



Russian tanks on railway cars in Belarus shortly before the invasion of Ukraine on 24 February 2022. (Screenshot from the Russian Ministry of Defence)

Russian Logistics and Forward Urban Defense in the Baltic States

Lukas Milevski

On 24 February 2022, following a pattern it began in 2008 and continued in 2014, Russia proved once again that it was perfectly willing to start major war in Europe. Beyond the attention paid to its war, Russia has tangentially also pushed Baltic defense back close to the center of NATO's security agenda. Unlike prior considerations of Baltic defense, we now have an ongoing example of a major Russian invasion and military performance from which to work. This article therefore considers the plausibility of the urban defense of near-border Baltic cities in the context of Russian military and logistical performance in Ukraine. At the time of writing (prior to the Madrid Summit), this is not a probable Baltic defense plan despite likely increases to NATO forces in the Baltic states. In case of war with Russia, NATO remains oriented toward a fighting return to the Baltic states rather than an initial defense. Yet there are two reasons to consider such an operational plan seriously.

The first reason is political: it would be supremely politically difficult for the Baltic states to accept the loss of major population centers in the event of a Russian invasion, particularly after the modern, if vicarious, experience of the Russian invasion of Ukraine. Russia demonstrated in Ukraine that its occupation of foreign territory still brings with it looting, rape, deportations, murder, and cultural destruction—all on a massive scale. Vilnius is Lithuania's capital and leading population center, with about a quarter of the country's population. It would be politically intolerable for Russian war crimes to occur there again. For Narva in Estonia and Rēzekne and Daugavpils in Latvia, the political calculus differs, though the overall conclusion remains the same. These are cities often considered in the West, not necessarily accurately, to be among the most vulnerable due to their substantial Russian populations. If Estonia and Latvia were willingly to abandon these cities to invading Russians it would send a strong political signal to the Baltic Russian communities in these two countries that those communities are insufficiently Latvian or Estonian to be worth defending, plausibly not only undoing decades of slow integration but even actively pushing them toward Russia.

The second reason is logistical and is the focus of this article. Russian logistics have proven to be one of the major limiting factors to Russian operations in Ukraine. It is sensible to think about Baltic defense

both to take advantage of and exacerbate Russian logistical weakness, particularly given Russia's self-evident logistical advantages in the Baltic states: "Russian army rail sustainment capability ends at the borders of the former Soviet Union"—which included Estonia, Latvia, and Lithuania.¹

The strategic environment contextualizes the prospect of urban defense of near-border towns and cities in the Baltic states in two ways. First, as T. X. Hammes has plausibly argued, the tactical defensive is becoming increasingly dominant as a result of a convergence in twenty-first-century technologies including commercial satellite networks, remotely piloted aerial vehicles, and the increasing exploitation of the electromagnetic spectrum.² This imbalance in favor of defense is likely to add to the political impetus to defend further forward, rather than in depth, for the sake of defending more people, more property, and more land—especially against a barbaric enemy such as Russia. Second, the world is in an era of smaller armies. As British professor Anthony King has suggested, historically "the smaller the armies, the more important cities become; urban warfare attains priority as military forces contract. By contrast, the larger the armies, the more likely that open warfare in the field will predominate over siegecraft. As cities expand, cities become less operationally significant. The frequency and importance of urban warfare is, therefore, substantially a function of the size of military forces."³ At any time, forces available for Baltic defense are likely to be small; as a result, to defend successfully against Russia, the defenders will have to (1) leverage the plausible defensive advantages of urban terrain to compensate for probably inferior numbers and firepower, and (2) deny Russian armed forces access to the infrastructure and services that urban centers provide—most notably key rail nodes.

This article first engages with Russian military

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doctrine and logistics, how the two intertwine, and their joint performance during the war in Ukraine. It then gives an overview of Baltic railway and highway networks, particularly those that lead from Baltic capitals to border crossings into Russia or Belarus. Finally, it considers the difficulties, purposes, and advantages of defending near-border Baltic urban centers in a hypothetical Russian invasion.

Russian Military Doctrine, Logistics, and Performance

First, one must necessarily understand Russian logistics, as far as the available evidence allows. The Russian army is a railway army, the result of a long military history in a spatially massive Eurasian geographical context. Its unique organization of ten rail troop brigades reflects this logistical orientation. Available to these rail troops are up to sixty-six thousand flat-bed railcars; this was enough to move the entirety of Russia's ground forces simultaneously, even before Russia's losses suffered in Ukraine. If unimpeded, it is possible for Russia to move forces up to 1,200 kilometers within twenty-four hours.⁴ From the mid-nineteenth century onward, the Russian railway was designed with defense in mind; a wide rail gauge of 1520 mm (as compared to the 1435 mm standard gauge used elsewhere) prevented easy invasion at a time when the Russian empire was a status quo great power in Europe.⁵

Modern Russian military doctrine is defensive, reflecting both the reality of its railways and the military's perception of Russia's geopolitical situation and imperatives—the latter of which may differ from that of Putin and the rest of the Russian political leadership. Known as “active defense,” this doctrine is both military and nonmilitary and essentially focuses on instilling wartime deterrence by denial by degrading the opponent's ability to employ his military effectively through the exploitation of asymmetric responses, resilient air defense, and ultimately seizing the strategic initiative.⁶ In future war, Russian military theorists have anticipated a fragmented battlefield with low force densities compared to the two world wars and therefore

also without continuous frontlines. Such fragmented battlefields result in the importance of maneuver and the vulnerability of logistics.⁷

Yet such a fluid concept of tactics and operations is difficult to reconcile with fixed ground lines of communication based on railways. The overly complex logistical system Russia inherited from the Soviet Union was overhauled and ten material-technical support (*Materialno-tekhnicheskogo obespechenie* or MTO) brigades were created.⁸ Each MTO brigade is committed to supporting one combined arms army (CAA), with two in the Western Military District (MD), two in the Southern MD, two in the Central MD, and four in the Eastern MD.⁹ It appears that an eleventh MTO brigade was formed somewhat recently, possibly to serve the 1st Guards Tank Army in the Western MD. Each MTO brigade fields two truck battalions, each battalion comprising 408 transport vehicles (148 general freight, 260 specialized, with 48 trailers). Each battalion “can reportedly haul 1,870 tons of cargo (1190 tons of dry



Soldiers participate in the “Best Specialist of the Railway Troops” contest 26 May 2015 in Russia's Western Military District. Railway troops are a special branch of the Russian armed forces that support logistical operations by executing all tasks related to the construction, maintenance, and defense of the Russian railway system. The Railway troops would play a key role in any military operation against the Baltic states by working to ensure the continuity and security of railway logistical support to forward-deployed forces. (Photo courtesy of the Russian Ministry of Defence)

cargo, 680 tons of liquid).¹⁰ Whereas an MTO brigade serves a CAA, an MTO battalion serves a division, and MTO companies serve regiments/brigades.¹¹

This in turn suggests that Russians can most effectively operate, particularly offensively in enemy

territory, where railways and highways coincide in close geographical proximity. An army cannot simply invade hostile territory by rail. It must advance by road, even though a Russian army's advance would certainly be sustained by rail. The Soviet army preferred to advance in column on a narrow front, a preference apparently still shared by the Russian army, given how it has been advancing in Ukraine. Lateral movement, widening any formation's front, takes place only when combat is considered imminent.¹² Consequently, the farther apart the highways of advance and the railways of sustainment are, the more difficult and resource intensive it would be to secure the latter, let alone also the terrain in between, so that supplies moved by rail can reach

to unload, an hour to drive back. On a ninety-mile (144.8 km) journey, two trips are possible; on a 180-mile (289.7 km) journey, just one. U.S. Department of Defense sources provide Soviet supply depot distances for comparison: on the offensive, from the forward edge of the battle area, battalion supply depots were 4 km, regimental depots were 10 to 15 km, and divisional depots were 25 to 30 km.¹⁵ Moreover, Russian logistics operates on both a push and pull dynamic: higher-level MTO formations can use *their* own trucks to push supplies down to lower-level formations (brigade to battalion, battalion to company), but lower-level MTO formations can use their own trucks to pull supplies from higher-level formations (company from battalion,

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their intended final destinations by truck. The Russian army's performance in Ukraine has demonstrated the importance of the railway for its deep operations.

The full logistical capacity of an MTO brigade is probably not yet fully understood for several reasons. First, the present war is the first war in which the MTO organization is being put through its paces, and problems are undoubtedly and inevitably arising for the Russians, which they will seek to address. Second, in an otherwise excellent article, Alex Vershinin mistakes the truck count of a single MTO battalion for that of a full brigade (per Lester Grau and Charles Bartles), resulting in erroneous logistical mathematics—therefore, a single salvo of a CAA's rocket artillery would require one quarter rather than one half of a full MTO brigade's dry cargo truck force to replenish, that is, half of an MTO *battalion* would be required.¹³

Nonetheless, Vershinin usefully observes that “[i]t is possible to calculate how far trucks can operate using simple beer math.”¹⁴ On undamaged and unobstructed road networks capable of sustaining mass wheeled traffic at forty-five miles (72.4 km) per hour, a single truck making a forty-five-mile journey might plausibly make three trips per day: an hour to arrive, an hour

battalion from brigade). Although Russian doctrine seems to allow for MTO brigades to bypass the battalion level to supply MTO companies directly, it is probably only done in exceptional circumstances.¹⁶ This combined push and pull dynamic will inevitably interfere with any logistical beer math.

Unfortunately, we seem to lack knowledge of supply distances at army level for the Soviet era and present Russian militaries, although given Belgorod's present role as a Russian logistical hub, it appears that army-level depots can stay well in the rear. Belgorod is about 230 km from the forces ultimately supplied at Izyum, but only about 150 km from Kupyansk by rail, which is probably the closest Russian railhead to Izyum. It seems likely that, throughout much of April and May, Russian logistics were transported from Belgorod to Kupyansk by rail and from Kupyansk the final 80 km to Izyum by truck—which in this instance returns us nearly to Vershinin's original forty-five miles.

Vershinin reminds us that his beer math represents an ideal of unobstructed logistics. Russia's war against Ukraine demonstrates that this ideal appears well out of reach. First, although the Russians theorized a fragmented battlefield, their actual ability

either to fight or to defend logistics on such a battlefield is demonstrably doubtful. At the time of writing, the Russians have lost 1,448 trucks, jeeps, and other vehicles as identified by Oryx, most of them undoubtedly logistical vehicles.¹⁷ This represents an aggregate loss of over two full MTO battalions' worth of trucks, a staggering blow to Russian logistics. However, it is presently unclear how many MTO brigades are involved in the war. Second, as Trent Telenko has observed, from the open-source reporting of the war thus far, Russian logistics appear to be substantially nonmechanized. That is, the Russians appear not to be using pallets in any logistical capacity in Ukraine, even though they are arguably fundamental "to the mechanized movement of goods." Yet pallets are what determine difference between a four-hour palletized and mechanized unloading task and a three-day non-palletized and nonmechanized but otherwise identical unloading task.¹⁸ Russia's logistics are likely sabotaged to an unknown degree by their own gross inefficiency, particularly at points of transfer. The result of the low level of functionality in Russia's logistical system in Ukraine is that it appears only to be able to sustain three battalion tactical groups in active combat on each axis of advance at a time—though it is presently unknown how many MTO brigades are actually sustaining the invasion force.¹⁹

The Baltic Rail and Road Networks

The Baltic rail network remains an old imperial Russian legacy, still on the broader Russian gauge and therefore more connected to Russia than to the European Union. The Baltic states, Russia, and Belarus are connected by rail at only a few locations: at or near Narva and Koidula in Estonia; Kārsava, Zilupe, and Indra in Latvia; and Šumskas, Šalčininkai, Kybartai, and Panemunė in Lithuania.²⁰

With the Narva River as the border, Narva, Estonia, sits across the river from Russia's Ivangorod-Narvskiy and Saint Petersburg as the ultimate stop in Russia. From Narva, this rail line goes through several towns and villages to Tallinn. Most of it is single track, except for dual track sections in the east between Oru and Vaivara, and throughout its western end between Tallinn and Tapa. Because most of the Estonian border with Russia lies within Lake Peipus, the only other rail crossing into Estonia is south of the lake, not far from

the Latvian border. Here, Koidula faces across the border Pechory-Pskovskiye, with Pskov as the nearest connected large Russian city. Koidula is a crucial position, as the railway branches northward and westward. The first single track branch points north and passes through Tartu toward Tapa, where it joins the Narva-Tallinn line. The second branch heads west and southwest into Latvia, through Cēsis to Rīga. It is also single track except for a very brief length at Cēsis, between Sigulda and Vangaži, and then Krievupe to Rīga itself, at which point it is dual track. Koidula is the first defensive position for Estonia's southern flank as well as Latvia's northern flank. Both Narva and Koidula are right on the Estonian-Russian border.

In Latvia, the northernmost rail crossing into Russia is at Kārsava, with Privada opposite, then deeper into Russia, Ostrov, and again Pskov. This single-track rail line heads south by southwest to Rēzekne. Latvia's only other railway into Russia is at Zilupe, with Zasitino across the border—and from there a straight shot to Moscow. It also leads along a single-track westward to Rēzekne. Due to the convergence of these two separate rail lines, this small Latgallian town is a crucial railway junction in eastern Latvia. From Rēzekne, the rail line continues southwest to Daugavpils, with brief dual track sections between Rēzekne and Pūpoli as well as between Krāce and Aglona. Yet another single-track branch heads directly westward toward Krustpils. At Krustpils, the railway splits, with one single track segment continuing west toward Jelgava and another heading west by northwest through Aizkraukle to Rīga; that final section is dual track. Latvia's final eastbound rail crossing is at Indra, into Belarus. This single-track line leads to Daugavpils. This small city emerges as another key railway junction, with one subsequent single-track branch heading northwest toward Krustpils, another single track westward into Lithuania toward Mankišķiai, and a third southward to Vilnius, which turns from a single into a dual track at Bezdōnys. Daugavpils constitutes not only Latvia's southeastern flank but also Lithuania's northeastern flank.

Lithuania is unique among the Baltic states for having not just eastern crossings with Belarus but western crossings with Russia to its Kaliningrad oblast exclave on the Baltic Sea. The first crossing is at Šumskas, with Ganevo opposite in Belarus. This dual track continues on both sides of the border all

the way from Vilnius to Minsk. South of Vilnius, a single track crosses at Šalčininkai across the border from Byenyakoni. On Lithuania's southwestern border are crossings at Panemunė (Sovietsk opposite) and Kybartai (Chernyshevskoye opposite). The single-track railway from Kaliningrad through Panemunė splits into two branches, one heading northwest toward Lithuania's port Klaipėda and the other northeast to-

notably inferior by comparison. The E77 highway between Pskov and Rīga crosses the southeastern corner of Estonia at a considerable distance from Koidula. The E263 highway which links up with the E77 near the Estonian-Russian border runs north-by-northwestward at significant distance from the railway line, joining up only when passing through Tartu, after which they split again as the highway bends further westward to head

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ward Mankišiai. The line through Kybartai, connecting Kaliningrad, Kaunas, and Vilnius, is throughout its length a dual track.

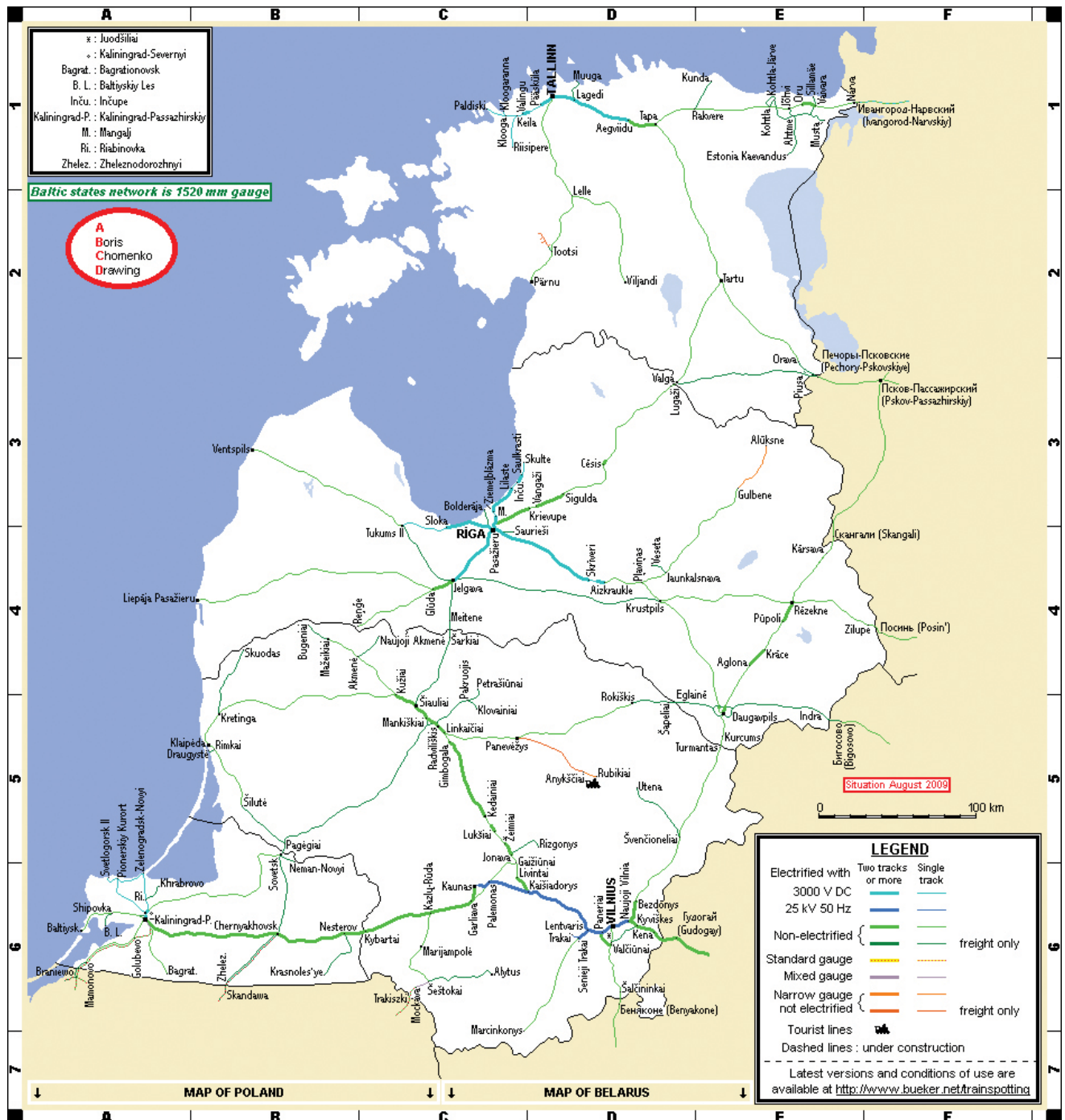
Crucially, the single-track railways throughout the Baltic states barely allow for elaborate rail operation, requiring Russia to conduct predominantly end-to-end fleet operations—as is sensible in a nonpermissive environment in any case.²¹ Crucially, Russian logistical bases for invasions of the Baltic states are likely to be well away from the border: plausibly Pskov for Latvia and plausibly Saint Petersburg itself for an invasion of Estonia, though Kingisepp may have sufficient rail wherewithal to sustain some sort of forward rail depot. Given the sabotage Russian railway logistics suffered in Belarus during the first month and a half of the Russo-Ukrainian War, the Russians may not be particularly amenable to major supply dumps in, or even major supply movements through, Belarus—which would reduce the threat to Vilnius and Daugavpils.

These logistically relevant railway lines are likely to be operationally critical only when paired by nearby highways along which Russian forces can advance. The emphasis here is not on mere roads, but rather on true highways. The existing Baltic highway network influences the operational relevance of the Baltic rail network. In this context, the Narva-Tallinn E20 highway in Estonia runs virtually parallel to the railway, usually at no great distance. The main exception to this is around Tapa, where the railway detours southward while the highway bends slightly northward. In southern Estonia, the railway-highway combination is

directly toward Tallinn. Based on the distribution of infrastructure, the southeastern route from Russia into Estonia is notably inferior to the northern route.

For Russia to invade Latvia from the northeast, the highways and railways match up only sporadically. The E77 is a straight shot from Rīga to Pskov, resulting in great distances between highway and railway throughout southern Estonia and northern Latvia until Āraiši, just south of Cēsis, from which point they run coincident to Rīga. However, the A3 runs along quite close to the railway from the Latvian-Estonian border until Valmiera, where the railway takes a sharp southern turn while the A3 continues running southwest toward Rīga. After passing through Cēsis, the railway is accompanied by the E77. For this northeastern route, the highway is most problematic for Russia in Estonia and somewhat problematic between Valmiera and Cēsis. For a southern route, two highways link Belarus to Daugavpils, a shorter southeastern highway and a longer eastern highway that runs vaguely parallel to, and mostly in close range with, the railway. For Latvia, Rēzekne is perhaps the most problematic as both railways are accompanied by broadly parallel and essentially nearby highways. Latvia's central border east and northeast of Rēzekne appears to be the optimal invasion route.

In Lithuania, highways and railways match up only in the southeast but in neither the southwest nor northeast. In the northeast, from Daugavpils, the railway toward Mankišiai has no corresponding highway while that from Daugavpils to Vilnius has a corresponding, but mostly distant, highway (from



(Map courtesy of Railways through Europe)

Baltic States' Rail Network

Daugavpils the A13, which becomes the A6 and, to reach Vilnius, requires turning onto the A14). In the southwest, the railway through Panemunė northeastward diverges slightly from the nearby E77 while the branch of the railway which heads northwestward

toward Klaipėda has no corresponding highway. The southern rail route from Kaliningrad through Kybartai to Vilnius does—mostly—have a nearby highway, either the A7 or the E67, but the match is not optimal. In the southeast, the two railway lines

from Belarus toward Vilnius are broadly paralleled by the southward E85 and the eastward E28 highways. The preferred invasion route based on the optimal transportation networks should be through Lithuania's southeastern corner from Belarus, potential Belarusian sabotage notwithstanding.

Forward Urban Defense

The difficulties of defending near-border Baltic cities would be substantial, for reasons of their geographical and demographic size as well as their proximity to Russia, with its potential role as an absolute or limited sanctuary for Russian forces from NATO attack. Yet the strategic advantages for Baltic defense may balance or outweigh these disadvantages, as holding these cities would stop any meaningful Russian advance cold.

Potential Russian doubts about Belarus' logistical suitability notwithstanding, four Baltic cities stand out as crucial for forward urban defense to deny Russians use of Baltic railways and therefore to deny them access into the geographical depths of the Baltic states: Narva in Estonia, Rēzekne and Daugavpils in Latvia, and Vilnius in Lithuania. Narva is the road and rail gateway from Russia to Tallinn. Rēzekne plays a similar role in Latvia, while Daugavpils plays that role in relation to Belarus. Its connection to Belarus is also Vilnius' role in Lithuania, combined with its significance as the country's capital.

Of the four, Vilnius is the only sizeable city, with a population of about 707,000 and a metropolitan area of about 2,530 square kilometers. Daugavpils, with a drastic population drop, is nonetheless the next largest with a population of about 80,000 residents and an area of 72.4 square kilometers. Narva has a population of about 54,000 and an area of 84.5 square kilometers. Rēzekne is the smallest, with under 27,000 residents and an area of 17.5 square kilometers. Vilnius excepted, these are all small areas to defend with populations inadequate to generate substantial territorial defense forces—even before taking demography into account, such as that Narva's population is nearly 88 percent ethnic Russian, which may or may not be a factor in the hypothetical event of invasion. Even if populations remain predominantly loyal, it is always possible to encounter plausible traitors. By comparison, Sumy, one of the smaller Ukrainian cities to hold out, encircled and besieged for a month and a half against the initial Russian offensive, had a pre-war population of nearly 260,000 and an area

of 145 square kilometers. Izyum, which Russia successfully captured after a four-week battle, had a prewar population of nearly 46,000 and an area of 43.6 square kilometers. From the outset, these figures and comparisons suggest that the odds of decisive success are likely to be long.

The odds are worsened by the strategic implications of Baltic-Russia proximity, most notably the potential problem of Russia as a sanctuary. That is, to what extent would NATO forces be able to engage targets across the border? Would NATO forces themselves be able to cross the border? To what extent would the Kremlin see either option as an unacceptable escalation that might result in recourse to nuclear weapons, and would the prospect deter NATO from crossing the border or engaging targets across the border? That is, would NATO essentially allow Russia a strategic sanctuary safe from engagement?²² In the absence of good answers to these questions, which will never be forthcoming, prudence dictates considerable, if not complete, restraint. The only available evidence on Russian attitudes toward the prospect of cross-border engagement stems from their war with Ukraine, in which Ukraine has plausibly waged a covert campaign of sabotage against Russian fuel and supply dumps in and around Belgorod, including the use of helicopters.²³ Russia has apparently not escalated in response, which plausibly suggests that Russian sanctuary may not be absolute and that targets may still be engaged by air power. Yet Russia may react differently to NATO, as opposed to Ukrainian, strikes. Ukraine has not crossed the border; thus, it is impossible to know how Russia would react to such a contingency. Nonetheless, NATO in Baltic engagement may have only limited opportunities to interfere with Russian logistical movements in Russia itself, although Pskov's proximity to the Latvian and Estonian borders would inevitably make any Russian supply depots there tempting targets.

Western military doctrines have not seriously engaged with urban defense in decades. Joint Publication 3-06, *Joint Urban Operations*, for example, has hardly anything to say about the subject; the implicit assumptions throughout are that cities will be operating environments for expeditionary operations and defense is only relevant in the context of foreign internal defense against violent nonstate actors.²⁴ The subject has been similarly neglected in NATO's unclassified publications, though the Balts at least began tentatively

thinking about defensive urban warfare after Russia's invasion of Crimea. Beyond this lack of doctrine, the identified crucial urban centers are all situated in varying geographical contexts. Narva sits upon the border, behind a river, and contains the only crossings over the

may be inevitable in a hypothetical Baltic war and its impact on operations must be considered. As Carl von Clausewitz argued,

War is not an independent phenomenon, but the continuation of politics by differ-

“Notwithstanding the differences between Ukrainian and Baltic near-border urban centers, the Ukrainian experience demonstrates that the defending forces may not have to be huge to succeed.”

Narva River between Estonia and Russia—though it can be outflanked by Russian river-crossing operations south of the Narva Reservoir, as occurred in 1944. The challenges and opportunities differ significantly for Rēzekne, which is situated at a distance from the border and at the end of long railways and highways from Russia, resulting in open Russian flanks vulnerable to the raiding tactics employed by the Ukrainians in the north during the first phase of the war. Lithuania, although in principle flanked on two sides, may have an easier time, as Russian forces in Kaliningrad are unlikely to have substantial offensive capability if the Poles pressure them and if Belarus remains logistically untrustworthy in Russian perception.

Notwithstanding the differences between Ukrainian and Baltic near-border urban centers, the Ukrainian experience demonstrates that the defending forces may not have to be huge to succeed—though they may have to be heavier than those deployed in the Baltic states thus far. Chernihiv was successfully defended by the 1st Tank Brigade and local territorial defense forces.²⁵ Russian forces have proven themselves consistently unskilled at attacking urban areas in Ukraine, and each of the main towns and cities identified—Narva, Rēzekne, Daugavpils, and Vilnius—have their own geostrategic defensive advantages, whether rivers, distance and open flanks, or suspect Belarusian railway services, to help mitigate the force of any Russian attack.

The political and humanitarian purpose of forward defense is clear: to protect a larger portion of Baltic populations from barbarism and atrocity as compared to a defense in depth. This Baltic political perspective

ent means. Consequently, the main lines of every major strategic plan are *largely political in nature*, and their political character increases the more the plan encompasses the entire war and the entire state ... But the political element even extends to the separate components of a campaign; rarely will it be without influence on such major episodes of warfare as a battle, etc. According to this point of view, there can be no question of a purely military evaluation of a great strategic issue, nor of a *purely military* scheme to solve it.²⁶

Yet defending the near-border cities, rather than conducting a defense in depth, makes more than simply political sense. Defense in depth would be useful along plausible secondary axes of advance, from Pskov into southern Estonia or northern Latvia, where every kilometer traded to the Russians translates into two kilometers their limited MTO units and fleets of trucks would have to cross to sustain a further advance. Along such axes, with the nearest reasonably sized rail centers at Tartu and Cēsis, respectively 148 and 201 kilometers from Pskov along the most direct roads, possibly an entire MTO battalion would be required to sustain even just three battalion tactical groups on each axis—which seems like too great a logistical commitment for what remain logistically unpromising axes.

However, along the hypothesized main axes of Russian advance into the Baltic states, defense in depth is unlikely to have an adverse effect on a Russian advance from a logistical point of view. Giving

up cities such as Narva, Rēzekne, or Daugavpils would give the Russians solid rail hubs to use as railheads within the Baltic states and so could improve Russian sustainment and enable further advances. Denying such crucial rail yards to the Russians may require them, in the absence of any sufficiently major rail hubs near the borders (with the plausible exception of Kingisepp, only about twenty-six kilometers east of Narva), to push and pull supplies from Pskov and perhaps even Saint Petersburg *by truck*, further stretching their MTO formations and inhibiting Russia's military and strategic performance on the outskirts of Daugavpils, Rēzekne, and even Narva.

Conclusion

As a result of the Russian invasion of Ukraine in February 2022, Baltic defense is again standing near the limelight for NATO. Russian military and strategic performance during its Ukraine war appears to be substantially weakened by their shabby logistical capabilities, among the many other apparent flaws of the Russian military. Given what we now seem to

know about Russian military capabilities, together with what is known from open-source information about Baltic rail and highway networks, there are clearly identifiable optimal axes of advance: Narva-Tallinn and Rēzekne-Riga or Rēzekne-Daugavpils-Riga. Vilnius may or may not be a center of gravity, depending on whether the Russians trust the Belarusian railway system after the sabotage their logistics suffered during the attack on Kyiv in February–March 2022. Given these obvious axes, it appears most strategically sensible to conduct forward defenses of key urban centers to deny the Russians the ability to develop their logistical and sustainment efforts on Baltic soil, with defense in depth reserved for secondary lines of advance where the Russians would have only limited opportunity to rely on railways for logistical purposes. This option remains strategically sensible even if the purpose of such forward defense is only to buy time, whether for civilians to evacuate to safer places or for NATO to make a fighting return to—or, much more optimistically, reinforce—the Baltic states. ■

Notes

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26. Quoted in Peter Paret and Daniel Moran, eds., *Carl von Clausewitz: Two Letters on Strategy* (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1984), 21.