategic exercise, *Zapad 2017*.³³ It is only prudent to seek to deter such an eventuality, and to plan to ensure that it could not succeed.

A commonly discussed scenario in the Baltic context is the so-called *fait accompli*, in which Russia would use forces in the Western MD to mount a rapid, surprise attack to seize some or all Baltic territory, confronting NATO with a series of unpalatable choices, such as: a humiliating – and probably for the Alliance, fatal – acceptance of the new facts on the ground; bloody and costly conventional operations to restore the Alliance’s territorial integrity; or nuclear escalation. In such a scenario, Russia would expect to increase its chances of success through three interrelated actions. First, it would conduct operations employing, as a coordinated whole, military means supported by non-military means (e.g. disinformation and cyber-attacks) – this approach is at the heart of General Gerasimov’s ‘strategy of active defence’, sometimes known in the

at worst paralyse it.³⁵ Third, it may use, or threaten to use nuclear weapons in an attempt to further disrupt NATO’s decision-making.³⁶ In this regard, Russia’s deployment of the dual-capable ground-launched cruise missile, 9M729/SSC-8, is a particular concern. These weapons would allow Russia to intimidate European Allies and partners without threatening the US with its intercontinental nuclear capability, greatly raising the potential cost of a counterattack and perhaps fracturing Alliance cohesion.³⁷

In this *fait accompli* scenario, Russia would move large numbers of forces rapidly into the Baltic states. The RAND corporation’s well-known series of table top exercises, for example, assumed that 27 Russian manoeuvre battalions from the Western MD and Kaliningrad exclave would be available to carry out such an attack on either Estonia or Latvia.³⁸ Once the limited Baltic and NATO defence had been overcome, these forces would presumably be supplemented or replaced by follow-on-forces from the Western and other MDs. For restoration of territory operations, NATO would need to deploy comparably large forces to the Baltic region. In order to provide a more concrete basis for our consideration of this scenario and our discussions with experts, we assumed that the following forces would need to be moved to/towards the Baltic region:

Russia’s deployment of a substantial number of long-range weapons systems could be expected to at least complicate NATO’s decision-making regarding reinforcement and at worst paralyse it

West as ‘hybrid’ warfare.³⁴ Second, it would likely contest the freedom of NATO forces to move into and within the conflict zone using, for example cyber-attacks or precision long-range weapons. Russia’s ability to successfully execute a denial strategy with kinetic means, known to the West as Anti-Access/Area Denial (A2/AD), may be a subject of some debate amongst analysts, but its deployment of a substantial number of long-range weapons systems in and beyond the Western MD, could still be expected to at least complicate NATO’s decision-making regarding reinforcement and

³³ Julian Röpcke, “Putin’s Zapad 2017 simulated a war against NATO,” Bild, 19 December 2017, <https://www.bild.de/politik/ausland/bild-international/zapad-2017-english-54233658.bild.html>.

³⁴ Gerasimov is Russia’s Chief of the General Staff of the Armed Forces. Dave Johnson, “General Gerasimov on the Vectors of the Development of Military Strategy,” NATO Defence College, Russian Studies Series 4/19, 30 March 2019, <http://www.ndc.nato.int/research/research.php?icode=585>, accessed 7 January 2020.

³⁵ For an open source review of Russia’s A2/AD capabilities in the Baltic region, which makes the “firm conclusion that Russian A2/AD capabilities, while undeniably substantial, to date do not create any large, impenetrable bubbles, and maximalist claims regarding their range and precision tend to shrink on closer inspection,” see: Robert Dalsjö, Christofer Berglund, and Michael Jonsson, “Bursting the Bubble Russian A2/AD in the Baltic Sea Region: Capabilities, Countermeasures, and Implications,” FOI Report FOI-R-4651 – SE, March 2019, 78. For a counter argument see: Michael Kofman, “Russian A2/AD: It is not overrated, just poorly understood,” Russia Military Analysis, 25 January 2020, <https://russianmilitaryanalysis.wordpress.com/2020/01/25/russian-a2-ad-it-is-not-overrated-just-poorly-understood/>.

³⁶ Dave Johnson, “Nuclear Weapons in Russia’s approach to conflict,” Fondation pour la Recherche Stratégique, recherches et documents, no. 6, 2016 (November 2016), 58; Bob Woodward reports that Russia had warned then Secretary of Defense James Mattis that “if there was war in the Baltics, Russia would not hesitate to use tactical nuclear weapons against NATO”: Bob Woodward, *Fear. Trump in the White House* (New York, NY: Simon and Schuster, 2018), 132.

³⁷ Jacek Durkalec, “European security without the INF Treaty,” NATO Review, 30 September 2019, <https://www.nato.int/docu/review/articles/2019/09/30/european-security-without-the-inf-treaty/index.html>.

³⁸ Shlapak and Johnson, *Reinforcing Deterrence*, 4

- The NRF including the VJTF. The VJTF land component includes around 5 000 troops, while the NRF is up to 40 000 strong.³⁹
- A US Corps, comprising at least three mechanised or armoured divisions, perhaps 80 000 -100 000 troops.
- One German, one French, one UK mechanised or armoured division, perhaps 60 000 to 75 000 troops in total.⁴⁰

Without exception, our interviewees agreed that troop movements at large scale would prove very challenging for the Alliance

Without exception, our interviewees agreed that troop movements at large scale would prove very challenging for the Alliance. In part, this is because NATO is no longer accustomed to moving large numbers of military personnel and equipment and needs to relearn skills that were lost after the end of the Cold War. Even so, the complexity of this task should not be underestimated. Military movement specialists contend that rapidly moving even a brigade is a concern. Moving a division, as in exercise Defender-Europe 20 (described by one interviewee as “changing the paradigm”) is expected to throw up a range of problems that have not even been foreseen during the decades of decline in NATO large-scale collective defence thinking.

Moving a division is expected to throw up a range of problems that have not even been foreseen during the decades of decline in NATO large-scale collective defence thinking

In the Baltic region, this problem is compounded by the lack of infrastructure to support large-scale movement – for example, depots, vehicle parks, fuelling facilities – and, more fundamentally, by the simple lack of geographical space. The shortage of space is more acute in some areas than in others. The Suwałki corridor – a 65km-wide piece of land along the border between Lithuania and Poland between the Kaliningrad exclave and Belarus – is a notable bottleneck. The corridor, which is the only land connection between the three Baltic states and the rest of NATO territory, is served by just two roads (one with a restricted 7.5 tonne capacity) and a single railway line.

As a further complication, military movements during times of crisis, in particular on the roads, are likely to be impeded by the movement in the opposite direction of large numbers of refugees and displaced persons. Finally, though it is beyond the scope of our report, any deployed armed forces must also be sustained. Provision of fuel, water,

Military movements during times of crisis are likely to be impeded by the movement in the opposite direction of large numbers of refugees and displaced persons

food, accommodation and so forth massively complicate the logistics challenges of large-scale deployments and place substantial pressure on Host Nation Support (HNS) organisations, whose aim is to relieve deploying forces of these burdens in order that the ratio of combat forces to support forces can be kept as high as possible. During Trident Juncture 2018, for example, the Norwegian Armed Forces provided 35 000 beds, served 1.8 million meals and 4.6 million bottles of water, did 660 tonnes of laundry, and established 50 camps. To achieve this and other sustainment tasks, they concluded contracts worth around EUR €159 million with Norwegian companies.⁴¹ According to our interviewees, a key lesson from Trident Juncture is that the HNS requirements were substantially larger than anticipated, and at

³⁹ NATO, “NATO Response Force,” 10 January 2019, https://www.nato.int/cps/en/natolive/topics_49755.htm.

⁴⁰ This is a highly optimistic assumption: a 2016 RAND Corporation study estimates that a single armoured brigade would be the maximum sustainable contribution from each of France, Germany, or the UK for operations in the Baltic region and that “expectations for European contributions to defending the Baltic nations must be low.” Michael Shurkin, *The Abilities of the British, French, and German Armies to Generate and Sustain Armored Brigades in the Baltics* (Santa Monica, CA: RAND Corporation, 2017), 9. On the other hand, forces of other Allies would also likely be moving at the same time.

⁴¹ Norwegian Armed Forces, “Facts and information,” 3.

some points, exhausted the capacity of the supporting troops.

A key lesson from Trident Juncture is that the HNS requirements were substantially larger than anticipated, and at some points, exhausted the capacity of the supporting troops

A second scenario requiring military movement is one in which NATO recognises the threat of an imminent Russian military action in the Baltic region and acts promptly to deter it by deploying forces there, probably under Article 4 of the North Atlantic Treaty.⁴² As the Allies retain only limited numbers of forces at very high readiness, the scale of this response would inevitably be smaller, but to have effect it would need to be considerably faster than a build-up of forces for restoration of territory operations. It would thus present a different set of movement requirements and challenges. The most likely units involved in NATO's initial response would be the VJTF and possibly other elements of the NRF (of which the VJTF is part), and US forces based in Europe and in the US.

The VJTF is a multinational brigade of up to five manoeuvre battalions, supported by air, maritime and special forces components, whose lead elements are ready to deploy in two days and the majority of its units in less than seven days.⁴³ The brigade is built around a framework nation, a responsibility that rotates among several of the larger Allies – Poland has this role in 2020.

USAREUR currently has 35 000 troops based in Europe, and could conceivably respond with four brigades: a rotational Armoured Brigade Combat Team (BCT) headquartered in Żagań, Poland; the 12th Combat Aviation Brigade (CAB) in Ansbach, Germany; the 173rd Airborne BCT in Vicenza, Italy; and the 2nd Cavalry Regiment (a Stryker-equipped infantry

brigade) in Vilseck, Germany.⁴⁴ USAREUR would also likely deploy key supporting units, including the 10th Army Air and Missile Defense Command's 3/57 Patriot Air and Missile Defense Battalion, and the 41st Artillery Brigade, equipped with the Multiple Launch Rocket System (an additional battalion will join this brigade in late 2020). Also relevant to this report, in particular to the large-scale reinforcement scenario, the 21st Theater Sustainment Command, headquartered in Ramstein, Germany, is USAREUR's lead for "all sustainment activities, including movement, logistics support, combat sustainment, human resources, finance, [and] contracting."⁴⁵

The US also maintains the ability to deploy a light airborne brigade anywhere in the world within 96 hours. The global response force, based around the 82nd Airborne Division, equipped with artillery and anti-armour capability and supported by Apache AH64 attack helicopters, would most likely be the first response unit to arrive in the region from the US.⁴⁶

3. THE WIDER CONTEXT

To effectively respond to a crisis, NATO requires speed of recognition (that a crisis has arisen requiring action), speed in decision (to deploy forces), and speed in assembly.⁴⁷ Our report focuses on the challenges of assembly – the Reception, Staging and Onward Movement (RSOM) of land forces across Europe for a

⁴² "The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened." NATO, "The North Atlantic Treaty. Washington, D.C. - 4 April 1949," 10 April 2019, https://www.nato.int/cps/en/natolive/official_texts_17120.htm.

⁴³ NATO, Allied Joint Force Command Headquarters Brunssum, "NATO Response Force (NRF) Fact Sheet," <https://jfcbs.nato.int/page5725819/nato-response-force-nrf-fact-sheet>.

⁴⁴ Alexander R. Vershbow and Philip M. Breedlove, *Permanent deterrence: Enhancements to the US Military Presence in North Central Europe* (Washington, DC: Atlantic Council, 2019), 25-29.

⁴⁵ 21st Theater Sustainment Command, "Team 21. First in Support," <https://www.21tsc.army.mil/>.

⁴⁶ Michelle Tan, "82nd Airborne soldiers sharpen skills for global response force mission," *Army Times*, 19 February 2016, <https://www.armytimes.com/news/your-army/2016/02/19/82nd-airborne-soldiers-sharpen-skills-for-global-response-force-mission/>.

⁴⁷ Ben Hodges, Janusz Bugajski, and Peter B. Doran, *Strengthening NATO's Eastern Flank. A Strategy for Baltic-Black Sea Coherence* (Washington, DC: Center for European Policy Analysis, 2019), 4-5.

Baltic contingency.⁴⁸ Several points of wider context relevant to military movement, but not considered in any detail in our report should also be noted. First, the impact of any measures taken to improve the movement of armed forces across Europe will be limited if Allied societies are unable to provide the necessary underpinning for such movement. Under Article 3 of the North Atlantic Treaty Allies committed to “maintain and develop their individual and collective capacity to resist armed attack.”⁴⁹ In today’s circumstances, this requirement encompasses much more than military defence. Russia’s ‘strategy of active defence’ entails a state of persistent conflict with the West using military and non-military instruments, with military instruments becoming the more pronounced supported role as Russia’s objectives shift from prevention of war, through preparation for war, to conduct of war.⁵⁰ Russia’s hostile activities at the lower end of this conflict spectrum include political warfare, disinformation, energy supply coercion, malicious cyber actions, and support to hostile political organisations. It is essential that the Allies continue to build civil-military preparedness and resilience as a first line of defence against such activities.

The Heavy Equipment Transporters required to move armoured vehicles on public roads and their flatbed railway counterparts are mostly owned, and almost exclusively operated, by civilian companies

In this context, one complication related to building civil-military preparedness is that much of the infrastructure required for military movement is in civilian hands – for example,

the Heavy Equipment Transporters (HET) required to move armoured vehicles on public roads and their flatbed railway counterparts are mostly owned, and almost exclusively operated, by civilian companies.⁵¹ Commercial pressures drive such companies towards just-in-time operations and minimal redundancy in capability to support both commercial and, conceivably, military requests. Further, weaknesses in infrastructure protection against physical and – in particular – cyber-attack may pose risks to civilian owned infrastructure that are beyond the control of, or even invisible to military customers. In 2013, for example, drug traffickers gained physical access to the Belgian Port of Antwerp, a major sea port of debarkation for NATO forces, and inserted key loggers into personal computers and hid micro-computers within a power strip. This allowed them to remotely hijack the port’s cargo-tracking systems so as to be able to move narcotics out of the port before inspectors could conduct checks.⁵² The threat of a serious attack to maritime logistics became more evident in June 2017 when the network of the Danish shipping company A.P. Moller-Maersk suffered collateral damage from hackers associated with the Main Directorate of the General Staff of the Armed Forces of the Russian Federation (GRU). ‘NotPetya,’ as the encryptor came to be known, was originally targeted at Ukrainian businesses and the Ukrainian government, but led to the destruction of 49 000 A.P. Moller-Maersk laptops, 1 000 applications, and 3 500 servers.⁵³

Building civil-military preparedness and resilience is thus far more than a task for defence institutions, but requires approaches variously known as whole of government/

⁴⁸ Reception is the offloading, marshalling and transport of personnel and materiel from strategic lift assets in ports of debarkation through handling areas to staging areas. Staging is the temporary holding of a force in a designated location, for assembling, organising and preparing it for onward movement. Onward movement is the movement of self-sustaining forces and equipment from staging areas to their assigned areas of operation. Some agencies also refer to Reception, Staging, Onward Movement and Integration (RSOI), where integration concludes the deployment process and is the transfer of deploying units into the relevant higher formations and perhaps includes acclimatisation, training and situational awareness. NATO Standardization Office, “AJP-4.6. Allied Joint Doctrine for the Joint Logistics Support Group,” Edition C, Version 1, December 2018, 3-2-3.

⁴⁹ NATO, “The North Atlantic Treaty.”

⁵⁰ Johnson, “General Gerasimov.”

⁵¹ For a review of NATO efforts in this area see: Wolf-Dieter Roepke and Hasit Thankey, “Resilience: the first line of defence,” *NATO Review*, 27 February 2019, <https://www.nato.int/docu/review/articles/2019/02/27/resilience-the-first-line-of-defence/index.html>.

⁵² Tom Bateman, “Police warning after drug traffickers’ cyber-attack,” *BBC*, 16 October 2013, <https://www.bbc.com/news/world-europe-24539417>.

⁵³ Andy Greenberg, “The Untold Story of NotPetya, the Most Devastating Cyberattack in History,” *Wired Magazine*, 24 October 2018, <https://www.wired.com/story/notpetya-cyberattack-ukraine-russia-code-crashed-the-world/>; Rae Ritchie, “Maersk: Springing back from a catastrophic cyber-attack,” *I – Global Intelligence for the CIO*, August 2019, <https://www.i-cio.com/management/insight/item/maersk-springing-back-from-a-catastrophic-cyber-attack>.

whole of society, comprehensive defence or – recollecting Cold War arrangements – total defence. It is important that in focusing on military movement, Allies do not lose sight of this broader picture. This is one of the reasons why NATO has preferred to talk of ‘enabling SACEUR’s Area of Responsibility’ rather than use the term ‘military mobility’, which is more prevalent in the EU – that said, it appears from our interviews that the concept of enabling SACEUR’s Area of Responsibility is confusing and poorly understood among the Allies.

When speed of movement is a critical requirement, delays in decisions to begin moving troops can have far-reaching effects

Second, our report does not consider Allied decision-making processes, although when speed of movement is a critical requirement, delays in decisions to begin moving troops can have far-reaching effects. The deployment of NATO forces would require Alliance consensus that there is a threat, and that the most appropriate response to it is a military one. Russia’s hostile activities at the lower end of the conflict spectrum also include provocative military activities such as violating Allied airspace, harassment of Allied naval vessels, and large-scale exercises on NATO’s borders. Russia thus seeks to blur the boundaries between peace and conflict, create ambiguity and uncertainty, and confuse and delay the Allies’ consensus-based decision making. The degree to which the North Atlantic Council (as instructed by capitals) is ready to delegate the authority to prepare and stage NATO forces to the Supreme Allied Commander Europe may have an impact on reinforcement timescales.⁵⁴

Third, a Baltic contingency of any size would involve the rapid movement of US troops across the Atlantic Ocean, which may also be a contested environment. While this aspect of reinforcement is beyond the scope of our study, we note that analysts have drawn attention to shortfalls in US strategic sealift capability,

inefficiencies created by outdated platforms, inadequate readiness in the capabilities that do exist, and the doubtfulness – given other priorities – that these issues will be addressed soon.⁵⁵ Clearly, if US forces cannot get to Europe in sufficient numbers and in a timely fashion, consideration of the challenges they will face in crossing the continent is purely academic.

Even if strategic sealift is available, the duration of transatlantic movements will have an important impact on overall reinforcement timelines, and thus on the outcome of a crisis situation. As an example, Swedish analysts have examined the planned deployment of the 1st Armoured BCT of the 1st Infantry Division from Fort Riley, Kansas, to Žagań.⁵⁶ The picture is not straightforward as advance units may

already be crossing Europe while others are still at sea, but the analysts assessed that the movement from Fort Riley to the departure port in Charleston, South Carolina took around 1.5 weeks, while the movement from Charleston to Antwerp took around 3 weeks. The overall time for deployment from Fort Riley to Žagań was estimated at two months. In terms of sealift capacity, the approximately 3 500 personnel and 3 000 pieces of equipment were transported by four contracted cargo vessels.⁵⁷

Our interviewees, suggested that it would take around 60 days to move a heavy division from the US to the Baltic region, while a corps move might take five to six months

The US Navy’s Military Sealift Command is able to call upon up to 60 such vessels to sustain

⁵⁴ Some analysts have thus recommended that SACEUR’s authority to alert, prepare and stage the VJTF should also be extended to other US and NATO forces: Vershbow and Breedlove, *Permanent deterrence*, 42.

⁵⁵ See, for example: Bradley Martin, and Roland J. Yardley, *Approaches to Strategic Sealift Readiness* (Santa Monica, CA: The RAND Corporation, 2019); Colin Smith, and Jim Townsend, *Not Enough Maritime Capability. The Challenge of Reinforcing Europe* (Washington, DC: Center for a New American Security, 2019).

⁵⁶ Eva Hagström Frisell (ed.), Robert Dalsjö, Jakob Gustafsson, and John Rydqvist, “Deterrence by Reinforcement. The Strengths and Weaknesses of NATO’s Evolving Defence Strategy,” FOI Report FOI-R--4843 – SE, November 2019, 38-41.

⁵⁷ Benjamin Northcutt, “1st Armored Brigade Combat Team arrives in Europe in support of Atlantic Resolve,” US Navy Military Sealift Command, March 2019, <https://www.msc.navy.mil/sealift/2019/March/exercise.htm>.

US military operations overseas.⁵⁸ These movement timescales accord with estimates provided by our interviewees, who suggested that it would take around 60 days to move a heavy division from the US to the Baltic region, while a corps move might take (in an admittedly non-scientific estimate) five to six months.

Planning and preparing for movements – as opposed to actually conducting them – can also be expected to increase the time before forces are in place for operations. For an in-theatre period of around six weeks, exercise Defender-Europe 20 will have a pre-deployment phase of four months and a re-deployment phase of a further four months. The UK's Operation Tractable, meanwhile, took a full year to plan. Both of these (and the movement of the 1st Armoured BCT to Žagaň) are peacetime events with considerable lead time, thus there will have been few constraints upon the time available for planning; nonetheless, they indicate that unless robust contingency plans are in place, overall movement timescales may be considerably greater than those necessary for the physical movement itself.

NATO saw a decline in both capability and skills relevant to its core mission of deterrence and defence, including the movement in numbers of forces and equipment

The lack of US strategic sealift capacity results from a substantial reduction of this capability as a result of the directions followed by the US and its NATO Allies after the end of the Cold War. The fourth broader point is that during the post-Cold War period, as NATO focused on expeditionary operations against unconventional adversaries, it saw a decline in both capability and skills relevant to its core mission of deterrence and defence, including the movement in numbers of forces and equipment. Nobody, one interviewee told us, has an understanding of what large-scale movement means anymore.

Regular exercises of the reinforcement of Europe, such as the Reforger (return of forces

to Germany) series were abandoned once the Cold War ended.⁵⁹ Where Western forces have undertaken large-scale reinforcement operations during the period since the end of the Cold War, the requirements and conditions have been very different from those that would be expected in the European theatre. For example, Operation Iraqi Freedom II (OIF II), the 2004 rotation of US troops to replace most of those originally deployed for operations against Iraq in the previous year, involved the movement of several tens of thousands of troops and their equipment from the US.⁶⁰ Even so, this movement offers only limited lessons for a movement to and across Europe, where transport infrastructure is more challenging because of the limitations imposed by, for example, the capacity of tunnels and bridges, and where military movements are competing with substantial volumes of commercial traffic. Also, there is no port in Europe that could handle a movement of the type and scale of OIF II alone.

Furthermore, the practices and lessons of even Cold War reinforcement, while broadly relevant to today's circumstances, are not entirely applicable. NATO Europe is obviously geographically larger and potential flashpoints more widely separated, but military infrastructure on the territories of the eastern Allies is less well developed – the static NATO Pipeline System, for example, has not been extended beyond its Cold War reach.⁶¹ Allies such as Germany that had exercised the reception of forces will now be required to deploy them. The US, meanwhile, had considerably more troops permanently stationed in Europe during the Cold War – at the height of the Reforger series in the 1980s there were around 350 000 compared to around 74 000 today – meaning that the support infrastructure for receiving reinforcements was

⁵⁸ A further 61 vessels are available as surge capacity in times of "extreme emergency" while the Navy also retains 24 cargo vessels for afloat pre-positioning: Smith and Townsend, *Not Enough Maritime Capability*, 4-5.

⁵⁹ The Reforger series ran almost every year from 1969 to 1993, often at substantial scale – in 1988, for example, 125 000 troops deployed across the Atlantic inside 10 days: Jonathan Hill, "NATO – ready for anything?" *NATO Review*, 24 January 2019, <https://www.nato.int/docu/review/articles/2019/01/24/nato-ready-for-anything/index.html>.

⁶⁰ Three army divisions, two brigades and one regiment, and a Marine Expeditionary Force: Linwood B. Carter, "Iraq: Summary of U.S. Forces," Congressional Research Service Report RL31763, 3.

⁶¹ NATO, "NATO Pipeline System," 9 March 2017, https://www.nato.int/cps/en/natohq/topics_56600.htm?.

considerably more robust.⁶² At the same time, the US had more equipment pre-positioned in Europe for reinforcing units to make use of, easing the reinforcement problem by reducing the need to transport heavy equipment.⁶³ To meet the challenges of moving across Europe today, NATO thus needs not only to relearn lost skills, but also to learn new ones.

4. LEGAL AND PROCEDURAL OBSTACLES TO MILITARY MOVEMENT

As discussed above, NATO and the EU have already taken several steps in the direction of removing or reducing legal and procedural obstacles to military movements. In general, our interviewees believed that the impact on military movement of issues in this area were of less concern than the impact of infrastructure limitations or difficulties with coordination, command and control. There is, however, still work to do. Particular areas of concern include the conventions and recommendations for dealing with dangerous goods, which regulate civilian use only, leaving EU Member States to apply a diverse set of national rules to authorise military transport of dangerous goods.⁶⁴ Also, there appears to be some confusion in customs procedures, despite practices long-established through the NATO Status of Forces Agreement, which has led to some Member States attempting to treat non-EU (especially US) equipment transported in military deployments as

temporary imports and exports. The EU has acknowledged such problems and is seeking solutions.

Overall though, the legal processes necessary to move armed forces into and across Europe remain numerous and complex. For example, documentation is required both to cross borders and to move within an Ally's territory. Processes are different depending on whether a conveyor is military or civilian. A clearance to move fuel for use in a non-kinetic mission is not the same as a clearance to move fuel to conduct a strike mission. There is a large variety of forms, sometimes only available in the national language. In Germany movement procedures involve both the federal state and the Bundesländer, while in Poland movement timescales may be lengthened by the need for state-level authorities to coordinate with regional, county and city authorities. It is perhaps then understandable – if unwelcome – that deploying military forces often do not have the correct paperwork in place, resulting in delays to their movement whilst this is corrected.

It is perhaps then understandable – if unwelcome – that deploying military forces often do not have the correct paperwork in place, resulting in delays to their movement whilst this is corrected

In general, movement requirements and procedures are easier in the eastern parts of Europe, including in the Baltic region, where Allies have made particular efforts to ensure that the reception of foreign forces will be as smooth as possible. While obtaining a CBMP in France may take as long as 60 days, in Lithuania, movement permissions for overweight or oversized vehicles can be acquired within 24 hours, and border crossing procedures for personnel can take place anywhere, not just at fixed points such as air and sea ports (during Exercise Saber Strike 2018, for example, Lithuanian Military Police conducted the necessary checks at convoy rest stops in Poland, removing the need to stop at the Polish-Lithuanian border). Latvia, meanwhile, has eliminated the requirement for border procedures for personnel from non-Schengen

⁶² "U.S. Military Presence in Europe (1945-2016)," U.S. EUCOM Communication and Engagement Directorate Fact Sheet, 26 May 2016; Kathleen J. McInnis, and Brendan W. McGarry, "United States European Command: Overview and Key Issues," Congressional Research Service, 13 February 2020.

⁶³ Under the POMCUS (Prepositioned Organizational Materiel Configured to Unit Sets) programme the US had four divisions worth of equipment in Europe in the 1980s and considered adding a further two. Today the US maintains one brigade-sized European Activity Set and equipment to support two Brigade Combat Teams: Mark Stout, "(W) Archives: Prepositioning Combat Equipment in Europe? Been There, Done That," War on the Rocks, 19 Jun 2015, <https://warontherocks.com/2015/06/warchives-prepositioning-combat-equipment-in-europe-been-there-done-that/>; Kathleen H. Hicks, et al., *Evaluating Future U.S. Army Posture in Europe. Phase I Report* (Washington, DC, Center for Strategic and International Studies, 2016), 12.

⁶⁴ European Union, "Joint Communication on the Action Plan for Military Mobility," 5-6.

countries taking part in amphibious landings or air drops to be completed immediately – this can be done at a later point, a process to be tested during Exercise Defender-Europe 20. Estonia provides year-long approvals for certain types of military movement (excluding oversized and overweight vehicles and combat vehicles), replacing the requirement to apply for permission with a simple process of notification 24 hours in advance. Poland has committed to grant CBMPs within three days, rather than the five-day standard agreed in the EU (though it considers this for exceptional reasons, and expects longer timelines for planned exercises). Poland does, however, still require detailed manifests of foreign soldiers, or civilian personnel and equipment arriving there; thus, for example, Germany's participation in the 2019 VJTF exercise Noble Jump – i.e. an exercise intended to demonstrate speed – became very difficult from a sheer paperwork management perspective. Such an example indicates that there is still room for improvement in easing the legal and procedural obstacles to military movement on the eastern flank too.

It seems from our discussions with experts that for a large-scale deployment, completing the necessary formalities regarding movement permissions, customs, taxation and so forth is unlikely to be a critical path task or the greatest limiting factor, but further efforts by NATO and the EU to simplify and standardise procedures will help prevent unnecessary delays due to failures to understand and complete all requirements. In this regard, the Lithuanian-led Management Committee for Optimizing CBMP in Europe, the PESCO military mobility project,

For an emergency deployment, timescales for completing the required paperwork are likely to be of the same order of magnitude as timescales for the movement itself and legal and procedural delays may have operational impact

and the NATO Movement and Transport Working Group all offer useful venues for sharing the experiences and lessons of such initiatives, and for pursuing standardisation of procedures across Europe.

For an emergency deployment, however, for example to deter an attack, timescales for completing the required paperwork are likely to be of the same order of magnitude as timescales for the movement itself and legal and procedural delays may have operational impact. It is possible – even likely – that some procedures would be relaxed in times of crisis, but planners sensibly assume that they will not be. This has the unfortunate effect of exaggerating overall timescales for deployed units to get to forward positions and be ready for operations, possibly adversely affecting Allied decision-making about the impact that a rapid deployment might have. Furthermore, the application of (longer) peacetime clearance processes during exercises means that forces are unable to 'train as they fight.'

Legal and procedural processes that might obstruct rapid reinforcement of the Baltic region can be stress-tested through exercises, for example of the VJTF, which has never deployed to the Baltic region. Regular exercising of rapid response forces would – in particular if conducted with minimal or no notice – expose vulnerabilities in procedures, especially for air movements (the work of NATO and the EU in the area is focused largely on land movements) as well as testing HNS processes and, of course, sending an important deterrent message to Moscow. Whether as part of a major exercise or as an entire smaller exercise, practising emergency deployment in a variety of conditions is an important component of testing soldiers and systems.

On the whole, though, with regard to legal and procedural obstacles to military movement, most of our interviewees felt that further progress was to be anticipated, was relatively straightforward and would bring substantial benefits. That said, some interviewees noted a tendency for Member States to find excuses not to take the necessary legislative and procedural steps to remove obstacles. It is important that both NATO and EU processes should maintain high visibility and that political pressure should continue to be applied on all Allies and EU Member States to find and implement solutions. These efforts should be aided by the importance that most Allies

and EU Member States attach to enhancing NATO-EU cooperation – issues of military mobility are a flagship of this cooperation,

Most of our interviewees felt that further progress was to be anticipated, was relatively straightforward and would bring substantial benefits

through which participants have already been able to demonstrate valuable, concrete progress.⁶⁵ Furthermore, continued attention to the issue of military mobility in regional defence cooperation formats, such as Nordic Defence Cooperation, the Bucharest 9 and the Visegrád Group can help to maintain political attention and pressure, as well as facilitate the identification of regional solutions to movement issues.

5. INFRASTRUCTURE LIMITATIONS

As with legal and procedural issues, both NATO and the EU as well as individual Allies have begun to take steps to deal with the obstacles to military movement that arise from infrastructure limitations. Nonetheless, most of our interviewees expressed concern that shortcomings in the physical capacity of infrastructure on the European continent – for example weight limits on roads and bridges and traffic volume limitations for rail transport – alongside a range of constraints related to the procedural and contractual arrangements that enable the use of civilian infrastructure for military movement would pose substantial challenges to large-scale deployments. An overall conclusion might be that while there are adequate civilian assets for road and rail movements during peacetime, it may be difficult to meet the armed forces' requirements for large-scale movement during crisis.

⁶⁵ Margriet Drent, Kimberley Kruijver, and Dick Zandee, *Military Mobility and the EU-NATO Conundrum* (The Hague: Netherlands Institute of International Relations 'Clingendael', 2019), 9, 13.

The prevalent view among the experts we interviewed was that rail and road transport were the most likely means for large-scale reinforcement of the Baltic region.

There is limited capacity for strategic air movement, in particular amongst European Allies.⁶⁶ The Ukrainian and – especially – the Russian options that were used to lift forces to and from theatres in the wider Middle East during the post-Cold War period

may be unreliable in a crisis. Further, the sheer scale of movement in a major crisis scenario makes airlift an impractical proposition for anything other than forces at the highest levels of readiness. Planners also tend to assume that for forces coming from the west, in particular from the US, UK and Canada, sealift direct to the region will be unavailable because ships in the Baltic Sea will be vulnerable to Russia's long-range precision-guided weapons. Such forces would thus be expected to arrive at ports in the Netherlands and Germany, then transit through Germany and western Poland into the region. For units already in Europe –

Shortcomings in the physical capacity of infrastructure on the European continent, alongside a range of constraints related to the procedural and contractual arrangements that enable the use of civilian infrastructure for military movement, would pose substantial challenges to large-scale deployments

US forces deployed in Germany and Poland and the forces of the European Allies themselves – rail and road movements are the more natural choice compared with lengthy and logistically complicated sea routes. Our study focused on

⁶⁶ In 2018, France, Germany, Spain and the UK had 63 heavy lift aircraft available (A400M, C-17A Globemaster III) while the US had 264 (C-17A Globemaster III, C-5M Super Galaxy). The A400M has a payload capacity of 37 tonnes, the C-17 78 tonnes, and the C-5 129 tonnes. The combat weight of an M1 Abrams Main Battle Tank is around 63 tonnes, while the combat weight of a Bradley M2 Armoured Infantry Fighting Vehicle is around 37 tonnes. Yvonne-Stefania Efstathiou, "European strategic airlift: a work in progress," IISS Military Balance Blog, 10 January 2019, <https://www.iiss.org/blogs/military-balance/2019/01/european-strategic-airlift>; "C-5M Super Galaxy Transport Aircraft," Air Force Technology, <https://www.airforce-technology.com/projects/c-5m-super-galaxy-transport-aircraft/>; Christopher F. Foss, *Janes Tank Recognition Guide* (New York, NY: Harper Collins, 2006), 103, 210.

the west-east movement of forces through north-central Europe, but we would anticipate that similar challenges would be identified for south-north routes.

Most movement, at least in the early stages of a large deployment, would be by road, using either line haul or convoys

Furthermore, experts expected that of the surface options, most movement, at least in the early stages of a large deployment, would be by road, using either line haul or convoys.⁶⁷ Although rail movements would be preferable for many reasons, including efficiency, speed and greater control, shortfalls in the capacity of the rail system and the long periods of time required to secure the necessary rail wagons would likely mean that this option was not available to the extent that military movers would wish.

While it has not been our intention in producing this report to audit transport networks and provide exhaustive lists of specific problems that need to be addressed, we include here a few examples to indicate the scale and scope of the challenges to military movement related to Europe's transport infrastructure. These challenges may be found across the whole of Europe.

5.1. RAILWAY MOVEMENT

Concerning rail movement, rail freight carriers are civilian companies which do not, for clear commercial reasons, reserve rail wagons for

Rail freight carriers do not reserve rail wagons for military use, but seek to maximise the time during which these assets are carrying freight and generating revenue

military use, but seek to maximise the time during which these assets are carrying freight

⁶⁷ Line haul: transport operations with long running times in which vehicles cannot make more than one round trip per day. Convoy: a group of vehicles moving from the same origin to a common destination, organised under a single commander. Headquarters Department of the Army (US), "ATP 4-11. Army Motor Transport Operations," July 2013, 2-3, 2-13.

and generating revenue. The armed forces are one customer among many and they too are required to reserve wagons in advance for their movement needs. In Germany, for example, this

typically takes 35-40 days. In order to ensure that rail capacity is available for short-notice military movements, the armed forces operating in Europe have put in place a variety of arrangements with the freight carriers. Under the 'red star' programme, for example,

Deutsche Bahn has agreed to make available at short notice six trains to move the VJTF. This is a valuable arrangement, although the VJTF represents only a fraction of the forces that would need to be moved in the type of scenario we have considered. The heavy vehicles of an Armoured BCT, for example, require 17 trains to move, with other materiel carried by road convoy. Poland, meanwhile, has sought to alleviate this problem by purchasing, from the defence budget, 100 rail wagons with 70 tonne capacity which will be available as a priority to its National Movement Coordination Centre (NMCC).

The Baltic states rail network is a different case in that it uses the Russian standard 1 520 mm gauge, rather than the European standard 1 435 mm. Rail wagons for this network typically need to be ordered 3-5 months in advance, may be located anywhere in the post-Soviet space, and for maintenance reasons are tracked centrally in Moscow (a shortage of rail wagons across this network is often a useful indicator of an upcoming major Russian military exercise). While the Baltic rail freight moving companies take steps to ensure that a number of wagons remain within the territories of Estonia, Latvia and Lithuania – not least because the eFP battlegroups use rail movement for their regular rotational movements – the capacity to move equipment by rail in the Baltic states is limited.

Furthermore, the difference in central European and Baltic gauges leads to a requirement to transfer military vehicles from one train to another at the Polish-Lithuanian border. Lithuania has invested substantially in systems to mitigate this problem, including a head ramp at Mockava which allows a main battle tank to be unloaded/reloaded in around 20 minutes, and a side ramp and crane combination at Sestokai. Nonetheless,

the border is a significant bottleneck for rail movement – Mockava can deal with perhaps two train loads per day (compared to a requirement of eight train loads to move the VJTF at sufficient speed). The Rail Baltica project will, by 2026, connect Tallinn, Riga, and

– was only built to handle lighter Warsaw Pact equipment, while newer infrastructure has not always been built with military requirements in mind.⁶⁹ In Germany, a lack of investment has led to concerns over the state of the physical infrastructure (roads and bridges), described by one senior German officer reflecting on Germany's ability to host exercise Steadfast Jazz 2021 as "miserable."⁷⁰ The same officer also lamented Germany's and Deutsche Bahn's inability to transport main battle tanks in less than five days.⁷¹ Meanwhile, according to the European Commission, Poland lacks a "coherent network and expressways linking major cities and industrial areas" and notes that much of the existing transport network has yet to be upgraded to European standards for heavy load traffic, while the rail network is described as "poor and degrading."⁷² Even the A2 Poznan-Warsaw highway, a major road on a key reinforcement route built quickly for the 2012 UEFA European Football Championship, is unable to support M1 Abrams tank loads for its entire length.

The difference in central European and Baltic gauges leads to a requirement to transfer military vehicles from one train to another at the Polish-Lithuanian border

Vilnius to Warsaw and beyond on the European 1 435 mm gauge; at present, the only section completed within the Baltic states runs to the southern Lithuanian city of Kaunas. Because of these various limitations, planners assume that almost all of a large-scale military movement from the Polish-Lithuanian border forward (and, indeed, much of it before this point) would need to be conducted by road.

5.2. ROAD MOVEMENT

Road movements, however, also face limitations due to the lack of availability of transportation assets. In the Baltic states, the road (and rail) network is generally robust in terms of connectivity, albeit mixed in terms of quality, but there are insufficient HETs to transport heavy military vehicles in large numbers. To manage the movement of the VJTF, for example, the Baltic states have agreed, through their Combined Joint Staff Element, a single RSOM plan for Estonia, Latvia and Lithuania. This ensures that assets can be allocated more efficiently, but does not address their overall shortage – the three states expect to be able to call upon around 50 HETs for road movements. Clearly, this will not be sufficient to move large units in short timeframes – deploying to Europe in 2017, for example, the 2nd Armoured BCT brought 395 tracked vehicles (as well as 976 wheeled vehicles and 349 trailers).⁶⁸

Elsewhere, the physical state of the road infrastructure is a cause of concern. Older infrastructure has degraded through a lack of investment, or – in the case of eastern Europe

Older infrastructure has degraded through a lack of investment, or – in the case of eastern Europe – was only built to handle lighter Warsaw Pact equipment, while newer infrastructure has not always been built with military requirements in mind

In addition to the challenges posed by the physical limitations of the European transport networks, procedural requirements related to the movement of military cargoes may also introduce delays to movement. A case in point is the requirement for convoy escort for

⁶⁹ Sydney J. Freedberg Jr, "OMFV: The Army's Polish Bridge Problem," *Breaking Defense*, 6 February 2020, <https://breakingdefense.com/2020/02/omfv-the-armys-polish-bridge-problem/>.

⁷⁰ Steadfast Jazz 2021 will see around 10 000 US soldiers and 1 100 armoured vehicles arrive in Europe: "Ranghoher Nato-General kritisiert deutsche Infrastruktur [High-ranking NATO general criticizes German infrastructure]," *Die Welt*, 15 May 2019, <https://www.welt.de/newsticker/news1/article193516743/Infrastruktur-Ranghoher-Nato-General-kritisiert-deutsche-Infrastruktur.html>.

⁷¹ Ibid.

⁷² European Union, European Commission, "Transport in the European Union. Current Issues and Trends," March 2019, 127.

⁶⁸ U.S Army Europe, "Atlantic Resolve Fact Sheet."

road travel, and for force protection of moving forces, for example by including manned guard vans in military trains (guard vans are also in short supply across the European rail network and rail traffic volumes in exercises have been limited by this shortage). These requirements are set by nations and vary widely. Latvia, for example, does not have the capacity to provide force protection for large numbers of moving units, or some of the capabilities such as air defence that might be required, and has introduced legislation that permits self-protection. Other countries, however, are less relaxed about the legal implications of foreign forces conducting this kind of kinetic – possibly lethal – task on their own territory.

A lack of capacity for convoy escort can introduce delays into the movement process

But a lack of capacity for even the more straightforward task of convoy escort can introduce delays into the movement process. Poland, for example, can only provide escorts for seven convoys on each of its major supply routes. Meanwhile, during Exercise Saber Strike 2017, a lack of Military Police capacity limited US movements through Lithuania to five convoys per day – a typical NATO battalion requires about ten convoys to move between two locations.⁷³ To an extent, this issue can be mitigated through careful convoy building, such that, for example, vehicles that need escorts are collected separately from those that do not. However, this level of organisation may prove overly complex during a crisis and may not, in any case, meet the prioritisation requirements of the Joint Force Commander.

The Baltic region also lacks supporting logistics infrastructure, for example for receiving and staging (and sustaining for extended periods) forces that have arrived in the region

5.3. SUPPORTING INFRASTRUCTURE

In addition to the road and rail infrastructure directly associated with military movement, the Baltic region also lacks supporting logistics infrastructure, for example for receiving and staging (and sustaining for extended periods) forces that have arrived in the region.⁷⁴ One option that might be considered in this context is the possible renovation of former Warsaw Pact and Soviet Union facilities. Such facilities might also be considered for pre-positioning of crisis- and war-time equipment and stocks. American analysts, for example, have suggested that US pre-positioned equipment in Europe should

be increased by the approximate equivalent of four BCT sets plus enabling units, while others have called for “adequate infrastructure and prepositioned equipment to

allow for the speedy deployment of NATO troops.”⁷⁵ Clearly, demands on the movement infrastructure can be reduced if, as was the case during the Cold War, incoming forces are able to travel without heavy equipment – the remaining challenge of uniting units with their equipment will be tested in Exercise Defender-Europe 20 – and if at least a proportion of sustainment requirements can be met from stores in forward locations. Considerations of Baltic geography, exacerbated by the potential difficulties of reaching the region under A2/AD conditions, indicate that the countries located here are effectively islands in terms of supply and sustainment, and just-in-time models for maintaining required levels of materiel are unlikely to succeed. Projects to restore Cold War facilities are certainly beyond the

means of the three Baltic states, but funding may be available from other sources including the NATO Security Investment Programme and, if a dual-use case can be made, the European Commission. A further possible longer-term source of infrastructure funding is the Three Seas Initiative,

⁷³ With prior notice and planning, and by hiring vehicles, Lithuania was able to escort 20 convoys per day during Exercise Saber Strike 2018.

⁷⁴ Olevs Nikers, et al., “Defense and Deterrence,” in *Baltic Security Strategy Report. What the Baltics Can Offer for a Stronger Alliance*, ed. Olevs Nikers and Otto Tabuns (Washington, D.C.: The Jamestown Foundation, 2019), 14.

⁷⁵ Hicks et al., *Evaluating Future U.S. Army Posture in Europe*, 13; Ben Hodges, Janusz Bugajski, and Peter B. Doran, *Securing the Suwałki Corridor. Strategy, Statecraft, Deterrence, and Defense* (Washington, DC: Center for European Policy Analysis, 2018), 55.

which aims to secure investment to enhance north-south infrastructure (and energy and digital) connectivity between the Baltic region and other central and eastern European countries.⁷⁶ The prospects for this initiative were boosted in February 2020 by the US commitment to support it with up to USD one billion in financing.⁷⁷

Demands on the movement infrastructure can be reduced if incoming forces are able to travel without heavy equipment and if at least a proportion of sustainment requirements can be met from stores in forward locations

5.4. NATO AND EU INITIATIVES

Finally, one or two issues concerning the processes that NATO and the EU are using to deal with infrastructure challenges should be addressed. First, both NATO and the EU have embarked on what one interviewee described as “parallel, almost competing processes”, with the EDA-led process in the EU being somewhat more advanced. Clearly, such a duplication of effort is wasteful and potentially confusing. A related issue is that the EDA product has not been made available to non-EU states, notably the US (although three of the four eFP framework nations are not EU Member States); indeed, EU Member States are even able to specify which other Member States are able to access their inputs. This too is an unsatisfactory situation, in particular as it features in a flagship EU-NATO cooperation effort.

Second, the European Commission’s co-financing of dual-use projects under CEF funding is a welcome development, even if the sums involved are relatively small. Member States have responded with varying degrees

of enthusiasm, some identifying (nationally – the application process has yet to begin) numerous possible projects, and others very few or none. There is thus a risk that funding will be allocated to those who shout the loudest, rather than those most in need. The Commission must clearly take the lead in allocating the CEF budget, but there appears to be very little EU-NATO consultation on this issue, or even the involvement of the EU’s defence institutions, which would seem to be necessary if this funding is to be properly prioritised in terms of military requirements. Furthermore, some experts expressed concern that the military’s access to CEF-funded dual-use infrastructure must be assured during times of crisis. Clearly, arrangements must be made on a project-by-project basis, but centralised guidance may be necessary to ensure that commercial imperatives do not prevail in times of crisis.

Some analysts have proposed that spending on dual-use infrastructure that has military value should be counted as defence expenditure and thus credited towards Allies’ commitments under the NATO Defence Investment Pledge

Finally, in recognition of the need to address European infrastructure problems, some analysts have proposed that spending on dual-use infrastructure that has military value should be counted as defence expenditure and thus credited towards Allies’ commitments under the NATO Defence Investment Pledge (DIP) that 2% of GDP should be spent on defence.⁷⁸ On the one hand, the need to improve infrastructure is pressing and a case can be made that money spent addressing shortfalls here is more valuable to NATO’s overall deterrence and defence posture than money spent on certain items of military hardware. And it is an unfortunate reality that, despite steady peer pressure over several years, a number of Allies are unlikely to meet their commitments under the DIP, and that infrastructure spending may offer a more

⁷⁶ David A. Wemer, “The Three Seas Initiative explained,” Atlantic Council, 11 February 2019, <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-three-seas-initiative-explained-2/>.

⁷⁷ “US commits \$1 billion dollars to develop Central European infrastructure,” Atlantic Council press release, 15 February 2020, <https://www.atlanticcouncil.org/news/press-releases/us-commits-1-billion-dollars-to-develop-central-european-infrastructure/>.

⁷⁸ Ben Hodges and Carsten Schmiedl, *Targeting 2%. The Logistics of a More Sophisticated Approach to Burden-Sharing* (Washington, DC: Center for European Policy Analysis, 2018), 6.

palatable way to contribute to deterrence and defence. Furthermore, Allies do already spend from their defence budgets on infrastructure items that also address civilian needs and desires – for example, Poland’s Ministry of National Defence has for some years allocated around EUR 120 million per year to co-finance local road improvements to solve ‘last mile’ problems (the frequently inefficient and expensive final leg of a transportation, in which personnel and equipment are moved from a distribution hub to the point of need).

On the other hand, NATO has plenty of military capability shortfalls for which strong cases for prioritisation of investment can also be made. Furthermore, many Allies have taken seriously their undertakings under the DIP to spend 2% on defence capability and are likely to object to others failing to do so while subsidising civilian needs from defence funds. Finally, defining what would and would not be eligible for accounting as defence expenditure under such a scheme would be complex and controversial, and run contrary to NATO’s own efforts to persuade Allies to remove non-defence items from their defence expenditure reporting. The balance of argument is not obvious – at the very least, this proposal deserves serious discussion at NATO.

6. COORDINATION, COMMAND AND CONTROL ISSUES

Our interviewees broadly agreed that even if the Allies had smooth procedures and robust infrastructure to allow the easy movement of large numbers of forces and equipment across Europe to the Baltic region, the coordination of that movement amongst the various NATO

allowing an adversary greater opportunity to achieve his objectives whilst undermining the resolve of the Allies. Two themes in this regard emerged frequently and strongly during our interviews. First, there was no clear picture, even amongst movement specialists, as to how in times of crisis the various agencies will work together to ensure that RSOM is efficient and effective; and, related, how movements would be prioritised to serve the operational needs of the Joint Force Commander. Second, we found wide expectations that the new JSEC would be the key to solving at least some of these problems, but no clear understanding of the JSEC’s role.

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6.1. MULTIPLE ORGANISATIONS

There are several agencies involved in the movement process. In NATO, at the strategic level, the Allied Movement Coordination Centre (AMCC) at Allied Command Operations (located at the Supreme Headquarters Allied Powers Europe – SHAPE) is responsible for planning, prioritising and de-conflicting the strategic movements that support NATO deployments.⁷⁹ At the operational and tactical levels, movement and other logistics functions come under the responsibility of both the deploying Allies themselves – as logistics is, according to NATO doctrine, essentially a national issue – and the Joint Logistics Support Group (JLSG). The JLSG is part of the JFC that is activated in times of crisis around a permanently manned HQ core staff element of around 25 personnel.⁸⁰ It sits under the JFC

responsible for conducting operations in the allocated Joint Operations Area (JOA) – thus, for example, in the case of a Baltic region conflict, JFC Brunssum or JFC Naples would be assigned operational command of the relevant part of the Baltic geographic region, and would stand up a JLSG to coordinate and

The coordination of movement amongst the various NATO and national organisations involved would present a major challenge

and national organisations involved would still present a major challenge. Contradictory messages and competition for resources are likely to sow confusion and produce delay,

⁷⁹ NATO Standardization Office, “AJP-4. Allied Joint Doctrine for Logistics,” Edition B, Version 1, December 2018, A-2.

⁸⁰ NATO Standardization Office, “AJP-4.6,” 1-3.

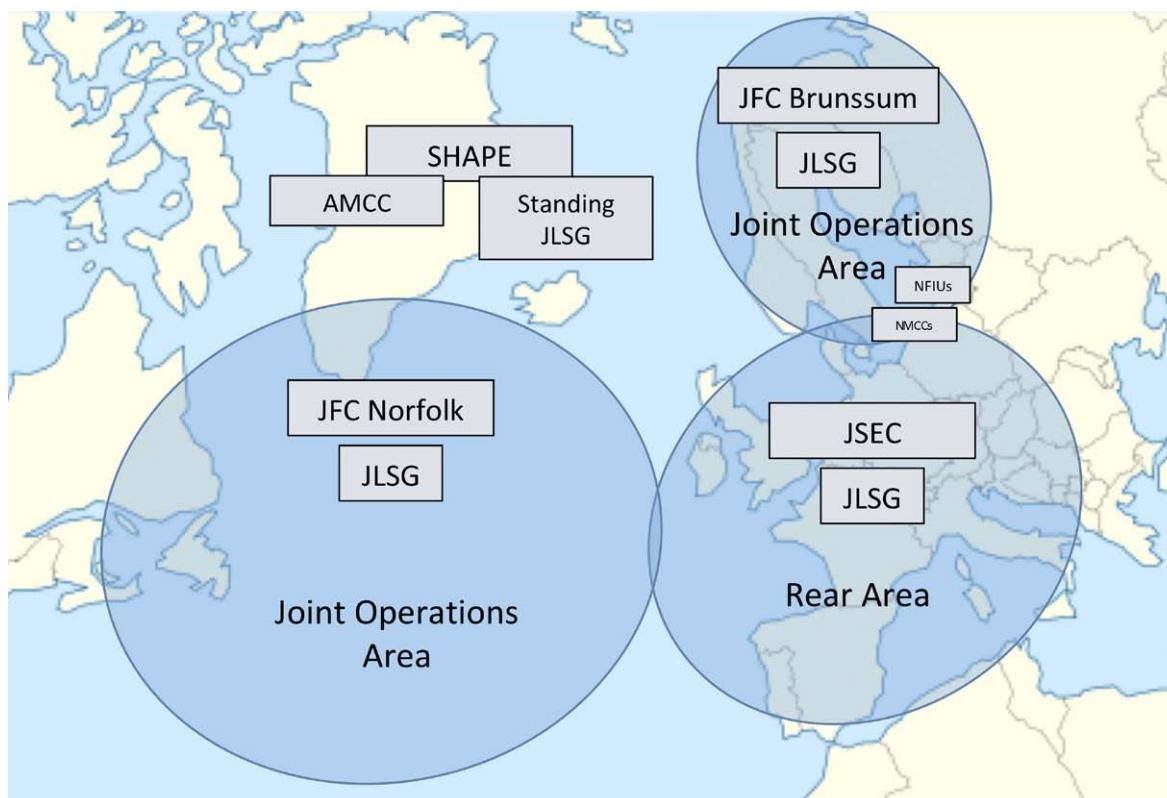


Figure 2. NATO Movement Organisations. After JSEC Brief

streamline logistics activities for the joint and multinational force operating in this area, with a view to enabling cooperation and reducing the cost of logistics to NATO and the Allies.⁸¹ JFC Norfolk, meanwhile, would stand up a JLSG responsible at the operational/tactical level for movement across the Atlantic. The missing part of the puzzle – which many of our interviewees expected the JSEC to complete – is how RSOM is implemented between the transatlantic movements for which Norfolk is responsible and the movements in the JOA overseen by the JFC JLSG. The JSEC has, since the time of our study, achieved initial operating capability and established its own JLSG, which will be primarily responsible for NATO RSOM (see Figure 2).⁸²

The JLSG needs to be activated in times of crisis, and may thus not be ready to fully assume its responsibilities if events are fast moving

Three issues complicate this picture further. First, the boundary between the strategic and operational levels is somewhat blurred, and thus the division of responsibilities between the AMCC and the JLSGs is not entirely clear. Second, the handover/takeover of responsibility from JLSG to JLSG is a clear point of disconnect and possible problems. Third, the JLSG needs to be activated in times of crisis, and may thus not be ready to fully assume its responsibilities if events are fast moving. NATO's response has been to establish at SHAPE a fourth JLSG – the Standing JLSG:

a permanent, joint entity to enable the responsive deployment and employment of NATO forces, through the conduct of enduring, continuous and proactive planning and enabling activities. When necessary, it executes Joint Logistics for Very High Readiness Joint Task Force, in order to enable rapid reinforcement for the provision of 360 degree logistic support, in particular across SACEUR's area of responsibility.⁸³

The Standing JLSG thus has a peacetime coordination role and possibly – if the JFC JLSG is not ready – a deployed role in time-critical crisis situations to command

⁸¹ Aaron Cornett, "Multinational Operations. Joint Logistics Support Group offers effective role with allies, partners," *Army Sustainment*, January-March 2020, 46.

⁸² Ibid., 47.

⁸³ NATO Standardization Office, "AJP-4," 2-8.

and control logistical support for NATO high readiness forces.⁸⁴ At the same time, in 2015 NATO agreed to establish in Poland and each of the three Baltic states (as well as in Bulgaria, Hungary, Romania and Slovakia) a NATO Force Integration Unit (NFIU). These are multinational organisations of typically 40 personnel that come under the operational command of Headquarters Multi National Corps North East (MNCNE, based in Szczecin, Poland). Their main role is to work with national forces to provide planning support for the rapid deployment of NATO high readiness forces to their host nation, but they also work with host nations to identify logistical networks, transportation routes and supporting infrastructure.⁸⁵ Although the NFIUs were originally established to support the deployment of the VJTF and other elements of the NRF, their potential role in crises has broadened as the security situation in Europe has declined and NATO has responded with measures to increase its own readiness posture. The NFIUs day-to-role, meanwhile, varies from host nation to host nation according to local circumstances and attitudes, thus their role in a crisis is not entirely clear, and certainly not standardised.

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To complete the picture, NATO also requires each Ally to have a National Movement Coordination Centre (NMCC) “to approve, coordinate and control movements within their territory.”⁸⁶ The NMCCs bring local knowledge to the overall movement process, for example an understanding of the capacities and status of routes. As the agencies responsible for issuing individual movement credits for their nations, they clearly hold a powerful position in the RSOM process.⁸⁷

⁸⁴ Ibid., A-4.

⁸⁵ NATO, Supreme Headquarters Allied Powers Europe, “NATO Force Integration Units (NFIU),” <https://shape.nato.int/operations/nato-force-integration-units>.

⁸⁶ NATO Standardization Office, “AJP-4,” 2-2.

⁸⁷ Movement credit: the allocation granted to one or more vehicles to move over a controlled route in a fixed time according to movement instructions. NATO, “AAP-06. NATO Glossary of Terms and Definitions,” edition 2019, 85.

Given the complexity of this picture, the apparently overlapping roles of some organisations, and the lack of an organisation fully in charge of prioritising and coordinating movement NATO-wide, it is perhaps unsurprising that our interviewees lacked confidence in its ability to deliver efficiently. The JLSG concept has been tested with some success, for example during exercise Trident Juncture in 2018, but the complexity of a potentially much larger land movement across Europe would be a far greater challenge. Evidence has emerged even from smaller-scale exercises that there may be inherent flaws in the basic concept, for example in securing the necessary crisis-time manning in the face of competing demands from other organisations, and in command, control and coordinating authorities that may be incompatible with,

NATO’s agreement to create the JSEC is perhaps an acknowledgment of a systemic problem that still needs work if it is to be solved

or at least a source of friction between those allocated to other units.⁸⁸ Steadfast Defender 2021 will be a further test of the overall movement system and the JLSG concept. Meanwhile, NATO’s agreement to create the JSEC is perhaps an acknowledgment of a systemic problem that still needs work if it is to be solved.

6.2. ENTER THE JSEC

In February 2018, NATO Defence Ministers agreed to establish what was then referred to as “a new support Command for logistics, reinforcement and military mobility.”⁸⁹ By July, plans had advanced such that heads of state and government could agree to establish the new JSEC as part of the NATO Force Structure with Germany as framework nation with the role “to ensure freedom of operation and sustainment in the rear area in support of the rapid movement of troops and equipment into, across, and from Europe.”⁹⁰ The JSEC has since

⁸⁸ Based on experiences from Combined Joint Staff Exercise 19 in Sweden. Cornett, “Multinational Operations,” 48-50.

⁸⁹ NATO, “NATO Defence Ministers take decisions to strengthen the Alliance,” 15 February 2018, https://www.nato.int/cps/en/natohq/news_152125.htm.

⁹⁰ NATO, “Brussels Summit Declaration.”

been working towards reaching full operational capability, which is expected to be achieved in the third quarter of 2021 (initial operational capability was achieved in September 2019). Much of its focus has been on establishing links with other relevant institutions and on the development and proving of an operating concept.

The draft operating concept expresses a broad ambition, stating that JSEC is:

to provide NATO with a secure [rear area] in crisis and up to [maximum level of effort] by supporting relevant NATO entities, the Nations and other stakeholders in their planning, execution and coordination of Security, Force Protection (FP) and Area Damage Control (ADC). This will be done through advice, coordination and/or support, depending on the relationship with the specific stakeholder.⁹¹

JSEC's core missions are security and enablement. In crisis, it expects to focus on security and force protection, for example responding to an Ally's request to identify capacity to assist with RSOM, either from

JSEC's core missions are security and enablement

resources that have been assigned to it, or from elsewhere (the JSEC does not in peacetime have forces assigned, but will have the capability to execute command during crisis).⁹² In terms of enablement, the JSEC expects to, "based on guidance from SHAPE, and in close coordination with other NATO entities, synchronise and prioritise Allied efforts in the rear area," for example by de-conflicting the multiple requests for movement expected to be placed upon civilian transport companies, or relieving the burden of requests for support placed upon host nations, on the basis of the common operational picture that it will maintain.⁹³ These responsibilities would, presumably, fall to the JSEC's own JLSG.

In peacetime, in order to prepare for these tasks, the JSEC sees its role as compiling "environmental situational awareness," which it expects to achieve by fostering relations with "all relevant entities."⁹⁴ The JSEC will thus depend on data provided by Allies, open source data, and its own network of contacts to be able to be in a position, in cooperation with the Standing JLSG, to advise SACEUR on priorities, de-conflict transport arrangements and reroute convoys if necessary.⁹⁵

The JSEC is a work in progress and it is not clear – as the JSEC itself admits – that other agencies see the value that this new organisation will bring

The JSEC is a work in progress and it is not clear – as the JSEC itself admits – that other agencies see the value that this new organisation will bring, or even that they fully understand it. Certainly, there is broad agreement in the need for a single agency to coordinate movement NATO-wide from start to end. But it is far from clear that the JSEC, working at the operational level alongside the JFCs, has the capacity, mandate or will to take on this role. Similarly, there is broad agreement that a better common logistics picture, analogous perhaps to a Recognised Air or Maritime Picture, would be highly beneficial in supporting military movement.⁹⁶ Certainly, there is a need for prioritisation of military movement – in the absence of any better information, the NMCCs will simply move forces through their own territories on a first come-first served basis. But at the same time, priorities must come from the JFC and it is not immediately apparent that the brokering role that the JSEC is advocating for itself will help here, or merely add another layer of bureaucracy. It is also unclear whether Allies and other entities will be ready for the

⁹¹ NATO, Joint Support and Enabling Command, "Operating Concept (draft). Executive Summary."

⁹² Sergei Boeke, "Creating a secure and functional rear area : NATO's new JSEC Headquarters," *NATO Review*, 13 January 2020, <https://www.nato.int/docu/review/articles/2020/01/13/creating-a-secure-and-functional-rear-area-natos-new-jsec-headquarters/index.html>.

⁹³ Ibid.

⁹⁴ NATO, JSEC, "Operating Concept."

⁹⁵ Boeke, "Creating a secure and functional rear area."

⁹⁶ NATO currently requires the Joint Task Force HQ (which is subordinate to the JFC) to compile a Recognised Logistics Picture, but the picture focuses on resources (e.g. availability of transportation assets) rather than on real time movements. Further NATO's preferred tool for implementing the Recognised Logistics Picture, the Logistic Functional Area Services, is not used by all Allies, notably the US. NATO Standardization Office, "AJP-4," 2-15-16.

change of mind-set that will be needed if the JSEC is to achieve the role it foresees in peacetime. Its success here will depend on its own capacity to establish and maintain a network of contacts with other agencies, but also on the readiness of the Allies to share information.

It may be that large-scale military movement is, and will always be, simply too complex to be solved by a simple structural change; and that the many, diverse and unique problems that will arise in what Jomini called the “practical art of moving armies” will inevitably mean the involvement of a multitude of partially competing actors, and require improvisation, creativity and the acceptance of less than perfect solutions.⁹⁷ In this case, the JSEC potentially has an important role in mitigating problems. Provided that it receives the necessary level of trust, commitment and support, it can play an important role in coordinating RSOM. But those who see it as a silver bullet are likely to be disappointed; some expectations management may be necessary. The JSEC will observe Defender-Europe 20 and take the opportunity to evaluate its own internal processes, but it will not be until Steadfast Defender 2021 that the JSEC concept is fully tested (also alongside the JLSG concept) for the first time. Meanwhile, resolving issues of potentially clashing organisational responsibility and building broader awareness, not just of the place of the JSEC, but also of the numerous other agencies involved in the business of movement might be well served by the execution of a series of table top exercises and scenario-based discussions.

7. HOST NATION SUPPORT

Effective HNS is key to successful RSOM. It relieves incoming forces of the burdens associated with supporting themselves and allows them to prioritise combat presence over the presence of supporting units. The ability of receiving Allies to provide and to

demonstrate appropriate HNS arrangements is thus an important component of NATO’s overall deterrence and defence posture. However, NATO has spent two decades operating in theatres where HNS has been entirely absent and Allies have been required to fully provide for themselves; it is out of practice when it comes to integrating the functions and responsibilities of deployed forces and host nations in times of crisis.

Effective HNS relieves incoming forces of the burdens associated with supporting themselves and allows them to prioritise combat presence over the presence of supporting units

HNS is rehearsed regularly by the countries of the Baltic region, albeit with only limited involvement of other Allies – the annual exercise Baltic Host, for example, has tested coordination between the three Baltic states and between their civilian and military institutions since 2009. Given the small geographical size and operating space of the three Baltic states, there is certainly scope for more coordination of HNS – ideally incoming forces should be received by a common (or at least a common core) HNS strategy and organisation, rather than three separate ones.⁹⁸

With only limited NATO exercises in the region, HNS processes have not been stress-tested

Nonetheless, in spite of some scepticism from other Allies, the countries of the Baltic region are confident in their abilities to provide sufficient HNS, or in their ability to develop the necessary capabilities if sufficient guidance is provided; although they acknowledge that, with only limited NATO exercises in the region, HNS processes have not been stress-tested. Unfortunately, according to several interviewees, the necessary guidance is lacking. Operation plans are insufficiently detailed to permit comprehensive HNS planning; furthermore, what generic plans do exist do not appear to be coordinated, for example between the VJTF and US European-based rapid response forces. Allies in the

⁹⁷ Antoine Henri, Baron de Jomini, *The Art of War* (1862; Project Gutenberg, 2004) Ch. 6 <http://www.gutenberg.org/files/13549/13549-h/13549-h.htm>.

⁹⁸ Nikers, et al., “Defense and Deterrence,” 39.

Baltic region are ready to invest in facilities to improve HNS, for example by providing aircraft handling equipment and de-icing capabilities at potential air ports of debarkation, but are reluctant to do so in the absence of assurances from other Allies that such investment is properly targeted and will not be wasted.

Allies in the Baltic region are ready to invest in facilities to improve HNS but are reluctant to do so in the absence of assurances from other Allies that such investment is properly targeted and will not be wasted

A similar problem is that the Statements of Requirement (SOR) by which the VJTF specifies its requirements for support from potential host nations change each year as a new Ally takes on the role of VJTF framework nation. In some cases, the SORs may be communicated too late (or even not at all) for host nations to properly respond. Inevitably, different framework nations will bring different requirements, but a degree of standardisation would certainly help host nations to respond better to each rotation of the VJTF in the short term, and ensure greater stability for longer-term planning.

CONCLUSIONS AND RECOMMENDATIONS

NATO's ability to reinforce threatened Allies rapidly and if necessary at large scale, and to demonstrate that it is able to so, is an essential aspect of its deterrence posture in the Baltic region and elsewhere. Both the Alliance and the EU, with the support of regional defence cooperation formats such as Nordic Defence Cooperation and the Bucharest 9, have recognised the importance of military movement to the successful accomplishment of this task and have taken important steps to ensure that potential obstacles to movement – legal and procedural, physical infrastructure, and coordination, command and control – are reduced or removed.

Nonetheless, moving, assembling and sustaining multinational forces in the European

theatre remains a daunting prospect. Even if the NMCCs in individual transit and reception states are confident of their abilities to push movements through their own territories, large-scale movements through several states will be slow and complex, aggravated by the fact that NATO has not rehearsed such activities for decades. Allies will need to rethink post-Cold War models for logistics, which have been required to take account of commercial and financial considerations. Changes of mind-set will be necessary, for example, to accept redundancy in transportation capacity and to not rely on just-in-time transportation processes, but also to include more whole of society

thinking and planning in defence matters – it will, for example, be civilian contractors who are required to rapidly repair damaged roads and civilian operators who will need to support the 24/7 railway operations necessary to keep armed forces moving. Planning for these eventualities, exercising them, and demonstrating a readiness to invest resources to resolve problems will not only ensure that movement proceeds smoothly, but will also contribute to deterrence. In order that NATO's RSOM should be as credible as possible, it is thus essential that NATO, the EU, Allies and Member States should continue to prioritise efforts to erase or mitigate obstacles to military movement in Europe.

We recommend that Allies and Member States should:

LEGAL AND PROCEDURAL

- continue to work in NATO and the EU to reduce potential barriers to movement created by cross-border and in-country movement regulations, customs and taxation requirements, and other administrative and legislative procedures. They should make best use of existing fora, such as the NATO Movement and Transport Working Group, PESCO military mobility project, and the Management Committee for Optimizing CBMP in Europe, to share best practice and seek to standardise arrangements as far as possible;
- ensure that legal and procedural obstacles to movement should be given high visibility

and that appropriate political pressure is applied to ensure that solutions are found and implemented;

INFRASTRUCTURE

- recognise the importance of Europe's railway networks to military movement. Railways should be primary means for military movement, certainly for heavy equipment, from the very beginning of a crisis, and from port of debarkation to operational area. The Allies should invest in improving rail infrastructure;
- continue to upgrade road networks and ensure that major supply routes meet the minimum standards for moving military equipment. While the railway network should bear a substantial proportion of military movements, the road network will still be necessary to maximise traffic volumes and to provide redundancy in transportation options;
- ensure that prior arrangements are in place to guarantee priority access to the assets necessary for military movement, both on the railways and roads – for example, heavy load rail wagons, guard vans and HETs. These arrangements should allow for the movement of more than just NATO's very high readiness response forces. Allies should examine mechanisms for ensuring this capacity on a multinational basis, for example through pooling arrangements or centralised funding;
- recognise the synergies between military and civilian needs for infrastructure improvements, and encourage the continued and wider use of EU processes and funding (such as CEF) to satisfy both sets of needs;
- make use where possible of regional defence and other cooperation formats, such as the Bucharest 9 and the Three Seas Initiative, to advocate for and fund infrastructure projects that also support military movement;
- work to standardise procedures for the escort of military movements across Europe. Allies should ensure that there

are adequate numbers of gendarmes, movement companies and others who provide military escorts, and consider the use of reserve forces and territorial defence units to provide surge capacity for escort missions (as well as for the Host Nation Support mission more broadly);

- discuss options for and seek agreement to the extent to which funding for infrastructure to enhance military movement might be credited by NATO as defence expenditure. Alongside this, Allies should consider whether and how targets for infrastructure development might be included within the NATO Defence Planning Process;
- identify, and invest in, static infrastructure – perhaps former Soviet or Warsaw Pact military facilities – to permit the holding and assembly of large military formations, and to pre-position stocks (and for the US, equipment) to reduce the movement burden;

COORDINATION, COMMAND AND CONTROL

- invest in the JSEC and ensure that it is adequately staffed (including personnel from the Baltic region) both to enable SACEUR's AOR in peacetime and to execute the vital task of coordinating movement through the rear area during crisis. It is also essential, if the JSEC is to add value, that the Allies should provide it, in a timely fashion, with all the information that will be necessary for it to provide coordination services. The JSEC itself will need to do more to persuade Allies that accepting this additional overhead will bring about substantial benefit;
- provide the JSEC with the mandate and means to develop and maintain a recognised logistics picture that includes an overview of movement status;
- conduct, as a matter of some urgency, table top exercises and scenario-based discussions to properly define the coordination, command and control concepts, issues, and roles and responsibilities for movement that have arisen through a combination of the establishment of the JSEC and the uncertainties that remain around the JLSG concept;

- review the role and functions of the NFIUs with regard to military movement. The NFIUs have evolved since their establishment, often in different directions, and their place and value may be impacted by the establishment of the JSEC;

HOST NATION SUPPORT

- provide greater detail in NATO and US reinforcement planning, to allow host nations to prioritise infrastructure investment, and justify expenditure;
- work to standardise SORs for host nation support for the VJTF (or at least to simplify the process of their generation) and ensure that these are agreed and put in place before the handing over of VJTF framework nation responsibilities;
- seek to coordinate HNS arrangements across the Baltic region in order to ensure efficiency and provide a single set of arrangements for deploying states;

EXERCISES

- stress-test legal and procedural systems, infrastructure and coordination, command and control, through exercises in the Baltic region. The exercise programme should include both large scale reinforcement exercises, similar to Trident Juncture 2018 or Defender-Europe 20, and a healthy mix of small and large emergency readiness deployment exercises (i.e. no-notice or snap exercises) to force the military movement apparatus to respond and become more agile. Forces should ‘train as they fight’;
- be ready for exercises to ‘fail’ due to RSOM issues. It is always possible to find ad hoc solutions to make exercises work, but declaring success and glossing over RSOM problems misses important opportunities to rectify systems and processes. Similarly, ensure that exercises are subject to robust after action review in order to ensure that lessons are learned, solutions are found, and doctrine and procedures are updated and implemented; and

OTHER

- make particular efforts to overcome the difficulties between NATO and the EU in sharing information relevant to military movement. Dealing with the challenges of military movement is already sufficiently complex, without duplication or competition between the two organisations primarily responsible for it. Together, NATO and the EU have an opportunity to play a game-changing role in mitigating the difficulties of rapid military movement.

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