

## The Russia-Ukraine War

#### A Study in Analytic Failure

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With all of the above being said, however, the thoughts and conclusions presented here are exclusively those of the authors.

### **Foreword**

#### Reflections on Analytical Surprise

■ he Russian full-scale invasion of Ukraine on February 24, 2022, was a shock but not a surprise. It was a shock because, in a world where the use of aggressive war has been a contravention of international law since 1945, such action must be viewed as such. It was not a surprise because Western intelligence agencies had detected indications of a possible attack from late 2021, and they had made their conclusions public. They did so in part to deter Russia and in part to build "Western resolve." The intelligence was also passed on to Ukraine, even if many in Kyiv struggled to accept that Russia would actually invade. The real surprise for several commentators and for U.S. intelligence itself was not the invasion but its immediate aftermath. The Russian forces failed to achieve a quick success, and Ukraine, in turn, mounted an effective response.

The Russian invasion of Ukraine was not the first time that both participants in a war and their observers on the sidelines have made the wrong calls. It will probably not be the last, although the purpose of this report is to mitigate that danger in one particular case: a possible clash between the United States and the People's Republic of China in the Pacific. No one example will exactly match any other. However, the quality and quantity of information—much of it not the product of leaks from official agencies but from open sources like Bellingcat-make the overestimation of Russia's capacities and the underestimation of Ukraine's particularly egregious.

The Prussian military thinker Carl von Clausewitz considered that "a great part of the information obtained in war is contradictory, a still greater part is false, and by far the greatest part somewhat doubtful." In Clausewitz's day, most tactical intelligence was collected by cavalry patrols, and much of it was dependent on rumors, often inflated, or on reports from illiterate peasants of doubtful loyalty. Because of the inherent unreliability of the intelligence on which planning and operations were based in the Napoleonic era, he observed, "what a dangerous edifice war is, how easily it may fall to pieces and bury us in its ruins." The advent of wireless, the consequent collection of signals intelligence, the development of aerial reconnaissance, and now the use of drones and satellites for persistent surveillance have all transformed the quantity and quality of information available to commanders. Artificial intelligence and its capacity to handle and interpret big data promise to deliver an era of intelligence-led operations.

Recent experience, however, should warn against hubris. Information superiority has not in itself delivered victory in recent wars, despite its capacity to enable stunning individual successes. In the 1990s, the assumption that dominant battlespace knowledge could allow the United States to dictate the tempo and outcomes of armed conflict was a key feature of the "revolution in military affairs," but it did not prove of much use in preventing the 9/11 terrorist attacks on the United States or in directing the wars that followed in Iraq and Afghanistan to satisfactory conclusions. It, therefore, behooves states and their organizations to consider why their expectations were not correct and how they might do better next time. For there will be a next time: that is another reason why wars, even if they are shocks, should never be surprises.

The place to begin any such exercise in lesson-learning from the Russian invasion of Ukraine on February 24, 2022, is with those assumptions that are so inherent they are the most likely to be left unquestioned by otherwise well-informed analysts, whether they are from Beltway think tanks or government intelligence agencies. This prologue to the report that follows sets out eight such assumptions, several of which have a resonance that goes beyond the specifics of the Ukraine case. They illustrate how easy it is to take shortcuts in some thinking, not least because ideas are taken from others who are presumed to be experts without critical reflection, or—in the case of the United States' allies-because they accept them from the United States without giving them context. In some cases, these ideas may indeed be appropriate in Washington, but they may not travel so well to the capitals of the United States' partners.

The first of these assumptions is the short-war illusion. The expectation of an easy Russian victory in February 2022 began here, with the argument that the war would be short. What is a short war? Historians conventionally describe World War I as a long war because it did not end by Christmas 1914. That was the hope of those who were mobilized and taken from their families and peacetime jobs in late July 1914, but it was not the conclusion of many prewar staff planners who had thought more deeply about the issues. When they looked at the dependencies created by alliance structures and the effects of industrialization on war's conduct, they were not convinced that the war could end so quickly.4

The popular expectations, and their rapid disappointment, have led many to see World War I as a "long" war, a point that is sustained when one bears in mind that, after the German armistice of November 11, 1918, bitter fighting continued from the Baltic to the Balkans and across the southern arc of the British and French empires until the last peace treaty was signed in 1923. But on one reading, particularly if one takes 1918 as its traditional end point, World War I was not so long,

especially in relation to its scale. At just over four years, it was shorter than World War II (1937-45), and much shorter than the Seven Years' War (1756-63), the Thirty Years' War (1618-48), or the Hundred Years' War (1337-1453). It was also shorter than the wars in Iraq and Afghanistan.

The reality in any war–especially after it has started–is that few of its participants can anticipate the war ending tomorrow, but they will still hope that something will happen to end it in the next six months or so, precipitated perhaps by a surprise attack at the front or by a sudden domestic collapse in the enemy's rear. After three or four months of conflict, when the possibility of a quick victory, or its corollary, the danger of quick defeat, has passed, such speculations look to an event out of the ordinary, one that is not on the immediate horizon but could have an instantaneous effect—such as the addition of a major new ally or the collapse of a coalition. World War I and World War II were transformed in 1917 and 1941, respectively, by the former. Both world wars ended with the victors acting with growing coherence while the soon-to-be defeated powers lost whatever unity they possessed and sought separate ways out of the conflict.

The equivalents by the autumn of 2022 were the hopes that Russia's president, Vladimir Putin, was fatally ill or that Russia would, once again, as in 1905 and 1917, respond to war with revolution. When these hopes are regularly postponed, they are abandoned as fantasies, and so the short war expectation becomes a long war in reality. It does so through accumulation: the end never ceases to be somewhere around the next corner. The main point, however, is that neither "short" nor "long" is an adjective endowed with any precision, despite the determination of analysts to use both.

How short or long did analysts think the Russian invasion would be? Three days? Three months? Three years? Any of these would have revealed how devoid of context they were. By February 2022, the war was already into its ninth year and, by most standards, had become a long war even before the Russian invasion. In 2013-14, Ukraine effectively acquiesced in the loss of Crimea and parts of the Donbas. That acquiescence magnified the capabilities of the Russian forces because they were not tested. It locked in the minds of Western observers the apparent threat of "hybrid" war, even if hybrid war was largely fabricated by NATO.5 It ignored what became, in the jargon, a "frozen conflict"-a misnomer-even a euphemism-given that fighting continued and people were killed. It also led to an underestimation of what Ukraine achieved between 2014 and 2022 as it sought to put its armed forces on a better footing.

Aided by training teams from Canada, the United Kingdom, and the United States, Ukraine prepared over eight years for a possible renewal of more active hostilities. From 2014 onward, it enhanced its capacity for national mobilization and popular resistance, prepared plans for territorial defense, and built up both the training and the tactical and operational competence of its battalions and brigades. A striking omission was the failure of those powers charged with advising Ukraine to consolidate the knowledge of its fighting capacity gleaned from their training missions or to integrate the views of those who executed these tasks into any strategic assessments. The reports submitted by the advisers were, at least in the United Kingdom's case, treated as matters of defense engagement and not as an index of the levels of preparedness for the next round of fighting. Effectively, they went into a separate, self-contained file and were not shared at a higher level.

The second assumption that reveals remarkably little about war in reality is that, in order to mount a successful offensive, the attacker requires a 3:1 superiority. Despite its endless repetition, that statement is profoundly misleading.<sup>6</sup> Only very rarely has that margin of superiority been available to any military commander. Unusually, however, the preinvasion analysis of Russia and Ukraine's relative strengths insisted that this was, in fact, the sort of advantage which Russia was alleged to enjoy. As of November 2020, Russia was reported to have 900,000 active-duty troops to Ukraine's 209,000, 2 million reservists to 900,000, and similar ratios in terms of tanks and guns. Its superiority in combat aircraft was even greater.<sup>7</sup>

The reality in most armed forces is that strengths on paper do not convert into actual numbers available for combat. The result, and this was true in February 2022, is that forces are frequently much more evenly balanced and that, if they are not, the inferior force avoids battle and opts for other methods like guerrilla warfare or terrorism. Russia did not manage to create a local superiority of 3:1 and had not even sought to do so. On December 30, 2021, the Financial Times put the total Russian force on the Ukrainian border at 175,000. This was definitely not a 3:1 advantage. Nonetheless, it was enough for some analysts to conclude that "Russia's military superiority would enable it to overrun Ukraine's army in weeks by launching assaults on multiple fronts."8 That interpretation of Russian intent was right, but it ignored the fact that Russia lacked the manpower to put it into effect.

Third, the assumption about the inherent superiority of Russia was not one just about quantity but also about quality. It reflected a greater faith in the professional soldier than in the conscript or national service person. The Russian forces were portrayed in glowing terms twice over, as professional soldiers and as professionals with extensive combat experience, most recently in Syria.

This calculation rested on three core assumptions. The first was NATO's own rejection of the principles of mass and national service in favor of long-service professionals better adapted for expeditionary warfare than home defense. Even France and Germany, the long-standing exemplars in Europe of the conscript army, went down that route in 1997 and 2011, respectively. The United Kingdom and the United States, territorially more secure because of the sea and with their defenses also underpinned by nuclear deterrence, had done so even earlier, in 1960 and 1973, respectively. Both Russia and Ukraine are continental states with long land frontiers, and neither could afford to make such a choice. Moreover, their immediate western neighbors, the most resilient Eastern European and Scandinavian states-Norway, Sweden, Finland, Estonia, Latvia, Lithuania, and Poland-either never abandoned conscription after 1991 or have returned to it since.

Second, Ukraine's own combat experience since 2014 was discounted as somehow insignificant because it had been gained in a "frozen" conflict, not in an active, high-tempo war. The one-sidedness of the estimates of relative quality was striking, not so much for their underestimation of the Ukrainian army as for their almost complete lack of attention to it. As a result-and the third attribute of this third assumption-very little attention was given to what Ukraine's own professional forces had learned from the continuity and depth of their combat experience over a period of eight years.

Fourth, the prewar assessments were conditioned by the Military Balance, the annual publication of the International Institute for Strategic Studies, which counts the equipment and manpower strengths of each state. A standard reference in the think tank community (for good reason), the *Military Balance* has encouraged generations of analysts to begin any judgments of capability with crude numbers—a process rarely put to the test in the Cold War because it never became hot. That approach in itself is not unreasonable precisely because it is capable of some form of exactness. But that very feature gives it a dominance that overshadows efforts to assess its less quantifiable aspects—will, morale, and intent. These, too, are part of fighting power and its measurement. For those who forgot that, Ukraine's response since February 24, 2022, has reminded them that all three matter.

Two direct consequences emerged from the prewar estimates as a result. First, insufficient account was taken of the fact that Ukraine's soldiers were defending their homeland and that its people were fighting an existential war for national survival. Debates about the motivators for high morale, which focus, for example, on small-group cohesion, pale into insignificance in comparison with the unifying effects of legitimate and passionate national defense. The surprise-not that it should have been—was the fact that the sum of the state's military capabilities did not represent the full sum of Ukraine's defensive strength. If it were true that the number of professional soldiers married to sophisticated technology invariably trumped motivation and self-belief, the United States might have done better in Vietnam, Iraq, and Afghanistan.

The second and related consequence was the mistake of treating prewar measurements as predictors of wartime applications. States may want to match each other before a war, not least to deter their adversaries from attacking, but during a war, they endeavor to exploit differences to establish a relative advantage. They seek ways to exploit enemy vulnerabilities, not just to match strength with strength. Arms races, peacetime military competition, and the *Military Balance* focus attention on the latter, but, in doing so, fail to reflect war's realities. After the 9/11 attacks, the United States called its enemies' refusal to pitch like against like "asymmetric" warfare, as though they were somehow behaving unfairly by not meeting it on a level playing field in the sort of battle for which the United States had prepared and so reckoned it would win. But by so derogating asymmetric warfare, the United States failed to take sufficient account not just of the resilience and adaptability of Iraqi militias or the Taliban but, ultimately, also of Ukrainian strength in 2022.

Part and parcel of this approach is a continuing fifth assumption that there is a clear division between the "conventional" operations of "major war" and the insurgent and guerrilla warfare historically associated with "small wars." Russia, an analyst from the Institute for the Study of War commented in January 2022, had created "a large-scale maneuver army to conduct operations against Ukraine."9 That military capability had been modernized since 2008 and especially since 2014. However, that analyst and another from the Center for Naval Analyses recognized that if the Russian invasion in February 2022 became a protracted conflict, it would also turn into an insurgency. The war in Ukraine would, therefore, become a quagmire for Russia.

For some commentators, this was the gleam on the horizon. Although Kyiv would fall and Russia would win quickly in the opening conventional phase of the war, a national insurgency would follow. The relative insouciance with which some senior politicians accepted this scenario demonstrated a striking ignorance of what an insurgency would do-and had done very recently in Iraq and Afghanistan. It would have divided the Ukrainian people; it would have broken the state; it would have fostered criminality and corruption, both in part legitimized by their necessary role in funding resistance; and it would have made the transfer to peace and the recovery of national unity even more protracted and complex than the war's current shape-that of an interstate conflict—suggests is likely. This sequencing, conventional success for one side followed by that side's exhaustion and possible defeat in a much messier, protracted war, appealed because it was familiar: it did, of course, mirror the experience of the United States in its post-9/11 wars.

In 2001, the United States, aided by the Northern Alliance, took Kabul in short order, but the war in Afghanistan did not end there. Insurgency followed, and two decades later, in 2021, the United States acknowledged defeat. But the lessons of Afghanistan had not sunk in with everyone, however recent and traumatic they were for many U.S. soldiers. One retired U.S. Army major wrote that if Russia took Kyiv in short order, "At that point you've lost the war. Yes, you may start the greatest insurgency in history. But you've [presumably meaning the Russians] won the war." That is an extraordinary statement. This is not just a point about the inherent strength of an insurgency; it is also a point about the presumed sequence of events in Ukraine. It would begin with a high-tempo operation, as in Afghanistan in 2001-2 and in Iraq in 2003, and then would be followed by an insurgency. There was no allowance for the possibility that Ukraine would plan on incorporating some aspects of insurgent warfare from the outset.

The statement of the retired major was not only revealing for what it assumed about sequencing; it also assumed that the conventional operations of major war and the guerrilla operations of an insurgency were opposites and thus to be seen as alternatives. It ignored the fact that in both the world wars of the twentieth century, as well as in the Napoleonic Wars of the nineteenth century, guerrilla operations and partisan warfare had coexisted with "major war." The standard narratives of all three of Europe's major wars since the French Revolution, by focusing on conventional operations, omitted or marginalized the contributions and roles of insurgencies on multiple fronts. Nor was this neglect necessarily caused by the perception that insurgencies were somehow lesser forms of war, as the term "low-intensity operations" suggested. Frequently, they were not. Popular resistance to enemy occupation elicited brutal responses and indiscriminate violence. There was plenty of firepower-intensive, face-to-face combat in Afghanistan between 2006 and 2014. The division between the two forms of war is an illusion: over the course of a conflict, especially if it is protracted, war changes its shape and can do so many times.

Between 2014 and 2022, Ukraine had prepared the capabilities for a war of national resistance, and it mobilized them on February 24, 2022. The territorial defense units formed in small groups and the non-attributable sabotage teams operating on Russian lines of communication had the potential to enable an insurgency at the same time that Ukraine also fought major conventional operations." It is worth remembering that in 1941-44, Ukraine was a theater of war characterized both by major

conventional operations-using armor, artillery, and airpower-and by partisan warfare, sustained and directed from Moscow. The Soviets claimed that 200,000 partisans were organized into 2,145 groups, and at their peak they tied down 424,000 Germans. These figures may be exaggerated, but the SS and the Wehrmacht were provoked into counterinsurgency operations of extraordinary ferocity.<sup>12</sup> The early Cold War texts on the subject stressed how the Soviet Union placed partisan warfare at the center of its thinking about war. Today, Russia, unlike the United States, makes no distinction between major wars and counterinsurgency. War, whether it is waged in Afghanistan, Chechnya, Syria, or Ukraine, is about the use of force.

Sixth was the way in which the issues of terrain and weather and their effects on the conduct of operations were examined. The *Military Balance* mentality, which looks at capabilities, can tend to neglect geography-broad, deep rivers; boggy ground and swamps; forests; and mountains. These are the principal concerns of field commanders and key elements in the conduct of land operations. In analyzing Ukraine's case, commentators saw its size and strategic depth as a source of weakness for Kyiv. In the words of two analysts, "Ukraine is vast, which makes it impractical for the country's inferior force to mount an effective defence against an invasion."13

For Russia in 1812 and the Soviet Union in 1941, strategic depth proved to be not a liability but a major defensive asset. In focusing on the problems for Ukraine of its force-to-space ratio, analysts failed to consider the much greater challenges that Russia would face on the same grounds. An army of 175,000 men was simply insufficient for a front of roughly 1,000 kilometers and a depth that was far greater.

In the two world wars, the Pripet (or Pripyat or Pinsk) marshes were studiously avoided by the armies of both sides as unsuitable for the conduct of major war. Straddling the border of Belarus and Ukraine, they create a natural obstacle north of Kyiv, which in itself makes the city's encirclement a daunting task. Some argued that, by attacking in the winter, Russia would be able to maneuver because the ground would be frozen. By late February 2022, however, it was not. Much of the landscape around Kyiv-thick forests in standing water-was unsuitable for mechanized warfare.

The propositions around terrain took another twist. Pundits said that, if Ukraine had to wage guerrilla warfare, it would do so in the cities, and, if it did that, Russia would find its forces sucked into dense urban spaces. They counseled Ukraine against exercising this option: it would endanger the civilian population and cause major damage to the nation's infrastructure. But if Russian columns could not maneuver across open ground because it was too waterlogged and so were instead forced onto the roads, the towns and cities where these lines of communication converged could be fortified as hubs of resistance. Mariupol was the obvious example in 2022: the Stalingrad of the Russo-Ukrainian war. The fighting here, however, was less urban insurgency and more conventional defense-a fight which, once again, made the distinction between the two much more fluid than the prevailing wisdom suggested was likely. In both world wars, attacking armies avoided cities with good reason: generals lose tactical control of their troops and operational designs are hijacked by house-to-house fighting.14

Seventh, there is a further point about the importance of territory, which the preinvasion analysis, and much that has been written since, has failed to address. The United States has encouraged Ukraine and its de facto NATO allies to identify this war, as it encouraged Europe to see both world wars, as a war for the defense of democracy and freedom. The "Western allies" clothe war in the vocabulary of the United States' "manifest destiny." Ukraine has colluded in that, not least to ensure its leverage with NATO members, and specifically with Congress in Washington and with the American people as a whole.

Of course, there is an underlying truth in this characterization of the war, but the United States' physical distance from Europe also minimizes the fact that for Russia, as Putin has himself described it, the war in Ukraine is designed to recover a lost empire, while for Ukraine it is a war to reestablish its 1991 frontiers. In other words, the control of territory is as much at the heart of this conflict as is the difference between an autocracy and a liberal and democratic government. In that context, possession is nine-tenths of the law. Ukraine has to fight to regain the land it has lost in order to be in a strong negotiating position when the war ends. Russia only has to hold what it has to have won something. That is why maneuvering, especially withdrawal, is so risky, and why counterattacking to regain what has been lost is so important.

The centrality of territory—with small gains counting as significant victories for Ukraine—feeds a narrative that plays badly in the United States. It smacks of attrition. The need for Ukraine to hold what it has elevates trench warfare. U.S. observers doubted that Ukraine could sustain the operational level of warfare. They saw its army as locked in by tactics and battles characterized by exhaustion and heavy casualties. Hence, the surprise created in September 2022 by the thrust on Kherson and then the switch to the counteroffensive at Kharkiv. Ukraine was not meant to be able to maneuver. The doubters argued that the success was due to Russia's relative lack of numbers in the Kharkiv sector. A very similar set of arguments was run in August-September 2024 when the Ukrainian forces advanced into Russian territory to create the "Kursk pocket." The Ukrainian military had used the best of its brigades against the weakest of Russia's.

That emphasis on territorial control and trench warfare became a recurring part of the narrative as summer turned to autumn in 2022. It evoked frequent, but largely unhelpful, comparisons with World War I, not just from the international press but also from many of those fighting at the front.

The World War I analogy played badly in the United States for three reasons. First, the United States, even more than the United Kingdom, sees World War I as a wasteful war, a conflict into which it was lured by a combination of British propaganda and Wilsonian rhetoric. It ended with a peace settlement that unraveled by the 1930s. By contrast, World War II is the "good" war, even if that narrative rests on retrospective myth-building.

Second, attrition became a taboo word after the war in Vietnam, with maneuver being elevated, especially in the U.S. Army's Field Manual 100-5: Operations (1982), as the virtuous form of war, both more decisive in its effects and less costly in lives. That debate, which presented attrition and maneuver as opposites, rested on a false premise. At the tactical level, fire and movement are not competing alternatives but complementary and mutually dependent forms of fighting. Troops

use fire to create the opportunity to move and to improve their position for firing. Moreover, the supposed antithesis between fire and movement, or between attrition and maneuver, is totally redundant in the air, where platforms do both. So, too, do most of today's land platforms.

Much of the fighting of 2022-23 was characterized as attritional: Mariupol became Ukraine's Stalingrad and Bakhmut its Verdun. Attritional battles make sense where terrain matters and where—as a result—the enemy is prepared to commit its forces to patterns of fighting that exhaust them. Bakhmut became symbolic for Ukraine because of the losses it suffered in its defense, just as Verdun did for France in 1916: "Ils ne passeront pas" [They shall not pass], in the words of the French posters that year. But Bakhmut also had significance for Russia's capacity to maneuver: it sits athwart the junction of several roads running westward. The defense of Stalingrad similarly fulfilled two strategic functions in 1942-43. It was a rallying call for Soviet morale, which, in annihilating Friedrich Paulus's 6th Army, inflicted the most obvious direct losses on Germany's order of battle so far in World War II. The siege also blocked Germany's access to the southeast and the Caucasus.

Attrition is, therefore, a means to an end, at the strategic level to exhaust the enemy and at the tactical to enable maneuver. Too many popular interpretations of World War I, not least those peddled in the United States, fail to observe that that major war ended with the successive surrenders of four powers and allied victory, even if the peace was lost. By the same token, the equivalent narratives of World War II, because victory was more successfully translated into a lasting peace, overlook the importance of attrition on the eastern front in 1941-45, in northwestern Europe in 1944-45, and at sea and in the air throughout the conflict.

The eighth and last set of assumptions about the expectations put in place in advance of Russia's full-scale invasion of Ukraine on February 24, 2022, concern the United States' appetite for mirror-imaging its adversaries and their approach to war. In the eyes of both the United States and NATO, Ukraine, it is important to remember, was a potential ally, not an enemy. Then U.S. president George W. Bush raised the possibility of Ukraine's membership in NATO after Russia's war with Georgia in 2008. The enemy was Russia. For that reason, the United States thereafter focused on Russia's military modernization: its move beyond the "little green men" of 2013-14, its development of advanced technologies, its restructuring of combined-arms armies, and its growing presence beyond its borders-in Belarus and Syria, as well as in Crimea and the Donbas. U.S. military intelligence and U.S. military analysis were focused here and not on Ukraine. It is worth remembering, too, that the United Kingdom's 2021 strategic defense review, "Global Britain in a Competitive Age: the Integrated Review of Security, Defence, Development and Foreign Policy," named Russia as its principal adversary. 15 Moreover, so focused was NATO on Russia that its attention, and with it the United States', was concentrated on those members of the alliance that looked most vulnerable to Russia-the Baltic states and Poland. In 2016, a RAND study on reinforcing deterrence on Russia's eastern flank war-gamed the defense of the Baltic states, not of Ukraine.<sup>16</sup>

That attention to Russian capabilities focused on two that the United States expected to have an even greater salience in any expansion of the war in Ukraine than they have had.

The first was cyber warfare. Before the invasion of February 24, 2022, much of the Western narrative was disproportionately focused here, as though the war might be so restricted to cyberspace that it would replace more traditional and destructive forms of war. It was anticipated that, at the bare minimum, Russia would precede any invasion with a cyberattack. It did, but Ukraine's cyber defenses proved equal to the task. It provided clear evidence of Russia's intent, but it came so late, in the early hours of February 24, that it neither acted as an early warning of Russia's intentions nor formed a dominant image of the invasion itself. More important, however, is that although cyber has been immensely important to both sides since February 2022, it has been as an enabler, not as a weapon of destruction in its own right. Traditional forms of combat have had as high a salience as activity in cyberspace.

The second capability was "shock and awe," the U.S. phrase coined to cover the establishment of rapid dominance over the enemy, especially through air power in the opening stages of a campaign. One of the reasons for the elevation of Russia's military effectiveness was its massive superiority over Ukraine in the air, particularly in manned aircraft: 1,857 combat aircraft to 160.17 Because it would be unthinkable for a NATO land force to deploy without significant air assets, Ukraine's weakness in this respect promised to become a besetting sin. The prewar commentary emphasized how Russia would-alongside a cyberattack-embark simultaneously on a "shock and awe" campaign directed at Ukrainian cities. 18 An early air offensive would force Ukraine to choose whether to prioritize its ground forces in the field or its civilian air defenses to protect its population. This is not the place, nor would it be right, to play down the impact of Russian aircraft and missile attacks on Ukrainian cities and civilians in 2022. Nonetheless, the point remains that the consequences of Ukraine's inferiority in the air proved far less significant than first feared. The surprising conclusion from the opening year of the war proved to be the reverse of what was anticipated: Ukraine's aerial defenses, especially over its major cities, were strikingly successful, and the numbers of civilian deaths lower than forecast. It is important to remember that the title "shock and awe" reflected not Russian doctrine but U.S. doctrine. Its use referred not to what might have happened in Ukraine in 2022, so much as what did happen in Iraq in 2003.

"Shock and awe" especially showed how the United States was using mirror images of its adversary to guide its expectations and doing so in preference to sustained analysis of how to avoid or defend against air threats. Moreover, there was a further problem when the United States looked in the mirror. It confused its image of Russia with its image of itself.

During the wars in Iraq and Afghanistan, U.S. commentators regularly cited two injunctions from their reading of Clausewitz's On War. The first was Clausewitz's reminder that the principal task of a state embarking on a war is to recognize the sort of war on which it is embarking and not to mistake it for something else. The second, and the one so often quoted that it is frequently identified simply by the adjective "Clausewitzian," is that war is a continuation of policy by other means. It implies that war has utility as an instrument of state power. In the debate surrounding the post-9/11 wars, both aphorisms became accusations. The United States' use of war over the first two decades of the twenty-first century proved an inadequate deliverer of effective outcomes. Neither in Afghanistan

nor in Iraq did operations match their objectives. U.S. statesmen overpromised and underdelivered in both countries—and in Afghanistan catastrophically so.

In February 2022, Putin's record in the same period seemed to be the exact opposite. One analyst described Putin as brilliant in his use of war in the pursuit of policy.<sup>19</sup> Putin had come to power on the back of success in the Second Chechen War, so reversing the result of the First Chechen War; he took "southern Ossetia" from Georgia within days in 2008; he intervened in Syria in 2014-15 and shored up Bashar al-Assad's stumbling regime; and in 2013-14, he took Crimea and a large chunk of eastern Ukraine. In this last instance, NATO was deterred from trying to stop him. Putin's calculations seemed to be spot on and, therefore, war delivered on its political objectives. Putin's record in the use of war was more obviously successful than that of any U.S. president since George H. W. Bush in the First Gulf War of 1990-91.

In 2020, another analyst, who served as an adviser to U.S. governments in the post-9/11 wars, spoke of Putin's "undeniable genius." <sup>20</sup> Commentators constructed the successes against Ukraine in 2014 as the work of this genius, embodied in the use of "little green men" in "hybrid warfare" to achieve objectives in ways that made Russia's role deniable. One analyst called this "liminal warfare." <sup>21</sup> One U.S. general, then the Supreme Allied Commander Europe, described it as "the most amazing information warfare blitzkrieg we have ever seen."22

The effects of U.S. failure and Russia's success in the use of force were threefold. First, NATO credited Russia with developing a new form of warfare—"hybrid war" or, in later versions, "gray-zone warfare." Having created this fantasy, NATO turned it against itself and proceeded to doubt its own internal resilience when confronted by Russia. Second, NATO then emphasized Russia's readiness to use force and politicized it to make the case for improving its own conventional defense. The Russian army, which had been discounted as corrupt and inefficient, was seen as having turned a corner, rooting out its problems and embracing reform and modernization. Although real enough, the evidence to support this interpretation was elevated for reasons that had more to do with the domestic politics of NATO member states. Third, the enhanced conventional capability delivered by Russia's military reforms was reinforced by its apparent readiness to use tactical nuclear weapons, which in turn gave Putin escalation dominance before he invaded Ukraine in February 2022. The more nuanced findings of academic scholars working on the Russian military made little impact on these assessments.<sup>23</sup>

In reality, Putin was unlikely to escalate the war in Ukraine to the nuclear level precisely because that could have provoked NATO to intervene. Russia would have lacked the strength to match NATO in a conventional conflict if that happened. The possibility of "vertical escalation" was further reduced by China's warning to Russia that it would not tolerate the use of nuclear weapons, an approach fully consonant with China's own policy of no first use. Nonetheless, Putin's readiness to use force, reinforced by recurrent rhetoric to that effect, so grips Western imaginations-particularly in the upper reaches of the United States government—that the United States has been self-deterred. Consequently, despite being the weaker power, Russia has appeared to enjoy escalation dominance. War lies in the realm of contingency and uncertainty. Its course fluctuates, and its outcomes are unpredictable.<sup>24</sup> For this reason, among others, the notion of "applied history" can be a false friend when it is used to analyze war and strategy. Some will say, with justification, that some of the predictions made before February 2022 began to look more sure-footed in 2024 as the war progressed through its third year. That may be true, but it still does not indicate how the war will end. At what proved to be the midpoints of the two world wars, in 1916 and 1941, the eventual victors were on the ropes as plans miscarried and losses mounted. What matters to this analysis is that critical early failings based on false assumptions can tend to have longer-term consequences than missteps later.

Opportunities to avoid the descent into war or to act preemptively could have forestalled war or ended it with the rapidity that gave rise to the short-war expectation in the first place. The result of flawed assessments before February 2022 wrong-footed the United States and its NATO allies and has left them struggling to catch up. The claim that they have been behind the curve of events in their support of Ukraine has persisted. Moreover, if the signals had been better read in advance, going back not just to late 2021 but instead to 2013, Ukraine's supporters might have read them better, enabling an earlier resolution to the war or-even better-deterring the invasion in the first place. Applied history may not work, but that is not a reason for failing to consider the reasons for failure and for not endeavoring to do better next time by learning from experience.

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# The Russia-Ukraine Military Analysis Project

urprise occurs in many forms. Many think of it in terms of a surprise attack, but it occurs in other dimensions. The full-scale Russian invasion of Ukraine in 2022 is a good example: the attack was foreseen, but the immediate outcomes were astonishing. To use an old Soviet phrase, analysts misunderstood in fundamental ways the "correlation of forces." Their judgments about Russian and Ukrainian military capacity were not merely off-they were wildly at variance with reality. And even more perplexing, leading and widely acknowledged experts misjudged with a degree of certainty that in retrospect is no less remarkable than the analytic failure itself.

Their misjudgment was not a case of normal error or exaggeration. The expert community grossly overestimated Russian military capabilities, dismissed the chances of Ukraine resisting effectively, and presented the likely outcome of the war as quick and decisive. This analytic failure also had policy implications. Pessimism about Ukraine's chances restricted military support before February 24, 2022. For years, voices in the analytic community argued publicly against providing crucial military aid for Ukraine precisely because Russia was presumably so strong that a war between the two countries, particularly a conventional one, would be over too quickly for the aid to make a significant difference. Once the war began, some of Ukraine's most important international friends hesitated to supply advanced weapons, in part out of the mistaken belief that Ukraine would prove unable to use them or would be overrun before it could deploy them effectively. Today, such hesitation remains, with Ukraine still lacking the weapons systems it needs to defeat Russia in its relentless effort to destroy Ukraine as a state.

The definitiveness with which the experts made these erroneous assessments has not been sufficiently examined. Instead, analysts have resorted to a number of inadequate explanations or justifications for them. More to the point: the authors believe that consideration of these failures holds important lessons for other analytic communities, including those concerned with the military balance in the Indo-Pacific and other areas where the prospects of armed conflict are rising. Errors of comparable magnitude at the outset of a crisis leading to war can have profound and lingering effects. While some misjudgments are inevitable, ones that are wildly off are not.

In addition to their general reading, the authors created a database of 181 pieces of research and analysis, mostly think tank reports and pieces released in major media outlets (see Appendix A), focusing on statements published in major journals, publications, and news networks, as well as commentary by acknowledged experts in the field. The investigation deals only with unclassified analyses of the Russian and Ukrainian militaries and the prospective war, though it appears, given the congressional testimony of senior U.S. intelligence leaders, that the intelligence communities in the United States and other countries made comparable errors.

The authors broke these sources down based on the sources' views on the Russian military, the Ukrainian military, and how they believed a full-scale war between them would develop. What the authors found was a remarkable degree of consensus, which is reflected through the use of sources in this report. To show the impact of this analysis, the authors will quote regularly from major journals, prominent think tank reports, and popular media outlets such as prominent newspapers. While there were outliers (noted in the text), what was striking to the authors was the degree of unanimity in the core expert community, i.e., among those identifying themselves, and identified by others, as experts on the Russian military. There were diverging views, but often from sources outside this community-retired military officers who had participated in the training of the Ukrainian military after 2014, for example. The authors noted, finally, that judging by press reports, this consensus view was shared by the intelligence community in the United States. To discuss the findings of this investigation and the possible interpretations of the evidence, the authors convened three workshops. Attendees included senior intelligence analysts from the United States and the United Kingdom, military historians, former government officials, and experts from the United Kingdom and a number of Scandinavian and Baltic countries. While these discussions enriched the work considerably, responsibility for all arguments and conclusions rests with the authors.

Some may doubt whether one should review in detail errors made two years ago and in a few (though not all) cases rectified within months. The authors disagree. Thorough consideration of why responsible and expert analysts made egregious misjudgments is the best way to avoid a similar outcome in this part of the world or elsewhere. What follows is the documentation and explanation of a large, consequential failure. The potential measures suggested at the end of report, including an uncompromising argument for curiosity, sensitivity to intangibles, and, above all, humility in the face of the uncertainties of war-have real and important implications for analysis in other areas as well.

### The Estimate

"Ukraine's paucity of air defences and the weakness of its armed forces means that Russia could drive to Kyiv perhaps as easily as American forces reached Baghdad in the Iraq war of 2003."25

-"What Are Vladimir Putin's Military Intentions in Ukraine?," The Economist, January 29, 2022

"Russia has the ability to carry out a large-scale joint offensive operation involving tens of thousands of personnel, thousands of armored vehicles, and hundreds of combat aircraft. It would likely begin with devastating air and missile strikes from land, air, and naval forces, striking deep into Ukraine to attack headquarters, airfields, and logistics points. Ukrainian forces would begin the conflict nearly surrounded from the very start.

The Russian military has repeatedly practiced the use of long-range strike and tactical fires cued by drones as well as other means of reconnaissance, both in training and in combat operations in Syria. Russia's combat aircraft and strategic air defenses give Moscow many more options to control the air and to strike Ukrainian forces, and most Russian pilots have recent real-world experience in Syria."26

-"The West's Weapons Won't Make Any Difference to Ukraine," Foreign Policy, January 21, 2022

"If Russia decides to seize Ukraine, its attack will be multifaceted. Cyber attacks and sabotage will target economic and communications infrastructure. Agents provocateurs will begin causing chaos in the streets. Organised protests will erupt around the country. Ukrainian civic leaders deemed hostile to Russia will be assassinated. Internet access will likely be suppressed or corrupted, while false information will flood across the airwaves to spread panic and paralysis.

At the same time, Russia has the capacity to conduct an extensive precision strike campaign against Ukrainian military installations using ballistic and cruise missiles and overwhelming airpower. This could suppress Ukrainian air defences, allowing for aviation assaults to seize key bridges, road junctions and critical infrastructure. The capture of these points would pave the way for rapid armoured thrusts with the use of massive artillery strikes to break up defensive strongpoints, and the isolation of key urban centres."27

-"Putin Has Put Ukraine on the Horns of a Dilemma," Royal United Services Institute, February 4, 2022

"Russia's military is far superior. Defense analysts say this gives Russia a range of options if it decides to escalate further, such as bolstering separatists fighting in the Donbas to a full-fledged assault aimed at seizing all of Ukraine. . . . Many defense experts note that Russia has undertaken a remarkable modernization effort since its war with Georgia in 2008, one that has transformed its Soviet-era force into an increasingly well-equipped and well-organized military. Additionally, its members have gained considerable combat experience in the conflicts in Syria and Ukraine. . . . The great financial resources required to sustain Russia's recent mobilization around Ukraine is illustrative of the wide disparity between the two countries' military capabilities."28

-"How Do the Militaries of Russia and Ukraine Stack Up?," Council on Foreign Relations, February 4, 2022

"A Russian military campaign could range from standoff strikes to a largescale invasion of Ukraine's eastern regions, the encirclement of Kyiv, and the taking of Odessa along the coast. The question is not what Russia can do militarily in Ukraine, since the answer is almost anything, but what kind of operation might attain lasting political gains."29

-"Putin's Wager in Russia's Standoff with the West," War on the Rocks, January 24, 2022

In the view of leading analysts before the Russian invasion on February 22, 2024, the Russian military was so powerful and multicapable that, when presented with an enemy such as Ukraine, it could do "almost anything." <sup>30</sup> A consensus coalesced around an extreme vision of what Russia could accomplish militarily and a correspondingly pessimistic view of Ukraine's ability to resist. Analysts widely stated that Russia could open with a devastating blow in the first few hours, Kyiv could be

surrounded or seized in a matter of days, and Ukraine could be defeated conventionally in a matter of weeks. Ukrainian citizens were portrayed as having little capacity to affect their fate, being left to choose between capitulation and guerrilla warfare in the cities or countryside. Compounding the discrepancy in military power, Ukrainian identity was so weak, analysts contended, and so enmeshed with Russia that Ukrainian resistance–particularly in the east of the country–would be limited.

What happened was entirely different. From the outset, the Russian military exhibited major shortcomings. The inability of the Russian air force, for instance, to suppress Ukrainian air defenses and control the skies over the battlefield meant that Ukrainian forces, far from being devastated in the opening moments of the war, could maneuver and fight back effectively. Moreover, shortcomings in command and control and logistics meant that Russian forces had difficulty sustaining their advances.

Ukrainian conventional resistance, which many had written off before the war, proved robust. The Ukrainian army, far from being swept off the battlefield, fought back effectively with quicker reactions and adaptations than its Russian enemy. Using mostly upgraded Soviet legacy systems, the Ukrainian army forced the Russian forces to retreat from Kyiv after a few weeks of fighting. In the ensuing months, Ukrainian forces compelled Russian forces to retreat from much of the eastern sector (particularly around the endangered city of Kharkiv) and retook the city of Kherson. Ukraine struck the Black Sea Fleet, opening up a vital sea-lane for its exports while denying Russia's navy the offensive use of the maritime space. Further, Ukrainian forces have struck deep into Russia, though not on the scale of Russia's continuing attacks on Ukrainian cities and infrastructure. Since the summer of 2022, Ukraine has liberated far more of its territory than Russia has been able to seize in the opening months of the war.

The authors have found little disagreement within the analytic community, most of which resides at semiofficial or official research organizations such as the RAND Corporation, the Center for Naval Analyses, the Royal United Services Institute (RUSI), and similar organizations. The number of analysts who publicly assessed the Russia-Ukraine military balance before the war and in its early stages and created the most detailed reports on the question was relatively small. Between 10 and 20 analysts dominated the community as the most widely cited and most prominent, receiving regular requests to brief governments and intelligence agencies. The consensus was broad and mutually affirming among this community.

It is important to recognize that these assessments seem to have been largely shared within the U.S. government. Thus, a remarkable exchange between Senator Angus King and the then-director of the Defense Intelligence Agency, Lieutenant General Scott Berrier, occurred in a Senate Armed Services Committee hearing on May 12, 2022:

General Berrier: I think the Intelligence Community did a great job on this issue, Senator . . .

Senator King: General, how can you possibly say when we were told, explicitly, Kyiv would fall in 3 days and 2 Ukraine would fall in 2 weeks? You are telling me that was accurate intelligence?

General Berrier: So we were really focused on the Russian forces at the time, and so when we backed . . .

Senator King: And we were wrong about that too, were we not? We overestimated the Russians.

General Berrier: Well, the Intelligence Community did a great job in predicting and talking . . .

Senator King: And I acknowledged that at the beginning of my question. I understand that. Yes, they did. What they failed at was predicting what was going to happen after Russia invaded.

General Berrier: So as I look at the totality of the entire operation I think the enormity rests on the predictions of what the Russians were going to do versus whether or not the Ukrainians were going to be successful.

Senator King: Well, if you do not concede there was a problem on this then we have got a problem.31

And such assessments were believed at the top of the United States government and military. The Chairman of the Joint Chiefs of Staff was reported only two weeks before the invasion as saying that Kyiv could fall in 72 hours and having reported as much to members of Congress.<sup>32</sup>

# **Assessments of the Russian Military**

"The modernized and massive Russian military force that currently surrounds Ukraine on three sides can muster air and missile strikes that would likely overwhelm Ukrainian airpower and air defenses and severely damage military and other facilities. In particular, Russia's Aerospace Forces, or VKS, are very different from a decade ago. They have new and modernized aircraft, along with better radar, communications, and targeting equipment. Pilots have generally flown more flight hours and received training in close air support and nighttime operations. And although they have little experience flying through hostile air defenses, 92 percent of VKS pilots have recent combat experience in Syria. The VKS also has adopted . . . more-effective countermeasures against man-portable or short-range air defenses such as Stinger missiles, including flying at higher altitudes."33

-"Ukraine Needs Help Surviving Airstrikes, Not Just Killing Tanks," RAND, January 19, 2022

<sup>&</sup>quot;Russian forces are not just better armed, but also more fleet-footed. Thanks to improvements in readiness, Russia could probably get 100,000 troops, complete with heavy armour, to a European hotspot within 30 days. NATO might struggle to muster half the number, of lighter forces, in that time. . . . Russia's armed forces enjoy the additional advantage of being blooded in battle."34

<sup>-&</sup>quot;Russian Military Forces Dazzle after a Decade of Reform," The Economist, November 2, 2020

"They [the Russian military] could disorient the Ukrainian military and society so the conflict is basically over in a day or so."35

> -"U.S. Intel: Nine Probable Russian Routes into Ukraine in Full-Scale Invasion," NBC News, February 10, 2022

Prewar assessments of the Russian military focused on three key elements: organizational and technological modernization, sophisticated doctrine, and combat experience.

#### A Modernized, Combat-Tested Military

Analysts trace the modernization of the Russian military to 2008 and the "New Look" Russian military process. The key figure in this process was Russian minister of defense Anatoly Serdyukov, who served in that role from 2007 to 2012.<sup>36</sup> Motivated by the poor performance of the Russian military in the invasion of Georgia, Moscow attempted to create the New Look military by expending large sums of money-an annual expenditure of somewhere between \$150 and \$180 billion, approximately 4 percent of Russian gross domestic product (GDP). The investment reportedly influenced all military domains, "from top to bottom," covering air, sea, and land forces.<sup>37</sup> In 2022, the International Institute for Strategic Studies reported that the reforms had "made Russia a far more capable military power today than at any time since the dissolution of the Soviet Union."38

Modernization took a number of forms. Older Soviet-era aircraft such as the Su-27 (Flanker) and the MiG-29 (Fulcrum) were phased out. When Russia invaded Ukraine in 2022, these earlier aircraft were the mainstays of the Ukrainian air force but had since passed into obsolescence for the Russian military,<sup>39</sup> In their place, Russia fielded a range of far more capable aircraft, including the two-seater Su-34 fighter/bomber and single-seater Su-35 fighter.<sup>40</sup> The Su-34 was appraised to have performed very well in the bombing of Syria. 41 These aircraft had capabilities that allowed them to engage enemy aircraft at much greater range than anything the Ukrainian military possessed; they were even considered extremely threatening to the air forces of the North Atlantic Treaty Organization (NATO) alliance.42

Beyond aircraft, the Russian precision strike was said to have been significantly improved by the New Look reforms.<sup>43</sup> The Russian navy deployed a large stock of sea-launched Kalibr missiles (used in Syria) while upgrading a number of ship and submarine classes. 44 Reports stated that Russia was deploying hypersonic Kinzhal missiles, which would give the military great flexibility in targeting enemy assets, from government buildings to critical infrastructure to important military targets.<sup>45</sup> At the time, reports claimed that there was no defense against this last system.

On the ground, much of the stress was on organizational changes. Analysts saw Russian land forces as having improved the quality of their soldiers by moving away from a majority conscript force toward more motivated and better-trained contract soldiers. 46 At the same time, the Russian military reorganized their armed forces into innovative and highly effective battalion tactical groups (BTGs). These small infantry battalions, or fractions of them, were reinforced with armor,

artillery, and other systems. Russian artillery and rocket capabilities, a traditional strength, reportedly surpassed U.S. capabilities in terms of range and effectiveness.<sup>47</sup> Many experts assessed modernized Russian land forces as capable of quickly overwhelming NATO resistance in key areas along the border.48

In 2017, RAND undertook a series of tabletop exercises to better understand the prospects for a Russian conventional attack in the Baltics. Based on open-source estimates, Russia could muster approximately 27 maneuver battalion tactical groups to attack the Baltic countries in a short-warning attack, supported by significant long-range fires. Assuming a week of warning, NATO could deploy 12 maneuver battalions. NATO forces, however, would be light, outgunned, and outmaneuvered by Russian heavier units, and fixed in place or destroyed while Russian forces maneuvered toward the capitals.<sup>49</sup>

Analysts assessed that, in addition to the modernization of key items of equipment and improved organization and terms of service, Russia had restored its Cold War edge in electronic warfare (EW). As part of Russia's military modernization after its poor 2008 performance in Georgia, the Russian government heavily invested in improvements in this area. 50 EW-described as the fight to control the "invisible" parts of warfare "by exploiting, deceiving, or denying enemy use of the [electromagnetic] spectrum while ensuring its use by friendly forces"—includes such activities as jamming communications, radar, and Global Positioning System signals, as well as various spoofing and deception activities in the electromagnetic spectrum.<sup>51</sup> Analysts saw Russia as having steadily improved its capabilities in EW throughout the 2010s, while the United States and its NATO partners had let their EW capabilities "atrophy."52 By 2022, these Russian improvements in EW had been so successful that they would likely have "an outsized negative impact on Russia's adversaries."53 Indeed, in testimony to the House of Commons just before the full-scale Russian invasion, one analyst claimed that Russia "might be the most capable military in the world in terms of electronic warfare capabilities."54

Beyond declaring the Russian military modernized and well equipped with some of the most advanced weapons in the world, analysts believed that the Russian military was doctrinally sophisticated. In particular, analysts stated that Russian doctrine-its concepts of operation-had evolved such that the Russian military need not rely on large forces of soldiers suffering significant losses to achieve their objectives. Doctrine, like artillery (and unlike, for example, proficiency in infantry tactics or small-unit leadership), has long been a Russian strength, building on sophisticated Soviet and even Tsarist military thought. During the later stages of the Cold War, Western analysts were particularly impressed by the quality of Soviet military literature, while military historians such as David Glantz painted a picture of the Soviet Union's World War II performance as being at odds with the image of overwhelming but unsophisticated mass that had brought victory on the Eastern Front. Instead, analysts believed that Soviet operational art, derived from the work of pioneers such as Mikhail Tukhachevsky and Vladimir Triandafillov, animated the Soviet Union's plans for deep operations—as well as, presumably, their ability to conduct them. Even as the Soviet Union weakened, Russian military leaders such as Chief of the General Staff

Nikolai Ogarkov and General Makhmut Gareev had the respect of Western observers impressed by their portrayal of a revolution in military-technical affairs.

After the Cold War, despite Russia's evident weaknesses, Western observers portrayed Russia as leading the way in hybrid warfare—the use of nontraditional means to achieve political goals with low levels of force.<sup>55</sup> This doctrinal specialty in hybrid warfare, which could be used with or without more traditional, conventional means of war fighting, was often referred to as the Gerasimov doctrine, after General Valery Gerasimov, chief of Russia's general staff and respected in the West as an original military thinker.56

When it came to conventional warfare, analysts saw Russian doctrine as espousing "active defense," an intelligent and multifaceted way of coping with a potentially larger and more technologically advanced enemy, such as NATO.57 Such a doctrine stressed avoiding dangerous offensives to preserve forces and prevent the extremely costly, if successful, attacks that characterized Soviet operations in World War II. Overall, analysts characterized Russian doctrine as looking for smarter" ways to engage an opponent, with stress on long-range fires and artillery.

Analysts interpreted Russia's successful execution of large-scale military maneuvers as a sign of its military progress. The Zapad exercises of 2017 and 2021, particularly the latter, supposedly demonstrated that Russia could quickly and efficiently deploy military forces over a large area. Even though few scripted impediments were in the way of Russian actions, analysts claimed that the ability to undertake these choreographed showpieces revealed very real capabilities.<sup>59</sup> As one analyst claimed, Zapad 2021 "is not just military theater, it affirms that years of defense modernization and reform have made the Russian military a force with increased capability, readiness, and mobility."60

To add to Russian strengths in equipment, organization, doctrine, and training, analysts noted that the Russian military, crucially, had proved itself in battle. This was particularly notable in Syria, where the Russian intervention began in 2015. Before this, the Russian armed forces exhibited serious deficiencies in the invasions of Chechnya and Georgia,<sup>61</sup> and their command and control capabilities, particularly the ability to coordinate land and air forces, were seriously deficient.

Analysts saw the Russian intervention in Syria as showing how much progress the Russian military had made and how prepared it was becoming to execute complex operations. According to the New York Times, quoting a number of the best-known analysts, "Russia used the war in Syria, experts say, as a laboratory to refine tactics and weaponry, and to gain combat experience for much of its force."62

While analysts noted how Russia's experiences in Syria helped improve its EW and force deployment abilities, they claimed that the Russian air force had improved the most during the fighting in Syria, with both technological and operational improvements. 63 The Russian military not only introduced a number of their newest aircraft into operations, but they also refined their tactics. In Syria, Russia flew a large number of missions, in particular attacking ground targets, many of them, admittedly, civilian. Flying approximately 9,000 sorties overall, at an average of 70-80 per

day, the Russian air force learned a great deal about operating in combat conditions.<sup>64</sup> By the end of the Syrian conflict, analysts considered the Russian air force greatly improved and highly effective:65

The five years of war in Syria have been the most intense period of transformation for the [Russian air force] since the war in Afghanistan in the 1980s. The Russian military not only gained an unprecedented amount of experience, but also made substantial improvements in tactics and strategy.66

#### **What Analysts Overlooked**

The discussion of the Russian military generally avoided addressing some of the more intangible elements of military effectiveness. One of the most extreme examples was the almost total avoidance of commentary on the possible negative impact of systemic corruption, widespread in the regime of Russian president Vladimir Putin, on the performance of the Russian military. Although the upper echelon of the Russian military had clearly capitalized on access to the large amounts of money available for the new military, the analytic literature about the Russian military in the run-up to February 24, 2022, almost entirely avoided the word "corruption," let alone assessing its likely implications for Russian military performance. Rather, "corruption" was far more commonly used with reference to weaknesses in the Ukrainian military.

When analysts mentioned corruption, it was almost always to say that the Russian military had been prone to corruption in the past but that this problem had been heavily attacked during the Serdyukov reforms. For instance, one of the most laudatory pieces written about Russian military modernization, published in *The Economist*, stated that the Russian military had improved so much by 2020 because corruption had been significantly reduced:

After the Soviet Union's collapse, Russia's once-mighty armed forces were laid low. Moscow bus drivers outearned fighter pilots. Hungry soldiers were sent to forage for berries and mushrooms. Corruption was rife—one general was charged with renting out a mig-29 for illicit drag racing between cars and jets on a German airfield.

"No army in the world is in as wretched a state as ours," lamented a defence minister in 1994. Yet few armies have bounced back as dramatically. In 2008 Russian forces bungled a war with Georgia. In response, they were transformed from top to bottom. . . . Though the days of renting out warplanes may be over, last year Russian military prosecutors announced that 2,800 military officials had been charged with corruption. The amount stolen totalled around \$90m.67

Interestingly, one of the few reports that mentioned Russian corruption as a possible negative factor was also one of the few to cast strong doubts on Russia's ability to succeed in Ukraine.<sup>68</sup>

Analysts generally ignored the Russian logistical system, which in many ways failed during the full-scale invasion. A short War on the Rocks piece was one of the few analyses devoted solely to the subject.<sup>69</sup> Larger studies, such as those on Russian modernization, usually asserted that Russia had the logistic lift needed to fulfill its strategic obligations without much evidence to back up that assertion.70

Compared to the few mentions of corruption and logistics in the functioning of the Russian military, the role of training and motivation in assessing Russian military performance was discussed more often (though considerably less often than issues such as technological modernization). However, the discussion of Russian recruitment, military training, and motivation usually focused on their presumed contribution to Russian military effectiveness.

Thus, analysts widely assumed that because Russia had moved away from reliance on conscripts, soldiers would have the high morale and motivation to do their jobs effectively. Analysts also stated that Russian soldiers would be well led and trained and able to efficiently execute complex operations. In fact, analysts declared this one of the main areas in which Russia's military reform had made a massive difference:

[In the past] senior officers sometimes lived in moldy, rat-infested tenements. And instead of socks, poorly trained soldiers often wrapped their feet in swaths of cloth, the way their Soviet and Tsarist predecessors had. Two decades later, it is a far different fighting force that has massed near the border with Ukraine. Under Mr. Putin's leadership, it has been overhauled into a modern sophisticated army, able to deploy quickly and with lethal effect in conventional conflicts, military analysts said. It features precision-guided weaponry, a newly streamlined command structure and well-fed and professional soldiers.<sup>71</sup>

Certainly, when analysts compared the Russian army to the Ukrainian army, they highlighted the Russian army's significant advantages in experience, training, and leadership. The Russian army operated their new advanced equipment with high levels of "readiness" and their soldiers were being led by "officers bloodied in several conflicts, such as the war in Syria," which would ostensibly give the Russian forces "quantitative and qualitative" superiority over the Ukrainian forces.<sup>72</sup>

# **Assessment of the Ukrainian Military**

"Ukraine does not have anywhere near enough forces to credibly defend against all the potential avenues of attack, which means it would have to choose between defending a select set of fixed strong points—ceding control of other areas—or maneuvering to engage Russian forces that outnumber them. The line of conflict in the Donbass will be but one of many fronts. The Ukrainian fortifications there may well look like a modern-day Maginot Line: prepared for a frontal attack that may never come and bypassed by the mobile forces of an adversary with more-advanced aircraft and more-mobile land forces."73

-"U.S. Military Aid to Ukraine: A Silver Bullet?," RAND, January 21, 2022

-"Russia's Shock and Awe," Foreign Affairs, March 2, 2022

<sup>&</sup>quot;If it quickly found itself overwhelmed, Ukraine's military could embrace guerrilla warfare, breaking itself into smaller tactical formations with maximum autonomy. That would entail abandoning most of its heavy armor and artillery and focusing instead on infantry armed with shoulder-fired missiles to hit tanks or aircraft. . . . Ukrainian air defenses are in short supply, and they would be unlikely to provide effective cover for most of the country's ground troops. They would be quickly overwhelmed."74

"The implication for a battle in Ukraine is that where Russian armored units wish to succeed, they will pour vast firepower on defending Ukrainian troops, and then try to overwhelm them with superior numbers. This is how the Soviets planned to fight NATO, and this is how the Russians would likely attack the Ukrainians. Javelins and Stingers can certainly make the Russians pay, because they are indeed great weapons, but they are unlikely to change the operational outcomes. Ukrainian units would no doubt fight bravely, but given the geography of the country, the open topography of much of its landscape, and the overall numerical superiority that Russia enjoys, it is unlikely that Ukraine will be able to defend itself successfully."75

-"Rhetorical Dogs of War," Just Security, February 15, 2022

Analysts portrayed the ability of the Ukrainian military and Ukrainian society to defend itself very differently from Russia's ability to invade and dominate Ukraine. In the first case, compared to the analyses of Russia, relatively little was written about Ukraine, and Ukrainian capabilities were not subjected to detailed analysis. As such, analyses of the Ukrainian military tended to stress its limitations and inability to defend the country, often focusing on the supposed differences in the capabilities of Russian and Ukrainian equipment and weapons.

In the second case, whereas there was almost no discussion of how Russian society and politics would diminish Russian military capabilities (and very little discussion of corruption or the degrading influence of Putin's dictatorship), a great deal of discussion addressed Ukraine's supposed weakness in these areas. Some analysts considered Ukrainian society lacking in unity, torn between a Russian-speaking east and a Ukrainian-identifying west. Moreover, analysts claimed that the Ukrainian state, with a recent history of disunity and corruption, was a real handicap to Ukrainian resistance. Ukraine could even be portrayed as a failing state, especially compared to the supposedly effective and strategic Russian one.

Overall, analysts had a much greater focus on Ukrainian weakness and Russian strength. Possible sources of Ukrainian strength-for example, its political transformation following the Revolution of Dignity (or Maidan Revolution) in 2014-were rarely considered. Above all, the history of Ukraine's tenacious resistance to Russia for more than a century received little attention, and evidence of Ukrainian tactical successes at the end of the most intense period of conflict in the Donbas failed to gain traction.

#### Analysis of the Ukrainian Military and Ukrainian Society and Politics

One important point is the lack of analyses of the Ukrainian military as a stand-alone institution. Major think tanks published fewer than five reports on a possible war with Russia from a Ukrainian perspective, and all were pessimistic about Ukraine's chances to conventionally resist a full-scale Russian invasion. All were published only a few weeks or months before February 24, 2022.76 Therefore, analysts made seemingly little effort to look at the Ukrainian military from a long-term perspective or to consider its institutional evolution and development, particularly since the 2014 war.

More commonly, analysts compared the Ukrainian military only with the Russian military, usually as a much smaller addendum, and from that concluded that Ukraine was severely outmatched. The Ukrainian navy was barely worth mentioning, described as "insufficient" to deter Russia in any meaningful way. 77 Analysts claimed that when it came to antiair capabilities, Ukraine was operating at a huge disadvantage, with its systems "woefully deficient in both quantity and quality." The Russian military in any war would likely make Ukrainian "ground-based early warning radar stations" a "primary" target. 79 Thus, Ukrainian fixed-wing aircraft would have to approach combat with its modernized Russian enemy at a massive disadvantage-flying almost blind. According to one analyst, "Put simply, the [Ukrainian Air Force] will be rapidly destroyed if it attempts to directly oppose [Russian] fixed wing sorties near the lines of contact."80

If the Ukrainian navy were inconsequential and the Ukrainian air force unable to contend with the Russian forces, analysts would at least consider the relatively large and combat-experienced Ukrainian army powerful enough to challenge the Russian army. Since 2014, the Ukrainian army has been continually engaged against Russian forces and their surrogate forces in Donetsk and Luhansk. In that time, the Ukrainian forces suffered thousands of deaths but also gained combat experience and, as time went on, improved their performance and capabilities.81 However, that seemed to matter little compared to the Russian forces they expected to fight. If the Ukrainian forces had improved, the Russian forces had trumped them with the New Look reforms and Russian military experience:

Although reliable numbers are hard to come by, Ukraine's ground forces might field 50 to 60 battalions against the more than 120 currently mustered by the Russian army, and these battalions do not have the same levels of combat effectiveness. Russia has far more-and far better-artillery, reconnaissance, and logistical capabilities than Ukraine does. The Russian military would have the advantage along every axis of attack.82

Even when the Ukrainian forces claimed that they had improved as a fighting force and could meet the Russian forces in the open field, the analytic community disagreed with the assessment of the Ukrainian military. As one report published just before the full-scale invasion read: "Despite the imminent threat of invasion, the Ukrainian military projects an aura of calm confidence in its capabilities. Any assessment of Ukraine's conventional forces makes this attitude difficult to understand."83

#### **Corruption and Identity**

One reason analysts believed that the Ukrainian military could not put up effective conventional resistance to a full-scale Russian invasion was that they doubted Ukraine's fundamental powers of resistance—both the trustworthiness of its system and the commitment of a large percentage of its population. Analysts often mentioned Ukraine as a weak and shaky political and national construct or "the closest thing Europe has to a failed state."84 The single most common reason analysts

considered Ukraine so systemically weak was that it was supposedly riddled by corruption.85 According to one RUSI report, Ukrainian corruption was a "legitimate concern" restraining financial aid for Ukraine. Moreover, Ukraine was caught in a catch-22, unable to "tackle corruption" because Russia was destabilizing it.86 This connection between Ukrainian corruption and the difficulty it would face resisting Russian aggression was also made in a RAND blog post claiming that, over time, "discouraging Russian imperial coercion may depend in large part on whether Ukraine overcomes poverty and stifling corruption and becomes a resilient democracy."87 Analysts used the supposed damaging inability of even Ukrainian president Volodymyr Zelensky to do anything about corruption to describe his government as weak: "Zelensky's administration also appears weak and increasingly desperate to find domestic support. He has not done much to reduce corruption or to separate Ukraine from its long tradition of oligarchic rule."88

If the issue of corruption were not enough, analysts often portrayed Ukrainians as lacking a strong national identity, certainly one that called into question whether a large part of the population would fight for its existence. Russia's illegal seizure of Crimea, Donetsk, and Luhansk in 2014 seemed to have exacerbated this view. The Council of Foreign Relations wrote in 2014 that the "country of forty-five million people has struggled with its identity since the dissolution of the Soviet Union in 1991. Ukraine has failed to resolve its internal divisions and build strong political institutions, hampering its ability to implement economic reforms."89

Analysts usually connected the idea that Ukrainians had a weak identity to the fact that a large percentage of the population had linguistic, cultural, and even strong economic ties to Russia. As a Congressional Research Service report released in late 2021 commented:

Most Ukrainians can speak Russian, whether as a primary or secondary language. In Ukraine's last national census (2001), 17% of the population identified as ethnic Russians, mostly concentrated in the south (Crimea) and east, where ties to Russia are stronger than in the rest of the country. In Soviet times, eastern Ukraine became home to a heavy industrial and defense production sector that retained close economic ties to Russia after independence.90

Analysts used this weakness in Ukrainian identity to cast doubt on whether Ukraine could muster an effective insurgency once it, as expected, lost a conventional war. One prominent analyst, in an article titled "Why a Ukrainian Insurgency against Russia Is Likely to Fail," argued, "The Russian and Ukrainian cultures are rather similar, whether in terms of language, culture or history."91 This similarity, he claimed, would allow Russian occupiers to appeal to conquered Ukrainians' sense of "normalcy." Another analyst, speaking in a Center for a New American Security podcast released on February 14, 2022, used similar language when asked about a possible Ukrainian insurgency: "So, it is hard to tell whether or not there is going to be a true uprising against a Russian invasion or people in certain parts of the country are going to say, 'Well, I can deal with this for a while; it's not a big change."92

This question of a weak or even pro-Russian Ukrainian identity opens up a reverse question about the constitution of the analytic community. It is practically impossible to find an analyst who

identified as a Ukrainian specialist before the 2022 invasion. Most were analysts of the Russian military who had spent much of their time studying Russian policy and practice in its involvement in Ukraine. For this reason, few reports specifically addressed Ukraine, whereas analysts constantly published reports on Russian policy.

## **Assessments of the** Russian and Ukrainian Militaries in the Donbas

he Russian and Ukrainian militaries were engaged in almost constant combat for years before February 24, 2022-particularly in the Donbas, illegally seized by Russian forces starting in 2014. The analytic community discussed this war in the Donbas often in the context of the supposed overall improvement of Russian capabilities. This in itself is noteworthy because, as analyses also mentioned, fighting in the Donbas did not lead to major Russian advances and, in time, actually evidenced improvements in Ukrainian performance. However, such phenomena, which pointed to Russian shortcomings and Ukrainian improvements in the Donbas, did not lead to a recalibration in the overall analysis of what would happen if the Russian military launched a full-scale invasion of Ukraine.

Almost all the Russian successes in the Donbas occurred in 2014 and 2015 at the start of the fighting. Russian deployments to the Ukrainian border throughout 2014 reportedly had achieved substantial logistical successes, proving Russia's ability to "maintain large formations in the field after rapid deployments and sustain them over extended periods with little obvious degradation in performance."93 Furthermore, its operations in Ukraine (and Syria) allowed the Russian military to carry out a roulement of troops across its armed forces to the Ukrainian border, allowing its personnel to gain more practical experience than they would have obtained through exercises: "Ukraine, in particular, has provided Russia with valuable experience fighting a contemporary enemy of comparable capability, in combat involving heavy use of main battle tanks, infantry fighting vehicles, and unmanned aerial vehicles (UAVs)."94

The potential of the Russian armed forces in a combat scenario was evident, in particular, during the two large-scale ground offensives in the summer of 2014 and January 2015. Russia deployed thousands of troops to eastern Ukraine and used massive artillery fire to hit Ukrainian troops at range. On July 11, 2014, near the Ukrainian village of Zelenopillya, Russia conducted a short but highly effective artillery strike that killed over 30 Ukrainian soldiers previously spotted by a UAV, wounded another 100, and destroyed two battalions' worth of vehicles and equipment.95

In the Donbas, irregular troops—namely, separatist militias—were employed in the first line of engagement, decreasing the casualty rate of the regular Russian army while providing intelligence and reconnaissance to artillery brigades. These volunteer militias were led by "retired" Russian military officers and equipped with limited amounts of artillery, armored vehicles, and antiaircraft missiles. 96 Regular troops were used only "against significant Ukrainian targets using traditional equipment such as main battle tanks, as well as modern communications and reconnaissance drones."97

Overall, Russia's offensives in Ukraine from 2014 onward characteristically used proxies, irregular forces, disinformation, and cyberattacks. These forms of covert warfare accompanied conventional military operations. At first, Russia achieved tangible results particularly in its occupation of Crimea, and the Kremlin succeeded in temporarily paralyzing the Ukrainian government and multilateral institutions. However, operations soon evolved into an ongoing and inconclusive conflict with Ukrainian troops.98

Since February 2015, when the Minsk II agreement was signed, no significant Russian offensive operation has occurred in the Donbas, and the line of contact has remained static. Kinetic activity has been limited to sporadic shelling and exchange of fire along the front:

There has been regular, low-level fighting across the LoC, with often-daily loss of life on both sides. That low-level engagement has been punctured by periodic escalations, such as the fighting around the town of Mariinka in summer 2015. This calibrated coercion has drained Ukraine of financial, human, and political resources and put Russia in position to have a decisive say in the international diplomacy regarding the crisis. But Moscow has not sought military victory-e.g., a routing of the Ukrainian military or a significant expansion of rebel-held territory.99

Russia's approach to the war in the Donbas has been termed "calibrated coercion," meaning that the Kremlin has sought neither a major escalation nor a ceasefire. Rather, it has used proxy forces to maintain a "simmering" conflict, aiming to keep a lever of influence on Ukraine. 100

Nevertheless, Russia has failed to seize more Ukrainian territory since 2015, primarily due to Ukrainian military improvement. Between 2014 and the February 2022 invasion, Ukraine was engaged in constant low-intensity combat. Ukrainian military officers were thus confident that their troops would be better trained and prepared in case of a large-scale conflict with Russia. The major problem during the Donbas war concerned numbers: the Ukrainian armed forces had limited personnel and reserves. The problems with retaining a sufficient force stemmed primarily from

poor salaries and short-term contracts, which caused high turnover of personnel. However, this turnover meant that a large number of Ukrainians had military experience.

Another issue concerned the shortage of missile and artillery troops and ammunition due to the pre-2014 pro-Russian government of Ukrainian president Viktor Yanukovych, which carried out a systematic reduction of missile and artillery personnel and weapons.<sup>101</sup> Due to these shortfalls, officers on the battlefield had to face a challenging situation:

With 10 brigades covering the entire line of contact in the JFO [Joint Forces Operation], a brigade frontage at the start of the war was around 20 km. This left a limited reserve and depended on a manoeuvre defence to counterattack against breaches in the line. Each brigade started the war with around 10 days of ammunition, but there was limited confidence-given the threat from artillery-that more would reach the lines if the Russians committed all their capabilities to this axis. 102

The Battle of Ilovaisk in August 2014 was a turning point for the future of the Ukrainian armed forces.<sup>103</sup> After surrounding the town, Russia targeted Ukraine's forces with massive shelling that left hundreds of soldiers dead and forced those remaining to retreat and surrender the town to Russian-backed separatists. Following the bloody defeat, Ukraine's military establishment began a round of reforms. Three key changes occurred before 2016:

- 1. Ukrainian society mobilized, which would become paramount to financing and supplying the armed forces.
- 2. The government allowed the formation of militias, which led to the creation of 50 volunteer battalions.
- 3. Conscription was introduced, acknowledging the need for a standing army.

The changes were followed by what has been labeled a new "hybrid transformation model," resulting in the following:

- a more effective command and control structure
- the development of a noncommissioned officer corps and special forces operators
- specific procurement objectives
- increased training, advisory, and intelligence support from NATO countries
- strengthening of mission command<sup>104</sup>

After March 2014, Ukraine focused on rebuilding its artillery capabilities, leading to five new artillery brigades and one new artillery regiment by 2019, which doubled the number of artillery battalions Ukraine had and made it the second-largest artillery force in Europe behind Russia. There were also significant qualitative improvements in intelligence, surveillance, and reconnaissance; counterbattery fire; and combat control systems like the Kropyva. Improvements in the use of the latter led to an 80 percent reduction in deployment time for artillery units. Ukraine's defense establishment also increased the number of tank units between 2014 and 2018, though tanks were employed more as a source of indirect fire than direct action during the conflict in the Donbas.

However, while a constant lack of funds prevented the purchase of new tanks, it did allow the modernization of the existing fleet of T-64s and T-64Bs.

Concerning antitank capabilities, Ukraine established a school of antitank artillery, and the Ministry of Defence purchased several antitank missile systems—at least 650 Stugna-P and Korsar systems and about 7,000 accompanying missiles, 150 tower systems for armored vehicles with dual antitank missiles and 900 additional accompanying missiles, and 1,600 Cobra and Kombat guided missiles for tank missile systems. Since Russian precision strikes targeted several industrial and energy facilities located in the Donbas, the Ukrainian military enhanced its antiair capabilities by modernizing its radio and radar systems to ensure that it could detect enemy aircraft and missiles from a distance of 300-400 kilometers. Although Ukraine had put major efforts into modernizing and repairing its aircraft since 2014, analysts still considered its air force overmatched from a technical point of view by Russia's VKS.<sup>105</sup>

Overall, while analysts saw the opening of fighting in the Donbas as an indicator of growing Russian military efficiency, the improvements the Ukrainian forces demonstrated after 2015, while acknowledged, seemed to play little role in challenging the narrative that Ukraine would be overrun in a full-scale invasion.

# **Understanding of War**

"If Russia really wants to unleash its conventional capabilities, they could inflict massive damage in a very short period of time . . . They can devastate the Ukrainian military in the east really quickly, within the first 30-40 minutes."106

> -"Ukraine Commanders Say a Russian Invasion Would Overwhelm Them," New York Times, December 9, 2021

-"Moscow's Continuing Ukrainian Buildup," CSIS, November 17, 2021

<sup>&</sup>quot;Russian military forces—including elements of the 41st Combined Field Army and 144th Guards Motorized Rifle Division . . . would likely outmatch Ukrainian conventional forces and overrun Kiev in a matter of hours if they invaded."107

"Russia's military superiority would enable it to overrun Ukraine's army in weeks by launching assaults on multiple fronts—including from Belarus and the Black Sea, according to [one analyst]: 'They're defending the eastern flank of the largest country in Europe and what do they have? They could very easily be cut off and isolated in the eastern part of Ukraine, which is why they may find themselves fighting an organised retreat if faced with a multipronged attack.""108

-"Air Strikes or Invasion: What are Putin's Military Options for Ukraine?," Financial Times, December 30, 2021

If one thing stands out in the analysis of what a war between Ukraine and Russia would look like, it is the extraordinary specificity about how little time it would take the Russian military to achieve its goals and the great speed with which it would move through Ukrainian defenses. One analyst claimed that Russia could "devastate" Ukrainian forces in the east of the country in less than an hour and disorient Ukraine to such an extent that the war would be "basically over in a day or so." 109 Another said the Russian army could overrun the Ukrainian army in "weeks." 110

Analysts saw the conventional part of any Russian invasion happening with fast and brutal efficiency, as Russia could effectively deploy military systems to have an "overwhelming" and immediate impact on overmatched Ukrainians. In some ways, the analysis positioned the Russian military as comparable to, if somewhat smaller and less proficient than, the U.S. military. Any full-scale Russian invasion, analysts declared, would start with a shock-and-awe campaign—a direct echo of the U.S. attack on Iraq in 2003–with Russia assuming (or indeed exceeding) a role akin to that of the United States in its ability to impose itself militarily on its supposedly overmatched foe.<sup>111</sup>

The key elements of this first stage would be Russia's long-range strike capability, which analysts assumed would allow Russia to precisely hit almost any Ukrainian target. Analysts also widely stated that these strike capabilities would combine with Russia's powerful cyber capabilities to degrade Ukrainian systems and "degrade, fragment and paralyze" the Ukrainian armed force and government.<sup>112</sup>

One analyst described this as part of Russian military thinking and a sign of Russia's strengths in the operational art:

Many Russian concepts of operation emphasize a short and intense "Initial Period of War" that may produce decisive effects even before ground forces are fully committed. Standoff weapons-bombs, precision-guided missiles-are unleashed against enemy forces and the infrastructure that sustains the fight: military bases, forward-deployed units, air defense sites, airfields, key transportation nodes, fuel depots, command-and-control targets, power plants, even local news organizations. The aim is to force the enemy government to capitulate quickly.113

Analysts saw the time it would take Russia to inflict such devastating damage as remarkably short—a matter of days or even hours. Russian missiles were supposedly so accurate that Ukraine had no ability to counter them.<sup>114</sup> One analyst summed up all of these visions at once:

As it stands, Russia is likely to begin any full-scale invasion with a lethal and largely unchallenged assault by bombers, ballistic missiles and artillery, said [one analyst]. "The shock and awe campaign they can launch with those resources against entrenched Ukrainian forces before the main ground invasion begins will be truly devastating," he said. "The Ukrainian military has no answer for these weapons." 115

Once the quick, destructive opening precision-fire phase of the Russian invasion was over, the Russian army would leap into action with its fast-moving and hard-hitting armored forces in a "combined arms ground offensive."116 Spread out around Ukraine in a long arc reaching from west of Kyiv in Belarus, around Kharkiv, through Donetsk and Luhansk, and poised to come north out of Crimea, Russian forces were said to be well placed to create maximum problems for the Ukrainian defenders.<sup>117</sup> Indeed, even though many of the same analysts would later claim that it was a mistake for the Russian forces to have developed such a wide, multi-axis offensive plan, analysts before February 24, 2022, broadly saw this as one of the key elements of likely Russian success. They said the Russian military had spread out its forces so much that Ukrainian defensive planning was far more difficult, forcing Ukraine to spread its supposedly less powerful forces too thinly to defend against all possible Russian attacks.<sup>118</sup> As one report put it, "For Ukrainian forces to commit to denying one axis would simply leave another avenue of advance undefended."119 Another paper described five axes of Russian advance:

Due to the length of the Ukrainian border, Russia has multiple axes along which it could potentially invade. The first axis, and the most direct, could involve a push west from Rostov Oblast, reinforcing the DPR (Donetsk People's Republic) and LPR (Luhansk People's Republic) and assaulting the line of contact. The second axis would be to push south from Russia's Belgorod Oblast. A third axis would be to push north from Crimea. If performed in conjunction with the second axis, Russian forces could rapidly cut off the JFO. Two further axes have been opened through Russia's deployment of troops to Belarus. Fourth would be to push south from the Gomel region of Belarus, to encircle or overrun Kyiv, and a fifth would be to push south from Brest, to physically block Ukraine from receiving assistance overland from NATO countries. It is likely that in any conventional invasion Russia would push on all of these axes to fix Ukrainian forces, but weigh the main effort to target Kyiv, or to break the core of the Ukrainian army in the JFO.

Most assessments of the correlation of forces lead to an expectation that Kyiv would be enveloped within days if Russia committed to an all out assault. 120

At the same time, analysts considered the Russian forces massed on the Ukrainian border, which numbered around 200,000, more than adequate to do the job-though after the initial invasion failed many would claim that the Russian army had been too small. As one analytic blog stated before the invasion,

Moscow has amassed enough forces to conduct the largest combined arms operation since the Battle of Berlin in 1945. This could involve an onslaught from Crimea in the south, Russia in the east, and Belarus in the north. Moscow could pursue a "thunder run" south from Belarus with the aim of quickly encircling Kyiv and causing the government to surrender or to collapse and install a puppet regime.121

Maybe the best way to understand how analysts saw the Russian army as an overwhelming threat to Ukraine is to look at a number of the maps generated on or just before February 24, 2022, claiming to show how a Russian invasion could progress.<sup>122</sup> In their scope, the maps were as least as ambitious as the Russian invasion itself-and in some cases even more ambitious, depicting Russian thrusts farther to the northwest than the Russian military actually attempted.

Once the Russian army moved forward in the combined arms stage of the invasion, analysts predicted, the war would end quickly. The Ukrainian military would have little to no chance out in the open, and the Russian forces would drive almost anywhere they wanted, at least in the east of the country. One typical comparison matched the speed of U.S. military operations with Russian capabilities: "Ukraine's paucity of air defences and the weakness of its armed forces means that Russia could drive to Kyiv perhaps as easily as American forces reached Baghdad in the Iraq war of 2003."123 Indeed, for some prominent analysts, the ultimate question was not whether Russia could succeed militarily in Ukraine but how much of the country Putin would take. Would he want all of Ukraine, most of Ukraine, or just parts of the east while installing a puppet regime in Kyiv? One prominent analyst theorized:

A full land invasion could entail Russia seizing as much as two-thirds of Ukraine's territory by deploying troops from the eastern border, Belarus, Crimea and the Black Sea. . . . The big question is, will they look to conduct regime change and then a settlement? Or are they actually intending on partitioning Ukraine? 124

To show just how little chance analysts thought Ukraine had in a conventional war and how little they discussed the chance of Ukraine surviving, it is worth looking at something analysts discussed in detail-whether Ukrainian forces should, or even could, fight on as insurgents. A great deal of talk, much of it skeptical, surrounded the prospects of a Ukrainian insurgency.

Analysts discussed two kinds of insurgency: (1) a campaign of urban resistance centered on Kyiv and the other large cities and (2) a regional campaign, likely in the west of the country only. The urban campaign was thought to be possible because the Ukrainian army stood no chance of fighting the Russian army in the open and therefore might retreat into the cities. Analysts saw this as a potentially promising move as it would allow the Ukrainian forces to exact higher casualties from the Russian forces than they could in a conventional war. 125

The regional resistance campaign clearly fed on many of the stereotypical views of eastern Ukrainians, who would supposedly adjust to Russian rule in a relatively straightforward way, and western Ukrainians, who would be willing to resist with greater determination:

In the case of Ukraine, a war would have a host of potential long-term consequences. Ukrainian resistance might live on as an insurgency, although, paradoxically, it would be most successful in the one part of the country Russia is unlikely to invade–its west.<sup>126</sup>

However, analysts did not see either of these campaigns as a path toward a Ukrainian victory; the campaigns were rather seen as ways to make the conquest of part, or even all, of Ukraine more painful for Russia. Even then, analysts argued against encouraging Ukraine to start an insurgency on grounds of cost, Ukraine's supposedly weak sense of national identity, and the low chance of success. In terms of cost, if Ukrainians resorted to insurgency, the Russian reaction would be so brutal, it would be "catastrophic." <sup>127</sup> Indeed, those who argued against aiding Ukraine claimed that helping the Ukrainians prepare for an insurgency would only worsen their suffering. 128 Moreover, the argument went, Ukrainian resistance would be less effective than pro-Ukrainian optimists thought because it was not clear how many Ukrainians would really strongly resist the Russian invaders.<sup>129</sup>

The analogy to the U.S. invasions of Iraq in 1991 and 2003 was a poor one. In retrospect, allied forces attacking Iraq in 1991 substantially outnumbered their opponents, who were confronted with the full weight of U.S. air and land power near its Cold War height. In 2003, an Iraq weakened by postwar sanctions and isolation was in no position to put up more than sporadic resistance. At the time of the Russian invasion of Ukraine in 2022, the differences between the Russian and U.S. militaries were vast. Russia could not orchestrate the intense, continual coordinated air attacks the United States could in 1991 and 2003. Further, the Russian army could not outclass its enemy in everything from technology to training and organization as the United States had.

One of the most striking omissions in the prewar analytic literature was the failure to acknowledge the fundamental unpredictability of war. Analysts portrayed war as a matter of equipment and doctrine, something that could be planned and executed, more as a complex engineering project than as a contest of will, military skill, and personalities. Friction, the fog of war, and the unpredictable nature of military interaction on the battlefield were all notable in their absence from the analyses. This fact is not entirely surprising: the analysts, by and large, were not military historians but analysts of the Russian military and as such seemed not to have thought about war in this broader way. Analysts evinced little humility about their ability to predict the outcome of combat operations, which is, indeed, one of the most striking characteristics of these assessments. Many of the most prominent analyses lacked reservations, qualifications, or simply acknowledgment of the imponderables of war.

# **Policy Advocacy**

"Notionally, helping Ukraine is admirable, but the lack of public discussion and suddenness of this announcement are worrisome. While arming Kiev may seem like an easy political win, it is poor policy. The idea of providing Ukraine with \$50 million-worth of anti-tank missiles is eerily reminiscent of Washington's halfhearted efforts to train and arm the moderate Syrian opposition. . . . The proposal to send arms to Kiev is also untimely. Ukraine has not seen a Russian offensive, or lost significant territory to Russia, in more than two years. Of all the possible ways to help the country improve its armed forces, dumping missiles on an unreformed military hardly seems the smart way forward. This is the time to help the country transform, not play geopolitical checkers with missiles."130

-"For the U.S., Arming Ukraine Could Be a Deadly Mistake," New York Times, August 25, 2017

<sup>&</sup>quot;The only weapons systems that could plausibly impose costs that could change Russia's calculus, such as surface-to-air missiles and combat aircraft, are ones that the United States would be highly unlikely to provide the Ukrainians. And, regardless, they could not be procured, delivered, and be made operational—to say nothing of getting the Ukrainian operators trained up to use them—in time to have an impact on this crisis."131

<sup>-&</sup>quot;The West's Weapons Won't Make Any Different to Ukraine," Foreign Policy, January 21, 2022

"One issue when looking at equipping the Ukrainian military is that even if we provide them with very capable conventional weapons systems, if they get into a conventional fight with the Russian military, they are not going to win. A conventional fight is often going to be very lethal and very fast. We should be looking at how we can better equip Ukraine to fight unconventionally against the Russian military." 132

-"Oral Evidence: Russia-Ukraine Crisis, H.C. 1064, Before the Defence Committee," House of Commons, January 25, 2022

The analytic consensus before the war was that Russia was a great power with a modernized and battle-tested military that could project overwhelming force on Ukraine. Ukraine, in comparison, was riddled with corruption and ethnic divisions and had a military that could not compete in a conventional war. Such strong, almost unequivocal language would have qualified as a form of policy advocacy. Helping a corrupt and divided Ukraine against such a mighty Russian military was, after all, bound to be futile.

However, the analytic community went beyond using leading language and at times argued specifically against arming Ukraine with advanced weapons and capabilities. Maybe the first example came in 2017 when policymakers seriously discussed sending U.S. antitank missiles to Ukraine. 133 One analyst in a *New York Times* op-ed warned against sending U.S. missiles to Ukraine, touching on many of the same themes that would typify the discussion of Russia and Ukraine over the coming years.<sup>134</sup> First, Ukraine was primarily of Russian, not U.S., interest. Moreover, Russian "military superiority [was] well established." The Ukrainian military was "unreformed" and moreover was regularly losing on the battlefield with its own antitank missiles. Ultimately, the analyst concluded, arming Ukraine with U.S. antitank missiles would be a pointless signal to Moscow and would not change the balance of power.

A widely discussed essay titled "The West's Weapons Won't Make Any Difference to Ukraine"published by one institution as "U.S. Military Aid to Ukraine: A Silver Bullet?" – used similar rhetoric.<sup>135</sup> The piece argued against sending antiair weapons to Ukraine because even with such aid, Russia would overwhelm Ukraine in a conventional war. The authors gave an overview of any likely invasion that followed all of the analytic errors described above. This textbook case exemplifies how the analytic community viewed the military balance between Russia and Ukraine and how it viewed the war as developing from the opening strike phase through a possible insurgency:

Russia has the ability to carry out a large-scale joint offensive operation involving tens of thousands of personnel, thousands of armored vehicles, and hundreds of combat aircraft. It would likely begin with devastating air and missile strikes from land, air, and naval forces, striking deep into Ukraine to attack headquarters, airfields, and logistics points. Ukrainian forces would begin the conflict nearly surrounded from the very start, with Russian forces arrayed along the eastern border, naval and amphibious forces threatening from the Black Sea in the south, and the potential (increasingly real) for additional Russian forces to

deploy into Belarus and threaten from the north, where the border is less than 65 miles from Kyiv itself.

In short, this war will look nothing like the status quo ante of conflict in Ukraine, and that undermines the first justification for U.S. aid: deterring Russia. The Ukrainian military has been shaped to fight the conflict in the Donbass and thus poses little deterrent threat to Russia; provision of U.S. weapons can do nothing to change that. 136

On the one hand, Russia had Ukraine surrounded; was expert in joint operations from land, sea, and air; and would open the campaign with devastating missile and air strikes on Ukrainian logistics, command and control, and military bases. The Ukrainian military, on the other hand, had been shaped to fight a much smaller conflict in the Donbas and had little capacity to deter the larger Russian military. Moreover, the conventional part of the war would be over so quickly, Ukraine would not be able to train to make U.S. weapons operational. As such, U.S. weapons could "do nothing" to change the equation. The authors stated, "In short, the military balance between Russia and Ukraine is so lopsided in Moscow's favor that any assistance Washington might provide in coming weeks would be largely irrelevant in determining the outcome of a conflict should it begin."137

Having dispensed with any chance for a successful Ukrainian resistance in a conventional war, the authors stated that Western assistance would not help much even in an insurgency:

If Russia attempts a long-term occupation of areas with lots of hostile Ukrainians, these forms of support could, on the margins, complicate matters for Moscow. But U.S. support to a Ukrainian insurgency should be a matter of last resort during an extended conflict, not a centerpiece of policy before it has even started. The prospect of a marginally more costly occupation is unlikely to make a difference to Moscow if it gets to that stage; it will have already absorbed far more significant costs. 138

Support to any insurgency should be resisted as the costs would be borne by the Ukrainians. The United States, the authors argued, should "wish" that its partners, the Ukrainians, would not have to suffer so much.

Thus, the analytic community created a catch-22 with respect to military aid to Ukraine. Analysts clearly stated to politicians that Russia was so strong and Ukraine so weak that nations should not aid Ukraine to compensate for its weakness. Just 16 days before the full-scale Russian invasion, one analyst told the UK House of Commons Select Committee on Defence that providing Ukraine with weapons to fight a conventional war was pointless because Ukraine "was not going to win"; the Russian military would be too "lethal and fast." 139

If the analytic community was generally skeptical about aiding Ukraine because it had such an elevated view of Russian military capabilities vis-à-vis Ukrainian capabilities, it is also worth noting that some in the U.S. think tank community made another strong argument against arming Ukraine. Drawing on older U.S. foreign predilections as well as dissatisfaction with the wars in Afghanistan and Iraq, think tanks such as the Quincy Institute for Responsible Statecraft offered a policy of

restraint. In addition to principled opposition to U.S. entanglement in this conflict and a belief that conventional military aid to Ukraine would be fruitless, some holding this position argued that aiding an insurgency was not only pointless; it was also wrong—as it would be better to keep good relations with Putin's Russia. Moreover, the Ukrainians might be Nazis:

The current front-runner for a more robust response is a scheme to fund and arm Ukrainian fighters to mount a resistance to a Russian occupation. Indeed, there are news reports that CIA operatives already are busily training Ukrainian paramilitary units.

It is a spectacularly bad idea. Assisting guerrillas to maim and kill Russian soldiers might well create an irreparable breach between Russia and the West. The new cold war already is chilly enough without adding to the dangerous tensions.

Some of the Ukrainian factions that the United States and its allies would be supporting are more than a little unsavory. Western media outlets recently suffered serious embarrassment when they featured flattering news stories about how a Ukrainian military unit was training children and the elderly in the use of weapons, so that they could resist Russian invaders. It turned out that the unit giving the instructions, the "National Guard," had close ties to the openly neo-Nazi Azov battalion. There are other far-right factions in Ukraine that would eagerly join the line for U.S. weapons and funding. Western governments don't seem all that selective about their potential partners in a Ukrainian resistance force. 140

Even when the assessments of the larger analytic community studying Ukraine did not support these policy views, some analysts reinforced them, though many showed sympathy with Ukraine's plight.

# Methodology and Consistency

ne notable aspect of the analysis of Russian and Ukrainian military capabilities and how a war between them might evolve is a great consensus regarding outcomes but the lack of a clearly accepted methodology through which this consensus was reached. Net assessments, judgments, and analyses contained little information as to how they were compiled. Indeed, despite the many types of evidence used, sometimes in different ways, the conclusions were surprisingly uniform. The methodological problem is a general one that confronts those conducting strategic analysis. Making judgments on military power is a complex process, so analysts consider many different variables. Using different methodologies with different evidence can produce very different results. However, in the case of the analysis before February 24, 2022, the various pieces of evidence, even when used differently, produced a remarkable consensus judgment about Russian and Ukrainian military power-let alone about how these nations would interact in the case of full-scale war.

For instance, analysts regularly used certain variables to make the case that Russia was strong, while presenting a weaker case for Ukraine. Analysts used five different evidence groupings-sometimes in tandem, sometimes in isolation—but rarely with a clear methodology. These groupings were the numerical, the qualitative, the doctrinal, the experiential, and the political and social.

#### The Numerical

Analysts often considered the Russian military much stronger than the Ukrainian military because of its numerical advantages in terms of equipment. Indeed, this numerical advantage was so

pronounced in some quarters that analysts assumed that Russia could conquer eastern Ukraine with a relatively small number of soldiers (around 200,000). As reported in one major outlet, "Military analysts say the Ukrainian force has critical gaps and probably would be overwhelmed if Russia decided to mount a full-scale assault. On nearly every battlefield metric-fighter jets, tanks, missiles, troop numbers-Ukraine would find itself outmatched."141 This assumption of the numerical difference between the forces was widely held.<sup>142</sup> Indeed, analysts often claimed that Russia had more than enough force to conquer Ukraine, without employing any discernible methodology about what kinds of numerical advantage would be needed to both defeat the Ukrainian army and conquer an area as vast as eastern Ukraine.

In the run-up to the full-scale invasion, analysts had a widespread shared understanding as to the numerical size and composition of the Russian force massed on the Ukrainian border. They described it as overwhelmingly powerful: "The modernized and massive Russian military force that currently surrounds Ukraine on three sides can muster air and missile strikes that would likely overwhelm Ukrainian airpower and air defenses and severely damage military and other facilities."143 One of the most detailed calculations assessed that Russia had between 150,000 and 175,000 troops on Ukraine's borders in late January 2022 and a strike force of 90-100 BTGs, with at most 100,000 troops. 144 The analysis assumed that at least eastern Ukraine would be quickly overrun. And yet, by most military standards, such a force would have been as small, or not much larger, than the Ukrainian army it was supposed to easily overrun. In the weeks before the full-scale invasion, for instance, the Ukrainian army (independent of the air force and navy) numbered around 150,000.145

### The Qualitative

Numbers alone were not the only reason for the assessment of Russia's supposed advantages over Ukraine. Analysts generally considered Russian forces better trained and capable of deploying their systems effectively, and their systems were qualitatively much better. This qualitative advantage, which was generally stated rather than proven, seemed to be based on Russian claims. Thus, analysts assumed that the quality of Russian military personnel was considerably higher than in previous years—and certainly higher than that of the Ukrainian forces. The Russian army, they said, "no longer relies on large numbers of poorly trained conscripts and ill-equipped ground forces as it did in Chechnya. Its modernization program was designed to avoid the kind of disorganized, stove-piped, ground-force dominant operation seen in Georgia in 2008."146

The Ukrainian forces, on the other hand, even though they had also been modernizing, were usually considered a class below the Russian forces. One of the few statements directly comparing the two accepted Russian quality at face value:

Although Ukraine's armed forces have improved since the fighting of 2014-2015, so have Russia's. The units surrounding Ukraine are largely staffed by contract soldiers—professional servicemen, rather than conscripts—with high levels of readiness, modernised equipment and officers bloodied in several conflicts, such as the war in Syria. Ukraine's military is understaffed, poorly supplied, and inexperienced in manoeuvre warfare. Russian forces therefore have considerable quantitative and qualitative superiority. 147

Analysts also applied Russia's qualitative advantage to its weapons systems, which they assumed were capable of operating at a very high rate of efficiency. For instance, Russian long-range strikes were believed to be both exceedingly accurate and well-targeted for maximum impact. The Ukrainian military, on the other hand, was at such a disadvantage in armaments that it could not prepare or react to a devastating Russian distance strike.

#### The Doctrinal

One specific area where Russia supposedly had a significant qualitative advantage was in military doctrine. Indeed, analysts had elevated Russian doctrine in the years before 2022 to among the most creative and perceptive in the world. In the run-up to the full-scale invasion, analysts claimed, for instance, that Russia had been a world "trendsetter" in military doctrine. 148

This lauding of the high quality of Russian doctrine, which was treated in many ways as a continuation of Soviet doctrine, has gone on for decades. Soviet doctrine traces to the concept of deep battle in the 1930s. Seen as creative and successful, the doctrine has seemed to transfer directly to Russian military thinking over the last decade. Indeed, analysts have considered Russian doctrine so important that they have accorded different parts specific labels, such as the New Look Russian military, the partly mythical Gerasimov doctrine, and the Russian active defense posture. 149 Even the Russian army's reorganization into BTGs is considered an intelligent adaptation that greatly increased the striking power of Russian units. <sup>150</sup> Overall, Russian doctrine appeared so strong that the Chinese military though larger and more powerful-attempted to base much of its doctrine on Russian thinking. 151

Ukraine, by contrast, did not have a doctrine so much as it was trying to get as close to NATO as possible by taking on NATO thinking.<sup>152</sup> In the end, when the full-scale invasion occurred, Russian doctrine did not appear to be particularly creative or useful for the purpose of subjugating Ukraine. Arguably, the Ukrainian military handled the full-scale invasion with greater initiative and creativity.

## The Experiential

The pre-February 24, 2022, experiences of both militaries, in terms of combat and military exercises, mattered a great deal, particularly for Russia. These experiences purportedly provided evidence of Russian combat efficiency and logistical capabilities and revealed significant limitations for the Ukrainian forces. The Syria case study, mentioned earlier, gave an obviously distorted vision of Russian air power.

Much the same could be said about how analysts used Syria to describe general improvements in Russian combat capabilities. In one major news report, analysts claimed that Russian forces poised to invade Ukraine were "steeled with recent combat experience in Syria." Interestingly, Russia used few land forces in Syria, and Syrians undertook the vast majority of the fighting.<sup>154</sup> Moreover, the activity of Russian land forces in Syria could be considered advanced combined-arms warfare. Still, analysts used the Syria case study to make the case that Russian ground forces had shown significant improvement.155

The same could be said about the experiences of Russian maneuvers. Even though the well-known Zapad maneuvers were arguably more choreographed displays than realistic deployments, analysts often held them up as demonstrating real capabilities through experience. Indeed, some claimed that these were not "theater" but made little effort to explain why. 156

All of the lauding of Russian experiential improvement and maneuvers in Syria stands out because analysts treated the Ukrainian experience in the Donbas very differently. Even though Ukrainians fighting in the Donbas showed noticeable combat improvement in conditions much closer to those in 2022, analysts generally dismissed this experience as of little benefit in helping them correct the massive power differential that supposedly existed between Ukraine and Russia.

#### The Political and Social

Analysts widely mentioned political and social variables, though once again not in a methodologically consistent manner but more to provide illustration for arguments they had already made. In the run-up to the full-scale invasion, analysts regularly discussed Ukrainian corruption as a weakness Russia could take advantage of, but made little or no mention of corruption in the Russian military, which was just as great or worse. 157 Ukraine was even presented as so corrupt that the European Union would not consider admitting it as a member for at least a generation.<sup>158</sup> However, they rarely mentioned Russian corruption, and when they did, it was as a problem that had been largely rectified.

Doubt about the distinctiveness of Ukrainian identity was also widespread and had persisted for a significant period. Indeed, a long-standing position among some analysts was that the borders of the Soviet republics that emerged as independent states in 1991 were dubious and represented little to the people who lived there. Analysts minimized the linguistic, historical, and political differences between the now sovereign and independent states that used to make up the Soviet Union. 159 By contrast, there seemed to be little in the way of doubts expressed about Russian identity or national self-understanding. Instead, analysts described Ukraine as an object of Russian desire. One report shows the clear subject-object relationship often portrayed between Russia and Ukraine:

No part of the Russian and Soviet empires has played a bigger and more important role in Russian strategy toward Europe than the crown jewel, Ukraine. The country is essential to Russian security for many reasons: its size and population; its position between Russia and other major European powers; its role as the centerpiece of the imperial Russian and Soviet economies; and its deep cultural, religious, and linguistic ties to Russia, particularly Kyiv's history as the cradle of Russian statehood.160

#### Conclusion

Analysts will never have one shared methodology by which to judge military power and war, nor should they. Analysts who make sweeping and confident judgments about what will happen would be wiser to be up front about the criteria they are using to make such judgments. If this report reveals anything, it is how different methodologies and variables ended up supporting a predetermined vision of power and war. Greater explicitness about the methodologies used might well have opened up a debate about the judgments being made.

# Why the Analytic Failure?

nalytic error of some kind is inevitable. But in the case of the Russia-Ukraine military analysis, the errors (a) were well beyond the normal failures expected in any intellectual project, (b) had potentially consequential policy implications, and (c) were not, in most cases, mitigated by any noticeable analytic humility or caution on the part of those committing them. It is also striking that the analysts who were most egregiously wrong in their assessments remained prominent and influential despite these errors.

As erring forecasters often do, the analysts resorted to classic explanations that seemingly obviate the need for searching self-criticism. The guide to such self-exculpation is Philip Tetlock's *Expert* Political Judgment, a powerful study of expert error. The book is particularly interesting in this case because it illuminates some of the retrospective justifications for error. Many of these have indeed been brought to bear in the Russia-Ukraine military analysis problem and take the form of what Tetlock refers to as "belief system defenses," which, as he puts it, "reneg[e] on reputational bets." 161 Of those he lists, the ones most germane to the failures described here are as follows.

### The Exogenous Shock Defense

The exogenous shock defense is the proposition that while the core prediction was correct and solidly based, an unforeseeable event undermined it by deranging the prognosticators' calculations. In the current case, that exogenous shock would be the exquisite degree of warning that the United States provided the world and Ukrainian leadership about the impending attack. This defense may also include the supposition that U.S. and other friendly intelligence agencies provided Ukraine

with the details of the Russian plan, allowing them to make essential tactical adjustments (e.g., dispersing aircraft). As a result, Western intelligence stymied the invasion by mitigating Russia's overwhelming advantages.

This defense falls apart, however, given the open menace that President Putin had presented Ukraine in the preceding year, which the Ukrainian military seems to have taken seriously. The Ukrainian government, by contrast, refrained from publicly predicting and preparing for the massive assault for a variety of reasons, including a hope to avert it. Moreover, the Russian army did achieve local successes, particularly in the south, against Ukrainian forces that seem to have been surprised by the attack. None of this would explain the Ukrainian military's tactical effectiveness, innovation, and successful counterattacks around Kyiv and Kharkiv. In any case, even though Western agencies were providing detailed information about the Russian buildup well before February 22, the expert community did not modify its predictions accordingly.

### The Close-Call Counterfactual Defense ("I Was Almost Right")

This argument has had a good deal of play because of the close-run defense of Hostomel Airport outside Kyiv. On February 24, Russian airborne troops launched an attack on the airport, less than 10 kilometers from Kyiv. They were held back for a day, in part by Ukrainian national guardsmen, the latter of whom were subsequently reinforced by regular units. Although Russian mechanized units and airborne forces took Hostomel a day later, the airport had been damaged, and the delays, analysts argued, prevented Russian columns from suddenly dashing into Kyiv proper, which might have toppled the Zelensky administration overnight. 162

But was it fortuitous that Ukrainian mechanized units were available to defend the airport? And for that matter, even if the Russian forces had taken Hostomel on the first day, is it right to assume that a Russian column charging into a dense, hostile urban area like Kyiv, filled with armed civilians and light infantry, would have done better than their counterparts in, say, the city of Mariupol in the south? Other similar "for want of a horseshoe nail" arguments include the possibility of President Zelensky being killed on the first night of the war-but it was not for want of trying by Russian secret services, nor was it a coincidence that the president, well protected by his own efficient bodyguards and secret services, was not killed. Moreover, such arguments can play in the opposite direction: Suppose Putin had a fatal heart attack on February 21. Suppose even more Ukrainian forces had deployed to Hostomel, north of Kyiv, and so on. The analysts were not nearly right; they were simply wrong.

## The "Politics Is Hopelessly Cloudlike" and "The Low-Probability Outcome Just Happened to Happen" Defenses

The "Politics Is Hopelessly Cloudlike" and "The Low-Probability Outcome Just Happened to Happen" defenses are two versions of an argument common to defenses of poor predictions of military outcomes. War is an intrinsically uncertain affair, as every theorist notes; no prediction can claim complete accuracy, and a variety of outcomes are always possible. The problem with

either version as applied to the analysis of the Russian and Ukrainian militaries before the war is that a serious belief in the unpredictability of war should have moderated analysts' certainty. As demonstrated, it did not. Instead, analysts depicted war as a large engineering operation in which all the heavy equipment and logistical planning argued overwhelmingly for the success of the aggressor nation. There was no more uncertainty in the prediction than there would have been about the completion of a major construction project, which, after all, has a set of uncertainties associated with it-though nothing like those of war.

### The "I Made the Right Mistake" Defense

The final justification for analytic failure is that the Russian forces should have accomplished everything that they planned but were thwarted by the unpredictable and foolish intervention of President Putin and his advisers from the Federal Security Service (FSB). 163 In this version, the Russian general staff had the right ideas and the requisite organizations, doctrine, and technology at their disposal but were undermined by the meddling of an ignorant civilian leader and his incompetent intelligence services. The original Russian plan would have involved fewer axes of advance (three rather than five) and would have had more regard for Ukrainian capabilities, some have suggested. In this view, the president, encouraged by FSB advisers who convinced him that Ukraine was ripe for the plucking and that resistance would be minimal, interfered with a competent general staff that would otherwise have conducted the operation with the results the Western analysts expected.

The difficulty here is that early Russian failures were multidimensional, and many had little to do with Putin or the FSB. The logistical challenges and the organization and tactics that left Russian armored columns exposed to light infantry ambushes would all have remained the same. There is no evidence of general staff pushback against the simultaneous attack on multiple vectors or apprehension about it; indeed, the idea of such an attack presenting too many challenges for the Ukrainian military to cope with had a certain plausibility to it. It would be closer to the mark to say that the general staff made its own set of mistakes. The "civilian meddling and incompetence" explanation for the outcome, and hence for the analytic failure, is in some ways the most interesting. It represents a seemingly subconscious desire to make the Russian military out to be more formidable than it actually was-perhaps not implausible for those who had devoted their careers to studying it.

### **Conclusion: Remedies**

The analytic failure at the outset of the war rippled beyond the conflict. The initial estimates seem to have influenced the tentativeness with which the West armed Ukraine, holding back on advanced weapons systems in part based on the argument that the primitive Ukrainian military could not operate them successfully. Pessimism about Ukrainian chances, hesitation about reinforcing Ukrainian successes, and difficulty in seeing Russia's true weaknesses were all hangovers from the initial failure, even though many analysts eventually adjusted to the reality of the situation.

The broader implications of the failure are even more important. It is striking how small the analytic community was that made the judgments that shaped public perceptions and, in some measure, government policy. These individuals, for the most part, had similar backgrounds-degrees in political science and experience almost exclusively in think tanks, along with occasional stints in the intelligence community. They were not historians and certainly not military historians. Few had field experience as soldiers. They were overwhelmingly "Russia military analysts" by trade and not experts on Ukraine, often accepting, at a tacit level, deep-seated Russian views about the unreality of Ukrainian nationhood. Their internal system was mutually supportive. They constantly approved citations of one another's work and treated both the underlying uncertainty and commentary of those outside the community with a degree of disdain.

This was a recipe for what the pioneering social psychologist Irving L. Janis referred to as groupthink.<sup>164</sup> Indeed, the analytic community exhibited many of the characteristics Janis noted: underestimation of the group's susceptibility to error, stereotyped views, self-censorship of dissent and commitment to unanimity, and even "self-appointed mindguards" who enforced orthodoxy. 165

How did this happen? Analysis of the Russian military was a major intellectual field during the Cold War, but it shrank after the war's end and the emergence of new threats in the form of radical Islam and China. The result was a small community dependent on mutual support, operating in the research institution environment. The latter point is important. Academic disciplines, despite all their faults, promote (at least in theory) sharp debates and disagreement, and professors are usually rewarded for challenging and displacing conventional wisdom rather than elaborating it. Academics can also switch fields of specialization, which can bring in new perspectives.

This is much less the case in research institutions, particularly in small areas where patronage by leading figures is necessary for career advancement. In the case of government-funded research much of it coming from the U.S. Department of Defense, with its vested interests-in the decades before the war there was considerable disincentive to underplay Russian capabilities. Moreover, the initial failures of Russian operations in the opening phases of the war did not change matters much. If anything, the pathologies were reinforced during crisis and ensuing wars as the small group of acknowledged experts became media stars, repeatedly interviewed and quoted in major outlets, on social media, and even by government officials.

The analysts discussed here did not exhibit moral turpitude, much less stupidity or willful blindness. They were the product of their incentive systems and the intellectual structures that produced them. But the failure is a warning because it can and will happen again in other cases possibly more consequentially. Luckily, however, potential remedies are available to governments, journalists, and research organizations.

#### **BRING IN THE GENERALISTS**

A self-conscious effort by journalists and government consumers of military analysis to critique expert conclusions is a good idea. In the present case, military officers, historians, and Ukraine experts might all have offered useful counters to the analytic orthodoxy. Indeed, research

institutions could make contributions in this area by convening reviews of expert consensus in military analysis.

#### **BRING IN DIFFERENT KINDS OF SPECIALISTS**

Some of the commentators who were most optimistic about Ukraine's chances came from the ranks of soldiers, particularly those who had served in advisory and training roles in Ukraine since 2014. 166 Diverse intellectual and professional backgrounds might well have changed the weight of expectation.

#### **MAINTAIN ACCOUNTABILITY**

Outsiders need to keep book-not with the purpose of banishing or blacklisting analysts but confronting them with their errors and putting them in a position to reflect on why the errors were made. Unfortunately, there are few professional incentives to do this work, reflecting a larger problem in the social sciences, such as the "replication crisis" in psychology and many other disciplines.167

#### **BROADEN THE EDUCATION OF ANALYSTS**

Social sciences and humanities bring different qualities to analysis. Political science and sociology have their strong points, but so does history, which would have been particularly useful in this case. The sensibility of historians-their alertness to contingency, nuance, culture, personality, and much else—differs from that of political scientists. Students of the history of war, in particular, have a much better visceral feel for the imponderables than social scientists usually do. This is, of course, even more true of well-educated soldiers.

#### **ENCOURAGE A CULTURE OF DEBATE**

Consensus on analytic forecasts is perilous, as students of intelligence failure have long noted. The problem with the usual solution—an in-house contrarian of some kind—is that it runs the risk of being formulaic. Analysts need venues and incentives to disagree with one another without fearing professional consequences, either for their reputation as oracles or due to retaliation from leaders in the field.

The authors again stress that they do not find deliberate dishonesty or manipulation, much less simplemindedness or stupidity, in the poor analysis of the Russian and Ukrainian militaries before the war. Rather, the structure of the analytic community-its incentive structures and educational formation-makes the failure understandable, if no less disturbing. The authors' concern is that in an era of severe military conflict, this is highly unlikely to be a one-off case, with quite possibly more cases to come. In such cases, consensus and certainty are not only intellectually problematic, but they are also downright dangerous. Consumers of such analysis, as well as those who produce it, must act to prevent another such failure.

## Appendix A

## Database of Expert Assessments of the Russia-Ukraine Military Balance

This report draws from 181 sources that were published between February 25, 2015, and April 30, 2022.

Think tank and research center reports:

- Carnegie Endowment for International Peace: 2 commentaries, 1 article
- Center for a New American Security: 3 podcasts
- Center for American Progress: 1 report
- Center for European Policy Analysis: 1 article
- Center for International Security and Cooperation-Freeman Spogli Institute for International Studies, Stanford University: 1 seminar recording
- Center for Security Studies (ETH Zurich): 2 analyses
- Center for Strategic and International Studies: 3 briefs, 1 commentary, 1 report
- Centre for Air Power Studies India: 1 brief
- Congressional Research Service: 3 reports
- Council on Foreign Relations and European Council on Foreign Relations: 1 brief, 4 commentaries, 1 article
- Foreign Policy Research Institute: 1 analysis
- Foundation for Strategic Research: 2 notes

- French Institute of International Relations: 3 notes
- George C. Marshall European Center for Security Studies: 1 paper
- Institute for the Study of War: 2 analyses, 3 reports
- International Crisis Group: 1 briefing
- International Institute for Strategic Studies: 6 blog articles, 6 analyses
- Istituto per gli studi di politica internazionale: 1 article
- Modern War Institute at West Point: 1 analysis
- Quincy Institute: 1 paper, 1 analysis
- RAND: 4 commentaries, 2 reports
- Royal United Services Institute: 25 commentaries, 1 report
- Swedish Defence Research Agency: 1 report
- The Heritage Foundation: 1 report
- The Royal Institute of International Affairs (Chatham House): 16 commentaries, 1 analysis, 3 papers, 1 briefing, 1 report
- Vivekananda International Foundation: 6 articles

#### Media:

- Asia Times
- **Associated Press**
- Bloomberg
- Courthouse News Service
- Defense360
- Financial Times
- National Public Radio
- **NBC News**
- New York Times
- Radio Free Europe
- The Economist
- The Guardian
- Wall Street Journal
- War on the Rocks
- Washington Post

## Magazines:

- Foreign Affairs
- Foreign Policy
- Politico
- RUSI Journal

## **Appendix B**

## Earlier Assessments

### Setting the Stage: Earlier Examples of Military Assessment

"In these moral as well as in the material elements of naval strength there is every reason to believe that the preponderance is on the side of Japan. The traditions of the Russian Navy, since its romantic origins in the will of Peter the Great are of little account. . . . On the other hand, the Japanese Navy has the fresh and brilliant tradition of the war with China in which many officers and seaman of the Japanese fleet took part. They will enter upon a conflict with Russia, if conflict there is to be, with a confidence which is not without its basis." 168

-New York Times editorial, October 14, 1903

-"Italy's War Games End Abruptly," New York Times, August 7, 1939

<sup>&</sup>quot;The great Italian Army manoeuvres ended suddenly and unexpectedly this morning, twenty-four hours before schedule. No reasons were advanced, the newspapers writing stories as if the conclusion today had been expected. . . . The whole business is all the more confusing because the Army of the Po was just about the demonstrate the reason for its formation—how to smash through an opposing force and exploit the breach."169

"The United States must not let itself be drawn into a ground war under any circumstance. If Iraq provokes combat, America should, insofar as possible, limit its response to the air bombardment of Iraq's military infrastructure.

In support of the pro-war argument, we are told that many Iraqi soldiers are not experienced veterans of the Iran war, but mere conscripts, poorly trained and more inclined to desert than to fight. That is a reading of mixed information that suggests the unconscious workings of impatience. No doubt there are a great many veterans in the Iraqi army—certainly many more than in U.S. forces."170

-"Gulf War Getting Stuck in the Sand," Washington Post, November 10, 1990

Military analysis, in one form or another, has existed for millennia. However, only in the last two centuries has it become institutionalized, and only since 1945 has it become industrialized. Before 1945, military analysis was often the remit of random scholars or civil servants, a very small number of research organizations, such as Janes, or soldiers in defense departments or armies. Military analysts had no agreed-upon methodology and little in the way of a shared community, and only occasional authors, such as Antoine-Henry Jomini, Carl von Clausewitz, and Alfred Thayer Mahan, emerged to become widely discussed strategic thinkers. Since 1945, the growth of think tanks and the proliferation of military bureaucracies, with their analytic, intelligence, and educational arms, have vastly expanded the number of military analysts.

Yet, as the field of military analysis has flourished and become institutionalized, it has not improved on the surface and, in some respects, may have deteriorated. For the sake of comparison, it might be helpful to briefly discuss some examples of analysis from the twentieth century to better understand how deep the errors were before February 24, 2022.

The following case studies all have something in common with the Russia-Ukraine War: the Russian navy at the time of the Russo-Japanese War, Benito Mussolini's military before Italy joined World War II, and the Iraqi military before the United States launched Operation Desert Storm in 1991.

One of the great differences between the analysis of military power before 1945 and the analysis thereafter is that in the earlier period there was little formal organization. To be sure, there were standard yearbooks such as Jane's and Brassey's annual surveys of the navies of the world, but these were often static compilations of statistics. When it came to the Russian navy and Italian armed forces, for instance, there were no think tanks producing regular reports on their supposed strengths and weaknesses, although publications like Jane's and Brassey's did tabulate order of battle data. Instead, public discourse was mostly dominated by reporters, sometimes specifically military reporters, writing in major newspapers. Within governments, military and naval attachés posted in different countries generated much of the analysis. However, almost all of their reports were confidential, and it is hard to say that any organized methodology drove their different opinions.

Perhaps because of the lack of a defined community, early analysis tended to shy away from taking overly strong or definitive opinions, as evident in the analysis of the Russian navy at the time of the Russo-Japanese War (1904-5). Although many people in Europe and North America likely thought that the Russians were superior to the Japanese due to their European status, public reports on the Russian navy seem to have made no such assumptions.

Indeed, much of the reporting, as shown by the 1903 New York Times editorial on the war cited above, tended to see the war as evenly matched, with the Russians having no significant material advantage because they were Europeans. The UK Times, which was establishing itself as the paper of record, analyzed the war very similarly. In December 1903, as war clouds were gathering, a Times military correspondent claimed that the Russian and Japanese fleets were evenly matched and, as such, the outcome of any naval war between them would be decided by seamanship and tactics, not materiel.<sup>171</sup> If anything, this was a relatively positive view of the Russian navy, as subsequent analysis of its capabilities tended to focus on weakness. In March 1904, the *Times* military correspondent pointed out a wide gulf between Russian naval power and that of a major maritime power such as the British or French.<sup>172</sup> By 1905, before the Battle of Tsushima, the analysis revealed a Russian navy with major flaws. Describing its performance during the Japanese attack on Port Arthur, the Times military analyst spoke of "the abasement of the art of naval war by Russian seaman and the Russian Government."173 Thus, before the Russian navy's almost total destruction at the hands of the Japanese in June 1905, the analysis of its capabilities in the leading journals of the United States and United Kingdom was not hopeful.

The reporting about the Italian military right before it entered the pre-World War II fighting was not quite as negative but stressed weaknesses as well as strengths. Certain military correspondents, such as Herbert Matthews in the New York Times, stressed the comparatively large size of the Italian army, the Italian navy's growing fleet, and the Italian air force's latest aircraft, arguing that Italy would be a major player in any coming war. When judging the impact of Italy entering the war on Germany's behalf on June 1, 1940, Matthews wrote that Italy had a "powerful weight to throw into the balance" when the time came. 174 The *Times* could also rate Italy a major player by relying mostly on metrics, such as the supposed size of the Italian army, which the *Times* estimated was 1.25 million in the spring of 1939.175

However, the analysis the major papers provided also stressed major weaknesses in the Italian military. Italy's relative economic backwardness was widely understood as a handicap to Mussolini's attempts to make Italy a great power. Matthews, for instance, wrote a detailed piece in May 1939 about what a war would be like between Italy and Germany against Britain and France. He argued that the relative economic weakness of the Axis powers would play a huge role in determining the outcome of any such conflict.<sup>176</sup> Even if Italy and Germany had great success at the start, the longer the war went on, the more the balance of production would turn against them. Within this analysis was an understanding that Italy might well lack the resources to sustain full-scale operations. One report, for instance, claimed that because of economic weakness, Italy would have difficulty sustaining naval operations after a few months of intense fighting.<sup>177</sup>

This understanding of basic Italian weaknesses was, if anything, even more prevalent in the attaché community in Italy. The German military attachés, for instance, were known to be very skeptical about Italy's military capabilities-much more so than German dictator Adolf Hitler.<sup>178</sup> These kinds of doubts played a significant role in undermining the notion of Italian military prowess that Mussolini tried hard to propagate. One of the best examples is the farcical Italian military maneuvers of the summer of 1939, described in the excerpt from Matthews. The Italian government was hoping to impress the world's press with these maneuvers, which would have them drive off an expected invader (probably France) and then counterattack. However, after a few days, the organization of the maneuvers broke down, and Mussolini decided he could not even risk appearing in public.

In the first half of the twentieth century, military analysis could be quite cautious based on a range of factors, not just military metrics but also societal and political efficiency and economic strength. Also, as there was no one analytic community, the analysis lacked consensus.

At the end of the twentieth century, however, the caution seemed to have lessened in at least one case: the vision of what the Iraqi armed forces could do to fighting U.S. armed forces during Operation Desert Storm (1991). Before the war there was a great deal of speculation about how the Iraqi military could fight against U.S. military forces sent to Saudi Arabia after Saddam Hussein's invasion of Kuwait. One of the most hotly discussed topics was the number of casualties the Iraqi army could inflict on the United States. Many considered the Iraqi military to be battle hardened after its long war against Iran and in possession of very effective military equipment. Analysts widely held that the Iraqi Republican Guard was "elite" and would pose significant problems for U.S. forces.179

Overall, the estimates of the casualties the Iraqis would inflict on U.S. forces were far greater than the reality. In some cases, professional military analysts estimated that the United States would suffer well over 10,000 dead and more than 30,000 casualties. 180 In the end, U.S. forces suffered 96 deaths in action against the Iraqis. 181 That said, although analysts did not widely believe that the Iraqis would defeat the United States, they overestimated the damage the Iraqis would inflict.

It is difficult to argue that military analysis improved in the twentieth century, and there is evidence that as the structures of military analysis grew, the quality of that analysis did not. One reason is that earlier analysis, not being systematized, may have relied on more holistic criteria for understanding military power. Instead of simply counting units and running calculations, early analysts, such as those who addressed the Russian and Italian militaries, often stressed their economic and societal weaknesses, not just the purported strength of their military units. That seems to have happened less in 1990-91, which could have contributed to a significant overestimation of the Iraqi military. Yet, in comparison to the analysis of the Russian and Ukrainian militaries before February 24, 2022, much of the earlier work was more accurate.

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