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FEASIBLE U.S. STEPS TO STRENGTHEN NATO DETERRENCE IN THE BALTICS AND POLAND

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EXECUTIVE SUMMARY

With Russia's invasion of Ukraine, a renewed assessment of efforts by the United States and the North Atlantic Treaty Organization (NATO) to deter Russia from taking military action on NATO's eastern flank has become particularly salient. In the coming weeks, NATO leadership will meet to discuss what longer term force posture adjustments are required to create such a deterrent.¹ This paper proposes several modest policy recommendations which will help inform the discussion and ultimately strengthen NATO's conventional deterrence posture.

Contemporary academic research on conventional deterrence highlights clear gaps in the deterrence capacity of the United States and NATO, despite their concerted efforts to strengthen conventional military capability since Russia's 2014 annexation of Crimea. For example, studies indicate that the rotational military forces established by the United States' Operation Atlantic Resolve and NATO's enhanced Forward Presence, still lack the requisite conventional capability to prevent a Russian fait accompli in the Baltic states, Estonia, Latvia, and Lithuania. However, these studies lack a well-defined formula for what constitutes adequate capability and say little about what adjustments the United States and NATO must make to strengthen NATO's deterrence posture in the Baltics and Poland.

To help clarify capability requirements in the region, we reviewed conventional deterrence theories and models from the Cold War. Though long-standing, this research provides a clearer picture of the ideal defensive force posture and adequate force ratios needed to improve deterrence, compared to recent policy analyses. Focusing on land-based operations, we then applied these correlation of forces models to analyze the current balance of conventional ground forces in the Baltics. Through comparing the relative combat power of NATO's forces in the Baltics with Russia's forces in its Western Military District and Kaliningrad oblast, we confirmed that the NATO capability gaps identified in previous studies remain large. We also found that potential NATO high readiness reinforcements would be incapable of closing the gaps for at least a month in a crisis scenario. These capability shortcomings clearly hinder the United States' and NATO's

ongoing efforts to conventionally deter Russian aggression in the Baltics or to decisively respond in a crisis.

Accounting for U.S. military budget limitations, force structure constraints, and competing global requirements, the Department of Defense (DOD) could make several policy adjustments to strengthen U.S. capabilities and rapidly reinforce security in the Baltics. Specifically, the U.S. military could increase U.S. armored forces in Central Europe, enhance the operational readiness of U.S. ground forces, and support upgrades to NATO mobility systems and infrastructure in Central and Eastern Europe. These modest recommendations, outlined in this paper, represent feasible options to strengthen NATO's deterrence against an increasingly aggressive Russia. The ongoing invasion of Ukraine and attempts to coerce NATO members into making concessions underscore the compelling and urgent need to address critical U.S. and NATO capability deficits.

INTRODUCTION

As the United States adapts to the current multipolar security environment, the DOD must adjust its forward deployed force posture to meet the challenges of countering China and Russia and myriad other threats.² As noted in the U.S. 2021 Interim National Security Strategy, China is aggressively pursuing its interests globally, and its particular combination of economic and military power is of serious concern.³ The U.S. has hence publicly identified China as its predominant near-peer threat and signaled a shift in focus to competing with China. However, this means making difficult decisions, as Russia continues to desire a major global role and seeks to advance its interests at the expense of the United States and its allies.⁴ Russia's ongoing invasion of Ukraine and persistent efforts to enact a new European security architecture provides contemporary evidence of its dangerous and destabilizing approach to foreign policy.⁵

Given these pressing challenges, DOD planners and senior leaders must carefully realign limited resources against profuse and competing requirements to support national security objectives.⁶ And it is in recognition of this reality that a contentious debate has emerged over the efficacy of U.S. and NATO efforts to deter additional Russian territorial aggression.⁷ In response to Russia's 2014 annexation of Crimea, the United States launched the European Reassurance Initiative, today known as the European Deterrence Initiative (EDI). Renewed for the last eight years, the EDI funds Operation Atlantic Resolve (OAR), which continually deploys rotations of a U.S. Army armored brigade combat team (ABCT), a combat aviation brigade, a division headquarters, and other enablers.⁸ A few years later, in 2016, NATO agreed to launch an enhanced Forward Presence (eFP) initiative, which has since deployed a rotational battlegroup to each Baltic state and Poland.⁹ While some observers have applauded these efforts, others have asserted that OAR and eFP rotational forces merely serve as tripwires and lack the capability to credibly deter Russia.¹⁰

Are NATO's existing forces in the Baltics and Poland sufficient to deter a Russian invasion? In a resource-constrained environment, what force posture adjustments can the United States make to strengthen deterrence against Russia and reassure NATO allies? While several recent studies have examined these questions from a strategic perspective, there remains uncertainty over what constitutes sufficient capability to deter Russian aggression.¹¹ No one can dispute, though, that there is an urgent and compelling need to enhance conventional deterrence — evidenced by Russia's recognition of the separatist

regions in Donbas, the subsequent further invasion of Ukraine, and ongoing coercive threats against NATO members.¹²

As such, we have attempted to clarify deterrence requirements by analyzing the conventional balance of ground forces in the Baltics. Given Russia's 450-mile shared border with four NATO allies in this region, the Baltics' large concentration of ethnic Russians, and ongoing Russian efforts to coerce the Baltic states, a crisis in the region is frequently assessed in NATO-Russia conflict scenarios.¹³ While integrated deterrence efforts simultaneously occur across land, air, sea, and space, Russia's ongoing invasion of Ukraine has largely been conducted with conventional ground forces. When combined with Russia's significant anti-access/area denial (A2/AD) capabilities, conventional deterrence in the land domain will remain critical to securing NATO's security interests. With this narrow focus on the land domain, and given the years required for European NATO members to rebuild their atrophied conventional military capabilities,¹⁴ we primarily focus recommendations on measures the U.S. Army can institute in the near future.

This paper begins with a brief review of conventional deterrence theories and models, which have long been used to determine the ideal defensive force posture and adequate correlation of forces (COF) ratios needed to improve deterrence. Though these models were initially developed during the Cold War, they remain useful tools to assess conventional deterrence requirements today. Next, the paper outlines the results of our application of these COF models to determine the current balance of conventional forces in the Baltics and Poland. The key results not only reveal large capability gaps among NATO's permanent and rotational forces in the Baltics but also that potential NATO high readiness forces would be incapable of closing those gaps for at least a month in a crisis scenario. These deficits demonstrate critical shortcomings in NATO's ongoing efforts to conventionally deter Russian aggression in the region. Inarguably, competing global requirements will constrain the United States' capacity to help fill the gaps directly. But modest policy adjustments could at least to some extent strengthen deterrence. This paper concludes with three proposals based on our feasibility assessment: increase U.S. armored forces in Central Europe, enhance the operational readiness of U.S. ground forces, and improve NATO mobility systems and infrastructure in Central and Eastern Europe.

CONVENTIONAL DETERRENCE THEORIES AND MODELS

Deterrence can be understood as an actor's efforts to persuade a potential adversary against taking a certain action by threatening to impose large costs.¹⁵ Deterrence scholars have long acknowledged the important role credibility and capability play in implementing deterrence strategies.¹⁶ Great powers may stake their credibility and provide capabilities to protect vulnerable partners by practicing extended deterrence, as the United States currently does through its extensive network of bilateral and multilateral alliances and hundreds of military bases abroad.¹⁷ They may also practice nuclear deterrence, but the analysis in this paper examines conventional deterrence, which considers how defenders deny "an aggressor his battlefield objectives with conventional forces."¹⁸

Studies on classical deterrence theory further consider the distinct methods of deterrence. Deterrence by punishment focuses on persuading a potential adversary against taking an action by promising to inflict future pain if the threat is violated.¹⁹ Conversely, deterrence by denial is designed to convince a potential adversary that an

offensive will not succeed, or will be cost-prohibitive, given the defender's demonstrated capability to impede an attack.²⁰ Finally, deterrence by tripwires straddles both punishment and denial deterrence. While it entails the forward deployment of "a body of troops that is not large enough to shift the local balance of forces in order to stop or significantly slow down an attack,"²¹ deaths of tripwire troops risk angering the defender's domestic population and consequently strengthening the defender's resolve to escalate the conflict.²²

However, Dan Reiter and Paul Poast's recent analysis suggests that the literature on tripwires has placed too much emphasis on the credibility mechanism (mainly through research examining audience costs, where political leaders generate costs by staking their credibility on public promises),²³ while paying insufficient attention to the capabilities of forward deployed forces. Using case studies from the outbreak of World War I and the Korean War, Reiter and Poast compellingly argue that the limited capabilities of tripwire forces are insufficient to deny an attack and reflect questionable credibility.²⁴ Contemporary empirical evidence from NATO's tripwire deployments to the Baltics reinforce these findings by suggesting that the deaths of tripwire troops may not force a defender to escalate a conflict and are therefore a poor deterrence signaling tool.²⁵ As such, it is evident that the credibility mechanism alone (via tripwires) may be insufficient and that the capability mechanism has been understudied.

Specifically, recent literature does not clearly address the question of what levels of forward deployed assets will constitute adequate capability to achieve deterrence. But conventional deterrence analyses from the Cold War offer useful tools to begin answering this question directly. These analyses employed theories and models that provide more clarity on the ideal defensive force posture and comparative force ratios. In 1983, John Mearsheimer's work on conventional deterrence furnished an overview of the requisite factors for deterrence success. Specifically, Mearsheimer posed that defensive strategies and force posture must be tailored to a potential attacker's anticipated objectives and strategies.²⁶ He identified blitzkrieg wars, attrition wars, and incursions with limited aims as distinct offensive categories that are best deterred with unique defensive postures. Mearsheimer also argued that a defense-in-depth strategy — attriting an attacker's advance with dispersed defensive positions — offers the ideal defensive force posture for NATO forces to best deter against a large-scale, Soviet blitzkrieg.²⁷ Beyond this defensive strategy, however, a defender must enjoy sufficient force ratios to provide a credible deterrent.

Mearsheimer's subsequent analysis of the 3:1 "rule of thumb" ratio provided a helpful heuristic for assessing the conventional balance of forces.²⁸ Originally developed by European military theorists before World War I, the 3:1 ratio suggests that attackers need to possess more than three times the defender's forces and capabilities to significantly increase the likelihood of offensive success. But he cautioned that the 3:1 rule of thumb should be used to assess local force levels, where defenders are fighting from prepared fighting positions and fortifications, rather than force ratios at broader theater or regional levels;²⁹ and should be used to measure each side's relative combat capabilities, not raw numbers of troops, as attackers that achieve surprise can further alter force ratios in their favor. Beyond Mearsheimer's work, other force ratio analysts have explored a variety of options to quantitatively control for qualitative capability (quality) differences between forces.³⁰

Table 1 depicts the results of the 1983 NATO-Soviet correlation of forces analysis, which at the time was cited as a successful conventional deterrence case study.³¹ While a vigorous debate later emerged among Cold War scholars over the utility of COF models, they are codified in modern U.S. military doctrine and the force ratio remains an operational planning tool.³² Further, analyses suggest that the Russian military doctrine similarly applies force ratios.³³ As such, the 3:1 rule of thumb is still a useful and valid construct for assessing conventional deterrence capability requirements.

TABLE 1: FORCE RATIO ANALYSIS OF COLD WAR CONVENTIONAL FORCES, 1983

	Personnel	Tanks	Artillery
NATO capabilities	780,000	17,500	7,500
USSR capabilities	950,000	7,000	2,700
Force ratios (NATO:USSR)	1:1.2	1:2.5	1:2.8

Source: RAND Corporation³⁴

CONVENTIONAL DETERRENCE IN THE BALTICS TODAY

COF analysis scope and assumptions

Before using COF models to analyze the current balance of NATO and Russian conventional forces in the Baltics, we narrowed the scope in two ways and made several assumptions.

First, we focused our analysis on ground force capabilities. While integrated deterrence efforts simultaneously occur across land, air, sea, and space, capable ground forces are particularly critical to deterring Russian aggression in the Baltics. Russia's invasions of Georgia and Ukraine in 2008 and 2014, respectively, featured decisive land operations; and today, its ongoing coercion of Ukraine similarly depends on large ground force mobilization.³⁵ Further, while NATO air and naval forces enjoy clear quantitative and qualitative advantages over Russia's respective forces, robust Russian A2/AD systems in the region will challenge these NATO strengths.³⁶ Conventional ground forces are therefore likely to remain a decisive factor in defending NATO members' territorial sovereignty for the foreseeable future.

Specifically, we focused on a cross-section of indicators that represent a military's ability to execute combined arms maneuvers in large-scale combat operations.³⁷ These indicators included the total numbers of ground force personnel, main battle tanks, infantry fighting vehicles, and artillery cannons.³⁸ They allowed us to assess each side's mobility, firepower, and protection functions, which are critical to the simultaneous application of combined arms capabilities.³⁹ To avoid problems with comparing NATO to Russian echelons (which often contain distinct capabilities and force structures), we aggregated the raw sums for each indicator.⁴⁰

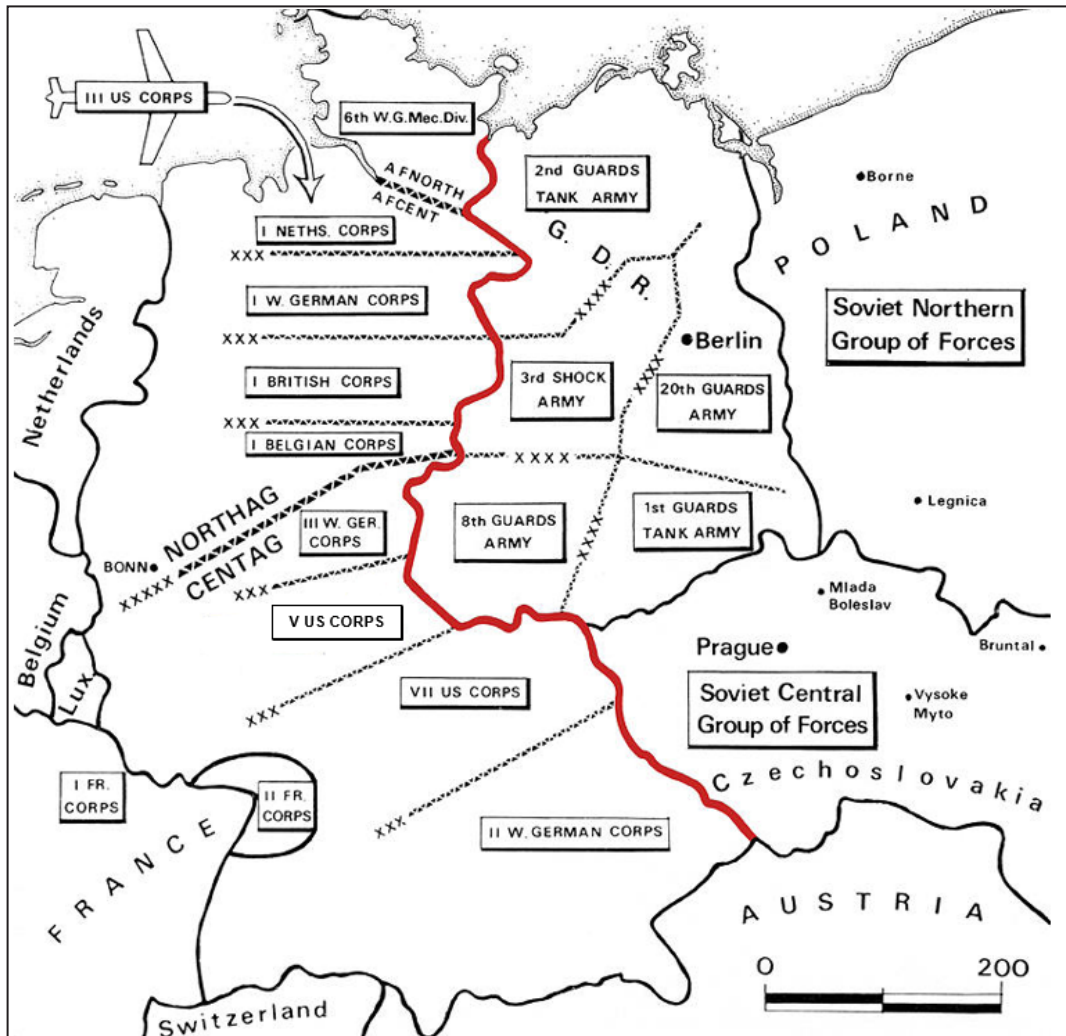
Second, we limited our analysis to the operational level, where the focus is on how to "employ military capabilities by integrating ends, ways, and available means."⁴¹ Several studies have examined the Russia-NATO balance of forces from a strategic perspective. We aimed to build on them by providing analysis that unveils new challenges and opportunities, but given our operational focus, we did not seek to directly address the many important strategic factors that influence deterrence, such as political decision-making around the enactment of NATO's Article V commitments or burden sharing among NATO allies.

After narrowing the focus of our analysis, we made several assumptions. First, we assumed that Russian ground forces generally have qualitative parity with NATO forces. This assumption is based on numerous assessments that detail the Russian military's new technology, reformed force structure, and revised doctrine that has positioned Russian ground forces to conduct combined arms maneuvers during large-scale combat operations.⁴² We therefore did not apply any qualitative weighting when using COF models to compare Russian and NATO capabilities.⁴³ Critics might challenge this assumption since the Russian military was not capable of rapidly securing decisive success in Ukraine within the first three weeks of its 2022 invasion. However, the invading Russian force lacked capability requirements dictated by the 3:1 rule of thumb and was still able to seize significant portions of Ukraine while this paper is being written.⁴⁴ Comparing the Russian invading force's order of battle against Ukrainian ground forces, Russian forces did not even attain a 2:1 attacker to defender force ratio.⁴⁵ It is likely that Russia underestimated Ukrainian resolve and capability. Further, we anticipate that the Russian military will adapt from the challenges it has encountered during this war and continue its modernization and reform efforts. Based on these factors, we believe these considerations suggest this qualitative parity assumption is valid. We also assumed that Russian and NATO forces enjoy 100% operational readiness in terms of personnel and maintenance systems. This enabled us to include full counts based on each unit's authorized force structure. While both sides will suffer from operational readiness constraints in a contingency, we lacked access to these often-classified readiness data.

Second, we assumed that the 3:1 rule of thumb is still valid despite the difference in NATO's posture today. Even though NATO's prepared defensive positions are not as built-up as they were during the Cold War (see Figure 1), NATO's forces in the Baltics could utilize the terrain and today's limited avenues of approach to constrain Russian maneuvers and inflict casualties. Though this would not be enough to prevent defeat, the price would still be high enough that should there be a less than 3:1 ratio in Russia to NATO forces, NATO could slow down Russia's attack and give NATO time to reinforce their troops. A greater than 3:1 ratio would likely allow Russian forces to overwhelm NATO defenders. Further, based on competing global requirements, numerically superior Russian forces could prevent NATO from reinforcing troops in a timely or effective manner.

Third, and perhaps most pertinent, we assume that NATO is seeking to deter a Russian seizure of the Baltics. As depicted in Figure 1, during the Cold War, NATO's significant forces were stationed along a contiguous front. These forces were designed to prevent a large-scale Soviet blitzkrieg that could penetrate deep into Central Europe. Today, given the Russian military's sustainment limitations, and the United States' and NATO's strategic advantages in a longer conflict, we assumed that a blitzkrieg attack is unlikely. Instead, Russia is more likely to conduct a limited aims-style, *fait accompli* attack to rapidly capture the Baltics before NATO can mobilize an effective defense. In other words, Russia would not seek to destroy a significant portion of NATO's combat power but rather aim to capture a desired territory by catching the defender off guard and minimizing contact with NATO forces.⁴⁶ Russia has already conducted two such attacks.⁴⁷ Consequently, the positioning of enough NATO combat power to prevent a large-scale war is both infeasible and unnecessary; calibrating force posture to prevent a *fait accompli* is and should be the goal of NATO defense planners.⁴⁸

FIGURE 1: NATO AND SOVIET CORPS SECTORS DURING THE COLD WAR, 1980S



Source: 3rd Armored Division History Foundation⁴⁹

CORRELATION OF FORCES ANALYSIS

With the above guiding framework in mind, we analyzed the balance of conventional forces in the Baltics, as well as NATO’s readiness capability in a crisis scenario.

Proximate Russian forces: We calculated Russian conventional ground forces by aggregating a 2018 estimate of Russia’s Western Military District and a 2021 estimate of the Kaliningrad oblast.⁵⁰ We included both locations based on their geographic proximity and their 450-mile shared border with the Baltics and Poland. Most Russian forces in these locations are equipped with tanks or infantry fighting vehicles (IFVs), which increase their mobility and ability to project firepower.⁵¹ Taking into account this mobility and distance, Russian forces could reasonably enter the Baltic capitals in two to three days.⁵² Table 2 depicts aggregated Russian ground force capabilities and the theoretical capability requirements NATO needs to conventionally deter this force (based on the 3:1 rule of thumb).

NATO forces in the Baltics: We calculated NATO conventional ground forces by aggregating NATO’s fixed, active armies and rotational eFP battlegroups in the Baltic states. We deliberately excluded the United States’ OAR armored brigade combat team, which sometimes exercises in the Baltics but is predominately distributed between Poland and Germany. Further, we initially excluded Polish forces, as they would likely be focused on preparing to defend their large border with Kaliningrad.⁵³ However, for our readiness assessment in Table 3, we included a single Polish armored brigade that theoretically could reinforce the Baltics within a week of notification.

TABLE 2: CORRELATION OF RUSSIAN VS. NATO FORCES IN THE BALTICS

	Personnel	IFVs	Tanks	Artillery
Total Russian forces (W. Military District & Kaliningrad oblast)	89,000	1,776	947	666
3:1 NATO force ratio requirement	29,667	592	316	222
NATO fixed armies and eFP battlegroups in Baltics	18,549	409	43	138
Actual force ratio (NATO: Russia)	1:5	1:4	1:22	1:5
Capability shortcoming (requirement minus actual)	11,118	183	273	84

Sources: CNA, RAND Corporation, International Institute for Strategic Studies⁵⁴

Table 2 reveals the large disparity between Russian and NATO conventional forces in two ways. First, as clearly depicted, NATO is significantly understrength in every category, based on the 1:3 force ratio requirement to successfully defend. Second, NATO does not have what is needed to attain the minimum raw capability requirements. These findings support earlier analyses that characterize NATO’s Baltics presence as tripwire deterrence and clearly demonstrate that NATO forces lack the ground capabilities to deter a Russian fait accompli.⁵⁵

FIGURE 2: CONTEMPORARY MAP OF THE BALTICS⁵⁶

Source: Congressional Research Service

NATO readiness capacity: We next considered how high readiness NATO units might rapidly reinforce the Baltics in a crisis scenario. It is unlikely that Russia could mobilize the depicted forces without NATO detection. For example, early indicators of Russian forces moving into Belarus or of Russia's 20th Combined Arms Army mobilizing in the Western Military District would send significant escalatory signals. We therefore assumed that these early indicators would give NATO one week to mobilize additional forces.

Table 3 lists the high readiness forces capable of arriving within a week and their corresponding capabilities. As evidenced by the U.S. response to Russia's ongoing Ukraine invasion, the U.S. Army brigade combat teams in Europe would form the core response, including the 173rd Airborne Brigade from Vicenza, Italy, the 2nd Cavalry Regiment from Vilseck, Germany, and the rotational OAR armored brigade, primarily distributed across Germany and Poland.⁵⁷ It is also reasonable to assume that a U.S. Army's Immediate Response Force (IRF) infantry brigade combat team (IBCT) from Fort Bragg, North Carolina, could arrive within a week.⁵⁸ And as already noted, a single Polish armored brigade could likely reinforce the Baltics within one week. So, while exact arrival times are contingent on multiple factors, we estimated that under favorable conditions these units could arrive within one week. In a crisis scenario, rapidly and efficiently deploying forces to the Baltics would be critical for signaling NATO's resolve and securing a foothold for follow-on reinforcements.

We deliberately excluded several NATO units from Table 4 because of readiness and mobility challenges that would preclude their arrival in just one week. NATO's Very High Readiness Joint Task Force (VJTF) can only be deployed with unanimous consent from the North Atlantic Council, a process that will likely take several days.⁵⁹ Once authorized to deploy, initial VJTF reconnaissance units could arrive within a few days, but the remaining combat power likely wouldn't be available for at least a week.⁶⁰ Moreover, analysis suggests that the three largest European NATO states (the U.K., Germany, and France) can each only deploy a single armored brigade a month after initial notification.⁶¹

While this may change as European NATO members reinvest in their conventional military capabilities, as is evident in Germany, rebuilding this capacity will take years.⁶² Finally, distance precludes U.S. armored brigade personnel from flying to various army prepositioned stock sites throughout Europe, mobilizing equipment, and arriving to the Baltics within one week. While the U.S. Army recently deployed an ABCT on short notice to Germany in response to the Russian invasion of Ukraine, it appears they will not have fully drawn APS equipment or be forward positioned in less than a month. Thus, the assumption on timing and positioning is still valid.⁶³

TABLE 3: NATO HIGH READINESS REINFORCEMENTS

Unit	Personnel	IFVs	Tanks	Artillery
eFP, Poland (U.S. lead)	1,058	70	0	0
U.S. Army 2nd Cavalry Regiment, Germany	3,748	306	0	18
U.S. Army OAR ABCT (rotational, Europe)	3,800	130	80	15
Polish Armored Brigade	5,000	100	100	20
U.S. Army 173rd Airborne Brigade, Italy	4,376	0	0	0
U.S. Army IRF IBCT	4,376	0	0	0
Total NATO reinforcements	22,358	606	180	63

Sources: RAND Corporation, U.S. Army, European Security and Defence⁶⁴

Several assumptions underpin these NATO reinforcement projections that are biased in NATO's favor. First, the one-week arrival time presumes a rapid decision by NATO political leaders to mobilize listed reinforcements. Depending on a contingency's unique circumstances, there are no guarantees that rapid political consensus from 30 heads of state will be possible.⁶⁵ Second, it is assumed that the listed forces and most U.S. airlift capabilities are available for deployment and not already committed to another crisis. In the event of simultaneous global crises, these assets may be unavailable or incapable of rapidly projecting force.⁶⁶ Furthermore, even if they are, their entry into the Baltics may be contested. In other words, the envisioned scenario assumes that both sides have mobilized but there has been no escalation to a shooting war. If instead Russian A2/AD systems were to contest NATO's reinforcements, then the U.S. Army's 173rd Airborne Brigade and IRF IBCT would likely have to land in Central Europe rather than the Baltics, precluding their arrival within one week. If Russian cyber operations were to target civilian mobility infrastructure, including air and sea ports of entry, this would further hinder NATO's ability to mass armored formations.⁶⁷

For these assumptions above to hold, NATO would need to quickly identify the Russian mobilization, rapidly receive political agreement to mobilize, and then swiftly assemble reinforcements.⁶⁸ If they were to hold, then Table 3's listed reinforcements could join NATO's fixed Baltics forces within one week. Table 4 shows an aggregation of NATO's Baltic forces and Table 3's total reinforcements and the reassessed force ratios. Initial NATO reinforcements would favorably alter NATO's personnel and IFV force ratios to meet the 1:3 defense requirement. However, NATO's tank and artillery capabilities would remain understrength. Over half of Table 4's total NATO's fixed forces are light infantry and would therefore lack the requisite mobility and firepower to compete with Russian mechanized formations. Russian formations would likely isolate and bypass light infantry strong points. Beyond this troubling mismatch, political and logistical factors

might preclude the rapid arrival of NATO reinforcements, and in this case, conventionally deterring a Russian fait accompli may not be possible at all.

TABLE 4: REINFORCED NATO FORCES (WITHIN ONE WEEK) VS. RUSSIAN FORCES (WESTERN MILITARY DISTRICT AND KALININGRAD OBLAST)⁶⁹

	Personnel	IFVs	Tanks	Artillery
Total Russian forces	89,000	1,776	947	666
NATO fixed armies & eFP battlegroups	18,549	409	43	138
NATO reinforcements within one week	22,331	606	180	63
Reinforced NATO Baltics total	40,880	1,015	223	201
Force ratio (NATO:Russia)	1:2.2	1:1.7	1:4.2	1:3.3

Given these clear imbalances and readiness and mobility challenges, the U.S. and NATO must do more to improve their standing force postures and reinforcement capabilities. Of course, due to competing global requirements and limited military resources, the U.S. cannot directly close the identified gaps in ground forces with additional permanent or rotational forces alone. But a feasibility assessment reveals that there are marginal adjustments the U.S. military could make to strengthen conventional deterrence in the Baltics and Poland.

FEASIBILITY ASSESSMENT

Budget and force structure limitations in the U.S. military will influence and constrain the feasibility of any policy recommendations. Indeed, we assume there will be three financial limitations. First, defense budgets will likely remain flat or decrease. While the 2022 defense budget increased to \$777.7 billion,⁷⁰ there was a decrease from \$723 billion in 2020 to \$704 billion in 2021.⁷¹ And given the trillion-dollar infrastructure and COVID relief bills on the horizon, it's unrealistic to think that future DOD budgets will not again be negatively impacted. Second, as a component of the flat or decreasing defense budget, the U.S. Army budget will likewise remain flat or decrease. Such a trend is already in place; the Army's budget decreased from \$186 billion in 2020, to \$177 billion in 2021, and to \$173 billion in 2022.⁷² Third, U.S. funding allocated to European defense will likely decline as the DOD prioritizes competition against China. As with the Army's budget, the effects of the change in focus are already apparent. The EDI's funding dropped from \$5.96 billion in 2020, to \$4.54 billion in 2021, and to \$3.68 billion in 2022.⁷³ Meanwhile, the DOD created the Pacific Deterrence Initiative in 2022 with \$5.1 billion in funding. Admittedly, the Russian invasion of Ukraine may very well reverse the predicted decrease in DOD, Army, and EDI funding as the U.S. attempts to deter further Russian aggression. In fact, in the short-term funding has increased. On March 10, Congress approved \$13.6 billion in aid for Ukraine and \$3 billion for DOD to support ongoing deterrence in Europe.⁷⁴ However, it is simply too early to tell if that will be the case long-term, so for purposes of this assessment, we maintain that budgetary constraints and competing global requirements will impact U.S. policy options.

We also assume there will be three force structure limitations. First, due to budgetary constraints and the need to balance modernization and readiness, the U.S. Army's total personnel strength will likely remain about the same or decrease. This prediction is in line with public statements of the Army's senior leaders.⁷⁵ Second, due to DOD's

growing focus on China, major force additions in Europe beyond one to two brigades long-term will probably not be feasible. Third, while ABCTs are required to outmaneuver and deter/defeat the Russians in the Baltics, only 11 are in the active component of the U.S. Army. U.S. IBCTs, such as the in-theater 173rd Airborne Brigade, have the benefit of speed in terms of employment, but they lack the mobility and firepower to defeat the heavily armored Russians. Senior Army leaders may now press for an increase in end strength, reallocate additional forces to Europe, or delay the modernization of select ABCTs to ensure that heavy forces are available. However, end strength increases and the permanent stationing of additional units will take time to implement. Consequently, while the Army has already temporarily repositioned some forces to shore up NATO's flank during the ongoing Ukraine crisis, the force structure constraint will still be valid.

The above U.S. military budget and force structure constraints could immediately hinder several potential deterrence improvements. For example, they make conducting a strategy of denial with up to seven U.S. BCTs in Europe at the start of hostilities — as suggested in RAND's report "Reinforcing Deterrence on NATO's Eastern Flank" — infeasible on multiple fronts.⁷⁶ They also make adding multiple brigades to the Army and stationing them in Europe difficult. Instead, existing units must be either converted or repositioned, given the need to simultaneously address other global commitments. Finally, accounting for Russia's air defense capability and likely targeting of transportation networks, the right mix of U.S./NATO forces and prepositioned equipment must be in place to be relevant in a short notice conflict; preferring a force almost entirely out of theater risks irrelevance in a *fait accompli* scenario. Below, we attempt to identify the right mix of in-theater ground forces, equipment, and capabilities to further support NATO's efforts to deter Russian aggression in the Baltics.

RECOMMENDATIONS

Over the last eight years, the U.S. military has made several positive reforms to strengthen U.S. Army force posture in Europe. A rotating Corps headquarters in Poland, and a permanently based theater fires command, a fires brigade, additional air defense units, and a multidomain task force in Germany will all be vital in contesting Russian A2/AD capabilities.⁷⁷ Despite these positive steps, however, the analysis in this paper suggests that NATO will still lack the requisite capabilities to conventionally deter a Russian *fait accompli* in the Baltics. The feasibility assessment further establishes that U.S. budget and force structure constraints will prevent the U.S. military from directly filling those capability gaps with sufficient rotational or permanent forces. Though the Army has acknowledged the capability gap and is taking steps to design and position a future force capable of winning in such an environment, the capacity to do so in a single theater and multiple theaters is not projected to be realized until 2028 and 2035, respectively.⁷⁸ Therefore, interim adjustments are needed to strengthen deterrence. While recognizing resource constraints, we propose the following recommendations to address degraded U.S. and NATO force structures, force postures, and mobility systems. Taken together, these steps could strengthen NATO's ability to "deter by rapid reinforcement," which has been advocated in recent NATO assessments.⁷⁹

Force structure and posture recommendations

To improve NATO force structure limitations and force ratio deficiencies, the U.S. must increase its armored capability in Europe. This is critical to deter Russian aggression against the Baltics. Specifically, the U.S. military should take action to ensure that three

ABCTs and their associated equipment can arrive in the Baltics within two weeks of initial notification. To achieve this objective, three reforms should be sought.

First, the U.S. Army should permanently station an ABCT in Germany. Ideally, the Army would maintain the 2nd Cavalry Regiment (a Stryker brigade combat team) in Germany in addition to the ABCT; the argument for doing so is certainly strengthened by current events. However, if constrained by space or cost, the Army could convert the regiment to an ABCT. While the regiment has advantages over an ABCT in terms of mobility, it lacks the protection and firepower needed to deter Russia in the Baltics. Permanently stationing an ABCT and increasing supporting transportation assets in Germany would allow the brigade to arrive in the Baltics at a speed necessary to be relevant.

Second, and in addition to the first reform, the U.S. Army should continue supporting the OAR's ABCT rotation in Poland, with periodic training and exercises in the Baltics. Doing so would reassure allies and ensure that an ABCT is available to quickly move at the start of a conflict. The rotational ABCT would continue to bring its own equipment as it utilizes the transportation network, increases operational readiness, and eliminates delays from equipment draws in-theater.⁸⁰ These two recommended reforms are in line with those in other studies on strengthening U.S. posture, such as "Permanent deterrence" by Ambassador Alexander R. Vershbow (retired) and General Philip M. Breedlove (retired).⁸¹

Third, the U.S. Army should also improve its armored fleet's force posture and operational readiness. Specifically, the U.S. Army should maintain one ABCT on an elevated alert status as a part of the IRF, a unit capable of deploying on very short notice. For example, the 82nd Airborne's IRF IBCT deployed to Iraq within 18 hours during heightened tensions in late 2019.⁸² While the IRF IBCT is a light unit and deploys with minimal equipment (as it currently is in Poland), an ABCT is not and, therefore, moving an entire ABCT via airlift is not feasible. Consequently, the IRF's ABCT would likely move to Europe and draw prepositioned equipment. The required timelines for notification or movement could shift based on the predicted crisis or remain static on a greatly truncated timeline such as that of 82nd IRF.

The U.S. Army's ongoing efforts to, by 2023, station equipment sufficient for an ABCT in an Army prepositioned stock (APS) set primarily in Poland will facilitate this recommendation.⁸³ As highlighted in the book *Striking the Balance*, concentrating equipment in a few large sites makes them particularly vulnerable to targeting by Russian long-range missiles.⁸⁴ Thus, dispersing among several locations in Poland or just across the border in Germany is preferable. Keeping the APS set for an ABCT in several sites farther west in Germany, the Netherlands, Belgium, or other locations is not preferable, as it increases demands on limited transportation assets and increases the likelihood that the drawing unit will not be available in a timely fashion.

Table 5 revises previous correlation of forces estimates with new figures based on the above recommendations. While the outlined assumptions still hold, the response time frame has been expanded to two weeks to factor in the arrival of NATO's VJTF, the permanent Germany-based ABCT in lieu of the 2nd Cavalry Regiment, and the recommended U.S. Army IRF ABCT. Shifting the projected arrival to two weeks is adequate to deter a Russian seizure of the Baltics for two reasons. First, the large Russian mobilization and prepositioning required for a Baltics seizure is unlikely to go unnoticed, which would give the U.S. and NATO time to flow high readiness forces into position to provide an interim deterrent capability. For example, it took over eight weeks

for Russia to mobilize and position the forces currently being used to invade Ukraine.⁸⁵ While not a *fait accompli*, it is illustrative of the mass movement required for such an attack. Second, while not adequate to completely deter or defeat a Russian incursion, the one-week forces represented in Tables 3 and 4 might be able to delay a Russian advance long enough to enable follow-on reinforcements to arrive. However, it is worth noting that both the two- and one-week timelines become problematic if Russia retains large formations in Ukraine and Belarus in the long term. Were that to occur, NATO and the U.S. would need to significantly enhance their presence on NATO’s northeastern flank to restore deterrence.

TABLE 5: FORCE RATIOS FOLLOWING RECOMMENDATIONS (ARRIVAL WITHIN TWO WEEKS)⁸⁶

Unit	Personnel	IFVs	Tanks	Artillery
NATO fixed armies and eFP battlegroups (Baltics)	18,549	409	43	138
U.S. Army OAR ABCT (rotational, Europe)	3,800	130	80	15
Polish Armored Brigade	5,000	100	100	20
U.S Army 173rd Airborne Brigade, Italy	4,376	0	0	0
U.S. Army IRF IBCT	4,376	0	0	0
*U.S. Army ABCT (permanent, Germany)	4,694	120	89	18
*U.S. Army IRF ABCT (continental U.S.)	4,694	120	89	18
NATO VJTF	5,000	120	0	20
Reinforced totals in two weeks	50,489	999	401	229
Total Russian capabilities	89,000	1,776	947	666
Force ratio (NATO:Russia)	1:1.8	1:1.8	1:2.4	1:2.9
<i>* Indicates new force introduced with recommendations</i>				

With three U.S. Army ABCTs prepared to rapidly reinforce the Baltics, NATO’s force ratio shortcomings with tanks and artillery fall within the 1:3 capability requirement. Table 5’s results presuppose that Russia is not capable of mobilizing significant assets beyond the Western Military District and Kaliningrad oblast within the two-week time frame; this capability would further shift the ratio in Russia’s favor. The results also presume a prompt decision by NATO political leaders to respond. If these assumptions hold, then NATO’s reinforced Baltics forces have a greater likelihood of successfully deterring Russia.

To complement its expanded force structure, the U.S Army in Europe and Africa should continue large-scale exercises, such as the Defender series, which stress command and control and transportation networks, demonstrate U.S. resolve, and increase NATO interoperability. Additionally, specialized capabilities, such as the Multiple Launch Rocket System and other air defense systems, should periodically rotate to Poland and the Baltics to increase forward capability where Russia enjoys a decisive advantage. While these rotations are not feasible on a continuous basis (like the OAR ABCT), shorter and periodic rotations in support of specific NATO training exercises is possible.

Mobility recommendations

The preceding force structure and force posture adjustments are critical but will not be sufficient without corresponding reforms to U.S. and NATO mobility networks. To address

the lack of heavy transportation vehicles capable of moving an armored brigade's equipment, additional transportation units could be permanently stationed in Europe, including significant numbers of heavy equipment transport trucks (HETs). While there is a transportation battalion currently assigned to Europe, it only has a single composite truck company, which has eighteen HETs or only enough to move a single tank company.⁸⁷ Such a number is insufficient to move even the current rotational ABCT in Poland, let alone the forces recommended in this paper. Adding a permanently stationed heavy truck company would bring an additional 96 HETs to Europe, which would reduce the time-distance gap considerably.⁸⁸ Though HETs are in short supply Army-wide — with only 406 dispersed across three heavy truck companies, six composite truck companies, and several small units in the active Army — Europe is the ideal theater for the employment of ABCTs and thus the most pressing theater for limited HETs in the inventory.⁸⁹

While most of our recommendations focus on the U.S. Army, it is worth continuing to press NATO to make mobility improvements and investments that ultimately will enhance the alliance's effectiveness in the Baltics. As suggested in the Atlantic Council's report "Moving Out," the U.S. should pressure NATO members to invest in dual-use infrastructure such as Rail Baltica, expand strategic lift capacity and the prepositioning of equipment, digitize border-crossing and customs procedures, and build cyber resilience.⁹⁰ By focusing NATO members' investment on non-kinetic capabilities with benefits to civil society, the likelihood of European nations agreeing to do so is far more likely than arguing for the purchasing of advanced weaponry or additional force structure. As a component of this line of effort and as recommended in "Moving Out," NATO members should purchase additional heavy equipment transporters such as the British M1070F, which is compliant with European regulations.⁹¹ Such an investment would help U.S. and NATO forces arrive to the Baltics quicker in a crisis. Finally, NATO members, such as Poland and Germany, should consider purchasing flatbed railcars and even forming some type of modest rail battalion under a NATO structure akin to what Russia utilizes. Doing so would fill an identified shortage of rail cars across Europe and ensure their availability in a crisis.⁹² Having dedicated and trained military rail personnel to operate the trains would also enable timely and effective movement.

CONCLUSION

Given Russia's destabilizing actions in Ukraine and the risk of Russian territorial aggression against NATO's Baltic allies, the U.S. and NATO must do more to strengthen conventional deterrence. Alarming, our analysis of current force posture and correlation of forces ratios revealed that the previously identified large imbalances in conventional forces in the Baltics remain.⁹³ Further, our review of available high readiness forces also made it clear that degraded NATO mobility and readiness systems will likely prevent sufficient reinforcements from arriving in time to effectively deter a Russian fait accompli.

However, steps can be taken to strengthen conventional deterrence. Despite U.S. military budget and force structure limitations, the DOD could make several modest policy adjustments to strengthen U.S. capabilities to rapidly reinforce the Baltics during a crisis. While the U.S. has reinforced Europe with an additional 15,000 troops in response to Russia's invasion of Ukraine, these appear to be temporary, rather than permanent additions to forward U.S. forces.⁹⁴ The recommendations outlined in this paper represent feasible options to permanently strengthen U.S. and NATO deterrence.

Given Russian President Vladimir Putin's lengthy expected tenure, there is little reason to

expect that Russia's dangerous foreign policies will soften in the coming years.⁹⁵ Russia's ongoing invasion of Ukraine is the latest example of Russian coercion through the use of large ground forces. Western confusion about the seemingly unfathomable demands made by Russia during this crisis highlights the importance of perception in attaining deterrence success.⁹⁶ Policy responses must demonstrate U.S. and NATO resolve without further inflaming the ongoing security dilemma — how to increase conventional deterrence capabilities without worsening Russia's perceived insecurity. In other words, the responses must strengthen the United States' and NATO's ability to rapidly reinforce in response to Russian aggression. While our analysis and recommendations focus primarily on the U.S. military, European NATO states certainly can and should do more to improve their conventional ground force capabilities. Significant force structure and readiness gaps across even the most powerful NATO members like France, Germany, and the U.K. highlight the need for reinvestment in NATO land forces, readiness, and force projection capabilities.⁹⁷ While there are promising indicators that NATO members will significantly reinvest in their conventional military capabilities, as is evident in recent German announcements, it will take years for allied militaries to regain the requisite capabilities.⁹⁸ However, many of the recommendations listed above can be accomplished in the short term by the U.S. and therefore represent the most appropriate means for reestablishing deterrence in the Baltics and Poland.

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