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Evaluating Future U.S. Army Force Posture in Europe

Phase II Report

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EXECUTIVE SUMMARY

CSIS was commissioned by U.S. Army Europe (USAREUR) to evaluate U.S. Army force posture in Europe in light of a changed security environment following Russian military actions in Ukraine. This assessment was conducted in two phases. The Phase I report, released in February 2016, focused on immediate steps to bolster deterrence and the implications for the Defense Department's fiscal year (FY) 2017 budget request. This Phase II report focuses on sustaining a credible deterrence for the next decade and offers 37 recommendations for the recalibration of the U.S. Army's presence in Europe.

Key Findings and Recommendations

- For the first time in a quarter century, the downward trend in U.S. Army force posture in Europe has been reversed. This reversal relies heavily on rotational forces based in the United States to provide the additional combat troops, enabling units, capabilities, and command and control necessary to resource Operation Atlantic Resolve. **The United States' shift from assurance to longer-term credible deterrence, however, must be executed so as to maximize sustainability and affordability—the current approach fails to do so.**
 - **An armored brigade combat team (ABCT) and a full-strength combat aviation brigade (CAB) should be permanently assigned to Europe** given the enduring requirements for armored forces and rotary-wing lift and the high costs associated with continuously rotating these forces from the United States. **The U.S.-based rotational force should be transitioned from an armored brigade to an infantry brigade** and possibly provided with prepositioned equipment in the east for training and exercises. This will result in a total of four U.S. brigade combat teams (three permanent and one continuous rotational) in Europe at all times.
- While a Russian attack against any North Atlantic Treaty Organization (NATO) member is unlikely, it cannot be discounted. A strategy based on **a tiered and scalable posture for U.S. Army forces in Europe is needed as the basis for credible deterrence.** This includes ensuring a combat-capable U.S. and allied tripwire ground force in the Baltic States (Latvia, Lithuania, and Estonia), the most likely flashpoint for a confrontation with Russia; sufficient rapid-response forces; and prepositioned equipment for U.S.-based follow-on reinforcements.
 - **The U.S. rotational troop presence in each Baltic State should be expanded from a company to a battalion,** the lowest command echelon currently capable of deploying and commanding subordinate units over a small but noncontiguous area of operations. U.S. companies should continue to rotate through Poland on a persistent basis and through Romania, Bulgaria, and Hungary on a periodic basis. Allied forces should supplement the U.S. presence in the east under a multinational framework led by NATO.
 - **Equipment should be prepositioned in Western Europe for four U.S.-based brigades** (two ABCTs, one fires brigade, and one sustainment brigade) to enable rapid surge capacity in a crisis. This equipment could potentially move east as greater integrated air

and missile defenses are put in place to enhance protection of U.S. and allied forces on NATO's eastern flank.

- The volume and pace of assurance activities is beginning to strain U.S. and host nation forces, calling into question the sustainability of current efforts. **The United States must address underlying strategic, theater, and operational constraints and begin to transition from a short-term, surge mentality to a longer-term deterrence posture in Central and Eastern Europe.** Practical improvements include, for example, offering fewer, larger, and more varied exercises to Baltic State militaries; providing deployment support to U.S. forces conducting Operation Atlantic Resolve; and improving information and intelligence sharing at the tactical level.
- While the United States and NATO retain vast military superiority over Russia, there are **three key capability areas where Russia has or is gaining an advantage that could undermine the ability of allied forces to respond in a crisis: anti-access/area-denial (A2/AD), combined arms warfare, and nonkinetic capabilities such as cyber, electronic warfare, and information operations.** Recommendations to address these gaps include, among other things, additional fires capabilities; short- and medium-range air defense systems; delegating authority for U.S. tactical units to undertake offensive cyber collection; and expanding the use of Army Special Operations military information support teams (MISTs) to combat Russian false narratives across the eastern flank.
- Lastly, **increased U.S. force posture and defense investments in Europe must be nested in a whole-of-government approach and accompanied by significant increases in defense spending and contributions from NATO allies.** The U.S. military represents an alarmingly high percentage of total NATO forces and capabilities. The underinvestment by some European allies is no longer tolerable from either a security or political perspective. Although allies have arrested the downward trend in defense spending, they must significantly increase spending and force commitments to NATO's defense in light of the increased threats to European security. A more balanced U.S. and European force posture will not only improve overall capabilities to counter Russian aggression, it will also ensure greater alliance unity of purpose in the future.

ACRONYMS

A2/AD	Anti-access/area-denial
ABCT	Armored brigade combat team
APS	Army Prepositioned Stocks
ARI	Aviation Restructuring Initiative
ATA	Anti-Terrorism Assistance
ATGM	Anti-tank guided missile
BCT	Brigade combat team
BICES	Battlefield Information Collection and Exploitation System
C2	Command and control
C4ISR	Command, control, communication, computers, intelligence, surveillance, and reconnaissance
CAB	Combat aviation brigade
CFE	Conventional Forces in Europe Treaty
COCOM	Combatant Command
CPT	Cyber protection team
DEW	Directed energy weapon
DoD	Department of Defense
EA	Electronic attack
EAS	European Activity Set
ELINT	Electronic intelligence
EPAA	European Phased Adaptive Approach
ERA	Explosive reactive armor
ERF	European Rotational Force
ERI	European Reassurance Initiative
ESF	Economic Support Fund
EUCOM	U.S. European Command
EW	Electronic warfare
EXBS	Export Control and Related Border Security
FID	Foreign internal defense
FMF	Foreign Military Financing
FOS	Forward operating site
FVEY	Five Eyes
FY	Fiscal year
GDP	Gross domestic product
GPS	Global positioning system
HASC	House Armed Services Committee
HELMD	High-energy laser-mobile demonstrator
HET	Heavy equipment transport
HIMARS	High-mobility artillery rocket system
I&W	Indicators and warnings
IADS	Integrated air defense system
IBCS	Integrated Air and Missile Defense Battle Command System
IBCT	Infantry brigade combat team

IFC	Integrated fires control
IMET	International Military Education and Training
INCLE	International Narcotics Control and Law Enforcement
INF	Intermediate Nuclear Forces Treaty
IO	Information operations
ISR	Intelligence, surveillance, and reconnaissance
MIST	Military information support team
MLRS	Multiple launch rocket system
MOD	Ministry of Defense
MOI	Ministry of Interior
NADR	Non-Proliferation, Anti-Terrorism, Demining, and Related Programs
NATO	North Atlantic Treaty Organization
NFIU	NATO Force Integration Unit
NGO	Non-governmental organization
NRF	NATO Response Force
NRFA	NATO-Russia Founding Act
OAR	Operation Atlantic Resolve
OCO	Overseas Contingency Operations
OPSEC	Operational security
PATRIOT	Phased Array Tracking Radar for Intercept on Target
PNT	Position, navigation, and timing
RAF	Regionally Aligned Force
REFORGER	Return of Forces to Germany
SASC	Senate Armed Services Committee
SAM	Surface-to-air missile
SBCT	Stryker brigade combat team
SCO	Strategic Capabilities Office
SEAD	Suppression of enemy air defenses
SETAF	Southern European Task Force
SHORAD	Short-range air defenses
SOCEUR	U.S. Special Operations Command Europe
SOFA	Status of forces agreement
SRM	Sustainable Readiness Model
sUAS	Small unmanned aircraft system
THAAD	Terminal high-altitude area defense
TSC	Theater security cooperation
TTP	Tactics, techniques, and procedures
UAS	Unmanned aircraft system
USAREUR	U.S. Army Europe
VJTF	Very High Readiness Joint Task Force

Evaluating Future U.S. Army Force Posture in Europe, Phase II

INTRODUCTION

There is growing acknowledgment among Washington’s top policymakers that Russia, on its current political and military trajectory, poses a challenge to U.S. and allied security interests extending into the medium- and perhaps even the long-term. Accordingly, civilian and military experts are reevaluating U.S. and allied defense posture and presence requirements in Europe to make clear that aggression against allies will be met with force and to deny any territorial ambitions Russia may hold beyond its borders. Disagreements remain, however, regarding the appropriate size, composition, and basing of U.S. forces on the continent.

The Obama administration announced in February 2016 that it would more than quadruple its fiscal year (FY) 2017 defense budget request for European assurance and deterrence efforts to \$3.4 billion.¹ Consistent with recommendations made in Phase I of this CSIS report, these steps will advance the establishment of a more credible deterrent in Europe but remain insufficient in and of themselves for what may prove to be an extended era of Russian military adventurism. Stability in Europe and the territorial integrity of NATO members are vital American interests and will continue to require long-term investment.

While the Russian military is neither a goliath nor has the ability to outmatch the United States and its allies across global battlefields, it does possess near-peer capabilities that, as currently arrayed, could plausibly challenge allied forces in Central and Eastern Europe. Deterrence efforts should seek to sufficiently offset Russia’s regional advantages to ensure Russia’s risk calculus never questions that aggression would be met with substantial consequences. This Phase II report explores the necessary components of a credible and sustainable U.S. Army posture in Europe as a component of the overall U.S. and North Atlantic Treaty Organization (NATO) deterrent to Russia and makes recommendations to recalibrate U.S. posture over the next decade. More specifically, it will highlight key challenges—from the strategic to the tactical—that U.S. Army Europe (USAREUR) will face as it seeks to deter Russia, and consider alternative force posture arrangements and capability investments to reduce the strain on and risk to the force.

¹ Office of the Press Secretary, “Fact Sheet: The FY2017 European Reassurance Initiative Budget Request,” White House, February 2, 2016, <https://www.whitehouse.gov/the-press-office/2016/02/02/fact-sheet-fy2017-european-reassurance-initiative-budget-request>.

SCOPE AND OBJECTIVES

This report is the second in a two-phase study commissioned by U.S. Army Europe (USAREUR) to review U.S. force posture in Europe in light of the dramatic changes to the regional security environment. The Phase I report, released in early 2016, explored the immediate requirements faced by U.S. Army Europe regarding force posture and capability gaps to build the conventional land component of a deterrence strategy toward Russia, offering short-term recommendations to help inform the Army's FY 2017 budget request. It is important to note that neither the Phase I study nor the Phase II study are intended to offer a solution for waging an active defense of the Baltic States (Latvia, Lithuania, and Estonia) if deterrence fails. The aim is rather to put in place the tools to avoid such a scenario by convincing Russia that the costs of aggression would outweigh any gains.

The Phase I study recommended that the U.S. Army's contributions toward a credible deterrent be based on a tiered and scalable posture.² This approach seeks to buttress a U.S. and allied persistent tripwire force in the Baltic States with rapid response forces and first-wave follow-on forces that would amount to a total of 13 brigades—8 of which would be U.S. brigades and 5 of which would be allied. While there is no equation that can determine the number of forces needed for deterrence to succeed, the 13 brigade target was derived from an estimate of the ground forces Russia could conceivably use in an attack on NATO's northeastern flank against an assessment that took account of both the force levels that may have impacted Russia's risk calculus during the Ukraine crisis and a defense planning principle related to offensive and defensive force ratios.³

To reach the capacity to rapidly surge to eight U.S. brigades in Europe, the study team recommended relying on the two permanently stationed U.S. brigades in Europe; enhancing the existing U.S. rotational force presence with an additional armored brigade combat team (ABCT) to enable a continuous presence; and prepositioning sufficient equipment to support the rapid deployment of up to five U.S.-based follow-on brigades. The report also highlighted the critical need for enhanced indicators and warnings (I&W) capabilities, among other things, to address Russia's time and space advantage that naturally results from its proximity to NATO's most vulnerable allies, its military buildup on NATO's eastern border, and its ability to rapidly reposition forces along its interior lines.

² Kathleen H. Hicks and Heather A. Conley, *Evaluating Future U.S. Army Force Posture in Europe: Phase I Report* (Washington, DC: Center for Strategic and International Studies, February 2016), 12.

³ As a general principle, defending forces in possession of a 1:3 force ratio can hold attacking forces to a 65–75 percent chance of success. In other words, attacking forces will retain a reasonable chance of success, but at a higher cost and in a manner that is likely to be less quick and decisive. See Trevor Nevitt Dupuy, *Analysis of Factors That Have Influenced Outcomes of Battles and Wars: A Database of Battles and Engagements*, Vols. 1–6, Report No. CAA-SR-84-6, Prepared for U.S. Army Concepts Analysis Agency (Dunn Loring: Historical Evaluation and Research Organization, September 1984).

This report, building on the Phase I findings, focuses on the longer-term implications of Russia's conventional capabilities and posture for U.S. Army forces in Europe. Although the requirement for an eight U.S. brigade surge capacity will continue to inform recommendations related to force posture, the Phase II report places greater emphasis on making U.S. Army posture credible against a range of Russian threats, sustainable beyond a single budget year, and more cost conscious. This report does not make recommendations related to the other military services. It is clear, however, that the U.S. Air Force, Navy, and Marines, along with allied militaries, will play a vital role in ensuring a credible deterrence in Europe as well.

This report is divided into seven chapters:

- **Chapter 1** provides an assessment of how Russia's political, economic, and military evolution over the next decade might shape the challenges it presents to the United States and its allies. This chapter draws on what we know about Russia's political situation and foreign policy interests, combined with its military development and capabilities, and the lessons that should be learned and applied from Russia's military interventions in Ukraine and Syria.
- **Chapter 2** provides an overview of the current U.S. Army force posture in Europe. It offers a brief review of the changes in European posture since the end of the Cold War to present and highlights the decisions behind them. It includes a detailed account of the current U.S. Army force configuration, including deployments to NATO's eastern flank (northeastern and southeastern) in support of Operation Atlantic Resolve.
- **Chapter 3** provides an assessment of the sustainability of the U.S. Army's ongoing assurance and deterrence efforts across Europe. Given the ongoing heightened tensions with Russia, U.S. Army forces have maintained a high operational tempo of forward deployments, exercises, and capacity building activities. This chapter identifies the underlying strategic, theater, and operational challenges the U.S. Army will face as it seeks to maintain or potentially expand its presence in Europe.
- **Chapter 4** identifies key capability challenges the U.S. Army faces vis-à-vis Russia on NATO's eastern flank. While the United States retains a superior military overall, it faces difficult strategic geography in Central and Eastern Europe and must address several capability gaps where the U.S. Army has either fallen behind or is in danger of losing its qualitative edge due to Russian technological advancements. This chapter focuses on Russian anti-access/area-denial (A2/AD) capabilities, combined arms, and nonkinetic capabilities, including cyber, electronic warfare, and information operations.
- **Chapter 5** provides options to increase the credibility and sustainability of U.S. Army force posture in Europe, and assesses the trade-offs associated with different force

posture arrangements. It offers recommendations to realign U.S. Army force posture in the eastern flank and in the European theater more broadly. This chapter also explores alternative constructs for NATO multinational formations in the Baltic States and Poland.

- **Chapter 6** focuses on the integration of civilian-military responses, including the nonmilitary capabilities that likely would play a first responder role in a crisis. This includes the border security and interior agencies of NATO allies, civilian aspects of cyber, national infrastructure, information warfare, and U.S. assistance in media, anti-corruption, border security, and related areas.
- **Chapter 7** summarizes the study team's recommendations and offers concluding thoughts.

The CSIS study team conducted the second phase of this report between February and May 2016. To facilitate its analysis, the team traveled to Romania, Bulgaria, Poland, Latvia, Estonia, and Lithuania to assess ongoing U.S. assurance and deterrence measures efforts, allied perceptions of Russia, regional attitudes and politics, allied military structures and capabilities, and civilian-military relations. Additionally, the study team reviewed existing literature, held a working group meeting with U.S. experts, and conducted interviews with current and former senior officials from across the U.S. government.

CHAPTER 1: THE RUSSIA VARIABLE

Since its annexation of Crimea and military incursion into eastern Ukraine in 2014, Russia's military activity and charged political rhetoric have refocused the attention of the United States and its NATO allies. Increased incidents of aggressive behavior in the sea, air, and cyber realms, and the deployment of a significant military presence in Syria all underscore Russia's willingness and ability to challenge the current international security order. This makes future Russian foreign policy decisions a source of concern. While accurate forecasts of foreign policy are rare, it is possible to assess likely trends in Russian policy. Most analysts pay particular attention to three key variables: the durability of the current regime, Russian military capabilities and intent, and the ability of the Russian economy to support the country's current posture. With this assessment as a base, it is possible to better anticipate—and thus respond to—possible challenges and opportunities that the United States and European allies might encounter from Russia over the next decade.

For the most part, Russian foreign and security policy is rooted in perspectives that have been around since the collapse of the Soviet Union, and in some cases much longer. Except for a brief period in the early 1990s during Boris Yeltsin's tenure as president of the Russian Federation, in which so-called Liberal Westernizers encouraged very broad cooperation with the United States and Europe, the Russian political sphere has been dominated by figures who have taken a hard stance against NATO and emphasized Russian nationalism.⁴ Rhetoric and policy regarding ethnic Russians (or "compatriots") abroad dates back to the Yeltsin years, as do concerns about NATO encirclement. From Russia's perspective, the neighboring former Soviet countries (debatably excluding the three Baltic States of Latvia, Lithuania, and Estonia, which were never accepted as part of the Soviet Union by the United States and its allies) belong to Russia's sphere of influence and, therefore, are not sovereign entities. Thus, any expansion of NATO's or the European Union's influence into these countries has been deemed threatening.⁵ Worries about so-called color revolutions and political springs are based on the conviction that these phenomena are products of Western efforts to promote regime change and undermine Russia and other states. The current crisis in Ukraine can find its roots in the first years of independence, and before that in the Russian empire, as Russia has never fully recognized or understood Ukraine as a foreign entity.⁶

⁴ Neil Malcolm, *Internal Factors in Russian Foreign Policy* (Oxford: Oxford University Press, 1996).

⁵ Note that the rhetoric regarding the EU is more recent, dating to roughly 2013. Mark Galeotti, "Putin's Empire of the Mind," *Foreign Policy*, April 21, 2014.

⁶ Tor Bukkvoll, "Off the Cuff Politics: Explaining Russia's Lack of a Ukraine Strategy," *Europe-Asia Studies* 53, no. 8 (December 2001): 1141–1157.

Today, Russia makes no secret that its foreign policy is geared to increasing its global influence and challenging what Moscow sees as U.S. hegemony. This is clear from a variety of statements and documents, including President Vladimir Putin’s 2007 speech at the Munich Security Conference, Putin’s 2014 speech at the Valdai club, and Moscow’s new National Security Strategy.⁷

But if Moscow’s discontent with the post–Cold War settlement in Europe and its desire to increase its global influence are in no way new, what is new is Russia’s increased assertiveness in seeking to attain these goals, including by military means. The real question for the United States and its allies is whether and how Russia’s interests and actions will affect their own interests, and what should be done about this in the future. This requires a bit of prognostication. While we cannot know exactly how Russian policy and interests will evolve, we can evaluate trends in a number of areas. First of these is the **political situation** in Russia, specifically the future shape and durability of Putin’s regime, and whether any eventual successor to Putin is likely

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to shift foreign policy. Second is the **economy**, the state of which will influence Russia’s ability to act on its foreign policy interests. In addition to providing resources necessary for funding military endeavors, Russia’s economic performance will have implications for its domestic stability and for the country’s ability to wield soft power tools on the international stage. Third is the question of how Russia’s **military** will continue to evolve. Despite having made a number of essential reforms in the 2000s, Russia’s armed forces continue to face many challenges, now exacerbated by funding shortages for procurement and modernization. Fourth, and finally, it will be important to consider **other tools** Russia might use to attain its goals.

Taken together, these components can provide a useful picture of what the United States and its allies should understand about Russia. Even if Moscow’s rhetoric is much the same as it has always been, the conflict in Ukraine, combined with the recent uptick in aggressive rhetoric and nonconflict military action (e.g., airspace violations), has established a militarization of Russia’s anti-Western foreign policy. However, the future of this stance and its implications for the United States and NATO depend on the course that the Russian government, its economy, and its military take in the next 10 years. The combination of these factors will determine not only whether Russia continues to maintain its policy course, but also whether the regime has the

⁷ Vladimir Putin, “Valdai Speech,” speech, Valdai International Discussion Club’s XI Session, Sochi, October 24, 2014, <http://en.kremlin.ru/events/president/news/46860>; “Ukaz Prezidenta Rossiiskoi Federatsii ot 31 dekabrya 2015 goda N 683 ‘O Strategii Natsionalnoi bezopasnosti Rossiiskoi Federatsii,’” text published in *Rossiiskaya gazeta*, December 31, 2015, <http://rg.ru/2015/12/31/nac-bezopasnost-site-dok.html>.

political capital, economic resources, and military efficacy to act on it. This, in turn, helps the United States and its allies define how best to respond.

POLITICAL OUTLOOK

President Vladimir Putin enjoys high levels of power and popularity as head of the Russian Federation. After taking credit for Russia's economic recovery in the 2000s, Putin easily won reelection to the presidency in 2004 and experienced little resistance when he took up the post of prime minister in 2008, handing the presidential seat to Dmitri Medvedev. Since this golden period, Putin has had to put greater effort into maintaining his position and popularity due to the combination of Russia's declining economic performance and the increasing audacity of Putin's political maneuverings, exemplified by his return to the presidency for a third term in 2012, shortly after the introduction of constitutional changes that extended presidential terms to six years from four. Putin's regime has increasingly employed prolonged and conscious efforts to suppress opposing voices. These efforts have been startlingly effective: mass protest movements have not been able to gain significant traction, and no political opponents exist who could potentially be elected as president in 2018. As a result, there is little reason to think that Putin will not remain in power well into the next decade.

Putin's popularity is important inasmuch as it lends legitimacy and security to his regime, however it does not directly influence policy. In the past, Putin's favorable public opinion was long attributed to the economic growth and prosperity experienced during the first years of his presidency, a sharp contrast to the chaos of the 1990s. However, as Russia's economic performance has declined, the maintenance of Putin's position has been the result of efforts to limit opposition. While there is no question that public opinion is important to the Putin regime—the substantial, and successful, efforts undertaken to maintain support for policies through control of the media speaks to that—there is little reason to think that public opinion is driving Russian foreign policy. Russia's government sells its decisions to its public, it does not make them on the basis of what the public thinks.⁸ This said, it is important to keep in mind that Russia's current foreign policy course is, indeed, popular. The annexation of Crimea increased Putin's popularity rating to more than 83 percent in 2014. Moreover, the current situation, in which Russia's actions are condemned by Western powers, actually contributes to Putin's legitimacy in part because it feeds into the narrative that establishes Russia and the West as dichotomously opposed not just in terms of interests, but also of cultural morality and civilizational uniqueness. Harkening back to the days of a bipolar world, President Putin seeks to be seen again as an equal to the United States and not just a regional power.

What does shape Russian policy? To a large extent, it appears to be Vladimir Putin who represents a nexus of intelligence and security operations and business interests. Over time,

⁸ Olga Oliker, Christopher S. Chivvis, Keith Crane, Olesya Tkacheva, and Scott Boston, *Russian Foreign Policy in Historical and Current Context: A Reassessment* (Santa Monica, CA: RAND Corporation, 2015), 14–22.

Russia's president has effectively centralized and expanded power by simultaneously weakening institutions and strengthening the powers of the presidency, as well as reducing government decisionmaking to his inner circle of friends and confidants. As such, Putin has created an environment in which foreign policy decisions are restricted to an increasingly small and insular sphere under his direct control where avenues for resistance are limited and swiftly addressed when identified. As a result, the sort of balancing mechanisms that, for example, the Soviet Union experienced under the Politburo, are absent from Russian decisionmaking today, making decisions more opaque and prone to adventurism.

But however centralized decisionmaking may be, it is critical to remember that Russia's foreign policy preferences today are consistent with those of the past. Thus, while Putin's leadership style shapes the ways in which Russia pursues its goals, it does not define those goals. This means that while it is possible that a new leader might bring with him or her substantial foreign policy changes, Russia's historical experience and deeper political environment will continue to provide the foundation for its policy decisions. A change in decisionmaking structures, however, depending on its direction and shape, could make Russian behavior more predictable. But for the most part, we should not assume that domestic political changes will necessarily lead to substantial shifts in Russian foreign policy on their own.

ECONOMIC FACTORS

The state of Russia's economy is important not only because of the effect that it may have on the stability of the regime (thus far, it has not had such an effect), but also and perhaps more importantly because it will determine to what extent and in what ways Russia has the resources to act on its foreign policy interests.

Since 2014, the Russian economy has suffered due to a combination of international sanctions, an unpredictable business climate, low oil prices, and the resultant ruble crisis. Although it appears that some stability has returned to the Russian economy, gross domestic product (GDP) continues to decline, affecting production, sales, wages and government revenue.⁹

The effect of these economic factors on policy will depend on the Russian regime's willingness to allocate resources toward foreign policy aims, specifically to maintain the current high levels of military spending at the expense of other priorities. Russia's national security strategy emphasizes the importance of spending on health care, education, and other social needs. But to date, the military has not particularly suffered. Although the defense budget has been decreased by 5 percent since 2014, cuts have fallen primarily in the area of procurement.¹⁰ We discuss more on the possible implications of budget constraints on the armed forces below, but the

⁹ Marc Jones, "Worst May Be Over for Russia, Risks Rising in Central Europe: IMF," Reuters, May 6, 2016, <http://www.reuters.com/article/us-easteurope-economy-imf-idUSKCN0XX0JB>.

¹⁰ Will Edwards, "Russian Military Modernization," The Cipher Brief, April 8, 2016, <http://thecipherbrief.com/article/europe/russian-military-modernization-1090>.

bottom line is that it seems likely that Russia will find funds for its armed forces. Military spending, which had been stable as a percentage of GDP throughout the years of Russian economic growth, began to rise as the economy slowed. And certainly, Russia's foreign policy decisions since 2014 have demonstrated that Russia's leadership is willing to take significant economic hits as an accepted cost for pursuing political goals, and having the military might to back them up. Despite the fact that the annexation of Crimea and intervention in eastern Ukraine resulted in sanctions against key Russian elites, major Russian companies, and bans of energy-related financial transactions and arms transactions, these have ultimately been weighted as a necessary sacrifice.¹¹

MILITARY CAPABILITIES AND APPROACHES

The Russian military has made a concerted effort to improve its capabilities since the 2008 Georgia war. Although the government had struggled to reform the military throughout the 1990s and 2000s, Russia's disappointment with its own performance in the conflict with Georgia provided the catalyst for significant change. As a result of these "New Look" reforms, Russia changed its command structure to increase combat readiness, undertook efforts to modernize its equipment and improve rapid deployment, and took steps in the direction of transforming from a conscript to a more professional-based army.¹² While these reforms did not bring Russia's military to a level on par with that of that of the United States, they have resulted in real capabilities, as evidenced in both Ukraine and Syria.¹³

Where Russia has improved is in the areas that showed itself in the worst light in the 2008 Georgia War. Command and control, combined arms operations, and equipment modernization have been priorities, and it shows. Chapter 4 of this report will discuss in more detail some of the specific capabilities relevant to the European theater. In a general sense, however, we can draw a few lessons from the conflicts in Ukraine and Syria that should be underlined.

Much has been made of Russia's use of nonmilitary means to attain its goals in Crimea. Moscow's concerted propaganda campaigns; leveraging, support, and incitement of local opposition movements; and the use of armed forces with no clear insignia ("little green men" in Western parlance and "polite people" in Russian) were surprising to adversaries and onlookers alike. The last technique in particular, proved surprisingly effective in undercutting the speed and effectiveness of the Ukrainian and Western response.

¹¹ Andrew Roth, "Russian Premier Says Annexation of Crimea Was Worth Sanctions Fallout," *New York Times*, April 21, 2015.

¹² See Rod Thorton, *Military Modernization and the Russian Ground Forces*, SSI Monograph (Carlisle: Strategic Studies Institute, June 2011); Gustav Gressel, *Russia's Quiet Military Revolution, and What It Means for Europe*, Policy Brief (European Council on Foreign Relations, October 12, 2015).

¹³ Keir Giles, *Russia's 'New' Tools for Confronting the West* (London: Chatham House, March 2016).

These activities have been referred to as hybrid warfare or nonlinear warfare, referring to the fact that these combine conventional, informational, and political actions. However, these terms belie the reality that all states seek to combine instruments of power to attain political aims. It is important to note that within Russia these terms are not used to refer to their own activities, although they are increasingly used (perhaps in emulation of Western usage) to refer to the ways that wars are waged in modern times according to precedents set by the United States.¹⁴ Moreover, it is worth noting that while Russia is certainly still deploying nonmilitary tools, its actual operations in both Ukraine and Syria have been quite conventional in nature. The focus on nonmilitary means, whose effectiveness outside of Crimea remains to be evaluated, can take attention away from how Russia has evolved in its conventional fight.

In that context, we observe in Ukraine and Syria that Russia has developed its ability to pair conventional operations, which utilize a traditional tendency toward heavy artillery and frontal assaults, with new technologies to increase the efficacy of these old tactics.¹⁵ For example, in both Ukraine and Syria, unmanned aircraft systems (UAS) are used to provide artillery spotting, allowing Russia to increase the effectiveness of its heavy artillery strikes.¹⁶ Other examples include using the signal from enemy combatants' cell phones to provide location information for artillery spotting; targeting global positioning system (GPS) signals and communications systems using electronic warfare in order to disrupt enemy command systems and air defense; concerted propaganda campaigns; and employing "little green men" to carry out operations.

It is also worth noting that, to date, Russia's military adventures have been very limited in nature. Russia has not had the incentive to undertake a large-scale war, and its recent interventions in Ukraine and Syria have relied on streamlined operations to minimize overreach. Although it remains to be seen if Russia can avoid being dragged into broader conflict, in Syria especially, experience to date suggests that while Russia may be rash in its decision to use force, it is able to be judicious in how it uses its military.

Because Russia is a nuclear power, it is important to also address this component of its posture, in Europe and globally. The Soviet Union pledged not to use nuclear weapons first, whereas official Russian documents allow for nuclear use in response to conventional attack.¹⁷ The 2014 Russian military doctrine makes clear that Russia reserves the right to use nuclear weapons to

¹⁴ Michael Kofman and Matthew Rojansky, *A Closer Look at Russia's "Hybrid War,"* Kennan Cable, No. 7 (Wilson Center, April 2015).

¹⁵ Giles, *Russia's 'New' Tools for Confronting the West.*

¹⁶ Sydney Freedberg, "Russian Drone Threat: Army Seeks Ukraine Lessons," *Breaking Defense*, October 14, 2015, <http://breakingdefense.com/2015/10/russian-drone-threat-army-seeks-ukraine-lessons/>; "Russia in Syria: 4th Corps and Desert Falcons," *Foreign Military Studies Office: Operational Environment Watch* 6, no. 3 (March 2016), <http://fmso.leavenworth.army.mil/OEWatch/Current/current.pdf>.

¹⁷ Nuclear Threat Initiative, "Russia: Nuclear," April 2015, <http://www.nti.org/learn/countries/russia/nuclear/>.

protect the state against an existential threat.¹⁸ What exactly constitutes an existential threat is open to interpretation, leading some analysts to worry about a lowered threshold for nuclear use in Russia. Indeed, aggressive Russian nuclear rhetoric has led some Western analysts to worry about a secret Russian nuclear policy of “escalate to de-escalate” in case of a major conflict with NATO.¹⁹ This strategy would involve the placement and potential use of tactical nuclear weapons to threaten or make a limited nuclear strike that intimidates adversaries into de-escalating the conflict in a way that is advantageous for Russia. However, the evidence that this is truly Russia’s strategy is unclear.²⁰ Though Russian rhetoric surrounding nuclear weapons has been reckless and threatening, it has also been vague, suggesting that Russian officials, “want to create an atmosphere of uncertainty regarding their nuclear intentions,” but also that they are not going so far as to make direct, specific nuclear threats at senior levels.²¹ Brandishing its nuclear capability serves to make Russia look strong despite relative conventional weakness, put the West off-balance, and use that uncertainty to deter a conventional conflict.

The future of Russian capabilities will also be affected by the country’s ability to deal with its personnel, equipment, and budgetary challenges. Here, the economy is a factor. While it is most likely that Russia will continue to find funds for its armed services, even with substantial funding, defense budgets will continue to be stressed by a number of planned projects, including increasing the number of contract soldiers in the armed services, modernizing equipment, and introducing new land, air, and sea units.²² Further expansion of the military and the ability to participate in conflicts will be dependent on the Russian economy recovering, and spending efficiency improving, sufficiently to render these ventures feasible.

Despite reforms aimed at increasing the Russian armed forces to one million and progress in increasing the proportion of military personnel serving on a professional, contract (rather than conscript) basis, the Russian military continues to face gaps between the quality it wants and the quality it is able to deploy.²³ Russia’s modernization efforts and procurement plans also face obstacles: despite ambitious plans outlined in the State Armament Program, which included modernizing 70 percent of Russian military equipment, the Russian defense industry has historically not been able to deliver due to problems with funding, research and development, and production.²⁴ Finally, further damage to the Russian economy will complicate efforts to

¹⁸ Embassy of the Russian Federation in the United Kingdom, “Military Doctrine of the Russian Federation, December 2014: Section III, Para. 27,” press release, June 29, 2015, <http://rusemb.org.uk/press/2029>.

¹⁹ Elbridge Colby, *Russia’s Evolving Nuclear Doctrine and Its Implications* (Paris: Fondation Pour La Recherche Strategique, January 12, 2016), <http://www.frstrategie.org/publications/notes/web/documents/2016/201601.pdf>

²⁰ Olga Oliker, *Russia’s Nuclear Doctrine: What We Know, What We Don’t, and What That Means* (Washington, DC: Center for Strategic and International Studies, May 2016), <https://www.csis.org/analysis/russia%E2%80%99s-nuclear-doctrine>.

²¹ *Ibid.*, 5.

²² Edwards, “Russian Military Modernization.”

²³ Elisabeth Braw, “Russia’s Conscription Conundrum,” *Foreign Affairs*, August 25, 2015, <https://www.foreignaffairs.com/articles/russia-fsu/2015-08-25/russias-conscription-conundrum>.

²⁴ Dmitry Gorenburg, *Russia’s State Armaments Program 2020*, Policy Memo No. 125 (PONARS Eurasia, October 2010), https://www.gwu.edu/~ieresgwu/assets/docs/pepm_125.pdf.

address these problems due to lack of funding for personnel retention and training, equipment upkeep and modernization, and future procurement.

OTHER TOOLS

As noted above, Russia has made extensive use of other tools of national power, including a burgeoning information warfare effort, to attain its goals in Ukraine, Syria, and more generally on the global stage. Having witnessed the power of social media during the Georgian-Russian conflict as well as the Arab Spring, the Russian government has taken measures to develop its own information dissemination forces. These engage with foreign audiences across a wide spectrum, from the personal exchanges on public forums instigated by Kremlin trolls to media outlets that present themselves as fair alternatives to Western news organizations.²⁵ One example of this is the Russian government-funded news channel RT. For the past decade, RT has targeted viewers around the world in many different languages with a Russia-framed—and in some cases completely alternative—narrative that is sharply critical of the West.²⁶ Also worth noting are Russian efforts to build ties with opposition political parties throughout Europe, both on the far right and the far left. While the effectiveness of these tools remains debated, there is no question that Russia is learning on the job, and honing its capabilities over time.²⁷

It is important to keep these information and political tactics in mind when considering the U.S. Army contribution to credible deterrence, as it is more likely that Russia will seek to assert influence this way rather than through large-scale military operations, at least in the early stages. It is also very likely that they may be used in concert with Russian military efforts as tools of subversion and misinformation prior to and during the early stages of any conflict that may emerge. How effective they will be is another question. Russian propaganda may have worked well in Crimea, where it had the advantage of a receptive audience. It fared poorly in the rest of Ukraine, including the East. It has had varying levels of success in European NATO members. One lesson Russia may have learned is the importance of developing support in advance of operations, and that this can be a long-term process. Monitoring trends in Russian information operations and countering them will therefore remain important for authorities in NATO member states.

RUSSIA OVER THE NEXT 10 YEARS

Russia's foreign policy interests will continue to pose challenges to the United States and NATO in Europe and likely beyond. This does not mean that there will not be room for cooperation, but the overall tenor of relations will remain tense for the foreseeable future. NATO and the United

²⁵ Giles, *Russia's 'New' Tools for Confronting the West*, 44–46.

²⁶ Simon Shuster, "Inside Putin's On-Air Machine," *Time*, March 5, 2015, <http://time.com/rt-putin/>.

²⁷ Giles, *Russia's 'New' Tools for Confronting the West*, 54–64.

States can expect Russia to attempt to expand its influence, and to probe for, create, and exploit weaknesses and division in transatlantic cohesion.

Russia will also continue to assert its interests in what it terms its “near abroad,” and will not hesitate to use force if it feels that force is what is required to attain its aims. As evidenced by the interventions in Georgia and Ukraine, Russia considers military action in this region to be its prerogative. However, the very fact of its tremendous concern about NATO enlargement and military buildup suggests that it continues to believe in NATO’s deterrent and its unity. It will be cautious about steps it believes would trigger a serious military response from NATO—that is to say, to truly threaten NATO members—but it will continuously seek to undermine NATO’s (and the United States’) credibility, which can also jeopardize the alliance’s future.

Going forward, Russia is likely to consider the use of force judiciously, especially if NATO members continue to signal and strengthen their resolve. However, if Russia feels that there is truly a threat to its sovereignty, by whatever definition thereof guides its decisionmaking, or that a confrontation with NATO is inevitable, Russia is likely to put everything on the table, including the deterrent power afforded by its nuclear arsenal.

Overall, Russia most likely intends to play a comparatively long game with the United States and NATO in Europe. In the long term, it seeks a revision of the post–Cold War settlement and to gain international recognition of its regional sphere of influence. The way it will go about this is to cement its influence in the post-Soviet states on its borders and to look for ways to weaken the NATO alliance and the ties between its members. The greatest danger may be one of misperception. For example, should Russia feel that there is an opening where one does not exist, it is possible that it will overplay its hand, and escalation may well result. Similarly, if Russia perceives a renewed threat to its interests or a challenge to regime survival from domestic pressures, it may seek to escalate horizontally, meaning that it will move or expand the conflict into new areas, creating new threats. This creates an imperative for a U.S. and NATO posture that cannot be misperceived, and for a clarity of alliance cohesion that cannot be mistaken for weakness or be easily divided.

CHAPTER 2: OVERVIEW OF U.S. FORCES IN EUROPE

Since the end of the Second World War, the U.S. military presence in Europe has built lasting relationships that are essential for ensuring strategic access and global reach, and maintaining interoperability with allied forces. While transforming in size and composition over the years, it has continued to provide a powerful and visible symbol of the U.S. commitment to its European allies. Since Russia's annexation of Crimea and intervention in eastern Ukraine in 2014, the downward trend in the U.S. Army's presence in Europe has been reversed for the first time in 25 years under the auspices of Operation Atlantic Resolve (OAR) and the European Reassurance Initiative (ERI).

GLIDESLOPE OF U.S. ARMY PRESENCE IN EUROPE

In the late 1980s, the United States maintained approximately 340,000 permanently stationed military personnel in Europe to deter the conventional threat that the Soviet Union and Warsaw Pact forces posed to West Germany and Western Europe, more broadly.²⁸ Of that, U.S. Army forces represented approximately **193,000** soldiers organized under two corps (each composed of an armored division, an infantry division, and an armored cavalry brigade) in addition to three independent combat brigades and numerous enabler and support units.²⁹ Apart from permanently stationed forces, the United States maintained large stockpiles of prepositioned equipment in Western Europe—enough for several divisions and support units—to allow forces based elsewhere to rapidly reinforce the continent in the event of conflict. The United States and NATO allies annually rehearsed this reinforcement capability with the Return of Forces to Germany (REFORGER) military exercises, which by the late 1980s involved up to 100,000 U.S. and allied troops.³⁰

As the Warsaw Pact began to unravel in 1989, the Berlin Wall fell, and the threat from the Soviet Union diminished, the United States began a rapid drawdown of the Army's presence in Europe. Army units began to deactivate or return to the United States in 1990—a process partially interrupted by the deployment of forces to the Persian Gulf in support of Operation Desert

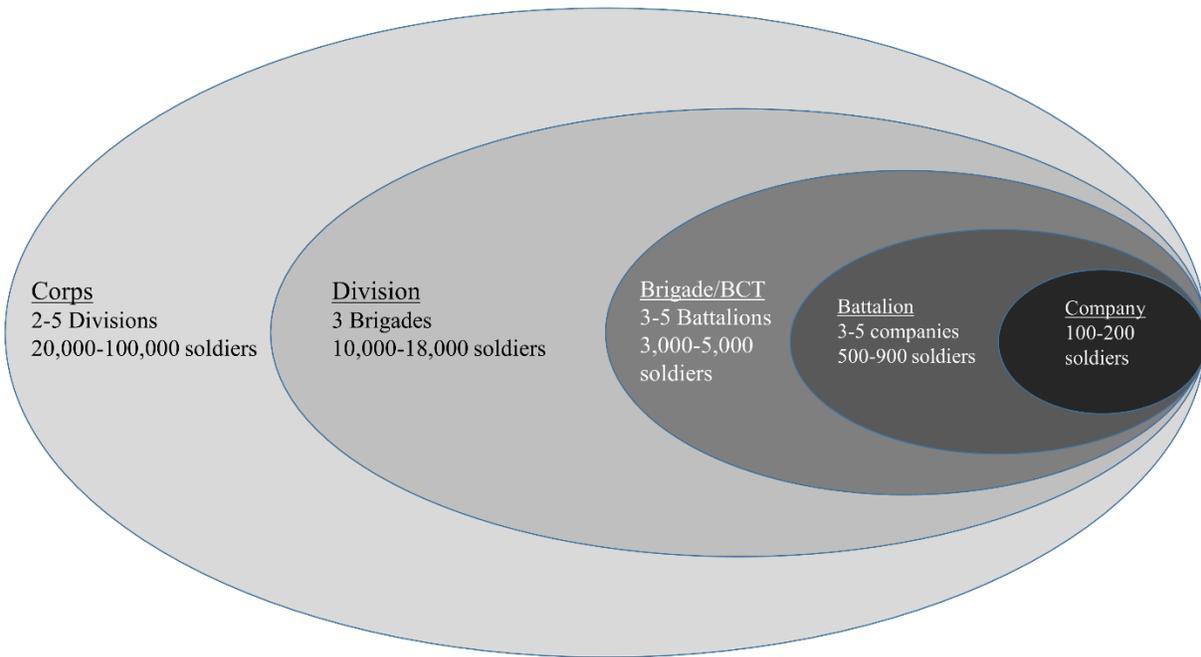
²⁸ Data provided by the U.S. Army Europe Historian and the U.S. European Command Historian, January 2016.

²⁹ The independent brigades included the Berlin Brigade, the 3rd Brigade of the 2nd Armored Division, and the 3rd Brigade of the 1st Infantry Division. VII and V Corps were additionally assigned with divisions based in the United States that regularly exercised reinforcement operations into Western Europe. Vincent H. Demma, "Chapter 5: Force Structure," in *Department of the Army Historical Summary: FY 1989*, ed. Susan Carrol (Washington, DC: Center of Military History, 1998); William Joe Webb, "Europe," in *Department of the Army Historical Summary: Fiscal Years 1990 and 1991*, ed. W. Scott Janes (Washington, DC: Center of Military History, 1997).

³⁰ J. David Lashlee and James H. Robinson, Tactical Mobility Modeling for REFORGER 87, vol. 58, series 8 (Vicksburg: Photogrammetric Engineering and Remote Sensing, August 1992), 1223–1227, <http://www.dtic.mil/dtic/tr/fulltext/u2/a500794.pdf>.

Storm.³¹ Despite numerous deployments in and outside of Europe, the drawdown of U.S. Army forces in Europe continued through the mid-1990s despite the conflict in the western Balkans, when the presence stabilized at approximately **60,000** soldiers with four brigades organized into two divisions (1st Armored Division and 1st Infantry Division) under V Corps in Germany, with an additional airborne brigade under the Southern European Task Force (SETAF) in Italy.³²

Figure 2.1. Overview of U.S. Army Command Echelons



Amid a stable security environment in Europe and growing demand for U.S. forces in the Middle East, the Bush administration announced in August 2004 that 70,000 U.S. troops stationed overseas would return to the United States, of which 40,000 were to be removed from Europe over a six- to eight-year period.³³ As a part of this decision, the heavy armored brigades of the 1st Armored Division and 1st Infantry Division would return to the United States and the U.S. Army presence would further shrink to roughly 28,000 troops composed of two light brigades—one Stryker brigade and one airborne infantry brigade.³⁴ Over the next several years, the heavy forces, enablers, and headquarters elements of the 1st Armored Division and 1st Infantry Division were gradually reassigned from Germany to the United States. In late 2007, Secretary

³¹ William Joe Webb, “Structuring the Force,” in *Department of the Army Historical Summary: Fiscal Years 1990 and 1991*, ed. W. Scott Janes (Washington, DC: Center of Military History, 1997), 103–118.

³² Based on data provided by U.S. Army Europe Historian, January 2016.

³³ “Shake-up for US Troops Overseas,” BBC News, August 17, 2004.

³⁴ *BRAC Commission Findings and Recommendations* (Washington, DC: Defense Base Closure and Realignment Commission, 2005), <http://www.brac.gov/docs/final/Chap1ArmyFindingsandRecommendations.pdf>; Jon D. Klaus, *U.S. Military Overseas Basing: Background and Oversight Issues for Congress*, RS21975 (Washington, DC: Congressional Research Service, November 17, 2004), <http://fas.org/man/crs/RS21975.pdf>.

of Defense Robert Gates temporarily halted the withdrawal of the last two heavy brigades from Europe due to a lack of basing for the troops in the United States and concerns from U.S. military commanders in Europe that armored capabilities were necessary to meet theater security requirements.³⁵ This left U.S. Army force posture in Europe at approximately **40,000** soldiers organized into four brigades at the end of Secretary Gates's tenure in 2011.³⁶

In January 2012, Secretary of Defense Leon Panetta announced that the two remaining armored brigades in Europe would be inactivated as part of a broader reduction in the Army's size.³⁷ In October of the same year, the 170th Infantry Brigade was inactivated followed shortly by the 172nd Infantry Brigade in May 2013 along with the remainder of V Corps headquarters the following month.³⁸ These changes represented the removal of the last U.S. armored presence in Europe. By 2014, U.S. Army forces permanently stationed in Europe had been reduced to approximately **24,000**, or just two light brigade combat teams (BCTs) with no higher level headquarters save U.S. Army Europe (USAREUR)—an 87 percent reduction of the Army's forces in Europe since the late 1980s. Over the same time period, the end strength of the active U.S. Army overall declined by approximately 34 percent.³⁹

The decision to leave only two light brigades in Europe raised serious concerns among senior commanders in U.S. European Command (EUCOM), who worried that the drawdown of forward-stationed troops in Europe had gone too far. Nevertheless—with the strong recommendation of the U.S. Army—EUCOM and Secretary Panetta agreed to the reductions, as did the State Department and White House. It is also worth noting that throughout most of the 2000s, nearly one-third of the U.S. forces based in Europe were deployed to Iraq and

³⁵ Thom Shanker, "Gates Halts Cut in U.S. Army Force in Europe," *New York Times*, November 21, 2007.

³⁶ As the 1st Armored Division and 1st Infantry Divisions headquarters withdrew to the United States, the two armored brigades that had belonged to these divisions in Europe were reflagged as the 170th Infantry Brigade and 172nd Infantry Brigade—which despite their names were structured as traditional heavy brigades. Lisa Burgess, "USAREUR Commander Wants to Keep 40,000 American Soldiers in Europe," *Stars and Stripes*, October 12, 2007, <http://www.stripes.com/news/usareur-commander-wants-to-keep-40-000-american-soldiers-in-europe-1.69864>; Admiral James Stavridis, Commander of U.S. European Command, testimony before Senate Committee on Armed Services, *Hearing on National Defense Authorization Act for Fiscal Year 2014 and Oversight of Previously Authorized Programs*, 113th Cong., 1st sess., March 15, 2013, <https://www.gpo.gov/fdsys/pkg/CHRG-113hhrg80189/html/CHRG-113hhrg80189.htm>.

³⁷ Both brigades were comprised of one armor battalion, one cavalry regiment, and two mechanized infantry battalions, plus enablers.

³⁸ Daniel Cole, "V Corps Inactivates after Nearly a Century of Service to U.S. Army," U.S. Army, June 12, 2013, http://www.eur.army.mil/news/2013/20130612_V-Corps_inactivation.html; Steven Beardsley, "Final Flourish as 172nd Inactivates in Grafenwöhr," *Stars and Stripes*, March 31, 2013; Matt Millham, "For Baumholder's 170th Brigade, a Low-key Goodbye," *Stars and Stripes*, October 9, 2012; Matt Millham, "V Corps Cases Its Colors in 'Bittersweet' Ceremony in Wiesbaden," *Stars and Stripes*, June 12, 2013.

³⁹ The active U.S. Army had approximately 771,000 soldiers in 1989 and approximately 510,000 in 2014. "Manpower," in *Department of the Army Historical Summary: FY 1989*, ed. Susan Carrol (Washington, DC: Center of Military History, 1998); "U.S. Army," *2016 Index of U.S. Military Strength*, Heritage Foundation, <http://index.heritage.org/military/2015/chapter/us-power/us-army/>.

Afghanistan. As a result, no more than two brigades were typically present in Europe during that time anyway.⁴⁰

To offset concerns that the two brigades were insufficient to meet demand for security cooperation activities with NATO allies and partners in support of Afghanistan-related requirements, and left little flexibility to respond to contingencies, the Department of Defense decided to rotate armored forces back to Europe to augment the now smaller permanent presence.⁴¹ Plans for the Army to rotate armored forces to Europe were dovetailed with the Regionally Aligned Force (RAF) concept, an effort announced by the Army in 2013 to match U.S.-based Army forces with geographic combatant commands to provide rotational forces that could ostensibly build some regional familiarity and compensate, somewhat, for the drawdown of U.S. forces based overseas.

Under the initial RAF concept, the designated U.S.-based brigade to Europe, called the European Rotational Force (ERF), would deploy a battalion-sized task force (approximately 650 personnel) twice a year for two months at a time to participate in training and exercises primarily held at U.S. facilities in Germany. Rather than have the rotational force transport its heavy equipment between Europe and the United States, equipment for a combined arms battalion called the European Activity Set (EAS) was prepositioned at Grafenwöhr Training Area in Germany.⁴² The 1st Brigade Combat Team, 1st Cavalry Division (1-1 CAV) from Fort Hood, Texas, was designated as the inaugural ERF and also assigned the duties of the NATO Response Force (NRF).⁴³ The placement of EAS in Germany was completed in January 2014, ahead of the arrival of the first rotation from 1-1 CAV in April 2014 for Combined Resolve II, a large, annual multinational exercise in Germany.⁴⁴ Thus, the first rotational deployment of U.S. Army forces into Europe coincidentally began in spring 2014 amidst the Ukraine crisis.

⁴⁰ Office of the Chief of Public Affairs, “Fact Sheet: U.S. Army in Transformation” (Wiesbaden: U.S. Army, Europe Headquarters, March 27, 2015), <http://www.eur.army.mil/pdf/USAREURTransformation.pdf>.

⁴¹ Jim Garamone, “Army to Replace 2 Brigades in Europe with Rotating Units,” *DoD News*, January 12, 2012.

⁴² Unlike prepositioned war-fighting stockpiles, the European Activity Set is frequently in use by U.S.-based rotational forces for training and exercises, but could also be used in the event of a contingency.

⁴³ The NATO Response Force (NRF) is a rapid-reaction force created by NATO in 2002 and composed of land, air, and special operations forces designated by alliance members that can respond to a crisis. Units are designated as part of the NRF for a period of 12 months. “NATO Response Force,” NATO, May 11, 2015, http://www.nato.int/cps/en/natolive/topics_49755.htm.

⁴⁴ Rose Thayer, “1st Cavalry Gears up for Regional Alignments,” *Fort Hood Herald*, October 9, 2013; 7th Army Joint Multinational Training Command Public Affairs Office, “Heavy Armor Returns to Europe to Support Rotational Force,” U.S. Army, January 31, 2014, <http://www.army.mil/article/119213/>.

CURRENT U.S. ARMY FORCE POSTURE IN EUROPE

By early 2016, the U.S. Army presence in Europe had risen to approximately **29,000** soldiers, comprised of the 24,000 permanently stationed troops and an additional 4,000 rotational forces.⁴⁵ The two brigade combat teams permanently based in Europe are the 2nd Cavalry Regiment (Stryker brigade) in Vilseck, Germany, and the 173rd Airborne Brigade in Vicenza, Italy.⁴⁶ Together, they account for roughly 7,500 soldiers—or 25 percent of the Army’s current total presence in Europe—split across seven maneuver battalions. They are the only remaining Army combat forces permanently stationed in Europe under USAREUR’s command.⁴⁷ Outside of USAREUR’s command, the Army also has the 1st Battalion, 10th Special Forces Group (approximately 450 soldiers) at Panzer Kaserne, Germany, which falls under the command of U.S. Special Operations Command, Europe (SOCEUR).⁴⁸

The inaugural European Rotational Force, 1-1 CAV, conducted two rotations in 2014, each lasting two months and utilizing equipment prepositioned at major U.S. facilities in Germany. The forces that the 1-1 CAV brigade deployed to Europe for each rotation actually amounted to a battalion, or roughly one-third of the brigade’s combat strength. The other two-thirds of the brigade remained in the United States. Beginning in fall 2015, however, the European Rotational Force began to grow considerably in terms of size, duration, complexity, and cost due to new mission requirements under the by-then established Operation Atlantic Resolve, which is the Department of Defense’s name for U.S. reassurance efforts in Central and Eastern Europe as a result of Russia’s aggressive actions in Ukraine. By this time, responsibility for the European Rotational Force had shifted to the 1st Armored Brigade Combat Team, 3rd Infantry Division (1-3ID) out of Fort Stewart, Georgia, which conducted two three-month rotations that involved all of its combat battalions and most of its headquarters and enabler units. In April 2016, 1-3ID began its third RAF rotation to Europe, which entails most of the brigade rotating and staying in Europe for six months.⁴⁹

⁴⁵ The number of U.S. Army personnel in Europe is most frequently cited as approximately 29,000 to 30,000 in a variety of sources and by officials. However, this number appears to include rotational brigade combat teams and combat aviation forces that are not necessarily either present or permanently stationed in Europe. These figures often include Army personnel assigned to staff roles in Europe at EUCOM, U.S. Africa Command (AFRICOM), NATO Headquarters, etc., and U.S. Army Special Operations Forces not under USAREUR command. See Stavridis, testimony, *Hearing on National Defense Authorization Act for Fiscal Year 2014*; National Commission on the Future of the Army, *Report to the President and the Congress of the United States* (Washington, DC: January 28, 2016), http://www.ncfa.ncr.gov/sites/default/files/NCFA_Full%20Final%20Report_0.pdf.

⁴⁶ One of 173rd Airborne’s three combat battalions (1st Squadron, 91st Cavalry Regiment) is a light reconnaissance battalion and is stationed in Grafenwöhr, Germany, as is the 173rd’s fires battalion. See “Fact Sheet: 173rd Airborne Brigade” (Wiesbaden, Germany: U.S. Army Europe, April 29, 2015), http://www.eur.army.mil/organization/factsheets/FactSheet_173rdABN.pdf.

⁴⁷ Stavridis, testimony, *Hearing on National Defense Authorization Act for Fiscal Year 2014*.

⁴⁸ Ibid..

⁴⁹ Interview with U.S. Army officials, April 2016.

Beyond the permanent and rotational combat forces, the U.S. Army presence in Europe is composed of headquarters and enabler units that provide rotary-wing assets, command and control, logistics, sustainment, intelligence, and engineering support. These units include the 12th Combat Aviation Brigade (CAB), USAREUR Headquarters, the 21st Theater Sustainment Command, the 16th Sustainment Brigade, the 10th Army Air and Missile Defense Command, the 7th Army Joint Multinational Training Command, the 66th Military Intelligence Brigade, and the 5th Signal Command.

These headquarters and enabler units in Europe have undergone and continue to face considerable reductions due to Army-wide adjustments in force structure and ongoing cost-cutting efforts. As part of the Army's Aviation Restructuring Initiative (ARI), the 12th CAB in Germany has shrunk from seven aviation battalions with 4,000 personnel and 170 helicopters to two aviation battalions with 1,500 soldiers and 78 helicopters.⁵⁰ To help cover the simultaneously increasing aviation demands, the Army has started rotating an aviation battalion—at great cost—from the United States on nine-month deployments, and periodically surges additional aviation support personnel.⁵¹ In the coming years, the Army plans to transform the 12th CAB into an administrative headquarters—without the war-fighting mission command elements resident in a typical CAB—that will be able to support rotational aviation forces from the United States.

In terms of command and control, the numerous drawdowns that have occurred over the years has left USAREUR without the traditional intermediary division-level headquarters between itself and its maneuver brigades. The Army's effort to reduce its headquarters staff by 25 percent globally led to the dissolution of all Army sub-Combatant Command (COCOM)-level headquarter elements charged with commanding ground forces during combat, including within USAREUR. In essence, this left USAREUR not only without the capability to command and control a ground war in Europe, but scrambling to manage the complex and increased pace of activities and deployments since 2014. To augment USAREUR's command and control capability, the Army has deployed a rotational mission command element from the 4th Infantry Division headquarters (about 100 personnel) to Germany since 2014.⁵²

OPERATION ATLANTIC RESOLVE AND THE EUROPEAN REASSURANCE INITIATIVE

In March 2014, the U.S. government initiated an effort to reassure NATO allies in Central and Eastern Europe who were most worried by Russian aggression in Ukraine. EUCOM launched Operation Atlantic Resolve in April 2014 to enhance the U.S. air, land, and sea presence in

⁵⁰ Michelle Tan, "Army Restructures CAB in Germany, Cuts 1,900 Troop Jobs," U.S. Army, April 29, 2015; Corey Dickstein, "Commander: Army Needs More Aviation Assets in Europe," *Stars and Stripes*, December 2, 2015.

⁵¹ Jaymon Bell, Thomas Mort, and Antonio Ramirez, "Fort Bliss Iron Eagles Arrive in Germany," U.S. Army, April 27, 2016.

⁵² Michelle Tan, "4th ID Headquarters Deploying to Europe," *Army Times*, November 26, 2014.

Europe.⁵³ In June 2014, the Obama administration announced its intent to create the \$1 billion European Reassurance Initiative (ERI) in fiscal year 2015 to continue and expand efforts under OAR. The additional ERI funding enabled the Department of Defense (DoD) to provide a greater U.S. rotational presence in Central and Eastern Europe, more combined multinational exercises, additional prepositioned equipment, and greater infrastructure investments and building partner capacity efforts.⁵⁴ ERI was renewed in fiscal year 2016 at a slightly lower \$789 million. Funding for ERI is currently being drawn from the Overseas Contingency Operations (OCO) fund, the emergency supplemental fund for Department of Defense combat operations. Future plans to maintain or expand U.S. deterrence efforts in Europe in the long-term would be more stable and predictable if shifted to the Department of Defense base budget.

Recommendation: Transition the European Reassurance Initiative into the Defense Department's base budget.

USAREUR's headline activity under Operation Atlantic Resolve has been the deployment of more U.S. troops to Central and Eastern Europe. The troop deployments to the eastern flank under OAR can be divided into two geographic efforts. OAR-North involves the *continuous* presence of a company-sized force—approximately 150 soldiers—to each country on the northeast flank: Poland, Estonia, Latvia, and Lithuania. Therefore, the total size of the U.S. Army combat presence across Poland and the Baltic States over the past two years has remained steady at approximately 600 soldiers or the equivalent of one battalion. OAR-South involves the *periodic* presence of a company-sized force to each country on the southeastern flank: Romania, Bulgaria, and Hungary.

These eastern deployments are conducted on a rotational basis by U.S. forces in Europe, with the responsibility for the OAR mission alternating between the two permanent brigades stationed in Germany and Italy, and the European Rotational Force brigade when it is present.⁵⁵ During rotations to the north or south, soldiers generally stay in facilities provided by and colocated with host nation forces where they train and conduct tactical-level exercises. While scheduled exercises and security cooperation activities may lead to a temporary increase in the overall U.S.

⁵³ "Operation Atlantic Resolve," U.S. Army Europe, <http://www.eur.army.mil/atlanticrosolve/>, accessed April 11, 2016.

⁵⁴ Office of the Press Secretary, "Fact Sheet: European Reassurance Initiative and Other U.S. Efforts in Support of NATO Allies and Partners," White House, June 3, 2014, <https://www.whitehouse.gov/the-press-office/2014/06/03/fact-sheet-european-reassurance-initiative-and-other-us-efforts-support>; Lisa Sawyer Samp and Mark F. Cancian, "The European Reassurance Initiative," Center for Strategic and International Studies, February 9, 2016, <http://csis.org/publication/european-reassurance-initiative>; "Special Report: Operation Atlantic Resolve," Department of Defense, http://www.defense.gov/News/Special-Reports/0514_Atlantic-Resolve, accessed April 11, 2016.

⁵⁵ Operation Atlantic Resolve expanded in March 2015 to include periodic company-sized rotations in Romania and Bulgaria, and in October 2015 to Hungary. "Operation Atlantic Resolve Expands to Hungary, 1st ABCT Assumes Mission," *The Front Line*, October 29, 2015, <http://www.stewartfrontline.com/archives/2495/>.

Army presence in each country, the overall size and duration of the rotations has remained relatively steady.

Prepositioned equipment has been another key focus area given its potential to significantly increase the speed of deployments and reduce the costs of repeatedly transporting heavy equipment from the United States on a rotational basis. As mentioned, the European Activity Set initially included equipment to outfit a combined arms battalion from the Regionally Aligned Force. In the subsequent years, however, driven by the increasing size of the rotational forces enabled by ERI funding, the European Activity Set has grown to include equipment for an entire armored brigade, including approximately 2,000 vehicles made up of 250 major combat systems such as M1A2 Abrams tanks, Bradley infantry fighting vehicles, and Paladin howitzers, nearly 1,700 wheeled and tracked vehicles, in addition to 12,000 other pieces of equipment.⁵⁶

This EAS equipment is dispersed across Europe in battalion- and company-sized equipment sets. Two EAS sites are in Germany at Grafenwöhr Training Area and Coleman Barracks in Mannheim, while additional EAS equipment was apportioned in 2015 to a new storage location in Lithuania and at pre-existing U.S. installations at Mihail Kogalniceanu (MK) Air Base, Romania, and Novo Selo Training Area, Bulgaria.⁵⁷ In practice, when designated with the OAR-North mission, the European Rotational Force will typically first deploy to Germany, draw the equipment in the EAS out of storage, and then move onward to the Baltic States and Poland. In contrast, the permanently stationed brigades—2nd Cavalry Regiment and 173rd Airborne Brigade—do not utilize EAS equipment when charged with the OAR mission, but rather take their own equipment with them on deployments from their home stations in Germany and Italy.

PLANNED CHANGES UNDER THE EUROPEAN REASSURANCE INITIATIVE IN 2017

In February 2016, the Obama administration announced that it would request \$3.4 billion under ERI in fiscal year 2017, quadrupling the funding from 2016 and placing a greater emphasis on deterrence and defense activities, in addition to reassurance.⁵⁸ With this new funding, the Army will be able to maintain a heel-to-toe rotational ABCT presence in Europe at all times, and rotations will be extended for up to nine months. Additionally, the rotating forces will bring their heavy equipment with them from the United States rather than utilizing the EAS equipment. The EAS equipment that is currently forward staged in Central and Eastern Europe will be gradually

⁵⁶ David Vergun, “European Activity Set Proves Successful, Being Expanded,” U.S. Army, June 3, 2015.

⁵⁷ “Army Europe to Retain Coleman Barracks as Interim,” U.S. Army Europe, February 6, 2015, <http://www.army.mil/article/142332/>.

⁵⁸ At the time of this writing, the Obama administration’s ERI request for FY 2017 has been submitted to Congress. Office of the Press Secretary, “Fact Sheet: The FY2017 European Reassurance Initiative Budget Request,” White House, February 2, 2016, <https://www.whitehouse.gov/the-press-office/2016/02/02/fact-sheet-fy2017-european-reassurance-initiative-budget-request>.

transitioned westward (to Germany, Belgium, and the Netherlands), modernized, and stored as part of Army Prepositioned Stocks (APS), a war-fighting equipment program.⁵⁹

⁵⁹ Army Prepositioned Stocks (APS) is an Army program that prepositions war-fighting stockpiles of equipment and unit sets in strategic locations to enable the rapid deployments of U.S. forces by freeing units from having to transport their equipment over long distances. The purpose of APS in Europe is to reduce deployment times for U.S.-based forces to deploy to the continent in the event of a contingency and to have the capability to rapidly project combat power without forward staging forces. APS sites are often densely consolidated storage sites because the equipment is not as frequently used as the European Activity Set (EAS). See “2015 Deployments: Back to Europe, Iraq, Other Hot Spots,” *Army Times*, December 28, 2014.

CHAPTER 3: CHALLENGES TO CURRENT U.S. FORCE POSTURE

Over the last two years, the U.S. Army has maintained a high operational tempo of exercises, training events, and visits throughout Europe. This has been critical to assuring allies, but the volume and pace of activities is beginning to create challenges for both U.S. forces and host nations that call into question the sustainability of current efforts. To support longer-term assurance and deterrence efforts, the United States will need to address underlying **strategic**, **theater**, and **operational** constraints and begin to transition from a surge mentality to a “new normal” footing in Central and Eastern Europe.

STRATEGIC CHALLENGES

It is unclear how numerous international agreements to which Russia is a party (both those for which it is the legal successor to the Soviet Union and those it signed as the Russian Federation) will constrain its conventional and nonconventional forces as well as U.S. and allied force posture and capability decisions. Russia ostensibly has refuted or violated several treaties specifically designed to provide greater transparency and predictability between Western and Russian forces: the Conventional Forces in Europe (CFE) Treaty, the Paris Charter, the Helsinki Final Act, the Budapest Memorandum of 1994, and the NATO-Russia Founding Act (NRFA) of 1997.

The NRFA, for example, expresses NATO’s intent to refrain from the “additional permanent stationing of substantial combat forces” on the territory of the newer, eastern allies.⁶⁰ It remains a politically divisive issue within the alliance, however, as some members believe it is essential to continue to abide by the act and others believe the NRFA was invalidated by Russia’s actions in Ukraine. Much of the debate within NATO over the interpretation of the act has centered on what constitutes “permanent” and “substantial” forces. Insufficient attention, however, has been paid to the clause that binds the applicability of the 1997 agreement to “the current and foreseeable security environment.” A thoughtful reevaluation of whether NATO should continue to adhere to this agreement, and how, may be prudent, but only if Europe’s security environment drastically deteriorates. Such a review could serve as a clear signal to Russia and provide additional leverage for the alliance.

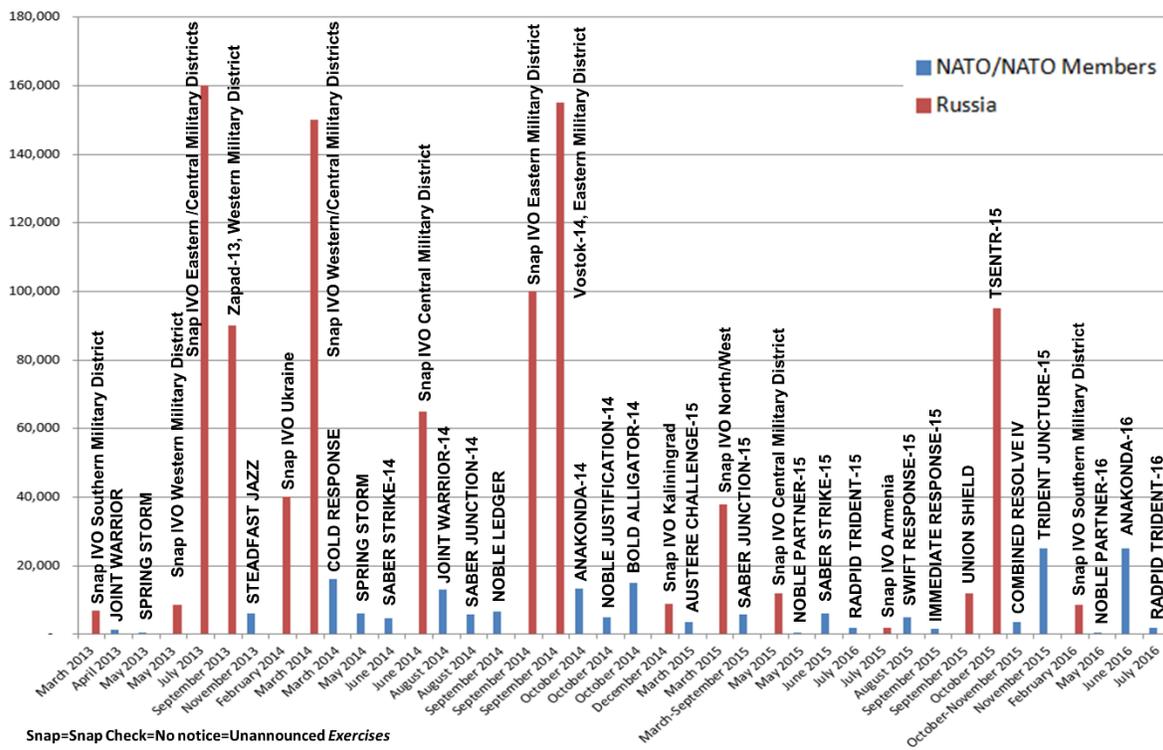
The United States will need to address underlying strategic, theater, and operational constraints and begin to transition from a surge mentality to a “new normal” footing in Central and Eastern Europe.

⁶⁰ *NATO Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation* (Paris, NATO-Russia, May 27, 1997), http://www.nato.int/cps/en/natohq/official_texts_25468.htm.

Likewise, a similar debate over the balance between credible deterrence and escalatory provocation continue to be a constraining factor within the alliance when deciding future U.S. and NATO force posture arrangements. While it is legitimate and indeed necessary to consider possible Russian reactions to U.S. and allied actions, and while these assessments must include a stark recognition of the dangers of miscalculation and accidental escalation, one can also err in being too cautious. Russia is in many ways looking for reasons to call NATO's actions provocative, and will do so regardless of what they are. Meanwhile, efforts to avoid provocation at all costs has led to micromanagement of decisions typically delegated to lower-level commanders, including logistics (e.g., whether delivering military equipment via military aircraft—gray tails—is escalatory) and exercise planning (e.g., whether an annual exercise on allied territory is too big, too close to a NATO Summit, or too “lethal”). This situation creates the worst of all possible outcome: strong deterrence rhetoric but diminished credibility and operational capability.

Little such debate over the level of military activity inside NATO territory is present in Central and Eastern Europe. Indeed, most interlocutors interviewed by the study team were confounded by the focus on the question of provocation. While responses varied in gradation, most felt that Russia cries foul at any U.S. or NATO action, thus making it futile to tailor activities specifically to avoid Russian protests. Sovereignty is also a prevalently cited argument: Russia acts freely on its own territory; allies should be able to do the same on all NATO territory. Additionally, some suggest that the most provocative action is, in fact, *inaction*, insofar as failure to harden allied defenses and show force only invites further provocations and potential aggression from an opportunistic Russia. Still others contend that an undue focus on provocation could serve to legitimate Russian objections to NATO actions on allied territory and provide the Kremlin with a pretext for a future intervention. The Central and Eastern European perspective on provocation, along with the related advice to elevate the alliance's risk tolerance, are worthy of greater consideration. As shown in the chart below, a comparison of the size and frequency of large-scale Russian and NATO exercises demonstrate what allies on NATO's eastern flank would likely consider an unnecessary degree of restraint.

Figure 3.1. Comparison of NATO and Russian Exercises by Size, March 2013-July 2016



Source: Courtesy U.S. Army Europe. Compiled with data from the Atlantic Council and U.S. Army Europe Database. See Ian Brzezinski and Nicholas Varangis, “The NATO-Russia Exercise Gap,” Atlantic Council, February 23, 2015, <http://www.atlanticcouncil.org/blogs/natosource/the-nato-russia-exercise-gap>.

As the U.S. Army has ramped up its activities on NATO’s eastern flank, the size and capacity of partner militaries has emerged as an underappreciated constraint in planning and scoping bilateral defense engagements. The Latvian and Estonian militaries total 5,000 and 6,000 troops, respectively, which combines to equal about one-quarter of the Pentagon’s population on any given day.⁶¹ While U.S. soldiers will frequently change out between exercises or in rotational cycles bounded by months, the same host nation soldiers are participating in back-to-back exercises with little time to rest. Often when fresh U.S. units arrive for their rotational deployments eager to hit the ground running, the host nation units are already exhausted. Baltic militaries are on par with other nations as a percentage of total population. For example, 0.45 percent of Estonia’s population serves in the military, which roughly matches the United States at 0.43 percent.⁶² These are simply small countries.

⁶¹ NATO, Public Diplomacy Division, “Defence Expenditures of NATO Countries (2008–2015),” January 28, 2016, http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_01/20160129_160128-pr-2016-11-eng.pdf.

⁶² Calculated from the populations and numbers of active military personnel in each country as listed in *Military Balance 2016* (London: International Institute for Strategic Studies, 2016).

Resource constraints are, likewise, keenly and practically felt. Should Latvia, for example, reach its stated goal of spending 2 percent of its \$28 billion gross domestic product (GDP) on defense,

The Latvian and Estonian militaries total 5,000 and 6,000 troops, respectively, which combines to equal about one-quarter of the Pentagon's population on any given day. . . . By "flooding the zone," the United States and its Western European allies could soon reach the saturation point of some host nation militaries.

NATO's recommended target, by 2018, the total would still only equate to about nine hours of the U.S. defense budget. Even if Latvia allocated its entire annual GDP to defense, it would only get up to about 18 days.⁶³

Because of their small size and resources, the Baltic militaries also tend to deeply feel every operational trade-off. There are diminishing returns to participating in similar exercises multiple times and the zero-sum trade-offs mean that the sacrifice gets bigger every time. Beyond allied assurance activities, Baltic militaries must also conduct contingency planning, internal defense exercises, and whole-of-

government drills to practice an *in extremis* integration of Ministry of Defense (MOD) and Ministry of Interior (MOI) forces, in addition to ongoing operational and peacekeeping deployments. Exercises held less frequently and more focused on opposition force diversity, more complex maneuver techniques, and integrated internal and external defense coordination would provide greater value for the host nation.

The capacity and resource constraints of eastern flank nations, particularly the Baltic States, means there are real, practical limits to what can be done simultaneously, much less done well, by these nations. Sustaining the current pace of activities being offered by the United States and other allies is immensely challenging. By flooding the zone, the United States and its Western European allies could soon reach the saturation point of some host nation militaries, despite their unquestionable political will to actively deter Russian aggression.

Recommendation: Offer fewer, larger, and more varied exercises with Baltic State militaries. Endeavor to combine U.S. bilateral exercises with other allies' offering bilateral exercises, where feasible.

⁶³ Calculated based on Latvia's estimated nominal GDP of \$28 billion in 2015. Two percent would equate to approximately \$560 million dollars. DoD comparison calculated using DoD's topline budget from FY 2015 of \$575 billion. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *United States Department of Defense Fiscal Year 2015 Budget Request: Overview March 2014* (Washington, DC: U.S. Department of Defense, March 2014), http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2015/fy2015_Budget_Request_Overview_Book.pdf; "Europe: Latvia," *The World Factbook*, Central Intelligence Agency, <https://www.cia.gov/library/publications/the-world-factbook/geos/lg.html>.

THEATER CHALLENGES

Sustainability is also a challenge for the U.S. Army in the European theater. This is especially true for the 173rd Airborne and the 2nd Cavalry Regiment, which, as the only forward-stationed U.S. Army combat forces in Europe, are under constant and heavy demands. The changing nature and heightened pace of military engagements, along with extended troop rotations to the eastern flank, have introduced, according to one soldier, “the trials of deployment with none of the rear support.”⁶⁴ Before OAR, U.S. troops based in Italy or Germany would frequently participate in training events elsewhere in Europe, but usually for one or two weeks at a time. This has now turned into a persistent rotation cycle that entails months-long deployments to the eastern flank, and a rapid pace of small- and large-scale exercises with allies across the continent.

Typically, when a soldier deploys in support of either peacetime or combat operations, support mechanisms for both the soldier and his or her family are activated, including family stability plans, deployment readiness operations, and eligibility for additional free child care at the on-base daycare center to ease the burden on the temporarily single parent. Because Operation Atlantic Resolve has not been designated as a named operation—a categorization that, under current policy, would prompt the activation of deployment benefits, among other things—the troops on constant rotation within the European theater are not receiving the kind of benefits that would make a persistent, rotational presence in the east sustainable for them and their families over the long term. General Philip Breedlove cited the broader benefits of a named operation in his testimony to the House Armed Services Committee (HASC) on February 25, 2016: “The difference between [Operation Atlantic Resolve] and a named operation is subtle but important. Named operations have sustained funding streams, they have dedicated rules of engagement and they garner certain priorities and allocations of forces, etc., and so a named operation would mean more stability and long term focus to Atlantic Resolve.”⁶⁵

Transitioning U.S. Army deployment cycles from three to nine months, as is currently scheduled to begin in February 2017, will bring more stability to both host nation and U.S. forces. It will also ease some of the partner saturation issues, help build more substantive regional expertise and relationships with counterparts (a vital need given the region’s historical and cultural sensitivities), and reduce the opportunities for Russia to make media hay every time U.S. troops rotate in or out. This extended deployment cycle will, however, put more strain on the families of the deployed, making deployment support more critical. The Defense Department’s plan to insert another rotational ABCT from the United States, in addition to maintaining the existing rotational brigade, will more widely distribute the rigorous deployment schedule across more

⁶⁴ Interview with U.S. Army officer in Europe, March 2016.

⁶⁵ General Philip M. Breedlove, testimony before House Committee on Armed Services, *Full Spectrum Security Challenges in Europe and their Effects on Deterrence and Defense*, 114th Cong., 2nd sess., February 25, 2016, <http://www.eucom.mil/doc/35166/general-breedlove-house-armed-services-committee-transcript>.

units. Beyond the deterrent value of the additional ABCT, its value to troop sustainability should not be discounted or underestimated. That said, deployment benefits would likely incur higher costs for the Department of Defense in a period of limited fiscal flexibility.

Recommendation: Consider designating Operation Atlantic Resolve a named operation, or generate alternative options to provide deployment support.

The U.S. military headquarters in Europe are likewise not immune from practical pressures and saturation issues. When asked whether EUCOM was adequately sized and staffed at the levels required to execute its mission, General Breedlove, at the same HASC hearing, acknowledged that more work remains:

For 20 years we've been trying to make a partner out of Russia, and we have changed our force structure and our headquarters and other capabilities in Europe to affect the mission that was about engagement, and building partnership capacity. Now we have determined that we definitely do not have a partner in Russia. . . . We have to be able now to be a war-fighting headquarters and a war-fighting force as opposed to an engagement and partnership building capacity force. We will still do those functions, but we have to rethink, "Do we have the capability and capacity to be a war-fighting force?" and maybe not.⁶⁶

Of course, the Defense Department is not alone in needing to better prepare its bureaucracy and organization for the long-term Russia challenge and support to deterrence activities in Eastern Europe. Nor are the militaries alone in experiencing saturation issues. U.S. embassy country teams, for example, have had to cope with dramatically increased throughput of U.S. troops, congressional delegations, and senior-level visits in Central and Eastern Europe.

Recommendation: Right-size EUCOM and USAREUR headquarters staff in light of new mission requirements.

To be most effective, USAREUR's approach should be embedded within a whole-of-government assistance strategy that rationalizes U.S. security assistance to the eastern flank. To date, this assistance has been ad hoc and varies based, in many cases, on the ingenuity and resourcefulness of the U.S. embassy country team. Traditional U.S. assistance programs such as Foreign Military Financing (FMF) and International Military Education and Training (IMET) have a crucial long-term impact on the professionalism of allied military counterparts and the capabilities they can field. This assistance only bears fruit in the longer term, however, so it is important to sustain the U.S. government commitment to these programs. Development of a region-wide, interagency approach that also maximizes the integration of less traditional security assistance tools such as those resident in the U.S. Customs and Border Patrol and the Secret Service—both of which

⁶⁶ Ibid.

have conducted training events in the Baltic States—is especially important given Russia’s reliance on tactics that include intimidation and manipulation of the civilian sector. A formal strategy could also help ensure alignment of policy objectives with globally oriented funding tools, help promote joint development and procurement across the region, and identify any gaps in authorities or key requirements. A key part of this challenge—and one reason that a whole-of-government approach is urgently needed—relates to the differences in U.S. departmental authorities and funding streams available to support MOD and MOI forces. This will be discussed in more detail in Chapter 6.

Recommendation: Develop a whole-of-government, regional assistance strategy to rationalize and prioritize security support to eastern flank nations.

Another practical challenge to sustainable U.S. force posture in Central and Eastern Europe is the lack of status of forces agreements (SOFAs) with Estonia, Latvia, and Lithuania. SOFAs provide essential legal protections for U.S. troops, establishing their rights and privileges (including immunities) while deployed inside a foreign nation. U.S. troops operating in the Baltic States currently fall under the generic NATO SOFA negotiated by allies based on the lowest common denominator. This agreement does not include certain additional protections that the United States would consider essential for a larger and more enduring troop presence. Current arrangements may have sufficed in a pre-Ukraine context when far fewer U.S. troops were conducting activities in the region. Now, with upwards of 5,000 troops passing through per year and Russian-backed media networks in host nations ready to pounce on even minor incidents to swing public opinion against the United States, the lack of SOFAs with these countries is risky and, in the words of one senior U.S. official, amounts to “living on borrowed time.”⁶⁷ The Baltic States are motivated to finalize the agreements on favorable terms, but the agreements have been moving slowly through the U.S. government bureaucracy. In the current environment, however, these agreements should be expedited and made final as soon as possible.

Recommendation: Finalize SOFAs with all three Baltic States as soon as possible.

Theater constraints go beyond organizational and structural concerns. In considering not only how to sustain the enhanced U.S. force presence in Central and Eastern Europe, a key focus for USAREUR has been on reducing the barriers to freedom of movement in order to rapidly reinforce allies in case of a crisis. In planning for a worst-case scenario, Lieutenant General Ben Hodges, commanding general of USAREUR, has emphasized the importance of speed when it comes to recognizing an imminent threat, correctly attributing its source, and making the political decisions necessary to respond. Another key component of speed is the physical reaction time required to mobilize, assemble, and deploy troops to the site of the crisis quickly and safely. There are multiple factors affecting reaction time: readiness levels and force posture;

⁶⁷ Interview with U.S. government official, March 2016.

the amount of propositioned equipment; and, of course, freedom of movement constraints, including infrastructure, diplomatic clearance procedures, and Russia's anti-access/area-denial (A2/AD) capabilities.

Addressing the Pentagon press corps at a briefing in December 2015, Lieutenant General Hodges highlighted the challenge the U.S. Army faces in Europe: "President Putin has freedom of movement on interior lines because he's moving inside of Russia, whereas the alliance is moving across multiple sovereign borders. They are EU countries [and] NATO countries in almost every case, but still, it's not quite the same thing."⁶⁸ There are intrinsic difficulties involved in crossing international borders, including a lack of standardization between the infrastructures and diplomatic procedures of sovereign nations. For example, the standard gauge railroad track—the width between the two rails—used in Western and Central Europe differs from the broad gauge rail track used in the Baltic States. This means that a railcar loaded with equipment in Germany or elsewhere in Western Europe cannot seamlessly cross into Lithuania. Equipment must be unloaded from standard gauge railcars just over the Lithuanian border and then reloaded onto broad gauge railcars, a time-consuming and expensive process. The rail gauges in the Baltic States are a legacy from the Russian Empire's standardized rail infrastructure. It is therefore not a coincidence that the largest supplier of broad gauge railcars is Russia, which adds obvious complications when trying to procure railcars to move U.S. and NATO military equipment.⁶⁹ This is just one example of the infrastructure variations and constraints being experienced by U.S. forces as they operate more frequently and in greater numbers along the eastern flank. Other factors include the capacity of runways to accommodate the weight and takeoff/landing distances required by large U.S. and NATO military aircraft; the machinery and space available at seaports to stage, lift, and transfer heavy equipment; and the weight restrictions on roads and bridges.

Moving heavy U.S. military equipment is a challenge in and of itself. Over the years, upgrades to the M1 Abrams tank have added significant amounts of weight to the vehicle—the M1A2 SEPv2 now weighs 71 tons—making it difficult to transport to the theater and sustain in the field. Due to European laws on road weight restrictions, the U.S. Army cannot utilize its heavy equipment transports (HETs)—used for tactical transport and deployment of tanks on the battlefield—to transport M1A2s on European roads.⁷⁰ Instead, USAREUR is reliant upon German and British HETs for transportation of M1A2s in Europe.⁷¹ Also, much of the national infrastructure along

⁶⁸ Lieutenant General Ben Hodges, "Department of Defense Press Briefing by General Hodges on Operation Atlantic Resolve in the Pentagon Briefing Room" briefing, Washington, DC, December 9, 2015, <http://www.defense.gov/News/News-Transcripts/Transcript-View/Article/633667/departments-of-defense-press-briefing-by-general-hodges-on-operation-atlantic-re>.

⁶⁹ Frances Robinson and Liis Kangsepp, "Borders Raise Hurdles for Baltic High-Speed Rail Link," *Wall Street Journal*, December 8, 2013.

⁷⁰ Assistant Secretary for the Army for Acquisition, Logistics and Technology, "Weapon Systems Handbook 2016," U.S. Army, 12, <https://www.army.mil/e2/c/downloads/431298.pdf>.

⁷¹ Interview with U.S. Army officers, March 2016. See also "21st TSC [Theater Sustainment Command] Conducts Critical Interoperability Test on Transport Trucks," *DVIDS*, September 27, 2016, <https://www.dvidshub.net/news/printable/171303>.

the eastern flank runs east and west as opposed to north and south, further complicating NATO's freedom of movement. Infrastructure that is oriented north and south is required to move troops and equipment from Germany to the Baltic States.

As infrastructure becomes a natural target during conflict scenarios, redundancy is another important consideration, particularly if military forces are sharing road networks with civilian traffic. This, too, remains problematic in certain areas. For example, there are only two bridges across the Danube between Romania and Bulgaria, one of which fails to meet transit standards and is currently broken.⁷² While ferries and float bridges may provide some relief, investments in infrastructure repair and new construction by allies is desperately needed.

There are also varying diplomatic procedures restricting the movements of U.S. personnel and equipment across Europe. While sovereign nations inherently have a right to approve the movement of foreign military personnel and equipment across their borders—especially lethal equipment and ammunition—some of these processes are overly bureaucratic and impose lengthy waiting periods on U.S. forces conducting routine operations. In a contingency, many of these procedures would be expected to be waived, although there are no agreements in place to ensure they would be. Some success has been achieved with allied governments to reduce the timelines associated with diplomatic notifications and approvals. Poland recently passed a law that lowers its approval timeline from 30 days to 5, or 3 days in the event of the deployment of NATO's Very High Readiness Joint Task Force (VJTF). USAREUR has argued in favor of a notification-only approach, as opposed to waiting for an affirmative response from the nation being transited. While this gold standard might exceed the political willingness of some allied governments, more expedited approval processes can and should be put in place that ensure sufficient access for U.S. forces to be able move across the theater.

Recommendation: Begin immediate consultations within NATO and bilaterally on agreements that would ensure expedited or waived diplomatic clearances for U.S. forces during contingencies.

The United States has begun exercising to move troops and equipment along the eastern flank, most notably in the highly publicized Operation Dragoon Ride in March 2015. Instead of returning directly back to their base in Vilseck, Germany, at the end of a rotation cycle, the soldiers from the 2nd Cavalry Regiment embarked on a convoy road trip spanning the eastern flank.⁷³ The ride not only sought to improve knowledge of the terrain and infrastructure, it was a

⁷² Marian Chiriac, "Romania, Bulgaria Mull Two New Danube Bridges," *Balkan Insight*, October 22, 2014, <http://www.balkaninsight.com/en/article/new-bridges-to-connect-romania-and-bulgaria>.

⁷³ Dan Lamothe, "In Show of Force, the Army's Operation Dragoon Ride Rolls through Europe," *Washington Post*, March 24, 2015.

NATO public diplomacy boon in the region and an important demonstration of U.S. resolve and commitment to Europe’s security.

Figure 3.2 2nd Cavalry Regiment’s Dragoon Ride, March 2015



Source: “Last Movement of the Dragoon Ride, Rozvadov, Czech Republic,” U.S. Army photo by Pfc. Nathanael Mercado/Released, *DVIDS*, <https://www.dvidshub.net/image/1850274/last-movement-dragoon-ride-rozvadov-czech-republic#.V0NkFOQe1WA>.

Much of the responsibility for making the Dragoon Ride and other Operation Atlantic Resolve exercises run smoothly lies with the logisticians at 16th Sustainment Brigade, the only sustainment brigade currently assigned to Europe. It is responsible for facilitating force movements—which, as described above, can be exceedingly complex—and maintaining and distributing certain training equipment. The latter, too, is difficult given that the units and equipment are not concentrated in a single place, but spread across multiple locations and multiple countries. Onward movement enablers—including tankers, flatbeds, and heavy equipment transporters—are in high demand. The number of exercises in Europe grew by a factor of three last year alone, from 17 in 2014 to 51 in 2015, and will likely grow further in 2016.⁷⁴ The 16th Sustainment Brigade, like other units in Europe, has reached its saturation point. Additional resources for sustainment and logistics will be needed as requirements increase, especially given the lack of depth among most allies in this area. Moscow’s A2/AD capabilities are another cause for concern when it comes to the quick and safe insertion of forces, and will be discussed in more detail in Chapter 4.

⁷⁴ Interview with U.S. Army official, February 2016.

OPERATIONAL CHALLENGES

At the operational level, a key challenge is the lack of a common operating picture and adequate deconfliction among contributing allies regarding the exercises and training activities being offered to host nation forces. The alliance has established NATO Force Integration Units (NFIUs) in the six countries comprising the eastern flank. The primary intent of these units is to act as a rapidly expandable staging and reception center to facilitate allied movements in the event of an Article 5 contingency.⁷⁵ As they reach full operational capability, the NFIUs will ideally also be able to act as a clearinghouse to better coordinate exercises and training activities, including actively avoiding simultaneous or overly redundant exercises and making recommendations to combine or better leverage training so as to maximize value to both the contributing forces and the host nation. Anecdotal evidence suggests that the NFIUs are not yet able to perform this function, not least because informing the local NFIU about upcoming events is still considered optional for visiting forces. In some cases, NFIU representatives have only become aware of visiting foreign forces because of coincidental encounters, such as running into old war buddies at a local gas station, which has become referred to as “personality-driven awareness.”⁷⁶

Recommendation: Improve coordination and communication between visiting allied forces and the NFIUs. Empower the NFIUs to act as a clearinghouse for exercises and training events to ensure common awareness to help de-conflict engagements and identify opportunities for combined activities.

A related challenge is the difficulty in sharing classified information at the tactical level. NATO’s classified computer network, the battlefield information collection and exploitation system (BICES), is a valuable tool for coordinating and exploiting the intelligence gathered by NATO commands and participating nations and for providing operational security (OPSEC) for planned and ongoing activities. Unfortunately, BICES terminals are not available to units at the company level, that is, the units conducting the training activities along the eastern flank. In addition to the perennial challenge of U.S. intelligence products simply being over-classified and difficulties sharing substantive material outside of the Five Eyes (FVEY) intelligence grouping, the lack of BICES terminals makes it difficult to share information specifically classified for

⁷⁵ *NATO Force Integration Units* (Brussels, BE: North Atlantic Treaty Organization, September 2015), http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2015_09/20150901_150901-factsheet-nfiu_en.pdf.

⁷⁶ Interview with NATO official, March 2016.

NATO's use with allies in the field.⁷⁷ Beyond making exercises more difficult to coordinate, there are also dangerous implications for threat detection and war fighting.

The challenge related to the lack of secure communication also extends to radios, though, unlike computers, the problem is not a lack of hardware but a lack of interoperability. Lieutenant General Hodges described the challenge during a March 2015 press interview:

We had U.S. companies with Harris radios under Estonian, Latvian, Lithuanian, and Polish battalions, who also had Harris radios. But they couldn't talk to each other because they had different crypto. If we're going to deploy [within multinational formations], we need to have secure FM communications. Without that, soldiers will do what they have to do. They will go unsecure, which then means the Russian EW (electronic warfare) capability jams it or finds it, intercepts it, targets it. That's why this is a big deal.⁷⁸

As NATO considers institutionalizing multinational formations for deterrence activities on the eastern flank, the challenge of secure communications will only grow more urgent. Likewise, the other strategic, theater, and operational constraints described in this chapter will have greater and more detrimental implications for U.S. forces if overall presence increases without first addressing them.

Recommendation: Expand access to BICES and other secure communications (including interoperable radios) at the operational level along the eastern flank.

⁷⁷ The Five Eyes countries are the United States, Canada, United Kingdom, Australia, and New Zealand. See Nate Jones, "The Menace of Overclassification," National Security Archive, March 20, 2014, <https://nsarchive.wordpress.com/2014/03/20/the-menace-of-overclassification/>.

⁷⁸ "Interview: Lt. Gen. Ben Hodges," *Defense News*, March 31, 2015, <http://www.defensenews.com/story/defense/policy-budget/leaders/interviews/2015/03/27/lt-gen-ben-hodges/70573420/>.

CHAPTER 4: CAPABILITIES REQUIRED FOR CREDIBLE AND EFFECTIVE DETERRENCE

Addressing the emerging capability overmatch in Central and Eastern Europe will need to be a key component of USAREUR's reconfiguration over the next 10 years. This chapter will identify capability improvements that the United States and NATO allies can take to mitigate Russia's growing advantages. Russia could undermine the effectiveness of the United States and NATO's ability to shape or respond to a crisis on the eastern flank using three basic approaches: a robust **anti-access/area-denial (A2/AD)** campaign; **combined arms warfare**; and/or the employment of **nonkinetic capabilities**, such as political and cyber warfare. Although this chapter is organized by U.S. capabilities to respond to these three approaches, the study team acknowledges that the divisions among them are largely artificial. Russia may well rely on capabilities across these categories if it seeks changes in the European security theater. Moreover, U.S. and NATO capabilities to counter any one of these approaches may be valuable in the others.

The intention throughout is to identify the capabilities that are most likely to effectively ensure that Russia knows that any aggressive action toward NATO member states would generate a deeply undesirable response—one that would obviate the potential benefits of taking such an action. Given the study's scope, recommendations in this chapter are focused on improving the capabilities needed by the U.S. Army in Europe. We nevertheless recognize that the challenges are inherently multi-domain. Success in deterring and, if necessary, defeating Russian threats requires a complement of joint and combined capabilities.

ANTI-ACCESS/AREA-DENIAL

The credibility of U.S. deterrence ultimately relies on the adversary's perception that the United States has both the will and ability to follow through on its security commitments. Unlike during the Cold War, when the United States based a large number of forces in Europe and Asia to deter adversaries, current U.S. defense strategy is reliant on rapid force projection from bases in the United States for the conventional force components of its deterrent. In December 2015, Deputy Secretary of Defense Robert Work stated this clearly: "Our conventional deterrence posture, without question, is based on the assumption that we can project overwhelming power across trans-oceanic distances and exert our will on any opponent."⁷⁹

Global force projection relies on U.S. forces gaining access to the theater of operations. U.S. military campaigns over the past 25 years have been advantaged by the relative ease of such

⁷⁹ Deputy Secretary of Defense Bob Work, "CNAS Defense Forum," speech, Center for a New American Security, National Security Forum, Washington, DC, December 14, 2015.

access. In advance of Operation Desert Storm, for example, the United States and its coalition partners spent months building up a massive force in the Persian Gulf region, using partner bases as safe havens from which to launch both air and land campaigns.⁸⁰ Likewise, during the 2011 Libya campaign, U.S. and allied warplanes launched strikes from air bases across southern Europe while coalition ships conducted operations just beyond the Libyan coastline, all virtually uncontested.⁸¹

Unhindered access to the theater of operations and a permissive environment from which to stage and concentrate maneuver forces are considered essential to major U.S. military operations. Moscow's military advancements over the past 20 years have been geared in part to deny such benign access to the West, prioritizing the development of anti-access/area-denial strategies and capabilities. A2/AD ultimately seeks to deny an adversaries' forces the ability to enter and operate freely within a given space. Specifically, anti-access (A2) seeks to prevent or disrupt the deployment of forces into a theater of operations; area-denial (AD) seeks to prevent and inhibit the freedom of action of forces within the theater of operations.⁸² Taken together, A2/AD encompass all domains of military operations—air, land, sea, cyber, and space—and includes a diverse set of military capabilities including conventional precision-guided weapons systems, such as medium- and short-range ballistic missiles, cruise missiles, anti-ship missiles, rockets and artillery, as well as integrated air defense systems.

Russia has built a thicket of overlapping and redundant A2/AD systems—including land-, air-, and sea-based radar, counter-air, and strike capability—stretching from the Kola Peninsula in the

Russia has built a thicket of overlapping and redundant A2/AD systems... stretching from the Kola Peninsula in the Russian Arctic to Latakia, Syria, in the southeastern Mediterranean.

Russian Arctic to Latakia, Syria, in the eastern Mediterranean. Moscow has also transformed its small Kaliningrad enclave into an A2/AD bubble by deploying large numbers of sophisticated anti-air and anti-ship missile systems with ranges that extend deep into Central Europe and the Baltic Sea.⁸³ Russia is also establishing greater A2/AD capabilities in Crimea, with the Black Sea Fleet as a key component. Many of Russia's core A2/AD capabilities, such as its layered

integrated air defense system (IADS), were inherited from the Soviet Union, which had long stressed the importance of offsetting U.S. and NATO strategic and tactical aircraft. Since then, however, Russia has built on this with modern air defense capabilities, one of the country's

⁸⁰ See Andrew Krepinevich, Barry Watts, and Robert Work, *Meeting the Anti-Access and Area-Denial Challenge* (Washington, DC: Center for Strategic and Budgetary Assessments, 2003).

⁸¹ See Anthony Bell and David Witter, *The Libyan Revolution Part 2: Escalation and Intervention* (Washington, DC: Institute for the Study of War, September 2011).

⁸² Krepinevich et al., *Meeting the Anti-Access and Area-Denial Challenge*, ii.

⁸³ See Stephan Frühling and Guillaume Lasconjarias, "NATO, A2/AD and the Kaliningrad Challenge," *Survival* 58, no. 2 (March 2016): 95–116.

priorities and strengths. Russia's modern IADS include mobile long-, medium-, and short-range surface-to-air missile systems, point defense systems, redundant sensor networks, and advanced tactical aircraft with air-to-air missiles. These systems would represent a major threat to U.S. and allied strategic and tactical aircraft, UAS, and rotary-wing assets in the event of a conflict, potentially nullifying the decisive employment of airpower that has come to dominate U.S. military operations.⁸⁴

Russia's surface-to-air missile systems, which are arguably the most technologically advanced part of Moscow's arsenal, should be a major area of concern for the United States, which is heavily reliant on airpower to deploy forces and deliver firepower. The latest generation of surface-to-air missiles incorporated into frontline Russian units—the S-300 and S-400 air defense systems—have exceptionally long ranges and can target aircraft in excess of 120 miles. The S-400 is also capable of defeating cruise missiles and short- and medium-range ballistic missiles.⁸⁵ Moreover, many of Russia's systems are highly mobile, making counter-battery fire and suppression efforts difficult and Russian arms manufacturers have been improving the counter-stealth capability of their radar systems. Much of what they do can be countered, but this requires at least a bit of advance planning.⁸⁶

Russia has also made significant progress over the last decade operationalizing its long-range precision-strike capabilities, which could pose a significant threat to U.S. and NATO bases, ships, and other military and civilian infrastructure targets in the European theater. Russia has developed anti-ship and anti-ground precision cruise missiles, including the sea-launched Kalibr cruise missile and the air-launched Kh-55 family of cruise missiles, which are both similar to the capabilities of the U.S. Tomahawk cruise missile. Russia demonstrated its long-range conventional strike capability in October 2015 when it fired Kalibr missiles from surface vessels in the Caspian Sea at targets in Syria, a range of over 900 miles.⁸⁷ Moscow has also threatened to deploy Iskander missiles, a mobile short-range ballistic missile system, to Kaliningrad to further deepen its missile reach into Europe.⁸⁸

The reach of Russian conventional cruise missiles and ballistic missiles could threaten many of NATO's command and control (C2) nodes, U.S. bases in Germany, and key military and civilian

⁸⁴ Steven Pifer, "Missile Defense in Europe: Cooperation or Contention?," Brookings: Arms Control Series, Paper 8, May 2012, 13, http://www.brookings.edu/~media/research/files/reports/2012/5/08-missile-defense-pifer/0508_missile_defense_pifer.pdf.

⁸⁵ "S-400 Triumph (SA-21 Growler)," *Missile Threat*, <http://missilethreat.com/defense-systems/s-400-sa-21-growler/?country=russia#russia>.

⁸⁶ Carlo Kopp, "Russian VHF Counter Stealth Radars Proliferate," *Defence Today* 7, no. 3, 2008: 32–36; Joe Pappalardo, "The New Stealth War," *Popular Mechanics*, October 9, 2012, <http://www.popularmechanics.com/military/a8107/russian-made-tech-vs-americas-stealth-warplanes-13506974/>.

⁸⁷ Anne Barnard and Andrew E. Kramer, "Russian Cruise Missiles Help Syrians Go on the Offensive," *New York Times*, October 7, 2015.

⁸⁸ Robbin Laird and Ed Timperlake, "NORTHCOM: Defending North America at Ten and Two O'clock," *Breaking Defense*, April 22, 2016, <http://breakingdefense.com/2016/04/northcom-defending-north-america-at-ten-and-two-oclock/>.

transportation hubs in Europe, to include locales in Germany, Belgium, and the Netherlands, where equipment required for U.S. force projection into Central and Eastern Europe reside. Moreover, as U.S. forces maneuver within Central Europe and the Baltic States, all of the major airports, seaports, railways, roadways, and logistical nodes required for sustaining a land campaign lie squarely in this heavy contested space. As it currently stands, USAREUR would be unable to reinforce forward-deployed allied positions in the Baltic States at the onset of hostilities. U.S. Army airborne forces—the 173rd Airborne Brigade and 82nd Airborne Division, which serve as rapid response forces—depend upon C-130 and C-17 transportation aircraft to deploy. These aircraft are extremely vulnerable to anti-aircraft defenses and would be hard pressed to operate over northern Poland and the Baltic States if the airspace were to become contested.⁸⁹ Without the ability to call in air support, U.S. ground forces would likely also incur great losses.

The first step toward addressing the Russian A2/AD challenge is for the United States and NATO allies to recognize it as a problem in need of a solution—as opposed to a problem to simply be bemoaned. Any solution will include strike capabilities and other means to suppress air defenses, but also air defense systems in Central and Eastern Europe that would be effective against Russian short-range ballistic missiles and cruise missiles. Nevertheless, in Washington as in many European capitals, there remains resistance to discussing Russia and missile defense in the same breath. This is largely due to prioritization of preserving and continuing U.S.-Russian cooperation on strategic arms control despite the growing violations of these strategic agreements by Russia.

Yet the United States and its NATO allies are increasingly at risk by ignoring the fact that changes in the European security environment may have implications for regional air and missile defense needs. Russia's increasing development and deployment of conventional precision-strike technologies, including but not limited to those that violate the Intermediate Nuclear Forces (INF) Treaty, poses an increasing threat to the United States and NATO. These Russian capabilities represent a sort of wedge that could be exploited by the current air and missile defense gap in deterring conventional attacks upon NATO states. Their continued presence could undermine assurance efforts and the cohesion of the alliance. To address these issues, there is a fundamental need for a broader debate within the United States and NATO about the need for nonstrategic integrated air and lower-tier missile defenses in Europe. NATO's 2010 *Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* for the first time established missile defense as a core alliance mission, and the development of lower-tier defenses oriented toward limited regional aggression could be the basis for a policy

⁸⁹ John Gordon, Agnes Gereben Schaefer, et al., *Enhanced Army Airborne Forces: A New Joint Operational Capability* (Santa Monica, CA: RAND Corporation, 2014), http://www.rand.org/pubs/research_reports/RR309.html.

adjustment.⁹⁰ NATO’s 2012 “Deterrence and Defence Posture Review” reaffirmed the position that NATO’s missile defense program to protect NATO territory and populations from ballistic missile attack is not oriented against Russia and is unable to undermine Russia’s strategic deterrent. This is separate, however, from the question of tactical air and missile defense systems, which have an important role to play in ensuring NATO’s ability to access and defend NATO territory in a crisis.⁹¹

Recommendation: Conduct a U.S. and NATO review of Russia’s precision-strike capabilities; of the gaps and vulnerabilities for NATO to Russian missile threats; and of options to increase air and missile defense capabilities.

The United States and its allies will need to develop a combination of layered defensive systems and tailored offensive capabilities if they seek to counter Russia’s A2/AD approach. The current U.S. ballistic missile defense system in Europe, the European Phased Adaptive Approach (EPAA), is directed against limited intermediate and long-range, exo-atmospheric ballistic

The key challenge to establishing better area missile defense in the European theater is not the lack of an ability to shoot a single missile out of the sky, but rather to engage a large number of different targets coming from multiple locations simultaneously.

missile threats from Iran.⁹² Even if EPAA follow-on efforts were to be oriented against Russian missile threats, which would entail a highly controversial and politically fraught policy reversal, it would still not offer a solution for Russian short-range ballistic and cruise missiles beyond providing supplemental radar.⁹³ To defend against these systems, the United States currently has a phased array tracking radar for intercept on target (PATRIOT) air and missile defense battalion under the 10th Army Air and Missile

Defense Command forward stationed in Germany.⁹⁴ This battalion has four batteries, which provide point defense for major U.S. European facilities from air and short-range missile threats; it most recently conducted rotational deployments to Turkey from 2013 to 2015.⁹⁵

⁹⁰ *Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* (Brussels: North Atlantic Treaty Organization, November 2010), http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf.

⁹¹ “Deterrence and Defence Posture Review,” North Atlantic Treaty Organization, May 21, 2012, http://www.nato.int/cps/en/natolive/official_texts_87597.htm.

⁹² The EPAA consists of four Aegis destroyers based in Rota, Spain; a radar system in Turkey; and two Aegis Ashore sites in Romania (which became operational in 2016) and Poland (scheduled to enter service in 2018).

⁹³ Office of the Press Secretary, “Fact Sheet: Implementing Missile Defense in Europe,” White House, September 15, 2011, <https://www.whitehouse.gov/the-press-office/2011/09/15/fact-sheet-implementing-missile-defense-europe>.

⁹⁴ Ian Williams and Wes Rumbaugh, “Europe: Missile Defense in an Evolving Threat Environment,” *Missile Defense Advocacy: Region Brief—Europe/NATO*, 4, <http://missiledefenseadvocacy.org/wp-content/uploads/2015/07/Europe-Region-Brief-1.pdf>.

⁹⁵ “Joint Statement from the Government of the Republic of Turkey and the Government of the United States,” Embassy of the United States in Ankara, Turkey, http://turkey.usembassy.gov/pr_160815.html.

The presence of PATRIOTs combined with other joint and allied air and missile defense assets, such as SM-6, are probably minimally sufficient to the current environment. A longer-term solution, however, is one that can absorb shifts in the threat environment. It requires the development (with allies) of an integrated, resilient IADS architecture with lower costs per shot, enhanced resiliency, and greater total engagement capacity. This may include, in particular, directed energy programs on which the U.S. Army, other military services, and the Missile Defense Agency are already working, such as the ground vehicle–based high-energy laser-mobile demonstrator (HELMD) and concepts for UAV-mounted lasers. In the event of a conflict with Russia, the sheer volume of conventional missile attacks would likely overwhelm kinetic U.S. and allied missile defenses in Europe. The key challenge to establishing better area missile defense in the European theater is not the lack of an ability to shoot a single missile out of the sky, but rather to engage a large number of different targets coming from multiple locations simultaneously. Allied contributions can help offset some counter capability requirements, but they remain insufficient.

The composition of regional missile defense architecture in Europe should include a combination of U.S. forward-stationed and rotational PATRIOTs, and potentially terminal high-altitude area defense (THAAD) batteries, and deployments of AN/TPY-2 radars and expanded sensor capabilities to better detect and track missile launches.⁹⁶ The use of airborne radar systems on UAS platforms might be particularly effective at detecting low-flying cruise missiles that can then be intercepted.

Recommendation: Rotate an additional PATRIOT battalion to Europe to provide increased point defense for U.S. facilities and improve interoperability with allied missile defense systems. Explore options for THAAD, SM-6, AN/TPY-2 X-band radars, other radars with 360-degree coverage, and additional sensor capabilities for aircraft, and for both ballistic and cruise missile threats.

Recommendation: Accelerate plans to complete all nine THAAD batteries, consistent with current U.S. Army requirements. Conduct an analysis to determine whether recent global security developments require that number be increased.

Recommendation: Explore options for coinvestment with foreign partners in an extended range THAAD interceptor that would significantly expand the covered area of individual batteries.

Recommendation: Accelerate the completion and integration of the integrated air and missile defense battle command system (IBCS) to permit greater

⁹⁶ Vishakha Sonawane, “US Army Mulling to Deploy THAAD Missile Systems in Europe, Middle East,” *International Business Times*, March 23, 2016.

interoperability of various air and missile defenses sensors and shooters, as well as its interoperability with NATO allies.

In addition to air and missile defenses, mitigating Russian A2/AD advantages will require a joint offensive approach that includes ground capabilities. U.S. and NATO forces could, for example, leverage indirect ground fires originating from Poland to suppress and destroy the robust Russian A2/AD network in Kaliningrad at a distance, exploiting the oblast's relative isolation. This capability could be provided by U.S. multiple launch rocket systems (MLRS)—such as the M142 high-mobility artillery rocket system (HIMARS)—that have the ability to simultaneously fire multiple, precision-guided munitions against enemy targets. Such systems may require enhanced munitions to specifically counter mobile air defenses, including counter-radar munitions with in-flight target acquisition. This fires capability should be closely integrated with Army UAS companies for indicators and warning (I&W), electronic intelligence (ELINT), and targeting missions.

***Recommendation:* Include in Army Prepositioned Stocks (APS) in Europe equipment for a U.S. fires brigade with robust MLRS capabilities, including HIMARS, for the suppression of enemy air defenses (SEAD) and other A2/AD systems.**

***Recommendation:* U.S. European Command (EUCOM) should consider conducting large annual SEAD exercises with Poland and other allies on the eastern flank. This exercise should integrate U.S. Army fires capabilities and other joint/combined capabilities to demonstrate U.S. and NATO capabilities to hold Russian A2/AD systems at risk.**

Additionally, overcoming Russia's A2/AD environment means the United States and its allies need to learn and develop procedures to conduct large-scale reinforcement operations. This will demonstrate the U.S. will and capability to reinforce the continent, strengthening its assurance and deterrence efforts.

***Recommendation:* The United States and its most capable NATO allies should conduct regular reinforcement exercises (similar to, but on a smaller scale, than the Cold War–era REFORGER exercises) in Europe that account for a nonpermissive A2/AD environment and demonstrate allies' ability to rapidly surge forces to the eastern flank.⁹⁷**

To further address weakness in detection and tracking, there is a need for a detailed survey of the Russian order of battle, including technical analysis of Russian A2/AD systems and their vulnerabilities. During the Cold War, the United States maintained a high level of fidelity on the

⁹⁷ REFORGER (Return of Forces to Germany) was an annual large-scale U.S. and allied military exercise during the Cold War that rehearsed the U.S. reinforcement capability to Europe.

Soviet system, in many cases down to vehicle bumper numbers. Gathering this granular level of information will not be easy given the mobility of Russian assets and Russia's extensive use of camouflage and deception techniques. Doing so, however, will allow for cross-queuing and pattern analysis so that when a certain type of Russian equipment in a particular unit is deployed, USAREUR may be able to identify which nearby allied system may be its assigned target. This understanding is imperative for focusing I&W resources and retaining the option for preemptive strikes. Specific systems, especially those related to command and control (C2), electronic warfare (EW), and air defense missions, also have unique electronic signatures that can be detected, catalogued, and exploited in the same way. This level of fidelity does not yet exist in a way that is rapidly or tactically exploitable.

Recommendation: Improve monitoring and tracking of Russian A2/AD systems to ensure sufficient tactically exploitable intelligence in the event of a crisis.

Cyber, electronic warfare, space, and information operations—all components of Russia's A2/AD approach—will be covered in the Nonkinetic Capabilities section later in this chapter.

COMBINED ARMS WARFARE

The United States continues to retain a clear qualitative and quantitative advantage over Russia and other near-peer competitors in combined arms warfare. The Army's present array of combat systems is largely the result of investments begun in the 1970s and 1980s that aimed to offset the Soviet military's numerical advantages in Central Europe through qualitative superiority. Five major acquisition programs during this period emerged as game changers for the U.S. Army: the M1 Abrams Tank, the M2 Bradley infantry fighting vehicle, the AH-64 Apache attack helicopter, the UH-60 Black Hawk utility helicopter, and the PATRIOT air and missile defense system. These combat systems, known colloquially as the Big 5, remain the cornerstone of the U.S. Army's combat power and have been continuously modernized over the years. Following the collapse of the Soviet Union and the emergence of a far weaker Russian ground forces element, these systems—in combination with the Army's investments in personnel, training, and combined arms doctrine—gave the United States confidence in its ability to win decisively in open battle against nearly any adversary.

While the United States retains superiority in conventional arms, there are several niche capabilities where it is in danger of falling behind the Russian military. This is due, first, to major U.S. Army modernization efforts becoming stymied over the past two decades for a variety of budgetary, political, and bureaucratic reasons. Second, the Army has largely concentrated on training and equipping its forces for counterinsurgency operations in Iraq and Afghanistan. Such capabilities and training remain important, including for potential contingencies involving Russia, but U.S. combined arms skills must also be improved. As General Mark Milley, U.S. Army Chief of Staff, explained, "Today, a major in the Army knows

nothing but fighting terrorists and guerrillas, because he came into the Army after 9/11. But as we get into the higher-end threats, our skills have atrophied over 15 years.”⁹⁸

To do this, the Army must do better at adapting and marrying the skills and capabilities it honed in Iraq and Afghanistan to more sophisticated adversaries and complex environments. One element is developing new tactics for employing the technologies developed in recent conflicts for conventional warfare. For example, many analysts have pointed to Russia’s use of tactical UAS to direct artillery fire against Ukrainian formations as a sign of Russian advanced capabilities. Yet U.S. ground forces have had tactical UAS deployed down to the platoon level for years, as well as delegated authorities and capabilities for platoons and squads to call in precision joint fires. The capabilities and tactics have simply not been adapted for combined arms warfare. Additionally, the Army must continue to nurture the leadership and interdisciplinary skills it developed in Iraq and Afghanistan in order to successfully respond to so-called gray zone challenges that, by their nature, do not reside solely in the military space. If Russia is successfully deterred from conducting an open attack but is still intent on adventurism, it might instead provoke and fuel internal instability. It is particularly important that the Army be able to adapt to dynamic situations where the military is not necessarily the lead responder.

To this end, the expertise resident in the U.S. Special Operations Forces, especially as it relates to foreign internal defense (FID), should be closely coordinated with the rotational Army forces in the Baltic States. Small teams from the 1st Battalion, 10th Special Forces Group have maintained a persistent presence in countries along the eastern flank since 2014.⁹⁹ Working closely together, these forces can leverage collective training opportunities and ensure interoperability between host nation militaries and internal security forces for contingency plans such as responding to “little green men” scenarios.¹⁰⁰

Recommendation: Maximize integration of U.S. Special Operations Forces with rotational Army units to improve the asymmetric capabilities of Baltic States’ general purpose forces and reserves troops, in addition to their special operations forces.

Russian armored forces remain the yardstick against which the U.S. Army measures the effectiveness of its own armored forces. The U.S. M1 Abrams tank, upgraded over the years to the current M1A2 SEPv2 variant, has traditionally enjoyed substantial advantages over adversary armored units. Recent Russian advancements, however, in both protection and lethality have reduced the qualitative gap between the Abrams and its Russian counterpart. Russia has invested

⁹⁸ Helene Cooper, “Long Emphasis on Terror May Hurt U.S. in Conventional War, Army Chief Says,” *New York Times*, May 15, 2016.

⁹⁹ Interviews with U.S. Army officials, March 2016. Also see Peter Apps, “After Ukraine, U.S. Trains More Special Forces in Eastern Europe,” *Reuters*, June 11, 2014.

¹⁰⁰ Given their limited national military power, the Baltic States face an internal challenge of mobilizing reserve and National Guard-like forces to supplement national defense in a crisis.

substantially in both active and passive protection systems for its armored vehicles. These active systems include jammers that are designed to confuse incoming anti-armor missiles and kinetic kill systems that shoot incoming anti-armor missiles out of the air. Russian active protection systems are paired with passive protection systems, primarily advanced forms of explosive reactive armor (ERA). The United States has introduced progressive upgrades to the M1A2's primary anti-tank round designed specifically to counter advances in Russian ERA technology. Unfortunately, these lethality upgrades have not been extended to the Army's other anti-armor munitions including Hellfire, TOW, and Javelin systems; all are overdue for upgrades.

Russia's modular approach to armor means that its combat vehicles weigh significantly less than Western counterparts. Upgrades to the M1 Abrams over the years have added significant weight to the vehicle. As previously mentioned, the M1A2 SEPv2 now weighs 71 tons, making it difficult to transport to the theater and sustain in the field. This also has practical effects for steady-state operations.

Overall, assessing the extent to which Russia has closed the qualitative gap related to combined arms is challenging. The overall quality and readiness of Russia's armored formations continues to be an open question. The best Russian formations are likely near or at the level of the best Western armored units, but there is likely a precipitous drop-off in terms of war-fighting abilities and equipment as one moves down the Russian order of battle. The clearest area where Russia has an undisputed qualitative edge over the United States is in tube artillery. The currently deployed Russian artillery systems outrange U.S. equivalents and can, generally speaking, deliver a greater volume of fire. This advantage is not new. The Russian military, and the Soviet military before it, has long placed a heavy emphasis on its artillery forces to deliver concentrated and massed fires in support to ground forces. By contrast, the United States has focused more on tactical maneuverability and precision artillery. U.S. forces developed techniques to counter Russian artillery superiority in the past and will need to refresh their understanding of how to fight effectively in the current environment. Allied forces may be able to help offset U.S. weaknesses in this area as several nations operate exceptional artillery systems and produce first-rate artillery officers.

Russia's development of advanced anti-armor and anti-personnel munitions is particularly concerning, as is a new generation of Russian man-portable anti-armor systems that may be capable of defeating the heaviest U.S. armor.¹⁰¹ Moreover, there is a need to reexamine the lethality, mobility, and protection for U.S. infantry and Stryker brigade combat teams in a high-end fight, particularly if joint fires are not readily available. These units simultaneously lack highly mobile organic firepower capabilities beyond heavy machine guns and other standard crew-served weapons, including advanced modular protection systems capable of defeating

¹⁰¹ Jeremy Binnie, "Iraqi Abrams Losses Revealed," *HIS Jane's Defence Weekly*, June 20, 2014, <http://www.janes.com/article/39550/iraqi-abrams-losses-revealed>.

Russian anti-tank guided missiles (ATGMs). The U.S. Army is currently exploring and developing lethality upgrades for the 2nd Cavalry Regiment's Stryker's with plans to upgrade vehicles to have a 30-mm cannon and an unmanned turret system.¹⁰² This is a step in the right direction, but longer-term solutions to the lethality issue, to include a widespread integration of new generations of U.S. ATGMs with fire and forget capabilities, are needed. There is anecdotal evidence that suggests current U.S. ATGMs (provided to the Syrian moderate opposition) are somewhat effective against modern Russian armor.¹⁰³ There are also a variety of foreign systems that could be rapidly acquired to fill this capability gap.

Recommendation: Continue U.S. Army efforts to improve infantry brigade tactical mobility and Stryker brigade lethality. The Army should also continue efforts for cost-effective solutions to improving organic firepower at the squad level.

Recommendation: Begin development of upgraded U.S. ATGM munitions (and Hellfire) and explore long-term development of next-generation ATGMs.

Recommendation: Increase training opportunities for units with ATGMs including TOW and Javelin systems, particularly for forward-deployed and rotational forces.

U.S. Army forces have become accustomed to operating in environments in which the U.S. Air Force has air supremacy. Given Russia's sophisticated and robust A2/AD capabilities, the Army cannot presume U.S. air dominance of the battlefield. Russia's employment of tactical UAS and attack helicopters in Ukraine highlights the need for U.S. ground forces to protect themselves with short-range air defense (SHORAD) systems. The Army no longer has SHORAD capabilities in the active Army. In February 2016, Major General John Rossi, commanding general of the Army Fires Center of Excellence, acknowledged the capability gap, stating, "We took all short-range air defense out of the architecture as we focused on missile defense . . . that's caught up to us."¹⁰⁴ The vestiges of the Army's SHORAD capabilities now reside in a handful of units in the Army National Guard that field the AN/TWQ-1 Avenger, an older vehicle-mounted system that utilizes the FIM-92 Stinger and can fire up to eight missiles to defend against low-flying aircraft.¹⁰⁵ There is a clear need for U.S. ground forces to have a more modern SHORAD capabilities integrated at the brigade level.

¹⁰² Sydney J. Freedberg, "Strykers: Hill OKs \$411M, with a Warning," *Breaking Defense*, October 1, 2015.

¹⁰³ "TOW Missile Hits a T-90 Tank with 'Soft-Kill' (SHTORA) APS and Reactive Armor," *Defense Update*, February 27, 2016, http://defense-update.com/20160227_tow_vs_shtora.html.

¹⁰⁴ Mark Pomerleau, "Army Revives Short-Range Air Defense to Address Small-Drone Threat," *Defense Systems*, February 19, 2016, <https://defensesystems.com/articles/2016/02/19/army-short-range-air-defense-small-drones.aspx>.

¹⁰⁵ The Avenger platform is likely an insufficient long-term solution as it is based around the Stinger missile system. The Army is developing a new SHORAD system under the auspices of the indirect fire protection capability (IFPC) R&D effort. This effort includes a new launch system that supports a wide range of interceptors, both current and future. IFPC is a multi-mission system capable of conducting counter-air and missile missions to include meeting emerging counter-UAS requirements. If IFPC's promised flexibility and scalability can be achieved, it will go a long way toward bridging a critical capability gap.

Recommendation: Fast track investment and modernization in SHORAD systems that can be integrated into combat brigades without increasing brigade-level force structure.

In the longer term, the innovative use of emerging technologies such as autonomous or semi-autonomous robotic systems, directed energy weapons, and hypervelocity projectiles may have the potential to help mitigate the A2/AD challenge. Development of these advanced capabilities aligns with the Department of Defense’s Third Offset initiative, which seeks to develop and leverage technologies that can provide game-changing military advantages to offset adversaries’ growing capabilities in a cost-constrained environment. Capabilities emerging from the previous offset initiatives in the 1950s and 1970s—including tactical nuclear weapons enabled through advances in miniaturization and later precision-guided weapons enabled by digital microprocessors—proved to be force multipliers and provided the U.S. military a clear and decisive competitive advantage for over four decades. Indeed, the first two offset initiatives were designed to counter the numerical advantage of Soviet and Warsaw Pact conventional forces, and so were explicitly tailored to potential operations in the European theater. While the Third Offset initiative includes a heavy focus on potential theaters of operations beyond Europe, many of the A2/AD capabilities the Third Offset initiative will combat are systems designed and developed by Russia. The capabilities developed under the Third Offset will, therefore, have a direct impact on the future of conventional deterrence in the European theater.

To combat the United States’ “steadily eroding [technological] margin” compared to its adversaries, Deputy Secretary of Defense Robert Work describes the Third Offset as focusing on “human-machine collaboration and combat teaming,” with a focus on learning machines, artificial intelligence, unmanned systems, autonomous weapons, and advanced manufacturing techniques.¹⁰⁶ While some of these technologies are still in the research and development phase, new technologically superior systems derived from them may be able to change the way the United States and its allies approach Russia’s A2/AD challenge over the next 10 years.

Unmanned aircraft systems have already transformed modern combat operations by dramatically increasing the availability of real-time intelligence and collapsing the sensor-shooter divide. The next evolution of such systems will allow smaller and smaller unmanned aircraft to wield greater and greater capabilities. Beyond acting as decoys and missile sponges that can force an adversary to expend expensive surface-to-air missile (SAM) stocks on inexpensive UAS, small unmanned aircraft systems (sUAS) may be transformed into long-loitering munitions that can seek out and destroy key elements of an adversary’s A2/AD system. These systems could dramatically increase the lethality of small units.

¹⁰⁶ Deputy Secretary of Defense Bob Work, “The Third U.S. Offset Strategy and Its Implications for Partners and Allies,” speech, Center for a New American Security and the NATO Allied Command Transformation, Willard Hotel, Washington, DC, January 28, 2015; Deputy Secretary of Defense Bob Work, “Reagan Defense Forum: The Third Offset Strategy,” speech, Reagan Presidential Library, Simi Valley, CA, November 7, 2015.

Directed energy weapons (DEW) have the potential to significantly lower the cost of missile defense by lowering the cost per shot and increase the range and lethality of directed fires. DEW experimentation includes a host of different laser technologies, including electrical and chemical lasers. A medium-power airborne laser could potentially be fielded in the next 10 years; however, it may lack the power needed for many missile defense applications. Electromagnetic railguns can fire relatively inexpensive projectiles at speeds sufficient to intercept incoming missiles. The electromagnetic railgun technology has been in development for several years by the U.S. Navy and an operational test system may be delivered by the end of the decade.

As demonstrated by the activities of the Pentagon's Strategic Capabilities Office (SCO), first made public in early 2016, even faster adaptation and adoption of new technologies may be possible.¹⁰⁷ The SCO focuses on ways in which relatively small investments in modifications to existing systems can significantly extend capabilities. For example, the SCO demonstrated the potential to launch hypervelocity projectiles originally developed for use by the electromagnetic railgun from existing Army and Navy artillery and gun systems, potentially extending the range, lethality, and capability of the Army's existing artillery systems. This is similar to the approach being used by the Army to increase the lethality of the 2nd Cavalry Regiment's Stryker vehicles in Europe by upgrading some Stryker variants with a 30-mm cannon. Adding capabilities to the extensive stock of existing equipment in Europe, which leverages DoD's large prior investments at relatively low marginal cost, is a promising way to rapidly increase the capabilities for both U.S. and allied forces on the continent.

NONKINETIC CAPABILITIES

Russia excels at integrating nonkinetic capabilities, including electronic warfare (EW) and offensive cyber attacks, into its A2/AD complex and offensive operations. Such capabilities have the potential to degrade U.S. and NATO command, control, communication, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems, one of the greatest sources of the Western qualitative military advantage and critical to supporting U.S. and allied military operations.

In Ukraine, Russian forces demonstrated an advanced ability to leverage electronic intelligence (ELINT) collection and cyber data for targeting specific ground units and degrading enemy command and control nodes. Beyond targeting, cyber attacks can also threaten the rail, seaport, and airport computer networks and the power and energy sectors necessary for efficient movement of large quantities of manpower and material. In a conflict, the United States is also likely to face electronic attack (EA) designed to deny the use of precision munitions, unmanned systems, and intelligence, surveillance, and reconnaissance (ISR) systems and, therefore, the

¹⁰⁷ Sam LaGrone, "Little Known Pentagon Office Key to U.S. Military Competition with China, Russia," *USNI News*, February 2, 2016, <https://news.usni.org/2016/02/02/little-known-pentagon-office-key-to-u-s-military-competition-with-china-russia>.

ability of U.S. forces to deliver accurate, timely fires. Russian localized GPS jamming and spoofing could also severely hamper the heavy reliance U.S. troops place upon advanced position, navigation, and timing (PNT) capabilities. As the United States and its Western allies sit largely on the sidelines, Russia is actively and regularly conducting cyber surveillance and denial-of-service attacks on U.S. soldiers conducting training exercises on the eastern flank.¹⁰⁸

In contrast, U.S. defensive cyber and EW activities are directed at force protection, such as hardening U.S. military networks and ensuring secure communications access for U.S. forces. Unlike the Russian military's integration of these capabilities at the tactical level, the U.S.

Tactical collection in the cyber domain is held to a different standard than ISR collection in other domains—air, land, and sea.

military restricts them to strategic-level headquarters with little authority delegated to operators in the field. Offensive cyber reconnaissance operations are considered more controversial within Western governments due to sensitivities surrounding privacy and concerns over escalation against civilian infrastructure. Hence, tactical collection in the cyber

domain is held to a different standard than ISR collection in other domains—air, land, and sea. Delegated cyber authorities to the tactical level have important advantages that should be acknowledged. Cyber operations exist on a continuum. The idea is not to empower tactical units with the capability to shut down the electrical power grid in St. Petersburg, but to put the authorities in place so, in the event of a crisis, those tactical units do not have to seek the secretary of defense's permission before blocking a Russian-backed separatist coordinating military operations from an Internet café in Narva, for example.

Advancements in Russia's cyber and EW capabilities could ultimately threaten U.S. command and control, intelligence, integrated fires, logistics, and maneuver systems, all of which have become more dependent on interconnected systems. The U.S. Army should pursue greater tools and authorities to increase the quantity and quality of intelligence collected on Moscow's employment of cyber and EW to enable development of corresponding tactics, techniques, and procedures (TTPs) to effectively disrupt the whole, or critical, parts of Russian IADS and integrated fires control (IFC) in times of conflict. Synchronized cyber operations directed against Russian IADS and IFC systems will be essential to counter Moscow's A2/AD advantages.

Recommendation: Delegate more authority for U.S. tactical units to employ offensive cyber (e.g., intelligence collection to understand how an adversary is using the Internet) and EW (e.g., jamming radio signals) in shaping operations, as Russian forces are able to do. Use information to develop advanced TTPs to counter and combat Russian cyber and EW operations.

¹⁰⁸ Interview with senior U.S. Army official, March 2016.

Recommendation: Forward deploy cyber protection teams (CPTs) from Army Cyber Command to attach to U.S. rotational forces on the eastern flank to improve their operational security and develop TTPs on Russian information, cyber, and electronic warfare operations.

Recommendation: Educate soldiers operating in regions targeted by Russia cyber operations on better force protection habits in the cyber domain and how to recognize and respond to Russian cyber operations.

Russia is also making significant inroads in developing space and counter-space capabilities. To exploit the reliance of U.S. ground forces on space-based systems for communications, firepower, and navigation, Russia has deployed radar-imagery jammers and is developing other systems, “to blind U.S. intelligence and missile defense satellites.”¹⁰⁹ In a February 2016 briefing before the Senate Armed Services Committee (SASC), Vincent Stewart, director of the Defense Intelligence Agency, warned that, “Moscow views U.S. dependence on space systems as key enablers for military operations as a vulnerability.”¹¹⁰ Beyond nonkinetic counter-space capabilities, Russia is developing shadowy kinetic capabilities that could attack U.S. orbital infrastructure (satellites). The best known of these are maneuvering satellites that have been operating in alarming proximity to U.S. communication satellites.¹¹¹ These capabilities are intended to counter U.S. ground and strategic forces by denying, disrupting, or destroying the space-based assets they depend on for operations. Russia is also a major user of space-based systems, although more so for ISR than command and control purposes.¹¹²

As mentioned in Chapter 1, Russia also routinely employs information operations (IO) as a means to advance its political influence, complicate Western decisionmaking, and shape operating environments in its favor.¹¹³ While Russian IO have been broadly directed against the West through a variety of means, certain eastern flank states are more susceptible than others given a high concentration of Russian-fluent individuals. Russian-language social media networks and Kremlin-controlled news outlets are well funded and effective at shaping regional narratives and swaying public opinion. Russia has demonstrated an aptitude at manipulating coverage of its military activities and operations, preying on the value Western media places upon balanced reporting of competing views. A loose relationship with the truth also means that

¹⁰⁹ Director of National Intelligence James Clapper, statement before the Senate Armed Services Committee, *On Worldwide Threat Assessment of the US Intelligence Community*, 114th Cong., 2nd sess., February 9, 2016, http://www.armed-services.senate.gov/imo/media/doc/Clapper_02-09-16.pdf.

¹¹⁰ Director of the Defense Intelligence Agency Vincent R. Stewart, statement before the Senate Armed Services Committee, *On Worldwide Threat Assessment*, 114th Cong., 2nd sess., February 9, 2016, http://www.armed-services.senate.gov/imo/media/doc/Stewart_02-09-16.pdf.

¹¹¹ Mike Gruss, “Russian Satellite Maneuvers, Silence Worry Intelsat,” *SpaceNews*, October 9, 2015.

¹¹² Stewart, statement, *On Worldwide Threat Assessment*.

¹¹³ See Keir Giles, *Russia’s ‘New’ Tools for Confronting the West* (London: Chatham House, March 2016), 27–46.

false Russian narratives can be produced and disseminated much faster than allies can counter them.

As with cyber and EW, Russia has integrated information operations within tactical-level units to conduct shaping operations. Russian-backed media outlets closely monitor the interactions between U.S. soldiers and local Russian-speaking civilians in the Baltic States and have repeatedly exploited seemingly minor incidents to provoke a political controversy or nationalistic reactions.¹¹⁴ The United States and its allies are not overmatched in IO capability but, given the norms of democratic societies, they have a lower risk tolerance for engaging in information deception or propaganda efforts. The U.S. Army is bound under strict rules of engagement, with no standing authority to conduct so-called psychological operations without the approval of senior policymakers, including the U.S. ambassador to the country in question. Despite a controversial reputation, military information support teams (MISTs) can enable tactical and operational units with the resources and knowledge to inform local foreign audiences with truthful information to counter adversary-influenced misinformation and disinformation efforts.¹¹⁵

Recommendation: Expand the use of U.S. Army Special Operations military information support teams (MISTs) to combat Russian false narratives across the eastern flank.

Failure to seriously address the A2/AD, combined arms, and nonkinetic challenges posed by Russia will mean the United States and NATO will incur increasingly high levels of risk. The recommendations described above can help the U.S. Army in Europe enhance deterrence and operate more safely and effectively in combat, should the need arise.

¹¹⁴ Interview with U.S. government official, March 2016.

¹¹⁵ Colonel Curtis Boyd, “The Future of MISO,” *Special Warfare* (January–February 2011), <http://www.soc.mil/swcs/SWmag/archive/SW2401/SW2401TheFutureOfMISO.html>.

CHAPTER 5: CONSIDERATIONS FOR ENHANCING U.S. FORCE POSTURE FOR SUSTAINABLE DETERRENCE

As discussed in Chapter 3, the means by which the United States has augmented its European force posture raises questions as to the sustainability and efficiency of these current arrangements. Over the next 10 years, U.S. Army force posture in Europe, and specifically its presence along the eastern flank, must be optimized to strengthen deterrence, become more efficient in its use of scarce military resources, and help alleviate the strain on the force. This chapter will consider various enhancements to U.S. force posture in Europe, including multination formations, with a focus on realigning U.S. and NATO forces to strengthen deterrence in a sustainable manner.

REALIGNING U.S. FORCE POSTURE ON THE NORTHEASTERN FLANK

The study team continues to judge that a Russian attack against any NATO ally is a low probability event. Nonetheless, it cannot be entirely discounted given Moscow's aggressive foreign policy and pattern of military intervention along its borders, combined with the strategic vulnerability of NATO's eastern allies, particularly the Baltic States. The Baltic States' militaries are small, geographically isolated, and lack mobility, firepower, and air and naval capability. General Petr Pavel, chairman of the NATO Military Committee, warned in May 2015 that it could only take 48 hours for Russia to take the Baltics: "From the technical point of view, if I consider how many forces Russia is able to deploy in the Baltics, the size of the Baltic countries, and the density of forces on their territories, the Baltics could really be occupied in a couple of days."¹¹⁶ Should Russia decide to militarily intervene in the Baltic States, the only real military consequence from a Russian perspective would be a NATO Article 5 collective defense response.

There are several possible avenues Russia might take should it decide to gamble on the willingness of NATO to defend the Baltics. Moscow understands that if the United States and NATO decide to engage in conventional warfare, Russia would ultimately face an extreme military disadvantage. Russia would, therefore, seek to leverage its time and space advantage to achieve a quick and decisive victory, and minimize direct engagements with U.S. and other allied forces. A quick land grab in the Baltic States that succeeded in sidestepping allied forces could be seen in Moscow as offering the opportunity to de-escalate and undermine NATO's political will to launch a large and risky counteroffensive to dislodge Russian forces.

¹¹⁶ Jeremy Bender, "Incoming NATO Military Committee Chairman: Russia Could Occupy the Baltics in 2 Days if It Wanted to," *Business Insider*, May 30, 2015, <http://www.businessinsider.com/russia-can-occupy-baltics-in-2-days-2015-5>.

One plausible scenario, for example, could entail a small Russian “standing start” attack that involves little detectable mobilization and thus catches the United States and NATO largely by surprise. In this case, Russia would likely avoid utilizing its heavy ground formations, relying initially on its special operations Spetsnaz forces and light airborne units. Spetsnaz forces—in civilian clothes or otherwise lacking insignia—would have little difficulty penetrating Estonia and Latvia’s long and porous borders with Russia. They may quickly be able to seize the airports in Tallinn and Riga and set up tactical defensive positions to repel any local police response to what, at that point, might appear to be a possible terrorist attack or some other domestic disturbance. Control of the airports would allow Russia’s light infantry airborne forces—perhaps the unit based just over the Estonian border in Pskov—to conduct a quick air-landing operation. In a matter of hours, Russia could airlift in more troops than there are in the Estonian or Latvian militaries. These forces could then fairly quickly seize control over critical infrastructure and government buildings.

Simultaneously, Russia could shut down the region’s airspace by a simple declaration backed up by its robust A2/AD systems. With uncontested control of the airspace, Russia could then conduct decapitating airstrikes against the handful of military bases in the Baltic States, quickly destroying any air defenses, and hamper, if not cripple, the ability of the Baltic States to mount a viable response. It is a safe assumption that in such a scenario Russia simultaneously would be fully leveraging its cyber and electronic warfare capabilities to disrupt the command and control of the Baltic States’ military forces and government communications more broadly. Once Russian forces were able to secure a foothold in the capitals, significant numbers of Russian motorized infantry would then be mobilized and cross over the borders in follow-on operations to address any remaining pockets of resistance.

By examining this and other possible scenarios, Russia’s risk calculus and options for NATO and the United States to affect it begin to emerge. If at the outset, for instance, Moscow knew it would be unable to avoid a direct encounter with combat-capable U.S. and other NATO forces in the Baltic States, it may assess the political and military risk of Western retaliation too high and its options for de-escalation less viable. Aggression under such circumstances could reasonably be expected to harden the political resolve and unity of the United States and NATO allies to follow through with a broader military campaign. While not ruling out its ability to find a political off-ramp, Moscow would be far less able to assume one. In short, Russia might reasonably be deterred from attacking the Baltic States if it simultaneously meant attacking U.S. and capable European military forces on the ground.

Balancing Capabilities and Threats: The approximately 1,500-mile-long eastern flank does not present a uniform set of challenges. There are differences between what is needed at various points from the northernmost tip of Estonia along the Finnish Sea to Romania and Bulgaria’s Black Sea coastlines. Each element of the eastern flank requires a strategy tailored to the nature of the threat, the geography, the capabilities of the host nation, and the constraints on U.S. and

NATO resources. Since 2014, the United States has tended to group Poland and the Baltic States under one regional construct, providing a continuous troop presence to each country. Given its geography, however, Poland faces less of a direct military threat from Russia than the Baltic States. With 13 brigades and close to 100,000 active-duty forces, the Polish military is also far larger and more capable than the Baltic States' militaries, and U.S. and NATO forces could more easily reinforce Poland in the event of a crisis. While a continuing U.S. presence in Poland is vital for reassurance and theater access, any additional U.S. forces should be concentrated where they will provide the most deterrence value—in the Baltic States. Similarly, on the southeast flank, the threat environment and requirements for U.S. forces are different. Romania and Bulgaria primarily face air and maritime challenges from Russia in the Black Sea, rather than the threat of a Russian ground attack. The current periodic U.S. Army deployments to Romania, Bulgaria, and Hungary are, therefore, generally sufficient for reassuring these allies of U.S. commitments and improving their military capabilities.

Recommendation: Maintain persistent U.S. company-sized rotations to Poland, and periodic rotations to Romania, Bulgaria, and Hungary. Seek NATO member force augmentation and backfill as required.

Size of the Force: The size and nature of the U.S. Army presence in the Baltic States will depend on a number of factors, including strategic requirements, unit capabilities, and host nation absorptive capacity. While a U.S. company in each Baltic State is sufficient for reassurance, it does not constitute a credible deterrent to the range of possible Russian military actions. The United States and NATO allies will need to field a larger and more capable persistent presence to

A battalion-sized force is the lowest command echelon currently capable of effectively deploying and commanding subordinate units over a small but noncontiguous area of operations. . . . In essence, a battalion-sized force strengthens deterrence by unspooling the tripwire over a larger area.

ensure a credible deterrent at the point of greatest threat. A battalion-sized force is the lowest command echelon currently capable of effectively deploying and commanding subordinate units over a small but noncontiguous area of operations. A battalion is able to tactically disperse its maneuver companies to perform independent tasks (albeit limited) while ensuring these sub-elements have adequate command and control, mobility, manpower, and combat capabilities to inflict some degree of pain on enemy forces. In other words, assuming a limited

area of operations, a battalion-sized force can be present in more than one place at one time and carry out multiple objectives.

The ability of a battalion-sized force to operate in a distributed manner within a limited area of operations would be useful in each of the Baltic States. The capital cities are the centers of gravity, but only have a few pieces of key terrain and critical infrastructure. A battalion

capability would introduce a greater level of uncertainty for an adversary hoping to avoid contact with U.S. and NATO forces. For example, a battalion could deploy one of its companies to conduct an area defense of a nearby airport, a second to ensure access through a key choke point along a main highway, and a third to hold defensible terrain in the city center. By contrast, it would be difficult and risky for a company-sized force to operate in such a manner given its size and level of leadership. In most cases, a company is simply too small and vulnerable to further task-organize or break up into platoons to conduct different missions over disparate areas. In essence, a battalion-sized force strengthens deterrence by unspooling the tripwire over a larger area, offering more uncertainty as to its disposition, and strengthening the resistance a potential adversary would encounter.

The limited capacity of the Baltic States to absorb large amounts of foreign forces (as detailed in Chapter 3) combined with the high demand for U.S. forces globally means that any U.S. presence larger than a battalion per nation is likely unsustainable and infeasible. A company is likely too small to be a credible fighting force and a brigade too large a presence to be easily absorbed and sustained over time. Therefore, enhancing U.S. presence in each Baltic State from a company- to a battalion-sized force is most appropriate.

Recommendation: Expand U.S. troop presence in each Baltic State from a company to a battalion.

Nature of the Presence: Permanently stationing U.S. forces in the Baltic States is not without benefits, including establishing long-term relationships with the host nation and potentially offering long-term cost savings compared to continuous rotations. On balance, however, doing so would offer more risks than rewards. There are five key considerations in this case.

First, permanently assigning units to the Baltic States would not necessarily yield a more stable forward U.S. presence than can be provided by rotational forces. Given the heightened threat environment and space constraints, troops stationed in the Baltics would likely have to serve one-year unaccompanied tours similar to troops deployed to South Korea, rather than the three-year accompanied tours enjoyed by U.S. troops stationed elsewhere in Europe. Second, while the Baltic States would almost certainly be willing to offer extensive host nation support for a permanent U.S. presence, the sheer costs of building and sustaining the infrastructure associated with large permanent U.S. installations would quickly drain Baltic States' budgets and detract from more needed defense investments. Third, in the event that deterrence failed, the United States would likely be unable to protect, evacuate, or immediately reinforce permanent bases in the Baltic States—they would simply be lost. Fourth, permanently assigning units to the Baltics would be unnecessarily divisive within NATO and could threaten alliance cohesion. Finally, should a contingency arise in the Middle East or Africa, for example, the geographic distance of Baltics-based troops from traditional hotspots could slow force projection and response timelines.

It would, therefore, be more prudent to establish a nonpermanent forward operating site (FOS) in each Baltic State that is capable of sustaining and training a rotational U.S. battalion. Such sites would optimally be colocated with host nation forces and cofunded.

***Recommendation:* Establish the battalion-sized U.S. presence in the Baltic States on a rotational basis. Maintain heel-to-toe rotations with forces sourced from the European Rotational Force and forward-stationed forces.**

REALIGNING U.S. FORCE POSTURE IN THE BROADER EUROPEAN THEATER

The current in-theater rotations under Operation Atlantic Resolve (OAR) cannot easily expand to support the above recommendations using only the three U.S. brigade combat teams allocated to Europe (two permanent and one rotational) without far higher risk to force readiness. In addition to the deterrence and assurance mission under OAR, there are demands on U.S. forces in Europe that predate the heightened tensions with Moscow. Prior to the 2014 Ukraine crisis, the Department of Defense had determined that the two light brigade combat teams (BCTs) stationed in Germany and Italy were insufficient to meet the theater's steady-state requirements, and recommended rotational augmentation. The United States has fought alongside European militaries in recent conflicts including Iraq, Afghanistan, and the ongoing campaign against the Islamic State. As such, maintaining a high degree of interoperability with allies and partners in Europe is a key national security interest that extends beyond deterring any threat from Russia.

As has been mentioned, the United States is heavily reliant upon rotational forces to provide additional combat forces, critical enablers, and command and control in the European theater. While the two permanent brigades, a Stryker brigade and an airborne infantry brigade, possess a high degree of agility and flexibility, they lack the firepower, mobility, and protection that armor and mechanized infantry forces bring to the battlefield. Armored brigade combat teams (ABCTs), by contrast, possess three combined arms battalions with each battalion composed of two armor companies and two mechanized infantry companies. ABCTs also have an organic cavalry squadron for reconnaissance, and organic fires, intelligence, engineer, and sustainment capabilities.

Plugging the capability gap left after the last U.S. armored brigade in Europe was inactivated in 2013 has been among the highest priorities of U.S. military commanders in Europe. They were ultimately able to partially fill the gap by using a rotational ABCT from the United States. The need for U.S. armored forces in Europe, however, has only grown since the Ukraine crisis. There are many factors to consider in deciding whether to continue to satisfy ABCT requirements in Europe on a rotational basis, or if permanent stationing is superior from a **capability**, **sustainability**, and **affordability** perspective.

Capability: One major consideration for U.S. force posture in Europe is whether heel-to-toe rotational ground forces from the United States can provide the same degree of capability and

fulfill the same theater mission requirements as forward-stationed ground forces. Due to the transitory nature of rotational forces, they are oftentimes less than ideal to support enduring missions, particularly those centered on deterrence because deterrence requires demonstrating a high degree of resolve. A rotational presence introduces intangible trade-offs in terms of maintaining and deepening local relationships, operational awareness, and regional expertise. The constant turnover between arriving and departing rotational forces can also be disruptive to mission requirements, hard on equipment and host nation forces, and present disinformation opportunities for Russia to exploit.

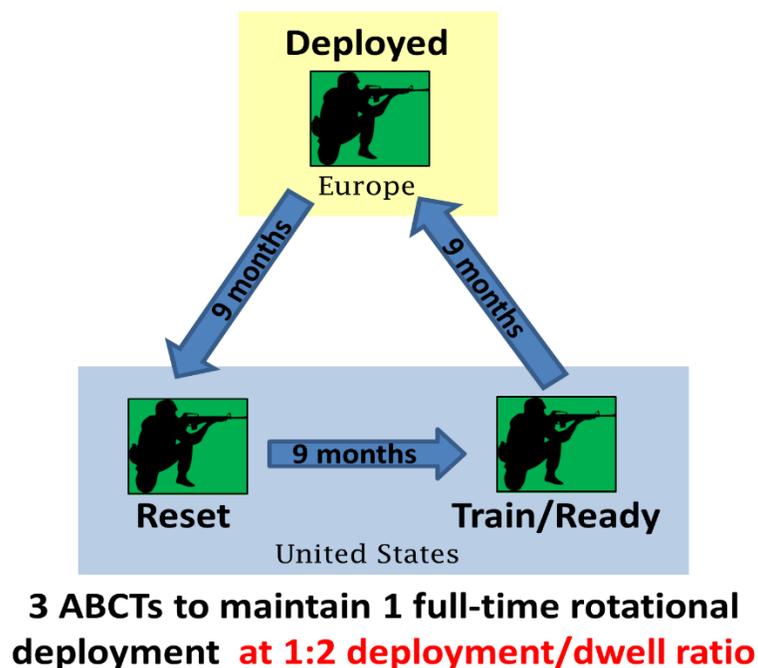
In contrast, permanent forces are able to retain a more seamless presence, gain a better understanding of the operational environment, and build stronger relationships with allies and partners. In general, forward-stationed forces in Europe can react and deploy faster to an emergency in nearby regions, including the Middle East and Africa, than forces stationed in the United States or even deployed rotational forces. They also provide an immediate presence on the ground and bring a high degree of capability into the theater. As General Philip Breedlove explained in his 2015 EUCOM posture statement, “Permanently stationed forces are a force multiplier that rotational deployments can never match.”¹¹⁷

Sustainability: From a force structure perspective, the current heel-to-toe rotational ABCT deployment to Europe may not be the most sustainable model for the U.S. Army over the long-term. Three ABCTs based in the United States are required to source the continuous, rotational presence of one ABCT in Europe. This is explained by the Army’s force generation process in which units continuously cycle through three force pools: those on or available for deployment (available), those returning from deployment (reset), and those preparing for deployment (train/ready). This model was developed so as to provide a steady supply of ready forces for sustained combat operations in Iraq and Afghanistan, while ensuring that units were able to rest and rebuild when at home. Under current guidelines, the active Army must maintain a 1:2 ratio between the amount of time a unit is deployed (up to nine months) and the amount of time it is resident at its home station or in training. In other words, after an ABCT conducts a 9-month rotational deployment to Europe, it should spend the next 18 months in the United States going through the reset and train/ready cycles.¹¹⁸

¹¹⁷ General Philip Breedlove, statement before the House Armed Services Committee, *Posture Statement*, 114th Cong., 1st sess., February 25, 2015, <http://www.eucom.mil/doc/31979/u-s-european-command-posture-statement-2015>.

¹¹⁸ Department of the Army, *Army Force Generation* (Washington, DC: Department of the Army, March 14, 2011), http://www.apd.army.mil/pdf/r525_29.pdf.

Figure 5.1. Force Generation Model for Regionally Aligned Force Armored Brigade Combat Teams



U.S. armored forces are in high demand and tasked with maintaining three sets of continuous, rotational deployments to Europe, South Korea, and Kuwait. The active Army has nine ABCTs, which means that, on paper, this demand is just manageable at the 1:2 ratio. However, one of the ABCTs is currently dedicated as a testing and evaluation unit that will eventually lead to a shortfall in the availability of armored forces for rotations.¹¹⁹ Moreover, the current demand for armored brigade rotations leaves little slack in the event of a high-end overseas contingency.¹²⁰

Over the next year, the Army plans to replace the current “available, reset, train” model with the Sustainable Readiness Model (SRM), which will likely compress the reset and train force pools given that deployed units are not expending readiness while overseas at the same rate they once did when deployed into combat zones in Iraq and Afghanistan.¹²¹ In fact, deployed rotational units may actually be able to build readiness while abroad due to the high tempo of their training

¹¹⁹ Michelle Tan, “Back-to-Back Rotations to Europe Could Stress the Army’s Armored BCTs,” *Army Times*, February 11, 2016.

¹²⁰ U.S. Army officials have indicated they are working toward re-adding the test ABCT into the force pool by November 2016 and will instead rotate the test brigade mission between infantry, Stryker, and armored brigade combat teams. Tan, “Back-to-Back Rotations to Europe.”

¹²¹ Jared Serbu, “Smaller Force Means Army Will Overhaul Its Strategy for Producing Combat-Ready Troops,” *Federal News Radio*, February 9, 2015, <http://federalnewsradio.com/dod-reporters-notebook-jared-serbu/2015/02/smaller-force-means-army-will-overhaul-its-strategy-for-producing-combat-ready-troops/>.

engagements with allied and partner forces. U.S. Army officials have also hinted that under this model the length of rotational deployments could increase from 9 to 12 months.¹²² Yet it is unclear how the shift to SRM will change some of the underlying challenges the Army faces in sustaining continuous rotational deployments given growing demand and capped force structure. While rotational units in Europe have the ability to build readiness during deployments, which allows them to stay overseas for longer periods of time, the soldiers are still away from home. It is critical for unit health, morale, and retention that soldiers have sufficient dwell time. Therefore, regardless of deployment activities, rotational deployments can only be so long and so frequent. It is hard to envision how rotations can be significantly changed in either duration or frequency without major changes to the employment of the force.

One option to ease the strain on the two rotational ABCTs could be to integrate the five ABCTs in the Army National Guard into the rotational cycle. This would have the added benefit of increasing the readiness and experience levels in the National Guard. This approach should be pursued, but is unlikely to solve the rotational strain on the Army on its own. Army National Guard units, however, operate at a 1:5 ratio of mobilization to dwell time, which means they can be mobilized for 12 months, 9 of which are deployed, and spend the next 60 months at home.¹²³ At the current ratios for the active Army (1:2) and the reserve components (1:5), it requires three National Guard brigades to achieve the same output as one active Army brigade.¹²⁴ There are also cost and readiness factors to consider. Mobilization and deployment of heavy Army National Guard units, such as ABCTs and combat aviation brigades (CABs), tend to be more expensive than their active Army equivalents, likely due to higher post-mobilization training, upgrades and maintenance for stored equipment, and higher National Guard personnel costs.¹²⁵ Army National Guard units with heavy equipment such as ABCTs and CABs also tend to require lengthier periods of pre-mobilization preparation before they can deploy. Such delays could significantly cut into their time on station.¹²⁶

Another option to reduce stress on the U.S. Army's limited ABCT force structure is to permanently station an ABCT in Europe. This would fulfill the theater requirement for armored

¹²² Tan, "Back-to-Back Rotations to ' Europe."

¹²³ It is also unclear how the shift from the current available, reset, train model (otherwise known as the Army Force Generation [ARFORGEN] process) to SRM will impact mobilization and dwell times for Army National Guard units. Andrew Feickert and Lawrence Kapp, *Army Active Component (AC)/Reserve Component (RC) Force Mix: Considerations and Options for Congress*, R43808 (Washington, DC: Congressional Research Service, December 5, 2014), 20–22, <https://www.fas.org/sgp/crs/natsec/R43808.pdf>.

¹²⁴ Joshua Klimas, Richard E. Darilek, et al., *Assessing the Army's Active-Reserve Component Force Mix* (Santa Monica, CA: RAND Corporation, 2014), 7.

¹²⁵ *Ibid.*, 12–13; See also Feickert and Kapp, *Army Active Component (AC)/Reserve Component (RC) Force Mix*, 66; and Secretary John McHugh and General Raymond Odierno, statement before the Commission on the Future of the Army, 114th Cong., 1st session, May 19, 2015, <http://www.ncfa.ncr.gov/sites/default/files/SecArmy%20CSA%20Statement%20for%20the%20Record,%20NCFA,%20FINAL,%202019%20May%202015.pdf>.

¹²⁶ Klimas et al., *Assessing the Army's Active-Reserve Component Force Mix*, 12–13.

forces, free up two U.S.-based ABCTs to support other missions, and increase flexibility in strategic force management. In making this suggestion to the Senate Armed Services Committee during his confirmation hearing to replace General Breedlove as EUCOM commander, General Curtis Scaparrotti added that “a permanently assigned unit can better establish and maintain strong relationships with supporting U.S. and Allied forces and attain better situational understanding of their environment.”¹²⁷ The European Rotational Force could supply light forces, such as infantry, which are more available and generally less expensive to rotate. It is important to note that forward basing an ABCT in Europe would not remove that unit from the global force pool or detract from its availability to conduct other missions within Europe or elsewhere.

Affordability: Based on a broad review of the available data and literature, forward stationing forces, in many instances, is more expensive than basing forces in the United States.¹²⁸ This is due to additional personnel costs (e.g., overseas allowances), family support (e.g., DoD-provided schools), and the logistics costs associated with overseas deployment.¹²⁹ While direct and indirect support from host nations can offset some of the costs of forward stationing, it is usually not enough to cover the entire difference.¹³⁰ The premium costs of forward-stationed forces have been a major driver of the realignment of U.S. forces back to the United States since the end of the Cold War.

Yet these cost comparisons often do not account for instances in which U.S. forces are in continual, rotational use and the impact that multiple rotational deployments could have on readiness. Backfilling permanent units that were once resident in Europe with continuous, full-strength, rotational forces from the United States may in fact negate much of the intended cost savings assumed in the 2011 and prior drawdown decisions. A number of factors can impact the cost of rotational forces, including the operational requirements (combat or training), the length and frequency of the rotations, the operational tempo, the type of unit rotating, whether the unit

¹²⁷ General Curtis Scaparrotti, advanced questions before the Senate Armed Services Committee, 114th Cong., 2nd sess., April 21, 2016, http://www.armed-services.senate.gov/imo/media/doc/Scaparrotti_04-21-16.pdf.

¹²⁸ Michael Lostumbo and Michael McNerney, *Overseas Basing of U.S. Military Forces: An Assessment of Relative Costs and Strategic Benefits* (Santa Monica, CA: RAND Corporation, 2013); Senate Armed Services Committee, *Inquiry into U.S. Costs and Allied Contributions to Support the U.S. Military Presence Overseas*, Report 113-12, 113th Cong., 1st sess. (Washington, DC: Senate Armed Service Committee, April 15, 2013), <http://www.armed-services.senate.gov/imo/media/doc/REPORT-FOR-POSTING-4-16-2013-WITH-5-14-2013-CORRECTION.pdf>; Congressional Budget Office, *Options for Changing the Army’s Overseas Basing* (Washington, DC: Congressional Budget Office, May 2004), <http://www.comw.org/warreport/fulltext/0405cbobasing.pdf>; Government Accountability Office, *DOD Needs to Review the Costs and Benefits of Basing Alternatives for Army Forces in Europe*, GAO-10-745R (Washington, DC: GAO, September 13, 2010), <http://www.gao.gov/products/GAO-10-745R>; and Michael O’Hanlon, *Unfinished Business U.S. Overseas Military Presence in the 21st Century* (Washington, DC: Center for a New American Security, June 2008), http://www.cnas.org/files/documents/publications/OHanlon_UnfinishedBusiness_June2008.pdf.

¹²⁹ Lostumbo and McNerney, *Overseas Basing of U.S. Military Forces*, 211.

¹³⁰ Senate Armed Services Committee, *Inquiry into U.S. Costs and Allied Contributions to Support the U.S. Military Presence Overseas*.

must transport its equipment or can utilize prepositioned equipment, and whether requisite infrastructure and logistical enablers are available in the theater.

Forces with heavy equipment (such as ABCTs and CABs) are often more expensive to rotate because of the high costs of transporting their equipment or, alternatively, the high costs of sourcing and maintaining supplementary sets of heavy equipment as prepositioned stocks—in addition to the added strain on enabler and headquarters units sending and receiving rotational forces. There are also the costs associated with maintaining the unit’s home station in the United States, which may decrease slightly but would not go away just because the majority of the unit is deployed. In fact, the United States has used a rotational model in Europe before and found the trade-offs to be problematic. In the mid-1970s, for example, the Army sought to strengthen its force posture in Europe by rotating two brigades from the United States, but quickly discovered the rotations to be so expensive that they were instead permanently stationed in Germany.¹³¹

Amid the debate over whether to remove or keep the two heavy brigades in Europe, a study by the Government Accountability Office (GAO) in 2012 found that the long-term incremental costs for maintaining both brigades in Europe was on average an additional \$360 million a year.¹³² This analysis, however, relied on the assumption there would be no rotational forces sent in their place. The United States has spent on average \$290 million in fiscal years 2015 and 2016 maintaining a noncontinuous, under-strength rotational ABCT in Europe and providing it with prepositioned equipment. The Obama administration’s European Reassurance Initiative (ERI) request for FY 2017 set aside \$637 million for an expanded heel-to-toe rotational ABCT presence in Europe.¹³³ Assuming the Obama administration’s ERI request is fully funded, the United States will have then spent approximately \$1.2 billion for the rotational ABCT presence in Europe over a three-year period.¹³⁴

¹³¹ John B. Wilson, *Maneuver and Firepower: The Evolution of Divisions and Separate Brigades*, CMH Pub 60-14 (Washington, DC: Department of Defense, 2015), 366–367.

¹³² GAO estimates ranged from \$1 billion to \$2 billion from 2012 through 2021 and depended upon no rotational deployments. Moreover, \$370 million of these costs during this time frame was due to the lack of planned improvements needed to maintain quality of life standards because officials had anticipated bases closing. Government Accountability Office, *DOD Needs to Review the Costs and Benefits of Basing Alternatives for Army Forces in Europe*, 11.

¹³³ Office of the Under Secretary of Defense (Comptroller), *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2017* (Washington, DC: Department of Defense, February 2016), http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2017/FY2017_ERI_J-Book.pdf.

¹³⁴ This assumes the Obama administration’s ERI FY 2017 request is fully enacted, which Congress has done for the previous two years. These figures represent not only the line item cost provided by DoD Comptroller for the rotational ABCT presence in each fiscal year ERI request (FY 2015 Enacted: \$225.7 million; FY 2016 Enacted: \$257.9 million; FY 2017 Request: \$507.2 million), but also include the costs of prepositioning equipment for the rotational ABCT and other costs attributed by DoD figures to directly support the rotational ABCT. This includes \$59 million for the European Activity Set (EAS) in FY 2015 and \$40 million for EAS in FY 2016. Office of the Under Secretary of Defense (Comptroller), *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2017*; and Office of the Under Secretary of Defense (Comptroller), *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2016* (Washington, DC: Department of Defense, February 2015), http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2016/FY2016_ERI_J-Book.pdf.

Table 1. Costs Associated with the Rotational ABCT Presence in Europe, Fiscal Year 2017 ERI Request

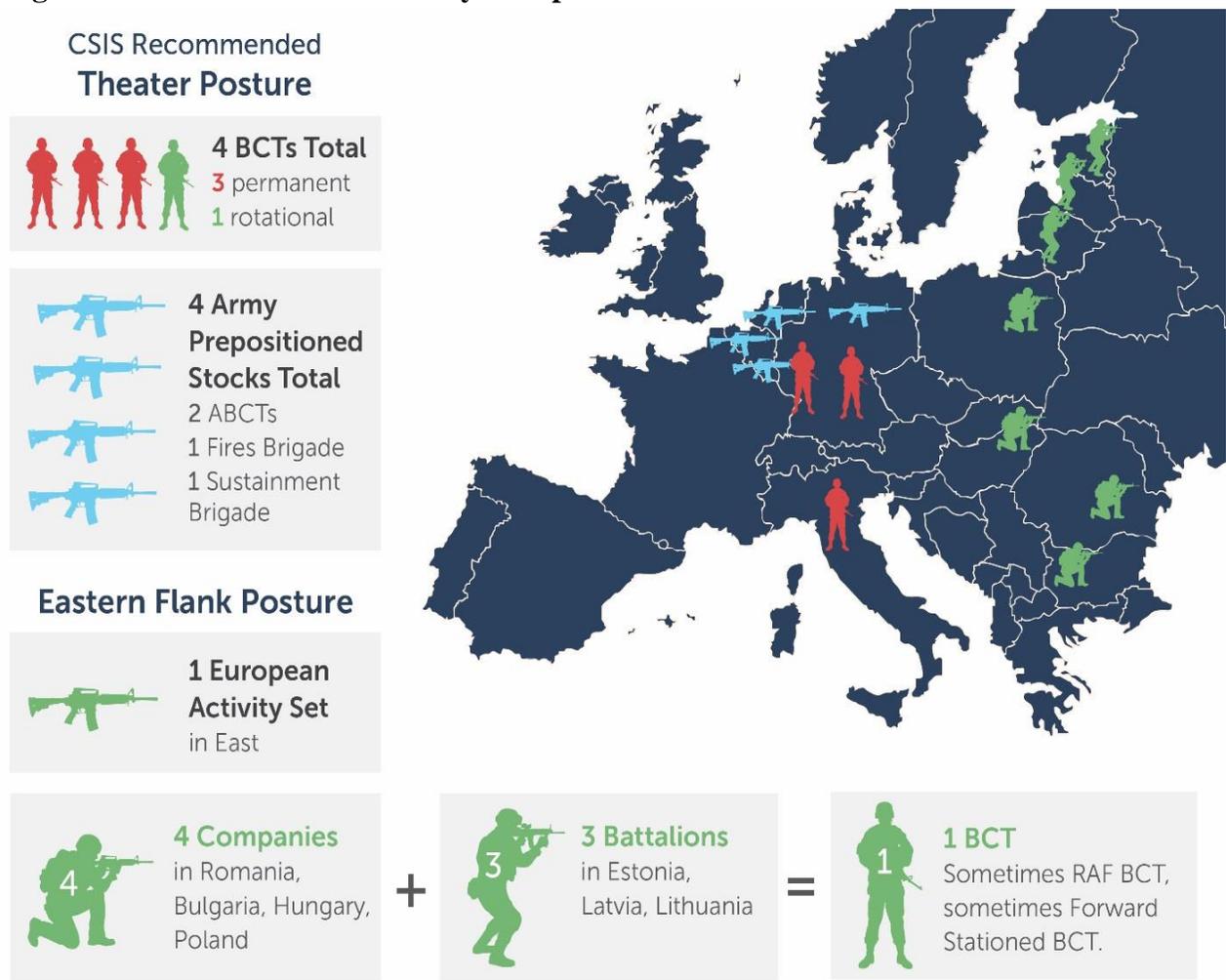
Transportation, life support, temporary duty (TDY), and operating tempo	\$391 million
Division Headquarters: mission command element for ABCT	\$15 million
Enablers: operating tempo and pay and allowances for engineers, fires, sustainment, staff augmentation, and extended training	\$101 million
Reserve Component Man Hours in Support of ABCT Presence	\$110 million
European Activity Set Forward Sites Sustainment (for use by ABCT)	\$20 million
Total:	\$637 million

Source: Costs taken from Office of the Under Secretary of Defense (Comptroller), *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2017*, http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2017/FY2017_ERI_J-Book.pdf.

The increased allocation for the rotational ABCT in 2017 likely reflects two significant changes: (1) the Army plans to begin heel-to-toe rotations, rather than leaving months-long gaps between rotations; and (2) the size of the rotating units has reached near full-brigade strength. Importantly, these cost estimates were released in February 2016, prior to DoD’s decision in March 2016 that the rotational ABCT will transition away from using prepositioned equipment and instead transport their equipment with them from the United States. This decision is likely to significantly increase the annual rotational costs of the ABCT. Given the expense of rotational forces and the enduring requirements for the presence, the high up-front costs associated with permanent basing, likely in the ballpark of several billions of dollars for construction of installations and housing for the troops and families, would appear to be a more efficient use of funds over the long term.

***Recommendation:* Permanently station an armored brigade combat team in Europe—for a total of three permanent brigade combat teams—in order to improve deterrence, sustainability, and likely long-term cost effectiveness.**

Figure 5. Recommended U.S. Army Europe Posture



Germany is the most obvious location for permanently stationing an ABCT. The United States already has the majority of its permanent forces in Europe, operates large training grounds and support facilities throughout the country, and benefits from Germany’s well-developed transportation infrastructure. Additionally, stationing a new brigade with or near existing U.S. installations in Germany (if practical) could help minimize the operating costs of a diffuse basing infrastructure. For example, installations in the United States tend to be more cost-efficient than those overseas because they can consolidate larger numbers of units. Over the last two decades, the Department of Defense has spent several billion dollars consolidating much of the U.S. Army Europe presence in Germany in order to save money.¹³⁵ There are also long-standing agreements

¹³⁵ Diane Devens, *Efficient Basing in Europe: Base Realignment and Closure by Any Other Name* (San Antonio, TX: U.S. Army Installation Management Command), <http://www.eur.army.mil/news/external/EfficientBasingEurope.pdf>.

with Germany for the basing of U.S. forces, which could potentially increase the speed at which steps could be taken in this direction. However, any new forces would need to be approved by the German government and parliament as well as new burden-sharing arrangements negotiated.

Consolidation of forces for the purpose of cost cutting, however, must be weighed against the potential risks to the installations in the event of a conflict. On one hand, consolidating U.S. forces makes them an attractive target for enemy missiles, but, on the other hand, clustered installations can more feasibly be protected with point defense systems, like PATRIOT. Another potential option is to permanently base U.S. forces in Poland. Warsaw would likely be willing to provide more host nation support than Germany, and U.S. installations in the southwest portion of the country would not be put at significantly higher risk of attack than U.S. bases in Germany, which means that soldiers' tours could remain accompanied. Constructing permanent U.S. facilities in Poland would send a strong signal of resolve to NATO's eastern allies, and bring additional credibility to deterrence efforts. Basing in Poland, however, could introduce risks to NATO unity, though perhaps somewhat less so than basing in the Baltic States. It would also require securing extensive legal arrangements with Warsaw, which would take time and require significant effort. Additionally, a site in southwest Poland would likely require greater amounts of construction. Finally, ABCTs require extensive areas to train and maneuver. The United States has state-of-the-art training facilities in Germany; if the ABCT were to be stationed in Poland, this would require either building redundant facilities or routine transport between Germany and Poland.

Recommendation: Consider Germany as the most favorable location for basing a permanent ABCT, but explore basing options in Poland as well.

If theater requirements for armored forces is filled by permanently stationing an ABCT in Germany or Poland, the European Rotational Force could then shift to become an infantry brigade combat team (IBCT). Designating an infantry brigade as the European Rotational Force would make long-term rotations more cost-effective and sustainable. Rotational infantry would place far less strain on the active U.S. Army as there are more infantry brigades (15) than armored brigades (9) and there is less relative global demand.¹³⁶ Moreover, with an armored brigade based in theater, it would make sense to use a rotational IBCT as the primary, but not exclusive, unit to provide the battalion-sized forward presence in each Baltic State. While infantry would offer less immediate combat power on the eastern flank compared to armored forces, infantry may be better suited to the operating environment. Infantry forces could be more effective in the complex terrain in Estonia and Latvia and would be more interoperable with Baltic States militaries, which lack heavy forces. In order to increase their firepower, they should have prepositioned stocks of ATGMs, SHORAD, and other anti-tank weapons.

¹³⁶ McHugh and Odierno, statement before the Commission on the Future of the Army, 13.

***Recommendation:* In addition to forward stationing an ABCT, designate a U.S.-based infantry brigade combat team as the European Rotational Force. Maintain the presence as a heel-to-toe continuous rotation. This will result in a total of four U.S. BCTs (three permanent and one continuous rotational) in Europe at all times.**

***Recommendation:* Forward position a brigade-sized European Activity Set (EAS) for a rotational infantry brigade combat team (IBCT) in the Baltic States. This set should include robust stocks of ATGMs, anti-tank weapons, and SHORAD systems to enhance firepower for infantry forces. Proceed with the plan to transition the existing EAS for an ABCT into an Army Prepositioned Stocks (APS) set in Western Europe (Germany, Belgium, and the Netherlands).**

Given the time required to transport heavy equipment by sea and the strategic lift resources to move it by air, prepositioning equipment is a means by which U.S.-based forces can quickly project power overseas. Army Prepositioned Stocks (APS) is U.S. Army program which prepositions war-fighting stockpiles of equipment and unit sets in strategic locations to enable the rapid deployments of U.S. forces by freeing units from having to transport their equipment over long distances. The purpose of APS in Europe is to reduce deployment times for U.S.-based forces to deploy to the continent in the event of a contingency and to have the capability to rapidly project combat power without forward-staging basing as many forces. APS sites are often densely consolidated storage sites because the equipment is not frequently used like EAS equipment. Prepositioned equipment must replicate the specific unit size and variant that it seeks to provision and match it in detail in terms of organization in order to ensure that troops fall in on the same equipment they were trained on.¹³⁷

***Recommendation:* Develop Army Prepositioned Stocks for two armored brigade combat team unit sets and two brigade-level enabler sets (one sustainment brigade and one fires brigade) to enable rapid surge capacity on the continent up to eight U.S. brigades (consistent with recommendations made in Phase I of this study).**

In addition to ABCTs, CABs are extremely expensive to maintain on a rotational basis given their high transportation costs. Unlike armored forces, however, prepositioning equipment for aviation units is not feasible given the need for constant maintenance and the sheer cost of the systems. The Obama administration's FY 2017 ERI request includes \$39.2 million in transportation costs alone to maintain a rotational aviation battalion (approximately 25 UH-60 Black Hawks and 400 troops) for one year in support of the 12th CAB. Despite the high costs,

¹³⁷ *TCM-ABCT Semi Annual Report 15-02* (Fort Benning, GA: TRADOC Capability Manager-Armored Brigade Combat Team and Reconnaissance [TCM-ABCT/Recon], Capabilities Development and Integration Directorate [CDID], Maneuver Center of Excellence [MCoE], August 2015), 7, <http://www.benning.army.mil/mcoe/maneuverconference/content/pdf/TCM-ABCT%20SemiAnnual%20Report%2015-02.pdf>.

there are indications that these rotational forces are still insufficient to meet the continent-wide demands for aviation. Additionally, the 12th CAB's readiness is beginning to suffer under the strain of its high operational tempo and dwindling assigned forces.¹³⁸ Given the long-term requirement for Army aviation assets in Europe, the high costs of rotations, and the infeasibility of prepositioning, permanently assigning sufficient aviation forces to Europe would likely mean greater cost-effectiveness over the long-term. This would also lead to higher readiness and more availability for U.S. Army aviation forces in Europe for both steady-state requirements and contingency response.

***Recommendation:* Permanently assign a full-strength combat aviation brigade (CAB) to Europe within the active Army's end strength target of 11 CABs. This would entail the permanent reassignment of U.S.-based active Army aviation forces to Europe.**

MULTINATIONAL FORMATIONS

NATO's deterrence posture on the eastern flank must be based upon more than members' political commitments to collective defense. Credible deterrence requires allies to place combat capable forces on the ground. Increasing NATO's force posture along the eastern flank is an important element in deterring potential Russian aggression. While the United States has maintained a persistent company-sized presence in Poland and each of the Baltic States since mid-2014, only a few NATO allies, including the United Kingdom, Germany, Canada, and Portugal, have rotated similarly sized forces to the region, and even then only periodically.¹³⁹ Eager for a structured and robust allied presence, the Baltic States have urged the alliance to deploy a multinational force to the region.¹⁴⁰ In February 2016, NATO defense ministers agreed in principle to form such a multinational force to strengthen the alliance's commitment to collective defense and better share the burden of deterrence.¹⁴¹ NATO is currently determining the size, structure, and composition of this force, which is expected to be affirmed at the Warsaw Summit in July 2016.

U.S. officials have indicated that the United States will contribute to NATO multinational units on the eastern flank, but the precise details remain under negotiation.¹⁴² U.S. participation and

¹³⁸ Corey Dickstein, "Commander: Army Needs More Aviation Assets in Europe," *Stars and Stripes*, December 2, 2015, <http://www.stripes.com/news/commander-army-needs-more-aviation-assets-in-europe-1.381606>.

¹³⁹ Kenrik Praks and Kalev Stoicescu, *Strengthening the Strategic Balance in the Baltic Sea Area* (Tallinn, Estonia: International Centre for Defence and Security, March 2016), 9; "Portuguese Scouts Arrived in Lithuania for Combined Training" Ministry of National Defense Republic of Lithuania, March 31, 2015, http://www.kam.lt/en/news_1098/current_issues/portuguese_scouts_arrived_in_lithuania_for_combined_training; "Canadian Army Begins Rotation of Troops in Poland," *Toronto Sun*, June 28, 2015.

¹⁴⁰ "Baltic Military Chiefs to Call for Permanent NATO Presence," Reuters, May 14, 2015.

¹⁴¹ "NATO Boosts Its Defence and Deterrence Posture," NATO, February 11, 2016, http://www.nato.int/cps/en/natohq/news_127834.htm.

¹⁴² Julian Barnes and Anton Troianovski, "NATO Allies Preparing to Put Four Battalions at Eastern Border with Russia," *Wall Street Journal*, April 29, 2016.

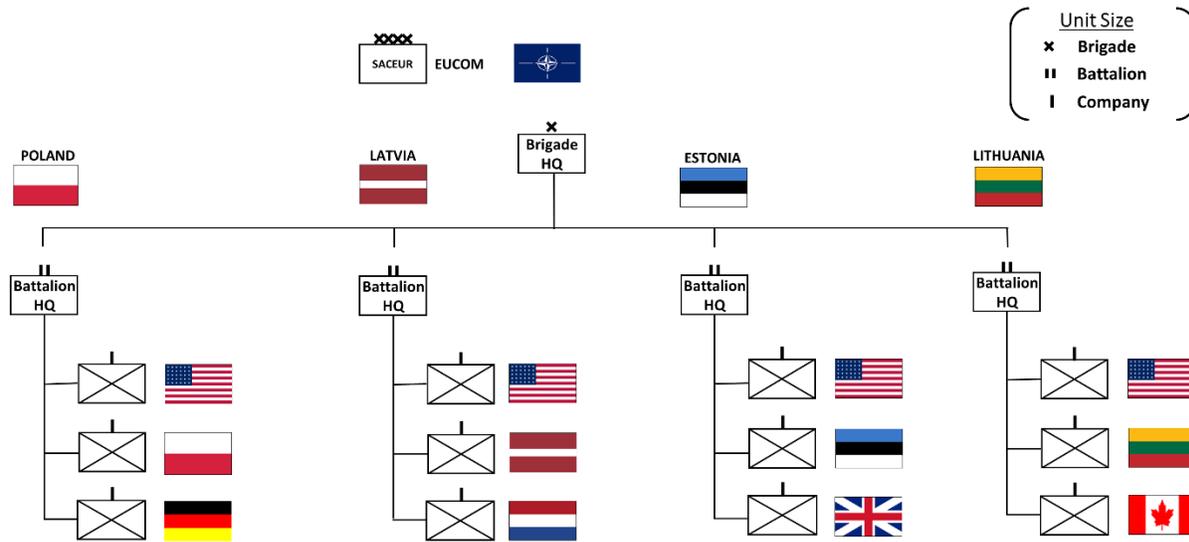
leadership in these formations would be an important demonstration of Washington's commitment to alliance unity and cohesion, motivate similar allied contributions, and help improve interoperability, including reviving combined tactics, training, and procedures for high-end warfare. There are a number of potential frameworks the United States and NATO could consider for a multinational force, which vary in their emphasis from operational effectiveness on the one hand to political signaling on the other.

An approach that achieves both combat-effective multinational formations and broad alliance participation would be ideal, but much depends on the willingness and ability of contributing NATO members to provide forces with sufficient flexibility. Apart from command and control challenges, there can be significant legal and financial obstacles that impede one nation from being able to use its support elements, such as logisticians and engineers, to support another nation's military unit even if they are both part of the same multinational force, for example. Moreover, multinational formations, even under an alliance structure as experienced as NATO, can have diminished effectiveness if they are not thoughtfully pieced together, managed, and resourced.¹⁴³ Careful force generation planning, synchronization of deployments, and matched capabilities within units are vital to success. Combined operations in Afghanistan provide a strong base of experience from which to draw in this regard, but allies would need to develop clear guidelines regarding their roles, equipment, and tactics.

Integrated Multinational Battalions: One option is to structure a multinational battalion around three companies, each from a different country—including one from the host nation—in each Baltic State and Poland. Collectively, these four multinational battalions would comprise a multinational brigade for the northeastern region, which could be placed under NATO command. Allied companies could deploy on a rotational basis to create a persistent presence. Contributions and lead nation status could be subscribed years in advance and also transfer between allies, similar to the Baltic States air policing mission. This concept could integrate the current U.S. company-sized presence already in each country under Operation Atlantic Resolve. It would therefore not necessarily require increasing U.S. troop presence on the eastern flank, but instead pair the existing U.S. deployments with two other allied companies.

¹⁴³ Thomas-Durell Young, *Multinational Land Formations and NATO: Reforming Practices and Structures* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1997), 7–25.

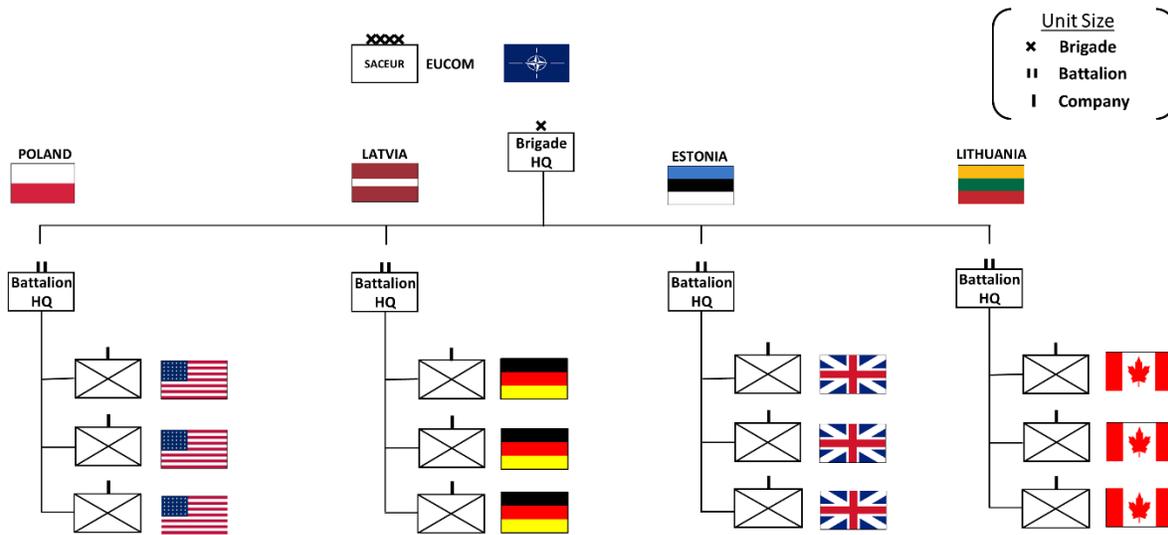
Figure 5.3. Example of Integrated Multinational Battalion Concept



The integrated multinational battalion structure would allow broad participation from NATO as even the smallest members could contribute a rotational company on a nonpersistent basis relatively easily. Placing forces from a large number of NATO members on the northeastern flank would demonstrate the alliance’s political solidarity and support for eastern flank allies. This structure’s value as a fighting force, however, is questionable. Creating a battalion-sized fighting force requires far more than simply grouping three companies under a NATO flag. U.S. and other NATO members would find it difficult to achieve a basic degree of interoperability with company-sized units.

Lead Nation Battalions: An alternative structure would be for allies with sufficient ground forces to assume lead responsibility for providing a rotational battalion to one of the northeastern flank countries. The four national battalions in the region could be placed under a NATO multinational brigade construct for the region. This option would not necessarily need to increase the overall U.S. presence on the eastern flank, but could consolidate the persistent company rotations into a single U.S. battalion-sized presence in one country (as opposed to remaining spread out across all four). As with the integrated multinational battalion concept model, the lead responsibility could rotate between nations.

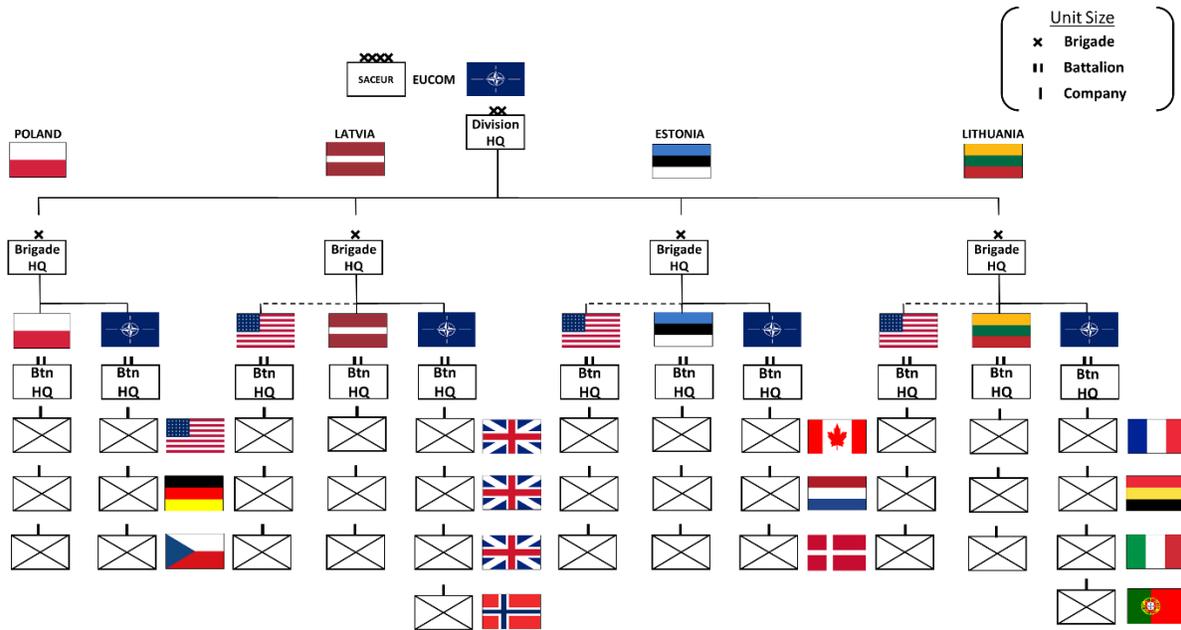
Figure 5.4. Example of Lead Nation Concept



The lead nation battalion structure would provide a full-strength battalion generated by a single nation in each country, creating an overall stronger NATO combat presence on the eastern flank and avoiding some of the pitfalls of integrating smaller-scale ground units. There are, however, several downsides. If force contribution levels are set at a battalion-sized force, smaller NATO members would find it difficult to participate on a continuous, or even periodic, basis. Relying on a handful of nations for larger force contributions does not broadly demonstrate the alliance’s political resolve or equitably share the burden of collective defense. This higher bar could also lead to force generation problems over the long-term. Additionally, there could be political ramifications to removing the continuous U.S. company-sized presence from three of the four northeastern flank countries, unless the United States agreed to maintain them in addition to the battalion contribution.

Framework Multinational Brigades: This option builds on the study team’s recommendation for a U.S. battalion in each Baltic State, combined with elements of both the integrated multinational battalion and lead nation battalion models. Since the U.S. battalion would ensure a minimum combat capability, a second allied battalion could rotate, as necessary, between nations able to offer a full battalion (such as Germany or the United Kingdom) and a compilation of smaller allied companies led by a framework nation. A host nation battalion could also be added that would combine to make for a brigade-sized force per country. This adaptable structure would allow smaller NATO allies that lack the capacity, resources, and experience with an avenue to participate, maximizing allied participation, without compromising the need for a combat capable battalion-sized presence. Two allied battalions stationed in each country may, however, strain host nation absorptive capacity in Estonia and Latvia, at least initially.

Figure 5.5. Example of Framework Multinational Brigade Concept



There are two options for the command and control of U.S. forces in the framework multinational brigade model. First, U.S. forces could fall under NATO command and control (C2). This would build allied unity and cohesion and maximize such signaling to Russia. Integrated C2 would also act as a forcing function for building greater interoperability and may make it easier for U.S. forces to leverage allied capabilities, such as German bridging capabilities that are lacking in U.S. stocks in Europe. As is the case with all multinational force arrangements, the United States would retain the ability to remove its forces from NATO C2 if needed.

The alternative is to keep United States out of the NATO C2 structure and, instead, coordinate closely with the lead nation’s headquarters and the multinational division headquarters. Keeping the U.S. forces outside of the NATO C2 framework could maintain an additional degree of flexibility for U.S. forces to react to contingencies and ensure maximum combat effectiveness, yet would perpetuate the view that U.S. forces are not part of NATO.

***Recommendation:* The United States should encourage NATO to adopt a framework multinational brigade construct, with the ideal goal of eventually merging U.S. forces under NATO command and control (C2). In the short-term, the Department of Defense should assess the relative value of integrated C2 versus independent C2 and recommend an appropriate approach to the Secretary of Defense.**

Taken together, these recommendations would increase the U.S. commitment in the European theater by one permanent ABCT in either Germany or Poland, for a total of four U.S. BCTs in

Europe at all times. On the eastern flank, U.S. companies will continue to rotate through Poland on a persistent basis and through Romania, Bulgaria, and Hungary on a periodic basis. In the Baltic States, the continuous, rotational U.S. company-sized presence would be increased to a battalion per country. The European Rotational Force would transition to an infantry brigade (vice an armored brigade), and possibly utilize reconfigured prepositioned equipment (from the European Activity Set) with enhanced anti-armor and anti-air capabilities. Allied forces would supplement the U.S. presence in the east under a multinational framework led by NATO. Prepositioned equipment (through the APS program) for four U.S.-based brigades—two ABCTs, one fires, and one sustainment—would be placed in Western Europe for the rapid reinforcement of the continent in a crisis.

CHAPTER 6: STRENGTHENING CIVILIAN EFFORTS AND CIVILIAN-MILITARY COOPERATION

Russia's approach to conflict emphasizes comprehensive engagement across the civilian-military spectrum, with a focus in the early phases on nonmilitary means to establish favorable conditions and on the exploitation of asymmetry backed by conventional military force.¹⁴⁴ The Russian emphasis on nonmilitary tools means that while a forward presence of U.S. and allied forces on NATO's eastern flank is an essential element of credible deterrence against Russian aggression, it cannot be all of it. Conventional military force is but one component of a full-spectrum response to Russia's new generation warfare. Further integrating relevant civilian action and fostering civilian-military cooperation in the security and governance policies of NATO allies, and of the alliance itself, is therefore critical to reducing allies' vulnerability to adversarial information, cyber, and other unconventional operations, while raising the ability of allies to detect and thwart subversion or incursions that would first be identified by cyber authorities, law enforcement, border control, or other security agencies.

Allies on the eastern flank have adopted certain responses to deal with cross-domain coercion, but these are not standardized across NATO (or the European Union). The United States can increase its own efforts and should continue to strengthen these capabilities among frontline allies, although current U.S. government efforts are limited. Because much of this effort will be nonmilitary, a comprehensive deterrence policy requires a high degree of coordination within the U.S. government to ensure that relevant U.S. authorities are engaged to the greatest combined effect.

DEFENSE-INTERIOR COOPERATION

One of the greatest challenges in building full-spectrum security is the cooperation between national ministries within eastern flank states. Ministries of defense and interior often have trouble collaborating on intelligence-gathering and distribution, as well as communications and law enforcement operations. Border guard forces are under the authority of the ministry of interior or national police services in the six eastern flank countries. And while each country may estimate differently the most likely threat scenarios they might confront, it is essential that each ally works to strengthen the cooperation among authorities with these responsibilities. The challenge for the United States is not to prescribe how precisely this should be accomplished in each particular country, but to ensure that these efforts are prioritized across the region and that allies share information about their national approaches so that best practices may emerge and be

¹⁴⁴ Dmitry Adamsky, *Cross-Domain Coercion: The Current Russian Art of Strategy*, Proliferation Papers 54 (Paris: Institut Francais des Relations Internationales, November 2015), <http://www.ifri.org/sites/default/files/atoms/files/pp54adamsky.pdf>.

implemented to greatest effect in the specific political, economic, and demographic contexts of each country.

Governments should focus on increased interagency exercises and training and use the results to improve national policies. Some noteworthy efforts already are under way. In Estonia, the Interior Ministry is integrating its border monitoring into a larger network to which the Defense Ministry will have access. The Estonian government has carried out high level tabletop exercises to ensure policymakers are experienced in how the national legal framework would be applied in a crisis, and it has held exercises to test legal, policy, and operational aspects of cooperation among the national defense forces, the defense league (a national guard-like force), border guards, and police. Latvia has held similar exercises. In Lithuania, legislation has been adopted that outlines how national authorities will cooperate in a crisis and how authority for security forces will transfer in defined crisis regions or nationwide, depending on the nature of the situation. Because under Lithuanian legislation, border security is subordinated to the Ministry of Defense in a crisis, U.S. military assistance may be directed toward border security there. This arrangement does not prevail along the entire eastern flank, leaving less well-resourced U.S. civilian programs to try to address training and assistance gaps.¹⁴⁵

While a forward presence of U.S. and allied forces on NATO's eastern flank is an essential element of credible deterrence against Russian aggression, it cannot be all of it.

In addition to the communication challenges, ministries of defense and interior often compete for scarce budgetary resources. The United States has a well-developed infrastructure for providing military assistance, in addition to the strength of its intelligence community. It may be able to help allied nations improve the gathering and dissemination of intelligence amongst various ministries and NATO allies, as well as assisting allied governments' own efforts to prioritize federal spending in the defense, border, law enforcement, and intelligence spheres.

NATIONAL INFRASTRUCTURE AND CYBER

Beyond the tactical battlefield, one of the greatest nonmilitary security vulnerabilities of American allies on the eastern flank is a possible cyber attack against critical infrastructure. Estonia experienced cyber attacks in 2007, following a war memorial's relocation, to which Russia objected.¹⁴⁶ Georgia experienced similar cyber attacks in 2008 during the Russian-Georgian war. The sophistication of cyber attacks has increased dramatically since then, with a

¹⁴⁵ U.S. Department of State, *Congressional Budget Justification, Fiscal Year 2017* (Washington, DC: U.S. Department of State, February 9, 2016), <http://www.state.gov/documents/organization/252179.pdf>.

¹⁴⁶ "The History of Cyber Attacks: A Timeline," *NATO Review Magazine*, <http://www.nato.int/docu/review/2013/cyber/timeline/EN/index.htm>.

recent example in the December 2015 power outages in Ukraine that have been assessed to be the result of cyber attacks.¹⁴⁷ Such attacks could challenge the continuity of government operations, including utilities, telecommunications, transportation, and the financial system as well as military command and control, which would pose a significant threat to the safety of ordinary citizens and government personnel. The threat against these systems is growing, and it is essential to invest in protecting critical infrastructure and markets because their resilience is essential to the overall safety and functioning of states and societies and to national defense in a crisis. American allies in Central and Eastern Europe can improve their capacities to protect critical infrastructure for military and government operations, for public utilities and infrastructure, and for key private-sector functions.

Although important new initiatives are under way, not all eastern flank countries have national cybersecurity strategies in place along with mechanisms for public-private partnerships.¹⁴⁸ Estonia, for example, has been boosting its interagency coordination on protection of critical infrastructure. Poland has been making significant improvements to its national infrastructure, including securing power grids. Each ally should establish and implement national cybersecurity strategies that include protection of national and key private-sector infrastructure to minimize these vulnerabilities to outside exploitation.

COUNTERING RUSSIAN INFORMATION OPERATIONS AND ATTEMPTS TO CREATE AND EXPLOIT DOMESTIC DIVISIONS

There is a challenge of malign Russian influence through information operations in countries on the eastern flank. In some cases, this takes the form of Russian investments in the local media sector, certain political parties, and nongovernmental organizations (NGOs), as well as in targeted disinformation spread by Russian state-backed broadcasters, or in Russian attempts to exploit local Russian-speaking populations. These efforts are not uniformly successful, but their effect in certain countries is a cause for concern. The U.S. government, European Union, and NGOs implement programs to raise the level of journalistic professionalism, promote free media, and improve anti-corruption and rule-of-law efforts. Additional diplomatic and financial resources are necessary given the vulnerability of NATO's newer members to Russian coercive measures.

Nearly 30 percent of the Latvian population is ethnically Russian or Belarusian (25.8 percent and 3.4 percent, respectively). Approximately 15 percent of the population does not have Latvian

¹⁴⁷ Industrial Control Systems Cyber Emergency Response Team, "Cyber-Attack against Ukrainian Critical Infrastructure," U.S. Department of Homeland Security, February 25, 2016, <https://ics-cert.us-cert.gov/alerts/IR-ALERT-H-16-056-01>.

¹⁴⁸ "EU Cybersecurity Dashboard: A Path to a Secure European Cyberspace," BSA The Software Alliance, 2015, <http://cybersecurity.bsa.org/>.

citizenship.¹⁴⁹ In Estonia, 26 percent of the population is ethnically Russian or Belarusian (25.1 percent and 4.9 percent, respectively). Approximately 15.8 percent of the population is without citizenship or holding foreign citizenship.¹⁵⁰ In Lithuania, official statistics were unavailable, but officials estimated the Russian-speaking population at 6 percent.¹⁵¹

Polling often indicates a low approval of the United States and NATO among the sizeable Russian-speaking minority populations. They also tend to consume Russian-language programming from Russian broadcasters that are supported by the Russian state or sympathetic to Moscow's view. As a practical matter, television programming from Russia cannot be easily blocked because it can be accessed online as well as by satellite. Governments recognize this as a source of Russian soft power that could be employed to stoke divisions within society. While officials in the Baltic States interviewed by the CSIS study team are skeptical that a Donbas-style separatist movement could be instigated by Russia, they are mindful of the need to be prepared for provocation by Russia centered on the Russian-speaking populations or attempts to use propaganda and information operations to weaken interethnic harmony.

U.S. CIVILIAN ASSISTANCE

The civilian and civilian-military capabilities that contribute to security against full-spectrum Russian threats are the purview of national authorities. Yet the effectiveness of these systems affects the NATO alliance as a whole, and there is a U.S. interest in ensuring that its allies are able to meet the range of security challenges and thereby contribute to deterrence. Funding for these purposes is limited, however. In addition to Foreign Military Financing (FMF) and International Military Education and Training (IMET), the State Department uses base budget and Overseas Contingency Operations (OCO) funds for security-related programs in the International Narcotics Control and Law Enforcement (INCLE), Economic Support Fund (ESF), and Non-Proliferation, Anti-Terrorism, Demining, and Related Programs (NADR) accounts, the latter of which includes both the Anti-Terrorism Assistance (ATA) and the Export Control and Related Border Security (EXBS) accounts.

In the State Department's FY 2017 budget request for programs in Europe, the largest single recipient nation is Ukraine; none of the six eastern flank allied countries are planned to receive dedicated programs in the ESF, INCLE, ATA, or EXBS accounts.¹⁵² The FY 2017 State budget

¹⁴⁹ Latvian Central Statistical Bureau, *Demography 2015* (Riga, LV: Central Statistical Bureau of Latvia, 2015), http://www.csb.gov.lv/sites/default/files/nr_11_demografija_2015_15_00_lv_en_0.pdf.

¹⁵⁰ Statistics Estonia, *Statistical Yearbook of Estonia 2015* (Tallinn, Estonia: Statistics Estonia, 2015), <http://www.stat.ee/90732>; and "Population by Nationality," Estonia.eu, <http://estonia.eu/about-estonia/country/population-by-nationality.html>. Accessed May 6, 2016.

¹⁵¹ Interviews with Lithuanian officials, October 2015.

¹⁵² U.S. Department of State: Foreign Operations, *Congressional Budget Justification, Fiscal Year 2017*; U.S. Department of State, *Congressional Budget Justification: Foreign Operations Appendix 2* (Washington, DC: U.S. Department of State, 2016), <http://www.state.gov/documents/organization/252733.pdf>; U.S. Department of State,

request envisions region-wide funds in the Bureau of European and Eurasian Affairs in the ESF (\$66.8 million), FMF (\$15 million), and NADR (\$800,000) accounts.¹⁵³ A significant portion of the ESF region-wide programming will focus on democracy-related efforts such as rule-of-law, anti-corruption, and media professionalism, all of which could have significant effects on the ability of eastern flank allies to resist Russian nonmilitary conflict instruments. These programs, however, cover 50 countries; how many participants in the region-wide programs would come from the eastern flank countries is impossible to project at this time. Specific recommendations on foreign assistance funding levels are beyond the scope of this report, but the civilian resources devoted to improving our most vulnerable allies' resistance to nonmilitary attack are meager, especially considering the substantial deterrent value that resilient and effective civilian systems represent.

CONFIDENCE BUILDING AND TRANSPARENCY

The full-spectrum threats posed by Russia along the eastern flank, combined with Russia's significant conventional capabilities, represent a civilian and military challenge for the United States and the NATO alliance as a whole. The lack of transparency about Russia's forces and their disposition exacerbates this situation. Russia has suspended implementation of the Conventional Forces in Europe (CFE) Treaty, has avoided notifications under the Vienna Document, and placed restrictions on open-skies flights over Kaliningrad. Steps that restored Russia's compliance with these arrangements and restored the regular exchange of data about Russian (and U.S. and other countries' forces) would add greatly to stability on the eastern flank. In the absence of Russian adherence to those arrangements, as described in earlier chapters, the only viable alternative to monitor Russia's conventional forces and posture is through intelligence collection and analysis.

In this climate, the United States and its NATO allies must continue to build resistance against Russian tactics. Cooperation on conventional deterrence, as well as civilian and civilian-military means, will support the greater effort to reduce the likelihood of Russian aggression toward Eastern European allies.

Congressional Budget Justification: Foreign Operations Appendix 3 (Washington, DC: U.S. Department of State, 2016), <http://www.state.gov/documents/organization/252734.pdf>; and U.S. Department of State, *Congressional Budget Justification Foreign Assistance: Summary Tables Fiscal Year 2017* (Washington, DC: U.S. Department of State, 2016), <http://www.state.gov/documents/organization/252735.pdf>.

¹⁵³ U.S. Department of State, *Congressional Budget Justification Foreign Assistance: Summary Tables Fiscal Year 2017*.

CHAPTER 7: RECOMMENDATIONS AND CONCLUSION

As with Phase I, the CSIS study team acknowledges its recommendations were made without the burden of considering the global force management trade-offs that would be required to implement them. Still, most of the recommendations reflect not only an effort to add credibility to U.S. deterrence posture in Europe, but to do so in a sustainable and cost-effective way. Regardless, deterrence is not cheap, in either dollars or forces, and cannot be made so even if executed in the most efficient way possible. The study team, however, continues to assess that deterrence is far less costly by any metric than going to war with Russia.¹⁵⁴ Below is a summary of the 37 recommendations made throughout this report.

Overview of U.S. Forces in Europe (Chapter 2)

1. Transition the European Reassurance Initiative into the Defense Department's base budget.

Address Challenges to Current U.S. Force posture (Chapter 3)

2. Offer fewer, larger, and more varied exercises with Baltic State militaries. Endeavor to combine U.S. bilateral exercises with other allies' offering bilateral exercises, where feasible.
3. Consider designating Operation Atlantic Resolve a named operation, or generate alternative options to provide deployment support.
4. Right-size EUCOM and USAREUR headquarters staff in light of new mission requirements.
5. Develop a whole-of-government, regional assistance strategy to rationalize and prioritize security support to eastern flank nations.
6. Finalize SOFAs with all three Baltic States as soon as possible.
7. Begin immediate consultations within NATO and bilaterally on agreements that would ensure expedited or waived diplomatic clearances for U.S. forces during contingencies.
8. Improve coordination and communication between visiting allied forces and the NFIUs. Empower the NFIUs to act as a clearinghouse for exercises and training

¹⁵⁴ Kathleen H. Hicks and Heather A. Conley, *Evaluating Future U.S. Army Force Posture in Europe: Phase I Report* (Washington, DC: Center for Strategic and International Studies, 2016), 17.

events to ensure common awareness to help de-conflict engagements and identify opportunities for combined activities.

9. Expand access to BICES and other secure communications (including interoperable radios) at the operational level along the eastern flank.

Build Capabilities Required for Credible and Effective Deterrence (Chapter 4)

10. Conduct a U.S. and NATO review of Russia's precision-strike capabilities; of the gaps and vulnerabilities for NATO to Russian missile threats; and of options to increase air and missile defense capabilities.
11. Rotate an additional PATRIOT battalion to Europe to provide increased point defense for U.S. facilities and improve interoperability with allied missile defense systems. Explore options for THAAD, SM-6, AN/TPY-2 X-band radars, other radars with 360-degree coverage, and additional sensor capabilities for aircraft, and for both ballistic and cruise missile threats.
12. Accelerate plans to complete all nine THAAD batteries, consistent with current U.S. Army requirements. Conduct an analysis to determine whether recent global security developments require that number be increased.
13. Explore options for coinvestment with foreign partners in an extended range THAAD interceptor that would significantly expand the covered area of individual batteries.
14. Accelerate the completion and integration of the integrated air and missile defense battle command system (IBCS) to permit greater interoperability of various air and missile defenses sensors and shooters, as well as its interoperability with NATO allies.
15. Include in Army Prepositioned Stocks (APS) in Europe equipment for a U.S. fires brigade with robust MLRS capabilities, including HIMARS, for suppression of enemy air defenses (SEAD) and other A2/AD systems.
16. U.S. European Command (EUCOM) should consider conducting large annual SEAD exercises with Poland and other allies on the eastern flank. This exercise should integrate U.S. Army fires capabilities and other joint/combined capabilities to demonstrate U.S. and NATO capabilities to hold Russian A2/AD systems at risk.
17. The United States and its most capable NATO allies should conduct regular reinforcement exercises (similar to, but on a smaller scale, than the Cold War-era REFORGER exercises) in Europe that account for a nonpermissive A2/AD

- environment and demonstrate allies' ability to rapidly surge forces to the eastern flank.
18. Improve monitoring and tracking of Russian A2/AD systems to ensure sufficient tactically exploitable intelligence in the event of a crisis.
 19. Maximize integration of U.S. Special Operations Forces with rotational Army units to improve the asymmetric capabilities of Baltic States' general purpose forces and reserves troops, in addition to their special operations forces.
 20. Continue U.S. Army efforts to improve infantry brigade tactical mobility and Stryker brigade lethality. The Army should also continue efforts for cost-effective solutions to improving organic firepower at the squad level.
 21. Begin development of upgraded U.S. ATGM munitions (and Hellfire) and explore long-term development of next-generation ATGMs.
 22. Increase training opportunities for units with ATGMs, including TOW and Javelin systems, particularly for forward-deployed and rotational forces.
 23. Fast track investment and modernization in SHORAD systems that can be integrated into combat brigades without increasing brigade-level force structure.
 24. Delegate more authority for U.S. tactical units to employ offensive cyber (e.g., intelligence collection to understand how an adversary is using the Internet) and EW (e.g., jamming radio signals) in shaping operations, as Russian forces are able to do. Use information to develop advanced TTPs to counter and combat Russian cyber and EW operations.
 25. Forward deploy cyber protection teams (CPTs) from Army Cyber Command to attach to U.S. rotational forces on the eastern flank to improve their operational security and develop TTPs on Russian information, cyber, and electronic warfare operations.
 26. Educate soldiers operating in regions targeted by Russia cyber operations on better force protection habits in the cyber domain and how to recognize and respond to Russian cyber operations.
 27. Expand the use of U.S. Army Special Operations military information support teams (MISTs) to combat Russian false narratives across the eastern flank.

Realign Force Posture (Chapter 5)

28. Maintain persistent U.S. company-sized rotations to Poland, and periodic rotations to Romania, Bulgaria, and Hungary. Seek NATO member force augmentation and backfill as required.
29. Expand U.S. troop presence in each Baltic State from a company to a battalion.
30. Establish the battalion-sized U.S. presence in the Baltic States on a *rotational* basis. Maintain heel-to-toe rotations with forces sourced from the European Rotational Force and forward-stationed forces.
31. Permanently station an armored brigade combat team in Europe—for a total of three permanent brigade combat teams—in order to improve deterrence, sustainability, and likely long-term cost effectiveness.
32. Consider Germany as the most favorable location for basing a permanent ABCT, but explore basing options in Poland as well.
33. In addition to forward stationing an ABCT, designate a U.S.-based infantry brigade combat team as the European Rotational Force. Maintain the presence as a heel-to-toe continuous rotation. This will result in a total of four U.S. BCTs (three permanent and one continuous rotational) in Europe at all times.
34. Forward position a brigade-sized European Activity Set (EAS) for a rotational infantry brigade combat team (IBCT) in the Baltic States. This set should include robust stocks of ATGMs, anti-tank weapons, and SHORAD systems to enhance firepower for infantry forces. Proceed with the plan to transition the existing EAS for an ABCT into an Army Prepositioned Stocks (APS) set in Western Europe (Germany, Belgium, and the Netherlands).
35. Develop Army Prepositioned Stocks for two armored brigade combat team unit sets and two brigade-level enabler sets (one sustainment brigade and one fires brigade) to enable rapid surge capacity on the continent up to eight U.S. brigades.
36. Permanently assign a full-strength combat aviation brigade (CAB) to Europe within the active Army's end strength target of 11 CABs. This would entail the permanent reassignment of U.S.-based active Army aviation forces to Europe.
37. The United States should encourage NATO to adopt a framework multinational brigade construct, with the ideal goal of eventually merging U.S. forces under NATO command and control (C2). In the short-term, the Department of Defense should

assess the relative value of integrated C2 versus independent C2 and recommend an appropriate approach to the secretary of defense.

A critical pillar of U.S. national security is a secure, stable, and prosperous Europe, the foundation of which is the North Atlantic Treaty Organization and its 28 (soon to be 29) members. NATO is the United States' oldest and most important military alliance, built on shared values and committed to, "safeguard the freedom, common heritage and civilization of [its] peoples."¹⁵⁵ NATO's adversaries recognize strength. Therefore, it is imperative that the United States and its allies show strength and resolve in building a credible, sustainable deterrence in Europe that fully supports America's political, economic, and security interests.

¹⁵⁵ Preamble, North Atlantic Treaty, Washington, DC, April 4, 1949, http://www.nato.int/cps/iw/natohq/official_texts_17120.htm?selectedLocale=en.

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