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The Rise and Fall of the Russian Strategy of Indirect Actions in Ukraine

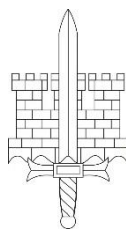
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MAANPUOLUSTUSKORKEAKOULU
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JULKAISUSARJA 3: TYÖPAPEREITA NRO 30

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HELSINKI 2023

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Maanpuolustuskorkeakoulu
Sotataidon laitos
Julkaisusarja 3: Työpapereita nro 30
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ISBN 978-951-25-3391-6 (pdf)

ISSN 2343-0753 (online)

Maanpuolustuskorkeakoulu – Sotataidon laitos

National Defence University – Department of Warfare



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Helsinki
Finland
2023



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The Rise and Fall of the Russian Strategy of Indirect Actions in Ukraine

Abstract

The war between Russia and Ukraine has been ongoing since Russia's illegal occupation of Crimea nine years ago. In February 2022, Russia launched 'a special military operation' against Ukraine. To support its military operations, Russia used asymmetric and indirect methods and non-military measures as a part of its strategy. These three, heavily intertwined concepts form the basis for understanding Russia's 'strategy of indirect actions' as seen by Russian academics and military leaders.

As part of this strategy, Russia employed indirect military and non-military measures against Ukraine until 2021 when it became clear that Ukraine would not comply with Russia's views of the Minsk II agreement. Consequently, Russia used non-violent military measures and multiple non-military means, including diplomatic, economic, and information means first to prepare and then to support its direct and violent military operation against Ukraine. Russia used indirect and asymmetric methods in its operational plan to support its traditional warfare efforts, including special forces and separatist troops, cyber-attacks and information warfare, and long-range precision weapons against civilian targets. Russia has varied these methods during the duration of conflict.

Russia's strategy of indirect actions has resulted in both failures and successes. Initially Russia's operational plan to occupy Ukraine was based on wrong premises, and it lacked necessary resources. Russia lacked situational understanding and underestimated its adversaries. Russia was also unable to shape the strategic environment in its favour due to a failure to synchronize military and non-military measures. Indirect methods failed when joint warfare failed, and no new or novel 'asymmetric' technology or doctrine was successfully deployed to produce surprise.

However, indirect methods also had successful elements, and as the war continues, some of Russia's methods might still produce desired effects. Russia managed to manipulate its opponents enough to achieve limited surprise, and partially managed to force Ukraine to fight a war that will eventually favour Russia. Although tactical indirect and asymmetric methods largely failed, Russia has managed to turn asymmetry to its favour through mobilization and the use of non-military measures, as the war has proceeded.

An important lesson from Russia's 'special military operation' for countries sharing a border with Russia is that Russia will use geography, economic linkages, information tools, subversion, and strategic movements of its armed forces to create an asymmetric, strategic situation where the weaker opponent must sacrifice almost everything to order to survive. The implications for Russia's small neighbouring states are clear. Military and economic alliances and great power support are required for deterrence by denial to withstand Russian non-military and military use of force. Resilience, readiness, and capabilities to counter Russian influence are required to resist Russia's indirect methods and non-military measures. Core identity and interests should always be protected against Russia's pursuit to alter them. Finally, continuous intelligence collection and an understanding of Russia's strategic culture is critical for acquiring situational awareness and anticipating Russia's potential actions.

Keywords: Russia, Ukraine, indirect strategy, asymmetry, non-military

A strategy of indirect actions

Russia started ‘a special military operation’ against Ukraine on the 24th of February 2022.¹ However, the war between Russia and Ukraine has been ongoing on for nine years, if one starts counting from the illegal occupation of Crimea by Russia, with no end in sight. During the ‘special military operation’, and even before the beginning of the latest active hostilities, Russia has employed a wide range of covert and overt, non-military and military, violent and non-violent methods against Ukraine and its foreign allies. Although these methods have been widely described in the Russian military writings as the necessities for victory in modern wars, Russia seems to either have failed in their execution or their promised effects have been overestimated.

Russians have traditionally considered war as a social and political phenomenon based on the use of armed, violent means to achieve political ends.² They do, however, recognize that all wars have their unique, historical character, and that this character is changing.³ Russians have used the concepts of asymmetric, indirect and non-military means, methods and measures to analyse this change. From the Russian point of view these concepts transcend the borders between war and peace and offer a formula for winning with or without military force by using the weaknesses of the opponent or by manipulating it. Their roots are in creativity, cunningness, and the principle of surprise⁴ which penetrate all military art.⁵ In their most comprehensive and integrated form these measures form the basis of ‘a strategy of indirect actions’ which Russia’s military scholars have offered as an answer to modern, aggressive state competition.⁶

This text aims to *tentatively* answer the following questions: What are the Russian asymmetric and indirect methods, and non-military measures according to Russian military literature? How have these methods been employed in Russia’s war against Ukraine in practise as a part of a strategy of indirect actions? Why has Russia succeeded and/or failed in employing these methods in the light of current publicly available evidence? What can we learn from Russia’s ‘special military operation’ about the use of asymmetric and indirect methods and non-military measures as part of a strategy of indirect actions concerning future interstate conflicts?

As the war is still ongoing, many details are unknown for operational security reasons, and a lot of propaganda is published by both sides. Therefore, the objective of this text is not to offer definite and final answers, but to advance understanding on the Russian way of war.

The first part of this text consists of a concept analysis of Russian asymmetric, indirect, and non-military methods. It is largely based on the analysis of Russian military academic journals

¹ On the term ‘a special military operation’ cf. R. N. McDermott and C. K. Bartles, “Defining the “Special Military Operation”,” NATO Defence College, September 9, 2022, <https://www.ndc.nato.int/research/research.php?icode=777>.

² А. П. Горкин, В. А. Золотарев, В. М. Карев и др., *Военный энциклопедический словарь в 2 томах (ВЭС)*. Том. I. (Москва: Большая Российская энциклопедия, Рипол классик, 2001).

³ Cf. Timothy Thomas, *Russian Military Thought: Concepts and Elements*. (McLean VA: MITRE Corporation, 2019); Timothy Thomas, *Russian Military Art and Advanced Weaponry*. (McLean, VA: MITRE Corporation, 2020).

⁴ As stated by Dmitry Adamsky, “From Moscow with Coercion: Russian Deterrence Theory and Strategic Culture,” *Journal of Strategic Studies* 41, no. 1–2 (February 23, 2018): 33–60.

⁵ А. А. Свечин, *Стратегия*. (Москва: Военный вестник, 1927), 204.

⁶ И. Н., Воробьев, “Какие войны грозят нам в будущем веке,” *Военная мысль* № 2 (1997): 18–24; И. Н., Воробьев, & В. А., Киселев, “Стратегия непрямых действий в новом облике,” *Военная мысль* № 9 (2006): 2–10; С. Г. Чекинов & С. А. Богданов, “Асимметричные действия по обеспечению военной безопасности России,” *Военная Мысль*, № 3 (2010): 13–22.

and a sample of Soviet and Russian military textbooks. The second part is a problem-driven qualitative literature review of current research and news on Russia's war against Ukraine. It examines the ways in which asymmetric and indirect methods and non-military measures have been used as a part of a strategy of indirect actions in the Russia-Ukraine war. It is based on commentaries by leading experts⁷, some published research⁸, and Russian and international news articles. The third part examines the reasons why the methods and measures have either succeeded or failed. The analysis is guided by factors recognized in the first part of the text as being central to the Russian military art so that Russia's successes and failures are judged by its own standards. The fourth part of the text offers some tentative ideas on what Russia, and other states might learn from Russia's actions, and how they might respond to the use of a strategy of indirect actions in future interstate conflicts.

The three concepts: asymmetry, indirectness, and non-military actions

For the last thirty years Russians have been very interested in finding ways to win against a technologically superior great power opponent, namely the United States. In this endeavour they have combined old Soviet era ideas such as active measures, reflexive control, materialistic principles of warfare, the doctrine of deep operations, and systems theory with Western theories and doctrines like, for example, Sir Basil Liddell-Hart's indirect strategy, Network Centric Warfare (NCW), Effect-Based Operations (EBO), and Full-Spectrum Dominance.⁹ As a result, Russians have developed, in however unofficial and immature form, an updated version of Cold War era political warfare doctrine with an decidedly more significant military and technological component.¹⁰

Russians have used three concepts to describe the way in which warfare has been changing due to strategic nuclear weapons (impossibility of conventional great power war)¹¹, the development of information technology (change in methods of influence and societies)¹², globalization (disruptive shifts in power and ideas)¹³, and new forms of state rivalry (cyber,

⁷ For example: Michael Kofman and Robert Lee, "Not Built for Purpose: The Russian Military's Ill-Fated Force Design," *War on the Rocks*, June 2, 2022, <https://warontherocks.com/2022/06/not-built-for-purpose-the-russian-militarys-ill-fated-force-design/>.

⁸ For example: Roger N. McDermott, *Russia's Path to the High-Tech Battlespace*. (Washington, D.C.: Jamestown Foundation, 2022); Michelle Grisé, Alyssa Demus, Yuliya Shokh, Marta Kepe, Jonathan W. Welburn, and Khrystyna Holynska, *Rivalry in the Information Sphere. Russian Conceptions of Information Confrontation*. (Santa Monica: RAND Corporation, 2022); Samuel Bendett and Jeffrey Edmonds, *Russian Military Autonomy in Ukraine: Four Months In*. (Washington, D.C., CNA, 2022); Huw Dylan and Thomas J. Maguire, "Secret Intelligence and Public Diplomacy in the Ukraine War," *Survival* 64, no. 4 (2022): 33–74; Robert Dalsjö, Michael Jonsson, and Johan Norberg, "A Brutal Examination: Russian Military Capability in Light of the Ukraine War," *Survival* 64, no. 3 (2022): 7–28; Marcus Willett, "The Cyber Dimension of the Russia-Ukraine War," *Survival* 64, No. 5 (2022): 7–26; Pieter Balcaen, Cind Du Bois and Caroline Buts, "The Design of Russia's Economic Warfare Against Ukraine," *The Journal of Slavic Military Studies*. 35, no. 1 (2022): 11–29.

⁹ Thomas, *Russian Military Thought*; Adamsky, "From Moscow"; Katri Pynnöniemi, "The Asymmetric Approach in Russian Security Strategy: Implications for the Nordic Countries," *Terrorism and Political Violence* 31, no. 1 (2019): 154–167; J. Bērziņš, "The Theory and Practice of New Generation Warfare: The Case of Ukraine and Syria," *The Journal of Slavic Military Studies* 33, no. 3 (2020): 355–380; Can Kasapoglu, *Russia's Renewed Military Thinking: Non-Linear Warfare and Reflexive Control*. (Rome: NATO Defence College, 2015).

¹⁰ Kent DeBenedictis, *Russian "Hybrid Warfare" and the Annexation of Crimea: The Modern Application of Soviet Political Warfare* (New York: Bloomsbury Academic, 2022).

¹¹ М. А. Гареев, "Уроки и выводы из опыта Великой Отечественной войны, локальных войн для строительства и подготовки Вооруженных Сил РФ," *Вестник Академии военных наук* 31, № 2 (2010): 7–17.

¹² Thomas, *Russian Military Thought*, 6–7–6–8.

¹³ А.В. Федорова & В.Н. Цигичко (общ. ред.), *Информационные вызовы национальной и международной безопасности*. (Москва: ПИР-Центр, 2001); А. В. Манойло, А. И. Петренко & Д. Б. Фролов, *Государственная информационная политика в условиях информационно-психологической войны*, 3-е изд.,

culture, financial, and even ecological).¹⁴ These three concepts are asymmetry, indirectness, and non-military actions and effects and they are interconnected and deeply related to each other. Moreover, over the years they have been used as adjectives to many different nouns, including ways, means, methods, measures, principles, strategies, tactics, actions, etc., which adds confusion to distinguishing them from each other and identifying what is meant by each. The three concepts lack concise definitions in the published Russian military dictionaries. For simplicity's sake, in this text asymmetry and indirectness are related to methods (ways of planning and doing things) and non-military to measures (actions related to specific environment or domain).

Asymmetric and indirect methods and non-military measures are related to the Russian concepts of cunningness, creativity, and surprise achieved through them. According to the Soviet (and Russian) view cunningness and creativity enable the commander to manipulate the materialistic laws of war and warfare to his/her advantage.¹⁵ In some interpretations they even break these laws which are based on symmetric correlation of forces calculations.¹⁶ This is possible because materialistic and universal laws are reflected in the principles of war, which are historical, contextual, and subjective interpretations. By following the principles, it is possible to use free will, while at the same time take into consideration the objective factors of the situation.¹⁷ As the head of the All-Russian General Staff Alexander Svechin declared in his magnum opus *Strategy* (before being purged in 1931): “Military cunningness – stratagem – penetrates operational art, and is its essential part, similarly as the understanding of force, its organization and rational use in battle, is an essential part of tactics.”¹⁸

Surprise has been recognized as a principle of war by the Russians from the Imperial times, excluding the era of late-Stalinism.¹⁹ Surprise can be achieved with new and unexpected methods or weapons, secrecy, deception, quick and decisive action, unpredictability, and *maskirovka*²⁰ (narrowly understood as the use of cover, weather, and camouflage, more

стереотип. (Москва: Горячая линия – Телеком, 2012): 11–12; В. В. Круглов, “Новый подход к анализу современного противоборства,” *Военная Мысль*, № 12 (2006): 50–61, 56.

¹⁴ E.g., Чекинов & С. А. Богданов, “Асимметричные действия.”

¹⁵ В. Е. Савкин, *Основные принципы оперативного искусства и тактики*. (Москва: Воениздат, 1972): 217–218, 358; В. Г. Резниченко, И. Н. Воробьев & Н. Ф. Мирошниченко (и др.) *Тактика*. (Москва: Воениздат, 1984): 55–56; S. P. Ivanov (ed.), *The Initial Period of War* (Translated, org. 1974). (Washington D.C.: U.S. Air Force. Soviet Military Thought Series, no. 20. 1986): 309; В. Лобов, *Военная хитрость*. (Москва: Голос, 2001); И. Н. Воробьев, “О тактике. Основные принципы боя,” *Военная мысль* № 4 (2002): 2–12; С. А. Тюшкевич, *О законах войны вопросы военной теории и методологии*. (Москва: Проспект, 2017).

¹⁶ On the concepts of correlation of forces cf. Julian Lider, “The Correlation of World Forces: The Soviet Concept,” *Journal of Peace Research* 17, no. 2 (1980): 151–171; Clint Reach, Vikram Kilambi and Mark Cozad, *Russian Assessments and Applications of the Correlation of Forces and Means*. (Santa Monica: RAND, 2020).

¹⁷ И. Н. Воробьев, *Тактика – искусство боя: Учебник*. (Москва: Общевойсковая академия ВС РФ, 2002): 85–86. Also cf. В. Ю. Сизов, “О системе законов вооруженной борьбы,” *Вестник академии военных наук* 42 № 1 (2013): 85–90.

¹⁸ Свечин, *Стратегия*, 204.

¹⁹ Stalin did not much care about ‘bourgeois principles of war’ and promoted his own ‘permanently operating factors’ (Harriet F. Scott and William F. Scott, *Soviet Military Doctrine. Continuity, Formulation, and Dissemination*. (Routledge, New York, 2019 (org. 1988)): 18; David Glantz, *Soviet Military Deception in the Second World War*. (London: Frank Cass, 1989): 575–576; David Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle*. (New York: Frank Cass, 2005): 206–208; Petteri Lalu, *Syvää vai pelkästään tihedää: neuvostoliittolaisen ja venäläisen sotataidollisen ajattelun lähtökohdat, kehittyminen, soveltaminen käytäntöön ja nykytilanne. Näkökulmana 1920- ja 1930-luvun syvän taistelun ja operaation opit*. Doctoral Dissertation. (Helsinki: Finnish National Defence University, 2014): 271–272.

²⁰ Министерство обороны Российской Федерации, “Военный энциклопедический словарь, ‘Маскировка’” 2007, <https://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=7917@morfDictionary>.

broadly understood as manipulative deception).²¹ For General of the Army V. N. Lobov, who served as the last Chief of the General Staff of the Soviet Armed Forces, surprise was an event created by protecting information of one's own actions while at the same time manipulating the information received by the opponent. Thus, surprise is possible only through the use of cunningness. According to Lobov, there can never be a ready-made formula for surprise – it is always achieved in a unique, situational way. Moreover, surprise never creates power out of nothing, it is only a variable, a coefficient, although highly orthogonal and disproportionate.²² As the border between war and peace has become blurry in the 2000s, non-military means have become increasingly important for achieving strategic surprise.²³

The concept of asymmetric response was created in late-Soviet Union as an answer to the challenge posed by Ronald Reagan's Strategic Defence Initiative (SDI). It was meant to be a cost-effective way to deny the benefits of SDI, and it includes offensive, defensive, and diplomatic measures.²⁴ The idea of asymmetric response was resurrected in the turn of the millennium as the United States again became Russia's primary competitor or opponent. Multiple asymmetric strategies, principles, actions, and means were offered as solutions to counter the United States military might which could not be matched through symmetric actions because of Russia's comparative economic weakness. Some offered new weapon systems, some anti-NCW warfare, and others non-military measures, mainly information warfare, as solutions.²⁵ Especially anti-NCW warfare enticed many Russian military theoreticians.²⁶ The study of American NCW doctrine and technology to find their weaknesses, and then developing advanced electronic and cyber warfare capabilities and long-range precision weapons to affect those weaknesses, seemed like practical applications of the asymmetric method.²⁷ Major general I. N. Vorobev from the Combined Arms Academy called these applications 'EW-fire operations' or 'information strikes' and they were to be used already before open hostilities began.²⁸ The perceived 'informatization' of warfare seemed to support this approach.²⁹ Other theorists emphasised the psychological component of information warfare and drew their ideas from such writers as the White Russian émigré

²¹ Резниченко, Воробьев & Мирошниченко, *Тактика*, 55–56; Лобов, *Военная хитрость*.

²² Лобов, *Военная хитрость*.

²³ И. Н. Воробьев & В. А. Киселев, "Эволюция принципов военного искусства," *Военная мысль*, № 8 (2008): 2–8.

²⁴ А. А. Kokoshin, *Soviet Strategic Thought, 1917–91*. (Cambridge, Massachusetts: The MIT Press, 1998): 181–182; А. Кокошин, "Асимметричный ответ" vs. "Стратегической оборонной инициативы," *Международная жизнь*, № 7–8 (2007).

²⁵ Cf. Juha Kukkola, *Digital Soviet Union. The Russian national segment of Internet as a closed national network shaped by strategic cultural ideas*. Doctoral Dissertation. (Helsinki: National Defence University Series, 2020).

²⁶ Ю. Горбачев, "РЭБ в операциях XX и XXI века," *Военно-промышленный курьер* 61, № 44 (2004); П. А., Дульнев, В. Т. Ковалев & Л. Н. Ильин, "Асимметричное противодействие в сетевцентрической войне," *Военная Мысль*, № 10 (2011): 3–8; А. В. Копылов, "О слабых сторонах американской концепции "сетевцентрических войн (операций)," *Военная Мысль*, № 7 (2011): 53–62.

²⁷ Thomas, *Russian Military Thought*; Thomas, *Russian Military Art*; Ю. Я. Бобков & Н. Н. Тютюнников, *Концептуальные основы построения АСУ Сухопутными войсками ВС РФ*. (Москва: Палеотип, 2014).

²⁸ И. Н. Воробьев, "Информационно-ударная операция," *Военная мысль*, № 6 (2007): 14–21; И. Н. Воробьев & В. А. Киселев, "Киберпространство как сфера непрямого вооруженного противоборства," *Военная мысль*, № 12 (2014): 21–28.

²⁹ А.А. Иванов, "Информатизация вооруженных сил. Информатизация Вооруженных Сил: проблемы и пути их решения," *Военная мысль*, № 2 (2000); И.Н. Панарин & Л.Г. Панарина, *Информационная война и мир*. (Москва: ОЛМА-ПРЕСС, 2003); А. В. Манойло, *Государственная информационная политика в особых условиях*. (Москва :МИФИ, 2003); А.В. Федорова & В.Н. Цигичко (общ. ред.), *Информационные вызовы национальной и международной безопасности*. (Москва: ПИР-Центр, 2001).

Evgeny Messner.³⁰ Their asymmetric methods consisted of the use of propaganda, mobilization of people's movements, 'fifth columns', insurgencies, partisans, and networks of peoples and ideas to destabilize the target state.³¹

On a more theoretical note, in the 2010s the Russian General Staff tried to come up with a principle of asymmetric warfare which included, among other things, exploiting the weaknesses of the opponent, the use of illegal means, and forcing the opponent to fight the conflict as one wanted.³² Vorobev and colonel V. A. Kiselev even wanted to replace the traditional military principle of 'aktivnost' (activity) with 'asymmetry' which would have consisted of seizing the initiative, deep strikes, use of UAVs and robots, reconnaissance-fire complexes, weapons based on new physical principles, and the simultaneous use of all domains.³³ Their asymmetric strategy would have been multidimensional, multipolar, and modular, based on the concentration of effects, fighting symmetry with asymmetry and vice-versa, and preventive actions.³⁴

Information warfare has been widely considered as asymmetric because it is new and thought to be cheap but still provides strategic effects.³⁵ Moreover, asymmetry according to Russians is available to both the weak (ways to neutralize opponent's advantage) and the strong (ways to exploit power through multiple domains).³⁶ For A. A. Selivanov and S. V. Chvarkov, who represent the Moscow Technological University and the Military Academy, the 'asymmetric strategy of the strong' was based on the purposeful activity of exploiting the known weaknesses of the weak and increasing own advantage with traditional and non-traditional, open and secret measures.³⁷ Asymmetry is not necessarily something related to actual warfare. For Selivanov and Chvarkov it can be a long-term strategy based on multidimensional, unpredictable, and flexible use of power to achieve state interests.³⁸

In short, according to the Russian view asymmetry is something non-traditional, even unlawful, or morally suspect, that gives disproportionate advantage.³⁹ The advantage is based on the surprise the shock effect of implausible use of unthinkable means produces. Basically, asymmetry is supposed to produce 'game-changing' effects with minimal input. Asymmetric

³⁰ On Messner cf. Ofer Fridman, "The Russian perspective on information warfare: conceptual roots and politicisation in Russian academic, political, and public discourse," *Defence Strategic Communications* 2 (2017): 61–86.

³¹ М. Александров, "Сетевые войны будущего и подготовка государства к их отражению," *Обозреватель—Observer* 322, № 11 (2016): 109–118.

³² А.В. Картаполов, "Уроки военных конфликтов, перспективы развития средств и способов их ведения. Прямые и не прямые действия в современных международных конфликтах." *Вестник Академии военных наук* 51, № 2 (2015): 26–36.

³³ И. Н., Воробьев & В. А. Киселев, "От современной тактики к тактике сетевых действий." *Военная Мысль*, № 8 (2011): 19–27.

³⁴ И. Н. Воробьев & В. А. Киселев, "Киберпространство как сфера непрямого вооруженного противоборства," *Военная мысль*, № 12 (2014): 21–28.

³⁵ Mary Fitzgerald, *Russian Views on IW, EW, and Command and Control: Implications for the 21st Century*. CCRTS June 29 - July 1, 1999, Conference paper. (Rhode Island: U.S. Naval War College) http://www.dodccrp.org/events/1999_CCRTS/pdf_files/track_5/089fitzg.pdf; Timothy Thomas, "Russian Views on Information-Based Warfare," *Airpower Journal - Special Edition* (1996):26-35, 26.

³⁶ В. В. Селиванов & Ю. Д. Ильин, "О комплексировании средств и способов подготовки асимметричных ответов при обеспечении военной безопасности," *Военная Мысль*, № 1 (2020): 48–60.

³⁷ А. А. Селиванов & С.В. Чварков, "О стратегии и концепции асимметричных действий," *Вестник академии военных наук* 72, № 3 (2020): 57–63.

³⁸ Воробьев & Киселев, "Киберпространство как"; И. Н. Воробьев & В. А. Киселев, "Стратегии сокрушения и измора в новом облике," *Военная Мысль*, № 3 (2014): 45–57.

³⁹ Е.г., Чекинов & Богданов, "Асимметричные действия"; И. Домин & А. Савинкин, "Асимметричное воевание," *Отечественные записки* 26, № 5(2005); А.В., Сержантов, А.В. Смоловый & И. А. Терентьев, "Трансформация содержания войны: контуры военных конфликтов будущего," *Военная мысль*, № 6 (2022): 19–30.

methods can be described as creative, manipulative, non-rule bound, cost-effective, qualitative, situational actions to affect the opponent disproportionately based on exploiting its weaknesses or using own strengths. Asymmetry can be applied on all levels of warfare and phases of interstate relations.

Indirectness is an essential part of asymmetry. However, 'indirect strategy' was considered to be a product of bourgeois ideology up until the Perestroika.⁴⁰ It was Army General and the Chief of Military Academy M. A. Gareev who in his 1995 book *If War Comes Tomorrow?* finally made indirect methods politically and doctrinally acceptable for the Russian military.⁴¹ Gareev and many after him associated indirectness with Sunzi, Liddell-Hart and even A. A. Svechin.⁴² According to Gareev 'indirect actions' were part of all the phases of interstate competition. During peace time they were mainly non-military measures used to achieve political interests and prevent war. During the initial period of war 'indirect actions' consisted of strategic surprise, paralyzing the opponent's will, deception, and misinformation. During actual conflict they included manoeuvre warfare (destruction with fire, envelopment, and deep strikes), special forces operations, information operations, and subversive actions.⁴³

After Gareev, others have listed space warfare, economic sanctions, blockades, military pressure or intimidation, use of opposition parties, secret operations, and partisan warfare as indirect methods.⁴⁴ Colonel S. G. Chekinov and S. A. Bogdanov from the Centre for Military Strategic Studies of the General Staff have argued that indirect methods include noncontact warfare, neutralization of the opponent without the use of force, and methods that enable one to achieve surprise (asymmetric methods, non-traditional methods, and information).⁴⁵ In the 2010s, a senior researcher from the Military Academy of the General Staff E. G. Shalamberidze developed a complex model of international, and largely indirect, confrontation. According to Shalamberidze, indirect methods could be used to destabilize and change the target state, which was understood as a system, to better suit the attacker's interests. For Shalamberidze, indirect military methods included strategic intelligence, military political activities, information-psychological and technological operations, non-traditional operations, use of 'third parties', special operations, military exercises, concentration of forces on the borders, and peacekeeping operations. These methods could be used with or without non-military methods and direct military methods to affect the target state.⁴⁶

Indirect actions were developed, among others, by I. N. Vorobev, V. A. Kiselev, S. G. Chekinov, and S. A. Bogdanov into a concept of a strategy of indirect actions. It is a way to

⁴⁰ В. Н. Лобов, "Роль и место военной хитрости в военном искусстве," *Военная мысль*, № 9 (1985): 29–39, 34.

⁴¹ М. А. Гареев, *Если завтра война?* (Москва: ВладДар, 1995): 118.

⁴² В. Ю. Микрюков, *Война: наука и искусство. В 4 кн. Книга 2. Военная наука: монография.* (Москва: РУСАЙНС, 2021): 163–164; В. Ю. Микрюков, *Война: наука и искусство. В 4 кн. Книга 3. Военное искусство: монография.* (Москва: РУСАЙНС, 2021): 98–99.

⁴³ Гареев, *Если завтра война?*

⁴⁴ Сержантов, Смоловый & Долгополов, "Трансформация содержания"; В.В. Герасимов, "Основные тенденции развития форм и способов применения Вооруженных Сил, актуальные задачи военной науки по их совершенствованию," *Вестник академии военных наук* 42, № 1 (2013): 24–29; И.Н. Воробьев, "Какие войны грозят нам в будущем веке," *Военная мысль*, № 2 (1997): 18–24; В. В. Серебрянников, "О понятии "война"," *Военная мысль*, № 10 (2004): 61–65; Е.Г. Шаламберидзе, "Непрямое противоборство в сфере военной безопасности в условиях мирного времени," *Вестник Академии военных наук* 34, № 1 (2011): 20–30.

⁴⁵ С. Г. Чекинов & С.А. Богданов, "Военное искусство на начальном этапе XXI столетия: проблемы и суждения," *Военная мысль*, № 1 (2015): 32–43.

⁴⁶ Е.Г. Шаламберидзе, "Национальная оборона и информационная борьба государства в современных условиях мирного времени," *Информационные войны* 23, № 3(2012): 11–19, 16.

achieve military-political objectives without the costly use of force through nonmilitary and military nonviolent measures, manipulation, cunningness and, if necessary, military surprise enhanced with new or non-traditional ways of warfare. The idea was taken from Liddell Hart but expanded to include also non-violent forms of interstate competition. The strategy of indirect actions can be executed through a series of operations some of which can be conventional military ones and others non-traditional, asymmetric and indirect ones. This kind of strategy has a comprehensive and integrated character and is conducted jointly by all national security institutions.⁴⁷

According to Russian military scholars' indirect methods are used to avoid (prevent) war altogether – in such a way that is beneficial to Russia – or, if necessary, minimize its cost. Thus, indirect methods have different character during peace and war time. In peace time they are used to destabilize target societies, their political decision making, and economic potential. During war time indirect methods are characterized by violence.⁴⁸ As indirectness is largely based on deception, secrecy, using new means or acting in unexpected ways, or manipulating the opponent, it is basically a reflection of cunningness and creativity. Manipulation has a central role in indirectness. This role is based on systems theoretical ideas about manipulating the opponent, understood as a system, with tailored information to make it act in a way beneficial to the manipulator. Thus, indirect methods have a close relationship to the theory of reflexive control.⁴⁹ According to the more traditional Russian military theoretical view, indirect methods are only disproportionate variables in correlation of forces calculations. All in all, indirect methods are historical, situational, and bound to subjective creativity of the commander.

Both asymmetry and indirectness have incorporated a non-military component. Non-military measures were outside the legitimate interests of the Soviet armed forces for ideological reasons.⁵⁰ However, after the fall of the Soviet Union they were quickly assimilated into the Russian military art. When the originally Marxist idea of continuous intersystem struggle was adopted to explain modern great power rivalries, non-military measures became even more relevant.⁵¹ Non-military measures include diplomatic, political, economic, information, humanitarian, moral-ethical, ideological, judicial, technological, and even ecological measures. They are used to isolate, weaken, pressure, deceive, manipulate, destabilize, and disorganize an opponent. Their objective is to acquire more power, lessen or neutralize military threats, restrict the enemy, and even force it to abandon aggressive policies.⁵²

According to retired Soviet colonel general E. E. Kondakov, non-military measures have different roles during the threatening period before a conflict and after the conflict has started. In the threatening period non-military measures are openly used to prevent an armed

⁴⁷ Воробьев, "Какие войны"; Воробьев & Киселев, "Стратегия непрямых"; Чекинов & Богданов, "Асимметричные действия."

⁴⁸ Гареев, *Если завтра война?*

⁴⁹ Antti Vasara, *Theory of Reflexive Control: Origins, Evolution and Application in the Framework of Contemporary Russian Military Strategy*. Finnish Defence Studies 22. (Helsinki: Finnish National Defence University, 2020).

⁵⁰ В. А. Соколовский (под ред.), *Военная стратегия*. (Москва Военное издательство министерство обороны СССР, 1963).

⁵¹ Oscar Jonsson, *The Russian Understanding of War. Blurring the Lines between War and Peace*. (Washington, D.C., Georgetown University Press, 2019); Kukkola, *Digital Soviet Union*; Joe Cheravitch, "The Role of Russia's Military in Information Confrontation." CNA Occasional Paper. (Washington, D.C.: CNA Research Memorandum, 2021).

⁵² Н. Н. Тютюнников, *Военная мысль в терминах и определениях. В трех томах, Том 1*. (Москва: Издательство Перо, 2018): 123. See also Michael Kofman, Anya Fink, Dmitry Gorenburg, Mary Chesnut, Jeffery Edmonds and Julian Waller, *Russian Military Strategy: Operational Concepts*. (Washington, D.C.: CNA Research Memorandum, 2021): 26–29.

conflict and military measures are used to support non-military ones (e.g., military exercises, weapon tests). During the conflict non-military measures are, among other things, used to isolate the target state politically and economically, to destabilize the opponent, to mobilize international support and own economy, to manipulate all relevant audiences, and for example, to legitimize the military use of force by using international institutions. Kondakov sensibly points out that without a plan and sufficient economic base non-military measures will fail.⁵³

The most important non-military measure identified by the Russian military scholars is information psychological and technological warfare.⁵⁴ Russian scholars argue that information warfare can have independent strategic effects because it can affect the decision-making, will, mentality and even culture of the target nation.⁵⁵ However, many Russians point out that non-military measures require resources and national power potential, must be backed by military power, and do require planning and time to effectively affect the opponent.⁵⁶ They do not create power out of thin air and require creativity to manipulate opponent's systemic interconnections and weaknesses. Thus, non-military and military measures support each other, can replace each other, can be used either in parallel or successively, and can have interdomain effects, depending on the phase of the interstate conflict - but only if the target state is well understood and is susceptible to manipulation.⁵⁷

Although asymmetric and indirect methods and non-military measures are slightly different concepts, they have many commonalities. Perhaps the most common factor between all three concepts is the possibility to achieve military strategic effects, with a synchronized combination of overt or covert, military or non-military, violent or non-violent measures, in all phases of interstate competition or struggle through surprise or at least through creative use of power. This point has been made time and again by Russian military academics.

Asymmetric and indirect methods and non-military measures in the Russia-Ukraine war

The following analysis is based on an interpretation that Russia has conducted a strategy of indirect actions against Ukraine at least from 2014 onwards. After other, nonmilitary and covert and indirect military measures failed by 2021 this strategy was implemented through a military operation based on a surprise invasion and regime change in February 2022. Surprise and subsequent victory were planned to be achieved through a combination of symmetric, direct and military and indirect, asymmetric and nonmilitary methods. After the first, failed, phase of the war Russia has slowly adopted mass and attrition-based warfare with limited objectives where asymmetry, indirectness and non-military measures have limited

⁵³ Е.Е. Кондаков, "Невоенные меры обеспечения военной безопасности Российской Федерации и основные проблемы их реализации." Mil.press flot, n.d., <https://flot.com/publications/books/shelf/safety/11.htm>, Accessed January 1, 2021.

⁵⁴ С. Н. Гриняев, *Поле битвы - киберпространство: Теория, приемы, средства, методы и системы ведения информационной войны*. (Москва: Харвест, 2004): 93–96.

⁵⁵ Воробьев & Киселев, "Стратегии сокрушения"; С. Г. Чекинов & С. А. Богданов, "Военная стратегия: взгляд в будущее," *Военная Мысль*, № 11 (2016): 3–15.

⁵⁶ В. В. Селиванов & Ю. Д. Ильин, "Методические основы формирования асимметричных ответов в военно-техническом противоборстве с высокотехнологичным противником," *Военная Мысль*, № 2 (2019): 5–14.

⁵⁷ О.М., Горшечников, А.И. Малышев & Ю.Ф. Пивоваров, "Проблемы типологии современных войн и вооруженных конфликтов," *Вестник академии военных наук* 58, № 1 (2017): 48–53; В.И. Останков, "Характер современных военных конфликтов и его влияние на военную стратегию," *Вестник Академии военных наук* 67, № 2(2019): 30–34; Тютюнников, *Военная мысль*, 123.

roles on strategic and strategic-operational level. This interpretation is also the basis for selecting the events and actions presented in the next chapter as examples of asymmetric and indirect methods and non-military measures Russia tried to employ in its war against Ukraine before the beginning of ‘the special military operation’ and during the first nine months of the conflict.

Russia began to pursue a military already sometime during 2021. One reason for this was that Ukraine’s new president Volodymyr Zelenskiy, elected in 2019, had, after a promising beginning for Russia, had started to distance himself from the Minsk Contact Group process, began to move against Russia-backed oligarchs, and began to move closer to the United States.⁵⁸ Russia’s relationship with the new president of the United States Joe Biden and the European Union had also taken a bad turn.⁵⁹ Although it is impossible, in the absence of documentary proof, to be certain of the exact strategy and objectives Russia adopted, it is clear that non-military measures with military support were deployed already in 2021 to create a basis for a military operation.

In the beginning, the most visible methods were the newly intensified sporadic fighting in the occupied Donbass area in the winter of 2021 and the large-scale Russian military exercise on Ukraine’s borders in April.⁶⁰ At this point Russia most probably still tried to pressure the Ukrainian leadership and its Western allies to accept Russia’s interpretation of the Minsk II agreement, i.e., to give the self-declared Donetsk (DNR) and Luhansk (LNR) People’s Republics an autonomous (and Russia dependent) status inside Ukraine. This effort failed but it did allow the Russian armed forces to train strategic-operational deployment of forces to Ukraine’s border and enhanced the readiness of the Black Sea Fleet to blockade Ukraine’s sea-lines of communication (SLOCs).

During the summer of 2021 the Russian leadership initiated an information-psychological operation the objectives of which were most probably to legitimize Russia’s use of armed force against Ukraine, to deprive Ukraine of international support, and to mobilize support for the military operation inside Russia. The operation consisted of, for example, international and national news propaganda and talk-shows, essays by Russia’s political leadership, and statements by Russian politicians and diplomats. Russia’s propaganda tried to deny Ukraine’s statehood and independence, claimed that Ukraine was ruled by Fascists, that the West was planning for a provocation, and that Ukraine was planning genocide in the

⁵⁸ Orysia Lutsevych, “Ukraine Still Backs Zelenskyy despite Slow Progress,” Chatham House – International Affairs Think Tank, December 21, 2021, <https://www.chathamhouse.org/2021/11/ukraine-still-backs-zelenskyy-despite-slow-progress>; Vladimir Socor, “Russia Calibrating Low-Intensity War in Ukraine’s East,” Jamestown, February 18, 2021, <https://jamestown.org/program/russia-calibrating-low-intensity-war-in-ukraines-east/>; Andrew Wilson, “Faltering Fightback: Zelensky’s Piecemeal Campaign against Ukraine’s Oligarchs,” ECFR, July 6, 2021, <https://ecfr.eu/publication/faltering-fightback-zelenskys-piecemeal-campaign-against-ukraines-oligarchs/>.

⁵⁹ Jennifer Rankin, “EU-Russia Relations Expected to Get Even Worse, Says Bloc’s Top Diplomat,” The Guardian, June 17, 2021, <https://www.theguardian.com/world/2021/jun/16/eu-warned-to-expect-relations-with-putins-russia-to-deteriorate>.

⁶⁰ Vladimir Socor, “Yermak’s Earlier Giveaways Come Back to Haunt Zelenskyy and Ukraine,” Jamestown, March 25, 2021, <https://jamestown.org/program/yermaks-earlier-giveaways-come-back-to-haunt-zelenskyy-and-ukraine/>; Pavel Felgenhauer, “Tensions Escalate in Donbas and on Ukrainian Border,” Jamestown, April 8, 2021, <https://jamestown.org/program/tensions-escalate-in-donbas-and-on-ukrainian-border/>.

Donbass.⁶¹ This disinformation campaign intensified in February 2022 before Russia's attack when the Kremlin tried to promote false-flag narratives to legitimize its use of force.⁶²

When Russia began its 'special military operation' it argued that it was 'demilitarizing' and 'denazifying' – not occupying – Ukraine.⁶³ According to Putin, Ukraine's government was not legitimate, and there was humanitarian catastrophe underway in the separatist areas, and DNR and LNR, which Russia had recognized as independent states in 21st of February, had asked Russia for help.⁶⁴ After Russia failed to secure a quick victory its propaganda machine has increasingly tried to convince Russians and the global audience at large that the 'neo-colonial' West is trying to destroy Russia and uses Ukraine for its own ends.⁶⁵ It has also disseminated disinformation about Ukraine's preparations for acquiring nuclear weapons and for using radiological and biological weapons with Western aid – thus trying to discredit Ukraine and cover Russia's own war crimes.⁶⁶ Russia has also used the annexation of Ukraine's Luhansk, Donetsk, Zaporizhzhia, and Kherson oblasts in September to legitimize its war as defensive.⁶⁷ All in all, designating the Russian offensive as 'special military operation' has been an effort to shape the image of the conflict in a way beneficial to Russia.⁶⁸

Although persistent, Russia's information-psychological operation has failed to degrade Ukrainians' will to defend their country or the United States' and European Union's will to support Ukraine economically and militarily. Where Russia has succeeded is in controlling its internal information space. TV, radio, and Internet news sites have been taken under Kremlin's control, foreign media and NGOs have been effectively banned, and even social

⁶¹ Katri Pynnöniemi and Kati Parpei, "Sotaretoriikka Venäjällä: Uhka- ja uhrinarratiivit Venäjän hyökkäyssodan selitysmalleina," *Kosmopolis* 52, no.4 (2022), 9–24; AFP, "Putin Says Conflict in Eastern Ukraine Looks Like Genocide," *The Moscow Times*, December 10, 2021, <https://www.themoscowtimes.com/2021/12/10/putin-says-conflict-in-eastern-ukraine-looks-like-genocide-a75780>; Katherine Arnold, "There Is No Ukraine": Fact-Checking the Kremlin's Version of Ukrainian History," *LSE International History*, July 1, 2020, <https://blogs.lse.ac.uk/lseih/2020/07/01/there-is-no-ukraine-fact-checking-the-kremlins-version-of-ukrainian-history/>; *The Moscow Times*, "What Are Russian State Media Saying About Ukraine?," February 21, 2022, <https://www.themoscowtimes.com/2022/02/21/what-are-russian-state-media-saying-about-ukraine-feb-7-a76172>.

⁶² David Gilbert, "Russia's 'Idiotic' Disinformation Campaign Could Still Lead to War in Ukraine," February 21, 2022, <https://www.vice.com/en/article/88gdj3/russia-disinformation-campaign-bombing-ukraine>; Bellingcat Investigation Team, "Documenting and Debunking Dubious Footage from Ukraine's Frontlines," Bellingcat, February 23, 2022, <https://www.bellingcat.com/news/2022/02/23/documenting-and-debunking-dubious-footage-from-ukraines-frontlines/>.

⁶³ Olivia Waxman, "Historians on What Putin Gets Wrong About 'Denazification' in Ukraine," *Time*, March 3, 2022, <https://time.com/6154493/denazification-putin-ukraine-history-context/>.

⁶⁴ *Российская Газета*, "Владимир Путин Выступил с Обращением. Стенограмма," *Российская Газета*, 24.2.2022, <https://rg.ru/2022/02/24/vladimir-putin-vystupil-s-obrashcheniem-k-rossiiam.html>.

⁶⁵ Kremlin.ru "Подписание договоров о принятии ДНР, ЛНР, Запорожской и Херсонской областей в состав России," Президент России, 30.10.2022, <http://kremlin.ru/events/president/news/69465>.

⁶⁶ Robert Mackey, "Russia Is Lying About Evidence of Bioweapons Labs in Ukraine, Russian Biologists Say," *The Intercept*, March 17, 2022, <https://theintercept.com/2022/03/17/russia-ukraine-bioweapons-misinformation/>; Matthew Goldenberg and William C. Potter, "Russian Misinformation About Ukrainian Radiological Weapons Capabilities and Intentions," James Martin Center for Nonproliferation Studies, March 10, 2022, <https://nonproliferation.org/russian-misinformation-about-ukrainian-radiological-weapons-capabilities-and-intentions/>; Anna Arndt, and Liviu Horovitz, "Nuclear rhetoric and escalation management in Russia's war against Ukraine," SWP Working Paper, September 3, 2022, https://www.swp-berlin.org/publications/products/arbeitspapiere/Arndt-Horovitz_Working-Paper_Nuclear_rhetoric_and_escalation_management_in_Russia_s_war_against_Ukraine.pdf

⁶⁷ Никита Абрамов, "Кремль объяснил статус атак ВСУ на Донбасс после референдума," *Lenta*, 3.9.2022, <https://lenta.ru/news/2022/09/23/ataki/>.

⁶⁸ Mary Ilyushina, "Putin Declares 'War' – Aloud – Forsaking His Special Euphemistic Operation," *Washington Post*, December 22, 2022, <https://www.washingtonpost.com/world/2022/12/22/putin-war-ukraine-special-operation/>.

media has been put under wartime-like censorship.⁶⁹ Moreover, Russia has been able to keep large parts of the world disinterested in the war, thus giving it freedom of action and ability to circumvent Western economic sanctions.⁷⁰

For many years before the invasion, Russia has tried to foster pro-Russian political parties and individuals in Ukraine and tried to entice Ukrainians with its soft-power project of the 'Russian World' (Russkiy Mir), although with limited success.⁷¹ This did not stop Russia for trying to engineer a post-invasion puppet government in Ukraine. Already in December 2021 Ukraine's government accused Russia of planning a coup.⁷² However, Russia did not try to establish pseudo 'government-in-exile', and there was no manufactured 'call-for-help' from Ukrainian 'opposition'. Instead, Russia used the recognition of DNR and LNR to legitimize its military 'assistance'.⁷³ The idea was to capture Kiev and then to set chosen individuals to lead Ukraine's new pro-Russian government.⁷⁴ No significant Ukrainian political party or civil society group, however, came out to support Russia's 'special military operation.' Even the openly pro-Russian Opposition Platform – For Life denounced Russia's invasion, although it was later banned by the Supreme Court of Ukraine.⁷⁵ A political legitimation was thus provided for the use of military force inside a country whose internal sovereignty was supposedly challenged – just like the theories promoted by some Russian military academics demanded.⁷⁶

Russia has historically used natural gas, coal, electricity exports and trade sanctions to compel and coerce Ukraine's leadership.⁷⁷ It can be argued that because of the level of corruption in Ukraine's economic system and the powerful role of Russia-connected oligarchs, Russia could have used economic incentives to incite a coup in Ukraine instead of a military

⁶⁹ Татьяна Исакова and Татьяна Исакова, "Непробиваемая интернет-изоляция," 21.9.2022, <https://www.kommersant.ru/doc/5571153>; Meduza, "В России будут сажать на срок до 20 лет за участие в военных действиях против «интересов» страны," Meduza, 14.7.2022, <https://meduza.io/news/2022/07/14/v-rossii-budut-sazhat-na-srok-do-20-let-za-uchastie-v-voennyh-deystviyah-protiv-interesov-strany>; Meduza, "Путин подписал новый закон об «иноагентах». Такой статус теперь смогут присвоить кому угодно," Meduza, 14.7.2022, <https://meduza.io/news/2022/07/14/putin-podpisal-novyy-zakon-ob-inoagentah-takoy-status-teper-smogut-prisvoit-komu-ugodno>.

⁷⁰ Strategic Comments, "Russia and sanctions evasion," *Strategic Comments* 28, no. 4, (2022): vii-ix.

⁷¹ Peter Dickinson, "Five Reasons Why Ukraine Rejected Vladimir Putin's 'Russian World,'" Atlantic Council, March 26, 2021, <https://www.atlanticcouncil.org/blogs/ukrainealert/five-reasons-why-ukraine-rejected-vladimir-putins-russian-world/>; Mykola Vorobiov, "Putin's Invasion of Ukraine Decimates Influence of Local Pro-Russian Parties," Jamestown, June 8, 2022, <https://jamestown.org/program/putins-invasion-of-ukraine-decimates-influence-of-local-pro-russian-parties/>.

⁷² Ben Aris, "More Details Emerge of Alleged Coup Plot in Ukraine," Intellinews.com, November 29, 2021, <https://intellinews.com/more-details-emerge-of-alleged-coup-plot-in-ukraine-228366/>; Simon Shuster, "The Untold Story of the Ukraine Crisis," Time, February 2, 2022, <https://time.com/6144109/russia-ukraine-vladimir-putin-viktor-medvedchuk/>.

⁷³ РИА Новости, "Совфед дал согласие на использование ВС за пределами страны," РИА Новости, 22.2.2022, <https://ria.ru/20220222/soglasie-1774434602.html>.

⁷⁴ Greg Miller and Catherine Belton, "Russia's spies misread Ukraine and misled Kremlin as war loomed," Washington Post, August 19, 2022, <https://www.washingtonpost.com/world/interactive/2022/russia-fsb-intelligence-ukraine-war/>.

⁷⁵ Security Services of Ukraine, "At SSU's initiative, political party Opposition Platform – For Life banned completely," Security Services of Ukraine, September 15, 2022, <https://ssu.gov.ua/en/novyny/za-initsiatyvu-sbu-v-ukraini-ostatochno-zaboronyly-diialnist-opzzh>.

⁷⁶ А.А. Бартош, "Модель гибридной войны," *Военная мысль*, № 5 (2019): 6–23; А.А. Бартош, "«Серые зоны» как ключевой элемент современного операционного пространства гибридной войны," *Военная мысль*, № 3 (2021): 25–37.

⁷⁷ Pieter Balcaen, Cind Du Bois and Caroline Buts, "The Design of Russia's Economic Warfare Against Ukraine," *The Journal of Slavic Military Studies* 35, no. 1 (2022): 11-29.

operation.⁷⁸ However, there is no concrete evidence about this. The ‘de-oligarchization’ campaign initiated by president Zelenskiy in February 2021 might have affected Russia’s plans. Ukraine’s oligarchs were effectively neutralised as a political force by the end of 2022.⁷⁹

In addition to influencing Ukraine’s economic elite Russia has used energy exports to pressure Ukraine and its Western allies in late 2021 to accept its diplomatic initiatives – and has used them during 2022 to undermine European Union’s, and global, support to Ukraine.⁸⁰ Some measures have been purely means of economic pressure, such as the harassment of Ukrainian shipping on the sea of Azov from December 2021 onward.⁸¹ Other, like limiting natural gas exports, have been used to blackmail EU countries and create divisions inside the EU.⁸² Russia has also tried to use Ukraine’s grain exports to create global pressure against Ukraine.⁸³ In the beginning of the war the Black Sea Fleet blockaded Ukraine’s access to the Black Sea and beyond and, thus, effectively stopped Ukrainian grain from getting to the world markets which caused the price of grain to spike. This affected especially African developing countries. Russia used the negotiation process to openly pressure Ukraine and its allies and succeeded in getting some sanctions eased or lifted.⁸⁴ Even the 7,8 million Ukrainian refugees might be seen as a part of Russia’s plan to pressure the EU.⁸⁵

It is fair to say that Russia has more or less either been forced to or given the opportunity to use economic measures after its ‘ten day’ operation to invade Ukraine failed.⁸⁶ At least some of these measures have been counteractions to the United States’ and EU sanctions. However, most have been used to indirectly support military measures by trying to deny Ukraine foreign support. These measures have been part of a group of indirect methods to weaken, destabilize and fracture the opposing alliance, and they have had a significant information warfare component to affect the global audience or audiences inside opposing

⁷⁸ John Lough, *Ukraine’s system of crony capitalism. The challenge of dismantling ‘systema.’* (London: Chatham House, 2021); European Court of Auditors, *Reducing grand corruption in Ukraine: several EU initiatives, but still insufficient results.* (Luxemburg: European Court of Auditors, 2021).

⁷⁹ Mykhailo Minakov “The War Has Helped Ukraine Rein in the Oligarchs,” Wilson Center, November 15, 2022, <https://www.wilsoncenter.org/blog-post/war-has-helped-ukraine-rein-oligarchs>.

⁸⁰ The Moscow Times, “Russia Cuts Gas Supplies to Europe as Temperatures Drop,” December 20, 2021, <https://www.themoscowtimes.com/2021/12/20/russia-cuts-gas-supplies-to-europe-as-temperatures-drop-a75881>; Peter Dickinson, “Ukraine Faces Energy Crisis as Putin Weaponizes Gas and Coal Supplies,” Atlantic Council, November 4, 2021, <https://www.atlanticcouncil.org/blogs/ukrainealert/ukraine-faces-energy-crisis-as-putin-weaponizes-gas-and-coal-supplies/>; Emily Kilcrease, Jason Bartlett and Mason Wong, “Sanctions by the Numbers: Economic Measures against Russia Following Its 2022 Invasion of Ukraine,” Center for a New American Security, June 16, 2022, <https://www.cnas.org/publications/reports/sanctions-by-the-numbers-economic-measures-against-russia-following-its-2021-invasion-of-ukraine>.

⁸¹ Borys Kormych and Tetyana Malyarenko, “From gray zone to conventional warfare: the Russia-Ukraine conflict in the BlackSea,” *Small Wars & Insurgencies*, (2022) DOI: 10.1080/09592318.2022.2122278.

⁸² Katherine Walla, “Putin’s Energy War against Europe Also Targets the US. Here’s How Washington Can Fight Back,” Atlantic Council, October 19, 2022, <https://www.atlanticcouncil.org/blogs/new-atlanticist/putins-energy-war-against-europe-also-targets-the-us-heres-how-washington-can-fight-back/>.

⁸³ Ihor Kabanenko, “The Ukraine Grain Agreement After Three Months: Moscow’s Blackmail, Boa Constrictor Tactics and Russian Gas,” Jamestown, November 3, 2022, <https://jamestown.org/program/the-ukraine-grain-agreement-after-three-months-moscows-blackmail-boa-constrictor-tactics-and-russian-gas/>.

⁸⁴ Susanne Wengle, “Black Sea Blackmail: Ukrainian Food Exports in War Conditions – PONARS Eurasia,” November 21, 2022, <https://www.ponarseurasia.org/black-sea-blackmail-ukrainian-food-exports-in-war-conditions/>.

⁸⁵ UNCHR “Situation Ukraine Refugee Situation,” UNCHR, n.d., <https://data.unhcr.org/en/situations/Ukraine>, Accessed May 2, 2022.

⁸⁶ Mykhaylo Zabrodskiy, Jack Watling, Oleksandr V Danylyuk, and Nick Reynolds, *Preliminary Lessons in Conventional Warfighting from Russia’s Invasion of Ukraine: February–July 2022.* (London: RUSI, 2022).

countries. They have affected third countries which have then been drawn into the negotiation process – usually for the benefit of Russia.

Non-violent military means (exercises), information warfare, and economic measure were accompanied by vigorous political-diplomatic measures to legitimize Russia's invasion, to isolate Ukraine, and if so happened, to avoid the use of violent military force altogether. In December 2021 President Vladimir Putin personally requested to “immediately launch negotiations with the U.S. and NATO on international legal guarantees for Russia's security.”⁸⁷ The United States and NATO rejected these demands as they included Russian veto on NATO expansion, removal of nuclear weapons from Europe and multinational NATO battalions from Poland and from the Baltic states.⁸⁸ Talks in January did not produce results and Russia declared that it might have to resort to “military-technical means.”⁸⁹ In February Russia sent a diplomatic note to OSCE member states demanding that no country can increase its security at the expense of others.⁹⁰ Russia gave the impression that it was ready for diplomatic solutions until president Putin ordered the use of open, violent military force. Political-diplomatic measures were thus part of strategic deception and the pursuit of surprise. Russia has also used its good relations to Hungary, Turkey, and Serbia (and their economic dependencies) to create tensions inside the EU and NATO and to indirectly paralyze their decision-making processes.⁹¹

Diplomacy was combined with nuclear deterrence as Russia's conventional troops were bound in Ukraine. Even before Russia invaded Ukraine it employed its strategic nuclear forces as a deterrent against Western intervention. Leading Russian foreign policy officials made statements about the danger of a nuclear war, Putin threatened the United States with hypersonic missiles, and the Russian Strategic Missile Troops conducted an out-of-schedule Grom exercise in February 2022.⁹² When Russia attacked Ukraine its strategic nuclear forces were put on ‘high alert’. Nuclear deterrence signalling went on through the spring and summer and nuclear capable forces were deployed in Belarus, which had changed its constitution to allow nuclear weapons.⁹³ In hindsight, it can be judged that Russia did manage to deter the West from using direct and open military force in support of Ukraine. Russia's

⁸⁷ The Moscow Times, “Russia Sends Security Proposals to U.S. as Ukraine Tensions Soar,” December 15, 2021, <https://www.themoscowtimes.com/2021/12/15/russia-sends-security-proposals-on-nato-to-us-as-ukraine-tensions-soar-a75828>.

⁸⁸ RFE/RL, “NATO Rejects Russian Security Demands, But Says It's Open To More Diplomacy,” Radio Free Europe/Radio Liberty, January 12, 2022, <https://www.rferl.org/a/nato-russia-council-talks/31650372.html>; Gabrielle Tétrault-Farber and Tom Balmforth, “Russia Demands NATO Roll Back from East Europe and Stay out of Ukraine,” Reuters, December 17, 2021, <https://www.reuters.com/world/russia-unveils-security-guarantees-says-western-response-not-encouraging-2021-12-17/>; Shane Harris, Karen DeYoung, Isabelle Khurshudyan, Ashley Parker and Liz Sly, “Road to war: U.S. struggled to convince allies, and Zelensky, of risk of invasion,” Washington Post, August 16, 2022, <https://www.washingtonpost.com/national-security/interactive/2022/ukraine-road-to-war/>.

⁸⁹ Dmitri Trenin, “What a Week of Talks Between Russia and the West Revealed,” Carnegie Endowment for International Peace, January 20, 2022, <https://carnegiemoscow.org/commentary/86222>.

⁹⁰ Thomas Nilsen, “Lavrov Demands ‘clear Answer’ from Nordic Neighbors on Security,” The Independent Barents Observer, February 1st, 2022, <https://thebarentsobserver.com/en/security/2022/02/lavrov-asks-nordic-neighbors-about-security-guarantees>.

⁹¹ IntelliNews, “Putin's Dwindling Circle of Friends in Emerging Europe,” IntelliNews,” October 11th, 2022, <https://www.intellinews.com/putin-s-dwindling-circle-of-friends-in-emerging-europe-257565/>.

⁹² Mark B. Scheider, “Putin's October Grom Strategic Nuclear Exercise,” November 15, 2022, https://www.realcleardefense.com/articles/2022/11/15/putins_october_grom_strategic_nuclear_exercise_864944.html; Arndt and Horovitz, “Nuclear rhetoric.”

⁹³ Arndt and Horovitz, “Nuclear rhetoric.”

nuclear threats also initially deterred Ukraine from attacking critical infrastructure targets deep inside Russia, thus creating an asymmetric battlefield between Russia and Ukraine.⁹⁴

Russia renewed its nuclear threats when its forces started to lose ground. The Deputy Chairman of the Security Council Dmitry Medvedev stated in September that the annexed DNR and LNR were a part of Russia and could be defended with strategic nuclear weapons.⁹⁵ Later in October Russia conducted another Grom exercise where it trained “the tasks of carrying out a massive nuclear strike by the strategic nuclear forces in retaliation for the enemy’s nuclear strike.”⁹⁶ In December president Putin decided to up the ante by stating that Russia was thinking about changing its nuclear doctrine to allow nuclear first-strike.⁹⁷ During the conflict, especially the leadership of the United States has been worried about the possibility of Russia using tactical nuclear weapons to even its odds on the battlefield. There has been some intelligence to suggest that the Russian military was thinking about this option during the late summer of 2022.⁹⁸

Russia’s plan to rapidly invade Ukraine was most probably based on the belief that the Ukraine’s armed forces and civilians would not put up resistance in the face of overwhelming superiority of Russia’s forces.⁹⁹ It is arguable if Russia really tried to achieve a strategic surprise. Although, despite every signal and threat Russia gave, many Western leaders and the Ukrainian leadership still did not believe that Russia would attack, until the last moment.¹⁰⁰ It can be argued that Russia tried to build on a strategic level such an asymmetric situation where Ukraine’s resistance made no sense and / or it would be forced into fighting a war the nature and rules of which were dictated by Russia. From an overwhelming position Russia could choose when and where to use open, violent military measures.

The Russian forces were under constant surveillance of the United States’ intelligence assets and active OSINT community so their positions and strength were hard to keep secret.¹⁰¹ Russia did, however, try to achieve an operational surprise by deploying its forces on the whole length of Belarussian-Russian-Ukrainian border to keep Ukraine guessing from where and when the main attack would come. It had concentrated its forces once already in April 2021 so the Ukrainian leadership had at least some hope that Russia would withdraw its forces this time as well. Russia arranged a military exercise with Belarus in February but then did not move the troops back to Russia as it had previously declared.¹⁰² Moreover, Russia

⁹⁴ Matthew Mpoke Bigg, “Ukraine War: A Timeline of Attacks on Russian Territory,” The New York Times, December 27, 2022, <https://www.nytimes.com/article/ukraine-war-attacks-russia-timeline.html>.

⁹⁵ Scheider, “Putin’s October.”

⁹⁶ TASS, “Russia Holds Exercise to Practice Massive Retaliatory Nuclear Strike — Shoigu,” October 26, 2022, <https://tass.com/defense/1527705>.

⁹⁷ Howard Altman, “Ukraine Situation Report: Putin Makes New Nuclear ‘First Use’ Threat,” The Drive, December 9, 2022, <https://www.thedrive.com/the-war-zone/ukraine-situation-report-putin-makes-new-nuclear-first-use-threat>.

⁹⁸ Natasha Bertrand, Katie Bo Lillis, and Zachary Cohen, “US Officials Divided over New Intelligence Suggesting Russian Military Discussed Scenarios for Using Nuclear Weapons,” CNN, November 2, 2022, <https://edition.cnn.com/2022/11/02/politics/us-russia-nuclear-weapon-intelligence/index.html>.

⁹⁹ Zabrodskyi, et al., *Preliminary Lessons*.

¹⁰⁰ Harries et al., “Road to war”; Schwirtz, Michael, Anton Troianovski, Yousur Al-Hlou, Masha Froliak, Adam Entous, and Thomas Gibbons-Neff. “How Putin’s War in Ukraine Became a Catastrophe for Russia.” The New York Times, December 18, 2022, <https://nyti.ms/41GPQbG>.

¹⁰¹ Peter Aldhous and Christopher Miller, “TikTok, Satellite Images, Flight Trackers Reveal Russia’s Attack On Ukraine,” BuzzFeed News, March 3, 2022, <https://www.buzzfeednews.com/article/peteraldhous/osint-ukraine-war-satellite-images-plane-tracking-social>; AP, “U.S. Intel Accurately Predicted Russia’s Invasion Plans. Did It Matter?,” CNBC, February 25, 2022, <https://www.cnbc.com/2022/02/25/us-intel-predicted-russias-invasion-plans-did-it-matter.html>.

¹⁰² РИА Новости, “Войска Южного и Западного ВО возвращаются в места дислокации после учений,” РИА Новости, 15.2.2022, <https://ria.ru/20220215/ucheniya-1772856307.html>.

kept the Ukrainian leadership (and the Western military specialists) guessing on its military objectives.¹⁰³ Finally, Russia kept the exact timing, direction, and objectives of attack even from its own troops to maximize operational security.¹⁰⁴ When the attack came it was meant to be quick and decisive, to decapitate Ukraine's leadership, prevent the mobilization of Ukraine's armed forces, fix and destroy its permanent readiness forces, capture critical infrastructure and administrative centres and stop outside powers from interfering.¹⁰⁵ Thus, the Russian attack was supposed to be indirect, unexpected and therefore surprising. This plan failed but as the winter of 2022–2023 progresses and Russia is building its strength through mobilization for a renewed offensive it has again used the Belarussian territory to obfuscate its intentions.¹⁰⁶ Russia can move its forces on the outer lines, create confusion and destabilize Ukraine's armed forces decision-making.

The close historical and ethnical relationship between Russians and Ukrainians and Ukraine's pro-Russian political movements offered good grounds for recruiting agents, infiltrate special forces and conduct subversive operations in Ukraine in the initial period of the war and later. There is enough evidence available to argue that Russia (FSB's 5th Service and Counterintelligence Department) managed to build a network of agents inside Ukraine before the war and people with Ukrainian nationality have helped Russian invasion forces.¹⁰⁷ Later in the war Russia has probably used infiltration camps to recruit agents from occupied territories.¹⁰⁸

During the war the head of the security services of Ukraine (SBU) and State Prosecutor were arrested and 651 cases of alleged treason were opened against individuals involved in law enforcement and in the prosecutor's office.¹⁰⁹ Ukrainian forces have also hunted agents who have supplied Russian forces tactical information for directing artillery strikes and have been spreading disinformation.¹¹⁰ 800 people have been detained for sabotage and intelligence

¹⁰³ Zabrodskiy, et al., *Preliminary Lessons*; Seth Jones, Joseph Bermudez Jr, and Philip Wasielewski, "Russia's Gamble in Ukraine," January 27, 2022, <https://www.csis.org/analysis/russias-gamble-ukraine>.

¹⁰⁴ Zabrodskiy, et al., *Preliminary Lessons*.

¹⁰⁵ Ibid.

¹⁰⁶ Kateryna Stepanenko, George Barros, Layne Philipson and Frederick W. Kagan, "Russian Offensive Campaign Assessment, December 23," *Critical Threats*, December 23rd, 2022, <https://www.criticalthreats.org/analysis/russian-offensive-campaign-assessment-december-23>.

¹⁰⁷ Reuters, "How Russia Spread a Secret Web of Agents Across Ukraine," VOA, July 30, 2022, <https://www.voanews.com/a/how-russia-spread-a-secret-web-of-agents-across-ukraine/6677718.html>; Yaroslav Trofimov and Manu Brabo, "Ukraine Security Services Hunt for Russia Supporters and Agents in Their Midst," *WSJ*, June 2, 2022, <https://www.wsj.com/articles/ukraine-security-services-hunt-for-russia-supporters-and-agents-in-their-midst-11654161968>; Isabelle Khurshudyan and Praveena Somasundaram, "Zelensky removes security head, top prosecutor in high-level shake-up," *The Washington Post*, July 18, 2022, <https://www.washingtonpost.com/world/2022/07/17/ukraine-bakanov-venediktova/>; Reid Standish, "Interview: How Russia's Intelligence Agencies Have Adapted After Six Months Of War," *Radio Free Europe / Radio Liberty*, August 24, 2022, <https://www.rferl.org/a/russia-intelligence-agencies-ukraine-war-six-months/32003096.html>.

¹⁰⁸ Standish, "Interview: How Russia's Intelligence"; Isabelle Khurshudyan and Kamila Hrabchuk, "Ukrainian security officers hunt the enemy within: 'Agents' for Russia," *The Washington Post*, November 11, 2022, <https://www.washingtonpost.com/world/2022/11/11/ukraine-sbu-traitors-russia-kharkiv/>; Grzegorz Kuczyński, "Dismissals, Arrests, Suicide: Can Anyone Reform Ukraine's SBU?," *The Warsaw Institute*, August 23, 2022, <https://warsawinstitute.org/dismissals-arrests-suicide-can-anyone-reform-ukraines-sbu/>.

¹⁰⁹ Reuters, "How Russia Spread"; Essi Matilda Jokinen Sutinen Hs, "Suurin muutos Zelenskyin hallinnossa sitten sodan alun: Kaksi korkea-arvoista virka-miestä hyllytetty – Tutkintoja maan-petoksista käynnistetty," *Helsingin Sanomat*, 18.7.2022, <https://www.hs.fi/ulkomaat/art-2000008950850.html>.

¹¹⁰ Mick Krever, "Ukraine's Security Service Hunts the Spies Selling Information to Russia," *CNN*, May 17, 2022, <https://edition.cnn.com/2022/05/16/europe/ukraine-sbu-russian-spies-intl/index.html>; Trofimov and Brabo, "Ukraine Security"; *The Odessa Journal*, "The SBU Neutralized the Russian Saboteurs and Handed over 700 Coordinates to the AFU on the Eastern Front," odessa-journal.com, August 11, 2022, <https://odessa-journal.com/the-sbu-neutralized-the-russian-saboteurs-and-handed-over-700->

activities.¹¹¹ It is unclear if there was any coherent plan to use the recruited agents in the beginning of the operation except to sow chaos and paralyze Ukraine's defensive efforts. However, as the war has continued, agents have been employed on a more tactical level as an extension of Russian Armed Forces to conduct intelligence and sabotage operations. In the future, they can be used as a part of an information operation to claim that the Russian invasion has legitimate support inside Ukraine and therefore also to destabilize the unity of the Ukrainian people. The use of agents is basically an asymmetric method as cost-effective, unconventional, covert forces are used as force multiplier against conventional forces.

Russian Armed Forces intelligence service (GU) and federal security services (mainly FSB) have operated alongside recruited agents as they did in 2014–2015.¹¹² They have very probably conducted intelligence gathering and target reconnaissance missions many years before the Russian invasion.¹¹³ Already in February the United States claimed that Russia had prepared 'kill-lists' of Ukrainians to be detained or killed.¹¹⁴ When Russia's invasion began, Russian special forces had already infiltrated deep into Ukraine's territory and began sabotage operations against critical infrastructure and government targets – including an attempt to assassinate president Zelenskiy.¹¹⁵ These operations did not, however, produce strategic effects and special forces have since been used either as support for ground troops or for coordinating precision strikes. Airborne troops, Naval infantry and Army Spetsnaz troops have apparently suffered heavy casualties.¹¹⁶ Furthermore, the FSB has been accused of failing to provide accurate intelligence before the invasion.¹¹⁷ There is little reliable information about the missions and objectives of Russian intelligence services and special forces, but they have most probably been used for reconnaissance, supporting ground troops, deception, recruitment, and to support information operations.

Russia began to prepare cyber operations (information technological actions) already in the spring of 2021 to support its oncoming military operation.¹¹⁸ In February 2022 Russian hackers conducted defacement attacks on Ukrainian government sites and the first traces of wiper malware were detected. However, no data was leaked, and systems were quickly

coordinates-to-the-afu-on-the-eastern-front/; The Odessa Journal, "The SBU Liquidated Enemy Intelligence Networks That Carried out Cyber-Attacks and Information Sabotage against Ukraine," *odessa-journal.com*, April 9, 2022, <https://odessa-journal.com/the-sbu-liquidated-hostile-intelligence-networks-that-carried-out-cyber-attacks-and-information-sabotage-against-ukraine/>.

¹¹¹ Zoe Strozewski, "Ukraine Using Artificial Intelligence to Catch People Sabotaging War Effort," *Newsweek*, June 15, 2022, <https://www.newsweek.com/ukraine-artificial-intelligence-catch-people-sabotaging-war-effort-1716251>.

¹¹² Tor Bukkvoll, "Russian Special Operations Forces in Crimea and Donbas," *Parameters* 46, no. 2 (2016): 13–21; Jack Watling, *The Kaleidoscopic Campaigning of Russia's Special Services*. (London: RUSI, 2022).

¹¹³ Security Services of Ukraine, "Since start of Russian hybrid aggression, SSU Counterintelligence exposes 20 Russian diplomats on spying and detains hundreds of saboteurs," Security Services of Ukraine, December 28, 2021, <https://ssu.gov.ua/en/novyny/z-pochatku-hibrydnoi-ahresii-rf-kontrozvidka-sbu-vykryla-ponad-20-rosiiskykh-dyplomativrozvidnykiv-ta-zatrymala-sotni-dyversantiv>.

¹¹⁴ Bill Chappell, "The U.S. warns that Russia has a 'kill list' of Ukrainians to be detained or killed," NPR, February 21, 2022, <https://www.npr.org/2022/02/21/1082096026/russia-kill-list-ukraine>.

¹¹⁵ Zabrodskiy, et al., *Preliminary Lessons*; Agentura.ru, "ГРУ выходит на первый план," *agentura.ru*, 13.5.2022, <https://agentura.ru/investigations/gru-vyehodit-na-pervyy-plan-nbsp/>; Служба Безпеки України, "СБУ знешкодила агентурну" *Telegram*, 1.7.2022, <https://t.me/SBUkr/4543>.

¹¹⁶ BBC News Русская служба, "Элитные специалисты. Кого именно потеряла российская армия в Украине," 1.9.2022, <https://www.bbc.com/russian/features-62736795>; David Brennan, "Elite Russian Units Take Up to 40 Percent Casualties in Ukraine: Official," *Newsweek*, December 3, 2022, <https://www.newsweek.com/elite-russian-units-take-40-percent-casualties-ukraine-1764140>.

¹¹⁷ Agentura.ru, "Почему генерал российской разведки оказался в Лефортово," *agentura.ru*, 13.4.2022, <https://agentura.ru/investigations/pochemu-general-rossijskoj-razvedki-okazalsja-v-lefortovo/>.

¹¹⁸ Marcus Willett, "The Cyber Dimension of the Russia–Ukraine War," *Survival*, 64, no. 5 (2022): 7–26.

restored.¹¹⁹ A week before the invasion a massive DDoS attacks impacted Ukrainian bank, government, and military websites.¹²⁰ On the eve of the invasion and during the first months of the offensive Ukraine's telecom companies, government agencies, financial sector, and enterprises were targeted with large amount of destructive cyber-attacks.¹²¹ The attacks did not have a long-term effect and were largely unsuccessful and subsided quickly. By summer, Russian cyber operations had changed into vandalism (defacement, DDoS) and mainly supported information and propaganda operations, although, there have been some activity spikes in the autumn and winter.¹²² Some analysts have proposed that after failed attacks Russia has concentrated on intelligence gathering.¹²³ After Russia began to destroy Ukraine's energy infrastructure with long-range precision missiles in October, destructive cyber operations against critical infrastructure temporarily increased, but have since again become sporadic.¹²⁴

Like strategic nuclear weapons Russian cyber capabilities have played a role in deterring the West. The United States and NATO member states have been very aware of the possibility of Russian cyber-attacks against their critical infrastructure and have been reluctant to escalate the conflict in cyber space.¹²⁵ In addition to deterrence Russia has invested in enhancing its own cyber defence and resilience and tried to close its information-psychological and technological space from outside attacks by Ukrainian and international hacktivists.¹²⁶ It is quite clear that in the beginning Russia tried to use cyber-attacks as an asymmetric and indirect method in support of direct, military use of force to influence Ukraine's government and society. Later, cyber operations have concentrated on supporting psychological operations, intelligence gathering, and attrition strategy (continuous attacks to degrade Ukrainian economy, government, and morale). As the war has dragged on and the initial shock effect of cyber-attacks has waned, Ukraine's ICT systems have become more

¹¹⁹ Nadiya Kostyuk, "Why Cyber Dogs Have Yet to Bark Loudly in Russia's Invasion of Ukraine," *Texas National Security Review* 5, no. 3 (2022): 113–126.

¹²⁰ CyberPeace Institute, "Timeline of Cyberattacks and Operations," CyberPeace Institute, <https://cyberconflicts.cyberpeaceinstitute.org/threats/timeline>, Accessed May 3, 2022.

¹²¹ Joe Bateman, "Russia's Wartime Cyber Operations in Ukraine: Military Impacts, Influences, and Implications," Carnegie Endowment for International Peace, December 16, 2022, <https://carnegieendowment.org/2022/12/16/russia-s-wartime-cyber-operations-in-ukraine-military-impacts-influences-and-implications-pub-88657>.

¹²² Willett, "The Cyber Dimension."

¹²³ Kostyuk, "Why Cyber Dogs"; Bateman, "Russia's Wartime Cyber."

¹²⁴ Clint Watts, "Preparing for a Russian Cyber Offensive against Ukraine This Winter," Microsoft on the Issues, December 3, 2022, <https://blogs.microsoft.com/on-the-issues/2022/12/03/preparing-russian-cyber-offensive-ukraine/>.

¹²⁵ Jason Healey, "Preventing Cyber Escalation in Ukraine and After," War on the Rocks, March 9, 2022, <https://warontherocks.com/2022/03/preventing-cyber-escalation-in-ukraine-and-after/>; Lennart Maschmeyer and Nadiya Kostyuk, "There Is No Cyber 'Shock and Awe': Plausible Threats in the Ukrainian Conflict," War on the Rocks, February 8, 2022, <https://warontherocks.com/2022/02/there-is-no-cyber-shock-and-awe-plausible-threats-in-the-ukrainian-conflict/>; The White House, "Statement by President Biden on Our Nation's Cybersecurity," The White House, March 21, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/21/statement-by-president-biden-on-our-nations-cybersecurity/>; Erica Lonergan and Keren Yarhi-Milo, "Cyber Signaling and Nuclear Deterrence: Implications for the Ukraine Crisis," War on the Rocks, April 21, 2022, <https://warontherocks.com/2022/04/cyber-signaling-and-nuclear-deterrence-implications-for-the-ukraine-crisis/>.

¹²⁶ The Moscow Times, "Путин назначил Медведева ответственным за отключение России от глобального интернета," The Moscow Times, 15.4.2022, <https://www.moscowtimes.ru/2022/04/15/putin-naznachil-medvedeva-otvetstvennim-za-otklyuchenie-rossii-ot-globalnogo-interneta-a19583>; Владислав Скобелев, "Роскомнадзор создаст национальную систему защиты от DDoS-атак," Forbes.ru, 18.4.2022, <https://www.forbes.ru/tekhnologii/462697-roskomnadzor-sozdast-nacional-nuu-sistemu-zasity-ot-ddos-atak>; Alexander Antipov, "Минцифры создаст методку работы пгтабов по кибербезопасности в регионах," SecurityLab.ru, 6.6.2022, <https://www.securitylab.ru/news/532127.php>.

resilient, and Russian war aims have become more limited, long-range precision guided missiles and indirect fires have become more effective as means to influence Ukraine's population and armed forces than cyber-attacks.¹²⁷

Russia began its ground attack simultaneously with an air operation which was supposed to achieve air supremacy by destroying the Ukrainian air forces and air defence assets. Russia used fixed wing aircrafts, helicopters, cruise missiles and ballistic missiles supported by electronic warfare systems to strike against radars, command posts, airfields, AD positions, military garrisons, and supply depots. Although Russia succeeded in striking all designated targets, it failed to gain air superiority during the first days of the war and eventually its air forces suffered heavy losses. After that, Russian air forces were forced to operate behind the cover of ground-based air defence, and attacks against targets deep inside Ukraine practically stopped. Russian air operations became better coordinated after April and in addition to supporting ground forces it has been able to significantly restrict the freedom of action of Ukrainian air forces.¹²⁸

During the conflict Russia has used thousands of cruise missile and ballistic missiles. In the beginning it targeted air defence systems but quickly changed to targeting infrastructure and government targets including cultural objects and television and radio infrastructure. Hence Russian kinetic operations supported political-diplomatic and information (non-military) measures to pressure Ukraine to surrender. In the summer Russia began targeting fuel storage facilities, refineries, and key railway infrastructure. These attacks were meant to support military measures in the Donbass area. However, at this point Ukrainian air defences were becoming more effective against missiles and Russia's missile stockpiles were running low.¹²⁹ In the autumn Russia initiated an operation to destroy Ukraine's energy infrastructure with massed missile and UAV attacks to force Ukraine to negotiations.¹³⁰ This operation has caused significant damage, but its strategic effects are still unknown.¹³¹ It is, however, a clear shift from the Russian objective of capturing or temporarily paralyzing critical infrastructure to destroying it.¹³²

¹²⁷ Gavin Wilde, "Cyber Operations in Ukraine: Russia's Unmet Expectations," Carnegie Endowment for International Peace, December 12, 2022, <https://carnegieendowment.org/2022/12/12/cyber-operations-in-ukraine-russia-s-unmet-expectations-pub-88607>.

¹²⁸ Justin Bronk with Nick Reynolds and Jack Watling, *The Russian Air War and Ukrainian Requirements for Air Defence*. (London: RUSI, 2022).

¹²⁹ Bronk, Reynolds, and Watling, *The Russian Air War*.

¹³⁰ Isobel Koshiw, "Russia Carries out More Mass Strikes on Ukraine's Energy Infrastructure," The Guardian, December 16, 2022, <https://www.theguardian.com/world/2022/dec/16/russia-begins-mass-air-strike-in-apparent-move-to-destroy-ukraines-power-grid>.

¹³¹ International Energy Charter, "Ukrainian energy sector evaluation and damage assessment - V (as of December 20, 2022)," Cooperation for Restoring the Ukrainian Energy Infrastructure project Task Force, n.d.,

https://www.energycharter.org/fileadmin/DocumentsMedia/Occasional/2022_12_20_UA_sectoral_evaluation_and_damage_assessment_Version_V.pdf, Accessed March 3, 2022.

¹³² Anna Gumbau, "Russia's War on Ukraine Spotlights Critical Energy Infrastructure," Energy Monitor, March 10, 2022, <https://www.energymonitor.ai/tech/networks-grids/russias-war-on-ukraine-spotlights-critical-energy-infrastructure/>; Mark Holt and Mary Beth D. Nikitin, "Russian Military Actions at Ukraine's Nuclear Power Plants," Congressional Research Service, September 12, 2022, <https://crsreports.congress.gov/product/pdf/IN/IN11883>; Al Jazeera, "Zelenskyy Says Russia Destroyed Kherson's Critical Infrastructure," Al Jazeera, November 12, 2022, <https://www.aljazeera.com/news/2022/11/12/zelenskyy-says-russia-destroyed-khersons-critical-infrastructure>.

Although Russian air operations were originally guided by established doctrine and views of future war¹³³, they later became tools of attrition and coercion on the one hand, and vengeance and terror on the other. As such they can be considered both as a symmetric and direct and asymmetric and indirect method – depending on the objective of their use. As air superiority is a necessary requirement for victory in modern war, failure to achieve it must have affected Russia’s ability to employ other asymmetric and indirect methods. Furthermore, an air superiority campaign is not an asymmetric method in a Russian sense as it is not cost-effective or particularly novel. It is, however, very much indirect as it is based on paralyzing the opponent and avoiding direct force-to-force confrontation – and asymmetric in a way that it uses one domain to enable the control of other domains.

Electronic warfare (EW) has been touted by Russian military academics as ‘the asymmetric response’ and it has been used against Ukrainian forces. The initial Russian air and ground operations were heavily supported by EW capabilities.¹³⁴ This was to be expected as EW has been seen by the Russians as heavily contributing to the attainment of information superiority.¹³⁵ However, EW affected both Ukrainian and Russian forces and were accordingly scaled down.¹³⁶ During the spring and summer Russia began to coordinate its use of EW with other forces more efficiently. For example, EW affected the use of UAVs by Ukrainian armed forces, although Russia has been unable to totally disrupt Ukrainian field communications.¹³⁷ Russian EW performance seems to have differed depending on location, Donbass being the most effective area.¹³⁸ On the defensive side, Russia has tried to deny the free use of its information-technological space, for example by increasing GNSS jamming and by turning off some of the civilian tracking systems such as AIS.¹³⁹ It would seem that while Russian forces failed to employ their new network-centric warfare capabilities in the beginning of the operation¹⁴⁰ they also failed to use electronic warfare to effectively deny Ukraine its command and control communications.¹⁴¹ Thus, electronic warfare’s operational effects have been limited.

The Armenia-Azerbaijan war of 2020 gave the impression that UAVs and loitering munitions would be the future ‘game changers’¹⁴² and they have been used throughout the Russian-

¹³³ Timothy Thomas, *Thinking Like a Russian Officer: Basic Factors and Contemporary Thinking on the Nature of War*. (Fort Leavenworth, KS: FMSO, 2016): 27.

¹³⁴ Bronk, Reynolds, and Watling, *The Russian Air War*.

¹³⁵ Roger N. McDermott, *Russia’s Path to The High-Tech Battlespace*. (Washington, D.C.: The Jamestown Foundation, 2022): 314.

¹³⁶ Bronk, Reynolds, and Watling, *The Russian Air War*; Bryan Clark, “The Fall and Rise of Russian Electronic Warfare,” *IEEE Spectrum*, July 20, 2022, <https://spectrum.ieee.org/the-fall-and-rise-of-russian-electronic-warfare>.

¹³⁷ Daryna Antoniuk, “How Electronic Warfare Is Reshaping the War between Russia and Ukraine,” *The Record From Recorded Future News*, August 16, 2022, <https://therecord.media/how-electronic-warfare-is-reshaping-the-war-between-russia-and-ukraine/>; Zabrodskiy, et al., *Preliminary Lessons*; Oleksandr Stashevskiy and Frank Bajak, “Deadly Secret: Electronic Warfare Shapes Russia-Ukraine War,” *AP NEWS*, June 4, 2022, <https://apnews.com/article/russia-ukraine-kyiv-technology-90d760f01105b9aaf1886427dbfba917>.

¹³⁸ Clark, “The Fall and Rise.”

¹³⁹ Matt Burgess, “GPS Signals Are Being Disrupted in Russian Cities,” *WIRED*, December 15, 2022, <https://www.wired.com/story/gps-jamming-interference-russia-ukraine/>; Elisabeth Braw, “Russia Interferes With Shipping Location Systems to Dodge Sanctions,” *Foreign Policy*, December 14, 2022, <https://foreignpolicy.com/2022/12/14/sanction-busting-russian-ships-automatic-identification-system-radar/>.

¹⁴⁰ Zabrodskiy, et al., *Preliminary Lessons*.

¹⁴¹ Jack Watling and Nick Reynolds, *Ukraine at War Paving the Road from Survival to Victory*. (London: RUSI, 2022).

¹⁴² Shaan Shaikh and Wes Rumbaugh, “The Air and Missile War in Nagorno-Karabakh: Lessons for the Future of Strike and Defense,” December 8, 2020, <https://www.csis.org/analysis/air-and-missile-war-nagorno-karabakh-lessons-future-strike-and-defense>.

Ukraine war.¹⁴³ Based on the available evidence it is hard to say exactly how much the Russian forces relied on UAVs in the first months of the operation. There has been a serious lack of UAVs in the Russian forces.¹⁴⁴ Both sides used them for reconnaissance and targeting and before autumn limitedly on strike missions.¹⁴⁵ When Russia switched to attrition attacks against Ukrainian energy infrastructure it began to use Iranian manufactured Shaded-136/131 (Grean-2) loitering munitions.¹⁴⁶ These have been cheap alternatives to cruise missiles (especially 3M14 Kalibr and Kh-101) and furthermore change the cost-effect relationship between air-defence missiles and their targets. The Russian approach to UAVs has changed during the conflict and they have evolved from ISR assets to a cost-effective asymmetric method. However, if Ukrainian claims on the percentage of shooting down cruise missiles and UAVs is true, then the asymmetry of drones is questionable.¹⁴⁷ Other autonomous vehicles, independent swarming technology, and artificial intelligence applications have not figured prominently, if at all, in the war. Moreover, Russian much publicized autonomous ground vehicles have not been used in any significant numbers.

Russia has threatened with, tested and used ‘wonder weapons’ during the conflict.¹⁴⁸ It has used some hypersonic Kh-47M2 Kinzhal missiles against Ukrainian targets¹⁴⁹, it has tested nuclear-capable torpedo Poseidon¹⁵⁰ and also 3M22 Tsirkon hypersonic sea-based cruise missile,¹⁵¹ and prepared a test for nuclear-powered cruise missile 9M730 Burevestnik.¹⁵²

¹⁴³ Adam Lowther and Mahbube K. Siddiki, “Combat Drones in Ukraine,” *Air & Space Operations Review* 1, no. 4 (2022): 3–13.

¹⁴⁴ Pavel Luzin, “Russian UAVs: What Has Gone Wrong?,” Jamestown, November 11, 2022, <https://jamestown.org/program/russian-uavs-what-has-gone-wrong/>.

¹⁴⁵ David Axe, “Russia Just Lost A Killer Drone Over Ukraine. It Can’t Afford To Lose Many More.,” *Forbes*, April 9, 2022, <https://www.forbes.com/sites/davidaxe/2022/04/09/russia-just-lost-a-killer-drone-over-ukraine-it-cant-afford-to-lose-many-more/?sh=4b5ced6f5054>; David Hambling, “Russian Loitering Munition Racks Up Kills But Shows Limitations,” *Forbes*, December 1, 2022, <https://www.forbes.com/sites/davidhambling/2022/12/01/russian-loitering-munition-racks-up-kills-but-shows-limitations/?sh=4f8814d55d58>; Samuel Bendett and Jeffrey Edmonds, *Russian Military Autonomy in Ukraine: Four Months In*. (Washington, D.C.: CNA, 2022).

¹⁴⁶ John Hardie Ryan Brobst, “Iranian Shahed-136 Drones Increase Russian Strike Capacity and Lethality in Ukraine,” *FDD’s Long War Journal*, October 18, 2022, <https://www.longwarjournal.org/archives/2022/10/iranian-shahed-136-drones-increase-russian-strike-capacity-and-lethality-in-ukraine.php>; Andrew Kramer and Marc Santora, “Russia Attacks Kyiv with a Wave of Iranian-Made Drones After a Lull,” *The New York Times*, December 14, 2022, <https://www.nytimes.com/2022/12/14/world/europe/ukraine-russia-iranian-drones.html>.

¹⁴⁷ Reuters, “Ukraine Shot down 85-86% of Russian Drones Involved in Latest Attacks - Air Force,” October 17, 2022, <https://www.reuters.com/world/europe/ukraine-shot-down-85-86-russian-drones-involved-latest-attacks-air-force-2022-10-17/>.

¹⁴⁸ Raphael Cohen and Gian Gentile, “‘Wonder Weapons’ Will Not Win Russia’s War,” *Defense One*, November 9, 2022, <https://www.defenseone.com/ideas/2022/11/wonder-weapons-will-not-win-russias-war/379545/>; Kyle Mizokami, “What Ever Happened to Russia’s ‘Wonder Weapons?’,” *Popular Mechanics*, December 9, 2022, <https://www.popularmechanics.com/military/weapons/a41968636/what-happened-to-russias-wonder-weapons/>.

¹⁴⁹ Reuters, “Russia Says It Has Deployed Kinzhal Hypersonic Missile Three Times in Ukraine,” August 21, 2022, <https://www.reuters.com/world/europe/russia-says-it-has-deployed-kinzhal-hypersonic-missile-three-times-ukraine-2022-08-21/>.

¹⁵⁰ Snejana Farberov, “Russia Possibly Tried and Failed to Test ‘apocalypse’ Poseidon Nuclear Torpedo,” *New York Post*, November 11, 2022, <https://nypost.com/2022/11/11/russia-possibly-tried-and-failed-to-test-nuclear-torpedo/>.

¹⁵¹ Naval News Staff, “Russian Admiral Gorshkov Frigate Test-Fires Tsirkon Missile,” *Naval News*, May 30, 2022, <https://www.navalnews.com/naval-news/2022/05/russian-admiral-gorshkov-frigate-test-fires-tsirkon-missile/>.

¹⁵² Thomas Nilsen, “New Study Reveals Comprehensive Buildup of Nuclear Missile,” *The Independent Barents Observer*, September 18, 2022, <https://thebarentsobserver.com/en/security/2022/09/new-study-reveals-comprehensive-buildup-nuclear-missile-test-ground-novaya-zemlya>.

Russia has claimed to use Peresvet laser against Ukrainian drones.¹⁵³ Aside from those listed, no ‘exotic weapons’ based on new natural principles have been publicly used. Ultimately, no operationally or strategically effective ‘wonder weapon’ has been introduced in the Russia-Ukraine war. However, the idea of ‘wunderwaffen’ has been present in information operations, although perhaps mainly as a morale-booster, which testifies to the Russian hope of finding asymmetric responses to costly and complicated problems.

Perhaps a more innovative and truly cunning invention has been the use of air-defence and naval missiles against ground targets.¹⁵⁴ This invention was truly unexpected, firstly because of technical problems involved and, secondly because ‘it made no sense’ – thus being something that the enemy was not expecting. Moreover, the use of cheaper missiles to replace costly ones for shock effect was a school-book example of an asymmetric method.

The initial Russian ground assault had some indirect and asymmetric components. The airborne assaults to Hostomel and Vasytkin and the planned rapid advance and capture of Kiev were supposed to be surprising and secure a quick and decisive victory.¹⁵⁵ Thus Russian armed forces followed exactly what Russian military academics had written and they (and the Soviet Union armed forces in their time) had found successful in military operations against semi-friendly countries during the Cold War.¹⁵⁶ Based on historical evidence the operation had a high probability of success if the Ukrainian armed forces had not put up resistance and the Ukrainian people had not supported this resistance.

Russia ground attack from multiple directions¹⁵⁷ can also be seen as an example of using positional and force superiority to make the opponent disperse his/her forces and lose sight of the true objective of the attacker. It is, however, impossible to know if this was the true intention of the Russian General Staff. It is possible that the Russian armed forces were forced to attack by their political leadership from the same positions that they were used to pressure Ukraine without enough time to concentrate forces. It is also possible that the command structure the General Staff had devised forced them to use forces in independent, not-mutually supportive directions. Be that as it may, an attack from multiple directions from multiple domains, with the main effort masked under the fog of war, follows the logic of indirect method.

¹⁵³ Tom Spender, “Russia’s Laser Weapon Claim Derided as Propaganda,” BBC News, May 19, 2022, <https://www.bbc.com/news/world-europe-61508922>.

¹⁵⁴ Thomas Newdick, “Russia Now Firing S-300 Surface-To-Air Missiles at Land Targets In Ukraine: Official,” The Drive, July 8, 2022, <https://www.thedrive.com/the-war-zone/russia-now-firing-s-300-surface-to-air-missiles-at-land-targets-in-ukraine-official>; Анастасия Шейкина, “Минобороны доложило об ударах по военному аэродрому в районе Одессы,” Lenta.RU, 21.6.2022, <https://lenta.ru/news/2022/06/21/minobr/>.

¹⁵⁵ Joonas Koivunen, ”Sodankäynnin symmetriasta ja epäsymmetriasta sotilastiedustelun ja strategisen päätöksenteon suhteessa – polttopisteessä taistelu Hostomelin lentokentästä,” in *Epätavallisen tavallista. Symmetrisen ja epäsymmetrisen sodankäynnin suhteesta*, ed. Marko Palokangas and Antti Paronen (Helsinki: Maanpuolustuskorkeakoulu, 2022), 90–109; Shaun Walker, “Vasytkiv: Why This Small Ukrainian Town Is Now a Big Russian Target,” The Guardian, February 28, 2022, <https://www.theguardian.com/world/2022/feb/28/vasytkiv-why-this-small-ukrainian-town-is-now-a-big-russian-target>; Carlotta Gall, “When the Russians Picked the Wrong Town in Ukraine to Invade,” The New York Times, April 3, 2022, <https://www.nytimes.com/2022/04/02/world/europe/ukraine-russian-defeat-vasytkiv.html>.

¹⁵⁶ Kent DeBenedictis, *Russian 'Hybrid Warfare' and the Annexation of Crimea*. (New York: Bloomsbury Publishing, 2021).

¹⁵⁷ Gall, “When the Russians Picked:”

During the war Russia tried to apply World War II operational art to conduct a pincer attack in Luhansk and Donetsk in April-June.¹⁵⁸ The operation was supposed to encircle Ukraine's best forces defending the Donbass area, but it failed. If it had succeeded, the operation would have decimated Ukrainian forces and been executed according to established doctrine. There was nothing inherently indirect or asymmetric in the effort, but the manoeuvring of the forces, if successful, would have led to an exploitation of enemy weaknesses. In this case, the Ukrainian forces persisted.

From the beginning the war expanded to the maritime domain as Russia blockaded Ukrainian harbours and tried to achieve the command of the Black Sea. It succeeded in eliminating the Ukrainian fleet as an effective fighting force, and to block Ukrainian shipping, but it failed to achieve total control of Ukraine's territorial waters. It failed in launching an amphibious landing operation against Odessa or Kherson, although Russia used the possibility of a landing to tie Ukrainian forces to the south. Eventually Russia was forced to withdraw its fleet from the coast to protect it from Ukraine's drones and coastal missiles.¹⁵⁹ The command of the Black Sea did not produce any asymmetric advantage for Russia, but for a moment in the spring and early summer, it could have allowed Russia to conduct an indirect landing operation to Ukraine's rear, and to create conditions for continuing the attack towards Transdnistria and Moldova.

During the conflict Russia has increasingly used the private military company (PMC) Wagner and ethnic units recruited, for example, from Chechnya.¹⁶⁰ These units have been used to support and replace the losses suffered by the armed forces regular units – and been used in some of the deadliest battles to protect the morale of the regular and mobilized reservist forces.¹⁶¹ The use of ethnic units has tied Russia's oblasts to Kremlin's war aims and perhaps increased the unity of the nation.¹⁶² Russia has also used units recruited from the population of conquered areas to blur the distinction between Ukrainian and Russian forces, thus creating basis for the false narrative that the war is in fact a civil war.¹⁶³ In the beginning especially Chechens, and their claimed brutal way of war, were used to cause terror in the defenders but this effort seems to have failed and Russia has quietly dropped the narrative.¹⁶⁴

¹⁵⁸ John Psaropoulos, "Former NATO General Says Putin Has 9-Month Window to Win War," Al Jazeera, May 26, 2022, <https://www.aljazeera.com/news/2022/5/26/nato-general-putin-has-8-9-months-to-win-the-war>; David Axe, "The Russians Are Throwing Everything They've Got At One Ukrainian Garrison," Forbes, May 19, 2022, <https://www.forbes.com/sites/davidaxe/2022/05/19/the-russians-are-throwing-everything-theyve-got-at-one-ukrainian-garrison/?sh=fa5c6ee3ec02>.

¹⁵⁹ James Beardsworth, "Coast Defense Flotilla: Russia's Black Sea Fleet Mauled in 200 Days of Ukraine War," The Moscow Times, September 11, 2022, <https://www.themoscowtimes.com/2022/09/11/coast-defense-flotilla-russias-black-sea-fleet-mauled-in-200-days-of-ukraine-war-a78684>; Kormych and Malyarenko, "From gray zone to conventional."

¹⁶⁰ Sergey Sukhankin, "Wagner PMC Recruits Russian Criminals and Convicts for War in Ukraine," Jamestown, August 18, 2022, <https://jamestown.org/program/wagner-pmc-recruits-russian-criminals-and-convicts-for-war-in-ukraine/>.

¹⁶¹ Mary Ilyushina and Francesca Ebel, "Using conscripts and prison inmates, Russia doubles its forces in Ukraine," The Washington Post, December 23, 2022, <https://www.washingtonpost.com/world/2022/12/23/russia-troops-wagner-convicts-ukraine/>.

¹⁶² Mariya Petkova, "Putin Is Using Ethnic Minorities to Fight in Ukraine": Activist," Al Jazeera, October 25, 2022, <https://www.aljazeera.com/features/2022/10/25/russia-putin-is-using-ethnic-minorities-to-fight-in-ukraine>; Yekaterina Bezmenova and Reid Standish, "Russia's 'Shadow Mobilization' Accelerates With New Ethnic Units From The North Caucasus," Radio Free Europe / Radio Liberty, June 26, 2022, <https://www.rferl.org/a/russia-ukraine-war-north-caucasus-recruitment/31915842.html>.

¹⁶³ EUvsDisinfo, "Disinfo: The War in Donbas Is A Civil War Between Ukrainians," EUvsDisinfo, n.d., <https://euvsdisinfo.eu/report/the-war-in-donbas-is-a-civil-war-between-ukrainians#>, Accessed March 4, 2022.

¹⁶⁴ Mansur Mirovalev, "The Real Role of Pro-Russian Chechens in Ukraine," Al Jazeera, August 18, 2022, <https://www.aljazeera.com/news/2022/8/18/the-real-role-of-pro-russian-chechens-in-ukraine>; Stefan

Later, the same idea has been used when Wagner started to recruit violent criminals from Russian prisons.¹⁶⁵ PMCs, ethnic units, and 'legitimate insurgent forces' are part of indirect and asymmetric methods. They can be used as shock troops, to terrorize the opponent, to conduct illegal and morally reprehensible actions, and to legitimize an invasion. Russia has used these troops in all these roles in its war against Ukraine.

Why asymmetric and indirect methods and non-military measures failed

Based on the above-described actions and events it can be argued that Russia has employed asymmetric and indirect methods and non-military measures in its 'special military operation' and that their use has been compatible with the writings of Russian military academics. However, some of these methods failed and when actions themselves were successes they did not produce the desired results. The reasons for this are still very much unknown but below some speculative answers are provided.

Asymmetric and indirect methods require careful planning. It seems that on the tactical level the Russian armed forces were not given enough time and freedom to plan and train their forces because of secrecy was valued above all else.¹⁶⁶ The timing of Putin's decision to attack might have been a surprise for the military.¹⁶⁷ Moreover, the use of direct, violent force was restricted by the political leadership to portray the operation as limited and as non-aggressive as possible.¹⁶⁸ Russian indirect strategy (deter the West, paralyze Ukraine's armed forces, decapitate the government, and change the regime) might have been workable but when politicians intervened in a way that affected operations and tactics, things started to crumble.

It has been suggested that the Kremlin and Russian armed forces did not expect Ukrainians to resist and envisage an operation similar to the 1968 invasion of Czechoslovakia or 1979 invasion of Afghanistan, because they were provided incorrect information by the FSB.¹⁶⁹ When the premises were wrong, the Kremlin's decision to attack with the utmost secrecy and speed and the limits and preconditions placed on the use of violent, armed force, so as not to antagonize Ukrainian population and give time to their armed forces to mobilize, led to the failure of Russia's initial attack. However, as the Russian operational plan included a large-scale kinetic air strike campaign, Russians clearly anticipated some kind of resistance. Either they got some parts of their plan right or wanted to show that they were as capable as the Americans to conduct a 'shock-and-awe' campaign.

Korshak, "Chechen Strongman Kadyrov Calls For Jihad, But Heavy Ukraine Casualties a Problem," KyivPost, October 26, 2022, <https://www.kyivpost.com/post/492>; Sam Cranny-Evans, "The Chechens: Putin's Loyal Foot Soldiers," Royal United Services Institute, November 4, 2022, <https://rusi.org/explore-our-research/publications/commentary/chechens-putins-loyal-foot-soldiers/>; Aurélie Campana, "Chechens Fighting in Ukraine: Putin's Psychological Weapon Could Backfire," The Conversation, March 18, 2022, <https://theconversation.com/chechens-fighting-in-ukraine-putins-psychological-weapon-could-backfire-179447>.

¹⁶⁵ BBC News, "Ukraine War: Wagner Chief Prigozhin Defends Brutal Killing Video," BBC News, November 14, 2022, <https://www.bbc.com/news/world-europe-63623285>.

¹⁶⁶ Zabrodskiy, et al., *Preliminary Lessons*.

¹⁶⁷ James Risen, "U.S. Intelligence Says Putin Made a Last-Minute Decision to Invade Ukraine," The Intercept, March 11, 2022, <https://theintercept.com/2022/03/11/russia-putin-ukraine-invasion-us-intelligence/>.

¹⁶⁸ Roger N. McDermott and Charles K. Bartles, *Defining the "Special Military Operation."* (Rome: NATO Defense College, 2022).

¹⁶⁹ Risen, "U.S. Intelligence Says"; Philip H J Davies and Toby Steward, "No War for Old Spies: Putin, the Kremlin and Intelligence," RUSI, May 20, 2022, <https://rusi.org/explore-our-research/publications/commentary/no-war-old-spies-putin-kremlin-and-intelligence/>.

It also possible that the Russian Armed Forces had learned the wrong lessons from Soviet and Russian military history (mainly Czechoslovakia, Afghanistan, Crimea and Donbass, and Syria). They trusted too much in their ability to conduct New Type or Next Generation Warfare¹⁷⁰ with integrated overt and covert non-military and military measures. If Russia had succeeded in its ‘ten-day’ operation, this would undoubtedly been the conclusion of the Western and Russian military experts. However, Russia failed because its military was not trained, equipped, or staffed for this kind of operation, and Ukraine and its allies were resistant to Russia’s indirect and asymmetric methods. The chosen doctrine did not fit the situation, the adversary, and the capabilities available however much the Russian political leadership or the armed forces believed it would. This is, of course, something that the Russians could not have foreseen if their situational understanding was flawed.

Because of its newfound power, the Russian secret services and armed forces might have been arrogant towards the capabilities of Ukraine’s armed forces and suffered from excessive self-confidence.¹⁷¹ As almost all Russian theories on indirect methods emphasise the requirement to understand the target country as a system, the failure of Russia to understand Ukraine seriously hampered the implementation of indirect methods and non-military measures. Despite this requirement to ‘understand the enemy’, there is an inbuilt tendency in the Russian texts on asymmetric and indirect strategies to present the opponent as a passive and mouldable object. This might lead the military to forego the preparation of alternative and contingency plans in the case that the opponent might act, react, or fail to act in a desired way. The way in which Russia reacted when its initial push to Kiev failed seems to testify just such a failure in planning.¹⁷²

Ukraine has indeed been an active and unyielding opponent.¹⁷³ Its operational security has been excellent, it has been able to operate under Russian electronic surveillance and jamming, and it has been able to move its forces and concentrate fire where needed. Russia was unable to suppress Ukraine’s air forces and air defence and it has not been able to paralyze Ukraine’s armed forces command and control or fix and destroy Ukraine’s forces. Ukraine’s counterintelligence has been able to track and eliminate Russian agents and special forces groups and its government and armed forces have been able to deny Russian freedom of action both in the information-technological and psychological space.¹⁷⁴ Much of this success, but not all of course, is based on Western intelligence and military support, which Russia apparently did not foresee or failed to consider.¹⁷⁵ There is some evidence that Russian offensive cyber operations failed because of Western government and private sector support to Ukraine.¹⁷⁶ Moreover, Russia has faced perhaps unpredicted coercion to stop the invasion

¹⁷⁰ Robert Dalsjö, Michael Jonsson, and Johan Norberg, “A Brutal Examination: Russian Military Capability in Light of the Ukraine War,” *Survival* 64, no.3 (2022): 7-28.

¹⁷¹ Paul Sonne et al., “Hubris and Isolation Led Vladimir Putin to Misjudge Ukraine,” *Washington Post*, April 12, 2022, <https://www.washingtonpost.com/national-security/2022/04/11/putin-misjudged-ukraine-hubris-isolation/>.

¹⁷² Zabrodskiy, et al., *Preliminary Lessons*.

¹⁷³ Simon Shuster and Vera Bergengruen, “Inside the Ukrainian Counterstrike That Turned the Tide of the War,” *Time*, September 26, 2022, <https://time.com/6216213/ukraine-military-valeriy-zaluzhny/>.

¹⁷⁴ Cf. Zabrodskiy, et al., *Preliminary Lessons*; Seth G. Jones, *Russia’s Ill-Fated Invasion of Ukraine. Lessons in Modern Warfare*. (Washington, D.C.: CSIS, 2020); Andrew S. Bowen, “Russia’s War in Ukraine: Military and Intelligence Aspects,” Congressional Research Services, February 13, 2023, <https://crsreports.congress.gov/product/pdf/R/R47068>; Watling and Reynolds, *Ukraine at War*.

¹⁷⁵ Shuster and Bergengruen, “Inside the Ukrainian Counterstrike”; Christina L. Arabia, Andrew S. Bowen and Cory Welt, “U.S. Security Assistance to Ukraine” Congressional Research Service, February 27, 2023, <https://crsreports.congress.gov/product/pdf/IF/IF12040>; Claire Mills, “Military assistance to Ukraine since the Russian invasion,” House of Commons Library, December 12, 2022, <https://commonslibrary.parliament.uk/research-briefings/cbp-9477/>.

¹⁷⁶ Willett, “The Cyber Dimension.”

through international non-military measures like diplomatic pressure, economic sanctions, and information campaigns. Russian international diplomatic presence has weakened at least temporarily, its economy faces serious problems, and its invasion has not achieved the legitimacy it was hoping for.¹⁷⁷ Particularly in the information space the United States managed to expose Russia's intentions and the West was prepared and able to expose Russian disinformation.¹⁷⁸ Ultimately, with the support of its allies, Ukraine was able to seize the initiative in the summer of 2022 and has forced Russia to react in unplanned ways.

Perhaps the biggest reasons for the Russian failure to conquer Ukraine in February-March 2022 are related to its armed forces training, morale, staffing, and equipment.¹⁷⁹ Western military experts have pointed out that the Russian force structure was ill-suited for the operation and that its units were under-staffed.¹⁸⁰ Much of the equipment was in poor condition, broke down, or did not perform well against Ukrainian Western supplied weapons like anti-tank missiles.¹⁸¹ It is quite possible that these deficiencies were the product of systemic corruption and culture of reporting only what upper command wanted to hear.¹⁸² Therefore, the political leadership and the military high command did not know about these deficiencies and could not plan accordingly.

Russian combined warfare in north and north-east Ukraine failed as tanks operated without infantry support and artillery was unable to support troops.¹⁸³ Morale in the ground forces plummeted when unprepared Russian troops (many of the troops did not know they were sent to war) started to take casualties.¹⁸⁴ Russian tactical and operational level leadership culture did not support taking the initiative and when faced with Ukrainian resistance the Russian forces tried to continue according to the plan and were decimated.¹⁸⁵ A significant portion of Russian tactical level commanders were killed on the battlefield.¹⁸⁶ Perhaps most importantly, the lack of proper logistics affected the way in which the Russia's ground assault

¹⁷⁷ Dylan and Maguire, "Secret Intelligence"; Strategic Comments, "Russia and sanctions evasion"; Cory Welt, "Russia's War Against Ukraine: Overview of U.S. Sanctions and Other Responses," Congressional Research Service, December 20, 2022, <https://crsreports.congress.gov/product/pdf/IN/IN11869>; BOFIT Russia Team, "BOFIT Forecast for Russia 2022-2024," Bank of Finland, BOFIT, October 10, 2022, <https://publications.bof.fi/bitstream/handle/10024/52270/brf0222.pdf?sequence=1&isAllowed=y>; Temur Umarov, "Russia and Central Asia: Never Closer, or Drifting Apart?," Carnegie Endowment for International Peace, December 23, 2022, <https://carnegieendowment.org/politika/88698>; Robbie Gramer and Amy Mackinnon, "Ukraine War Wrecks Russian Diplomats' Reputations in the West," Foreign Policy, August 31, 2022, <https://foreignpolicy.com/2022/08/31/putin-ukraine-war-lavrov-diplomacy-russia-diplomatic-corps/>.

¹⁷⁸ Gordan Akrap, Ivica Mandić and Iva Rosanda Žigo, "Information Supremacy, Strategic Intelligence, and Russian Aggression against Ukraine in 2022," *International Journal of Intelligence and CounterIntelligence*, (2022) DOI: 10.1080/08850607.2022.2117577.

¹⁷⁹ Michael Schwirtz et al., "How Putin's War in Ukraine Became a Catastrophe for Russia," The New York Times, December 18, 2022, <https://www.nytimes.com/interactive/2022/12/16/world/europe/russia-putin-war-failures-ukraine.html>.

¹⁸⁰ Kofman and Lee, "Not Built for Purpose."

¹⁸¹ Zabrodskiy, et al., *Preliminary Lessons*; Dalsjö, Jonsson, and Norberg, "A Brutal Examination."

¹⁸² Pavel Baev, *Russia's War in Ukraine Misleading Doctrine, Misguided Strategy*. (Paris: IFRI, 2022).

¹⁸³ Zabrodskiy, et al., *Preliminary Lessons*; Dalsjö, Jonsson, and Norberg, "A Brutal Examination"; Seth Jones, "Russia's Ill-Fated Invasion of Ukraine: Lessons in Modern Warfare," June 1, 2022, <https://www.csis.org/analysis/russias-ill-fated-invasion-ukraine-lessons-modern-warfare>.

¹⁸⁴ Robert Coalson, "Inclined Toward Treason?: More And More Russian Soldiers Reportedly Refusing to Fight In Ukraine," Radio Free Europe / Radio Liberty, April 16, 2022, <https://www.rferl.org/a/russia-ukraine-treason-soldiers-refusing-to-fight/31806466.html>.

¹⁸⁵ Baev, *Russia's War in Ukraine*; Zabrodskiy, et al., *Preliminary Lessons*.

¹⁸⁶ Jones, "Russia's Ill-Fated Invasion."

slowed and then halted in March.¹⁸⁷ All these capability issues combined to make it impossible to successfully exploit asymmetric and indirect methods because their probability of success is very much dependent on the quality of troops and command.

Russia failed in conducting a joint operation. Russian operational command was divided between military districts which commanded their own air, ground, and naval forces in their own operational directions. This was something Russia had trained for but never in such a magnitude, simultaneously, and in that area of operations.¹⁸⁸ Ground forces commanders had too many individual battalion tactical groups (BTGs) under their command and BTG commanders had too many subunits to command.¹⁸⁹ Russian air force failed in its air supremacy operation because of poor training, planning, preparation, and lack of proper battle damage assessment.¹⁹⁰ Moreover, the coordination between the air force and ground forces was lacking.¹⁹¹ This left the Russian ground troops without air support and cover. The airborne assault into Hostomel, an indirect or asymmetric operation if anything, failed because Russian airborne troops (VDV), special forces, ground forces, and air force were not able to defeat Ukrainian forces and capture the airfield intact.¹⁹² Eventually, the VDV was forced to fight like common infantry and suffered heavy losses.¹⁹³ Russia also failed in achieving superiority in the information domain¹⁹⁴ and ultimately failed even to attain command of the Black Sea coast. To deceive, destabilize, and paralyze an opponent a certain freedom of action is required. Forces in different domains must be able to support each other so that systemic effects on the opponent can be achieved. It is quite clear that the Russian operation failed to achieve these coordinated and synchronize effects.

It is noticeable that those technological solutions that were promoted as ‘asymmetric responses’ by Russian military experts before the war failed to deliver. Russia was not able to follow NCW doctrine any more than to successfully conduct anti-NCW warfare. Its targeting-cycle was slow and ‘EW-information strikes’ have either failed to materialize or to have the desired operational level effects. No single weapons system has proved to have ‘game changing’ effects. For example, only few Kinzhal missiles were launched.¹⁹⁵ Moreover, Russian modern fighters, tanks, and artillery systems have been badly decimated on the battlefield.¹⁹⁶ Tactical nuclear weapons, biological or chemical weapons have not been used. There has been a definite lack of ‘shock & awe’ despite of Russia’s use of thousands of long-

¹⁸⁷ Dalsjö, Jonsson and Norberg, “A Brutal Examination”; Isaac Chotiner, “Is the Russian Military a Paper Tiger?,” *The New Yorker*, April 21, 2022, <https://www.newyorker.com/news/q-and-a/is-the-russian-military-a-paper-tiger>.

¹⁸⁸ Tim Ripley, “Ukraine Conflict: Russian Military Adapts Command-and-Control for Ukraine Operations,” *Janes.com*, March 7, 2022, <https://www.janes.com/defence-news/news-detail/ukraine-conflict-russian-military-adapts-command-and-control-for-ukraine-operations>.

¹⁸⁹ Zabrodskiy, et al., *Preliminary Lessons*; Amos C. Fox, *Reflections on Russia’s 2022 Invasion of Ukraine Combined Arms Warfare, the Battalion Tactical Group and Wars in a Fishbowl*. (Arlington, VA: Association of the United States Army, 2022).

¹⁹⁰ Bronk, Reynolds, and Watling, *The Russian Air War*.

¹⁹¹ Mike Pietrucha, “Amateur Hour Part II: Failing the Air Campaign,” *War on the Rocks*, August 21, 2022, <https://warontherocks.com/2022/08/amateur-hour-part-ii-failing-the-air-campaign/>; Dalsjö, Jonsson and Norberg, “A Brutal Examination.”

¹⁹² Koivunen, “Sodankäynnin symmetriasta,” 99–100.

¹⁹³ Zabrodskiy, et al., *Preliminary Lessons*.

¹⁹⁴ Christopher Bronk, Gabriel Collins, Dan Wallach, “Cyber and Information Warfare in Ukraine: What Do We Know Seven Months In?,” *Baker Institute*, September 6, 2022, <https://www.bakerinstitute.org/research/cyber-and-information-warfare-ukraine-what-do-we-know-seven-months>.

¹⁹⁵ Bronk, Reynolds, and Watling, *The Russian Air War*.

¹⁹⁶ Oryx, “Attack On Europe: Documenting Russian Equipment Losses During The 2022 Russian Invasion Of Ukraine,” *Oryx*, March 4, 2023, <https://www.oryxspioenkop.com/2022/02/attack-on-europe-documenting-equipment.html>.

range missiles against Ukrainian targets. The use of novel methods or technologies has failed to destabilize Ukraine's armed forces, or civilian society.

Russia has used non-military measures before the armed conflict began, in its initial stages, and during the conflict itself. Like military measures they also have failed to produce intended effects. Russia has been unable to pressure Ukraine to negotiations because the threat and use of military force has not created enough pain, because Ukraine has powerful and united allies, and because Russia itself has totally failed to take control of the international institutions capable of mediation.¹⁹⁷ Russia failed to create a successful insurrection or pro-Russian opposition inside Ukraine to legitimize its invasion, and as already stated, failed to achieve information superiority. Russia's weaponization of gas, grain, and trade have not significantly degraded Western support or Ukraine's unity. Although Ukraine's economy is in shambles it has still been able to function as a state. The effort to frame the invasion as humanitarian help to the Russian-speaking Donbass population under a threat of Ukrainian genocide fell flat. President Putin's and his coterie's efforts to build a moral-ethical and ideological basis for the invasion have had limited success even inside Russia.¹⁹⁸ Thus, non-military measures to isolate, weaken, pressure, deceive, manipulate, destabilize, and disorganize Ukraine have only had limited effect, although they have clearly been part of Russia's strategic plan.

To summarize, the Russian indirect strategy's operational plan was based on wrong premises and was too complicated compared to the capabilities Russia had – or thought it had. Politics placed restrictions on the indirect and asymmetric methods because they could not be combined with sufficient direct and symmetric use of force. Russia lacked situational understanding and underestimated its adversaries; therefore, it lacked contingency planning. Russia was unable to fully shape the strategic environment because military and non-military measures failed to synchronize. Indirect operations failed when joint warfare failed, and no new or novel technology or doctrine produced surprises. Russian failures highlight the tension between the different elements required for surprise. Secrecy, unpredictability, manipulation of the opponent, and new methods all increase the complexity and risk of an operation. This is one of the reasons why Russia changed its tactics in April-May 2022, concentrated its forces in one direction (Donbass) and began to employ mass fires to destroy the best forces of the Ukrainian armed forces.¹⁹⁹ Simple is simply better than complex in war.

Why asymmetric and indirect methods and non-military measures succeeded

It is quite easy to find reasons for the failure of Russia's asymmetric and indirect methods and non-military measures in the initial period of the invasion. However, there were potential

¹⁹⁷ Brad Glosserman, "The Invasion of Ukraine Tests International Institutions," *The Japan Times*, April 12, 2022, <https://www.japantimes.co.jp/opinion/2022/04/12/commentary/world-commentary/ukraine-u-n-response/>; Deutsche Welle, "Russia Bristles as OSCE Convenes without Lavrov in Poland," *DW.com*, December 1, 2022, <https://www.dw.com/en/russia-bristles-as-osce-convenes-without-lavrov-in-poland/a-63957890>; Ingrid Brunk and Monica Hakimi, "Russia, Ukraine, and the Future World Order," *The American Journal of International Law* 116, no.4 (2022): 687–697.

¹⁹⁸ Christian Perez and Anjana Nair, "Information Warfare in Russia's War in Ukraine," *Foreign Policy*, August 22, 2022, <https://foreignpolicy.com/2022/08/22/information-warfare-in-russias-war-in-ukraine/>; Denis Volkov and Andrei Kolesnikov, "My Country, Right or Wrong: Russian Public Opinion on Ukraine," *Carnegie Endowment for International Peace*, September 7, 2022, <https://carnegieendowment.org/2022/09/07/my-country-right-or-wrong-russian-public-opinion-on-ukraine-pub-87803>.

¹⁹⁹ Zabrodskiy, et al., *Preliminary Lessons*.

successes and as the war has continued some of Russia's methods might still produce desired effects.

Before and during the initial phase of the conflict Russia pursued information superiority vigorously. It succeeded in avoiding global condemnation of its clearly illegal invasion²⁰⁰ and even managed to retain the indirect support of China.²⁰¹ It has succeeded in courting opposition movements in the West.²⁰² Russia has managed to use some countries' dependencies on its energy exports and its import markets to manipulate their political decision-making. For example, Russia has, at least indirectly, managed to influence Hungary and Turkey to halt or slow down Finland's and Sweden's NATO membership process.²⁰³ Ukraine's foreign exports have fallen 35% mostly because of Black Sea blockade.²⁰⁴ Moreover, because of Russia's military measures Ukraine's GDP has fallen by over 30% and eight million Ukrainians have become refugees in one year.²⁰⁵ These outcomes will greatly affect Ukraine's warfighting capability on the long term. Thus, Russia has somewhat successfully employed non-military measures to support armed use of force and, conversely, employed military measures to directly affect the economy and society of Ukraine.

Russia has also been more successful in its manipulation of Ukrainian population than is apparent from the Western news. It has had no difficulties in finding collaborators in occupied areas and Ukrainian security services are still hunting and destroying recruited agents – including priests of the Ukrainian arm of the Russian Orthodox Church.²⁰⁶ Ukrainians from occupied areas have joined Russian forces for various reasons.²⁰⁷ These

²⁰⁰ Terry D. Gill, "Remarks on The Law Relating to The Use of Force in The Ukraine Conflict," Lieber Institute West Point, March 9, 2022, <https://lieber.westpoint.edu/remarks-use-of-force-ukraine-conflict/>.

²⁰¹ The Economist, "Who Are Russia's Supporters?," April 15, 2022, <https://www.economist.com/graphic-detail/2022/04/04/who-are-russias-supporters>.

²⁰² Jan Dutkiewicz and Dominik Stecula, "Why the U.S. Far Right and Far Left Oppose Helping Ukraine," Foreign Policy, July 4, 2022, <https://foreignpolicy.com/2022/07/04/us-politics-ukraine-russia-far-right-left-progressive-horseshoe-theory/>; Polina Nikolskaya, Mari Saito, Maria Tsvetkova and Anton Zverev, "Pro-Putin Operatives in Germany Work to Turn Berlin against Ukraine," Reuters, January 3, 2023, <https://www.reuters.com/investigates/special-report/ukraine-crisis-germany-influencers/>.

²⁰³ David Mac Dougall and Rita Palfi, "Despite Diplomacy, Hungary & Turkey Still Blocking Sweden and Finland from NATO," Euronews, November 6, 2022, <https://www.euronews.com/2022/11/04/hungary-and-turkey-are-the-last-two-roadblocks-to-nato-membership-for-finland-and-sweden>; Missy Ryan, "As Finland and Sweden wait to join NATO, Turkey extracts concessions," The Washington Post, December 7, 2022, <https://www.washingtonpost.com/national-security/2022/12/07/sweden-finland-nato-turkey/>.

²⁰⁴ Slawomir Matuszak, "A year of war in Ukraine's foreign trade," OSW, February 8, 2023, <https://www.osw.waw.pl/en/publikacje/osw-commentary/2023-02-08/a-year-war-ukraines-foreign-trade>

²⁰⁵ Olena Harmash, "Ukraine Suffers Biggest Economic Fall in Independent Era Due to War," Reuters, January 5, 2023, <https://www.reuters.com/markets/europe/ukraines-economy-falls-304-2022-minister-2023-01-05/>; UNCHR, "Operational Data Portal: Ukraine Refugee Situation," UNCHR, March 4, 2023, <https://data.unhcr.org/en/situations/Ukraine>.

²⁰⁶ Pjotr Sauer, "Kirill Stremousov: Rise, Fall and Death of Russia-Installed Kherson Official," The Guardian, November 14, 2022, <https://www.theguardian.com/world/2022/nov/14/kirill-stremousov-rise-fall-and-death-of-russia-installed-kherson-official>; Mia Jankowicz, "Ukrainian Collaborators Who Sided with Russian Occupation Were given Top Jobs and Fancy Titles. Now They're Being Hunted Down.," Business Insider, September 23, 2022, <https://www.businessinsider.com/ukraine-russia-collaborators-got-rewards-but-now-hunted-down-2022-9?international=true&r=S&IR=T>; Yaroslav Trofimov and Manu Brabo, "Russian Retreat in Ukraine Exposes Collaborators—and the Finger-Pointing Begins," The Wall Street Journal, November 1, 2022, <https://www.wsj.com/articles/recaptured-ukraine-collaborators-resisters-russian-occupation-11667315408>; Andrew Kramer, "Clergymen or Spies? Churches Become Tools of War in Ukraine," The New York Times, December 31, 2022, <https://www.nytimes.com/2022/12/31/world/europe/orthodox-church-ukraine-russia.html>.

²⁰⁷ Marc Santora, "Russia Begins Mobilizing Ukrainians to Fight against Their Own Country," The Japan Times, September 26, 2022, <https://www.japantimes.co.jp/news/2022/09/26/world/ukraine-forces-referendum/>; Interfax-Ukraine, "Russia Conscripts 2,000 People from Crimea to Kherson Region, Incl Crimean Tatars – General Staff," Interfax-Ukraine, September 29, 2022, <https://en.interfax.com.ua/news/general/861910.html>; Гульназ Астахова, "Українець вступив в ряди

people form the basis of an ‘alternative Ukraine’ which Russia can use to destabilize and delegitimize Ukraine’s statehood and nationhood in the future. Moreover, Russia is destroying Ukraine’s cultural heritage which makes it easier to claim that Ukraine never was an independent and distinct nation from Russia.²⁰⁸ As Russia has taken control of the legitimate monopoly of violence, information space, and economic processes of the areas it has occupied, it has been able to compel and coerce the population to support its policies or at least remain neutral.

Although there was plenty of intelligence of Russia’s attack, and it was communicated to the Ukrainian leadership, Ukraine failed to mobilize its main forces in time.²⁰⁹ Russia succeeded in deceiving Ukrainian and many Western decision makers of its true war aims. Moreover, it led Ukrainians to convince themselves that mobilization would be economically disastrous and too provocative a measure.²¹⁰ Russia managed to project such a military strength and competence, a work of multi-year information operation, that many Western analysts believed Russia to succeed easily.²¹¹ Even the United States did not believe that Ukraine had a chance and became heavily involved only after Ukraine had defeated Russia’s initial assault.²¹² Russia thus managed to manipulate expectations and was able to push Ukraine into a corner. It also managed to begin its operation without any restrictions from other great powers or military alliances.

On the operational level Russia succeeded in manipulating Ukraine’s threat assessments which led Ukraine to expect that the main attack would come from Donbas. Ukraine also failed to properly prepare to defend against an attack coming from Crimea and Belarus.²¹³ Without a full mobilisation Ukraine had to decide where to locate its main forces and Russia used this to its advantage. It is, however, still unclear why the Ukrainian forces in the south did not manage to put up any significant resistance until after Russian forces had advanced to Kherson and Mariupol. On these axis of attack Russia used manoeuvre warfare to its advantage pursuing deep objectives with the joint use of mechanized and airborne assault forces. Ukraine was unable to organize a dispersed defence like it did in the Chernihiv and Kharkov areas.²¹⁴ Russia basically achieved an operational surprise by beginning an operation in a way that did not really make sense from operational art point of view and with forces that seemed inadequate.

Russia did recognize the critical importance of suppressing the Ukrainian air defence and mobilization capabilities but failed to suppress or destroy them.²¹⁵ If Russia had managed to

армии России для участия в спецоперации,” ОСН, 16.9.2022, <https://www.osnmedia.ru/obshhestvo/ukrainets-vstupil-v-ryady-armii-rossii-dlya-uchastiya-v-spetsoperatsii/>; Известия, Добровольцы присоединились к батальону Судоплатова в Мелитополе,” Известия, 14.10.2022, <https://iz.ru/1410042/2022-10-14/dobrovoltcy-prisoedinilis-k-batalonu-sudoplatova-v-melitopole>.

²⁰⁸ Lily Hyde, “Culture War: Russia Ransacks Art to Rub out Ukraine’s History,” Politico, December 6, 2022, <https://www.politico.eu/article/ukraine-fights-back-as-russia-aims-to-rub-out-its-history/>.

²⁰⁹ Isabelle Khurshudyan, “An interview with Ukrainian President Volodymyr Zelensky,” The Washington Post, August 16, 2022, <https://www.washingtonpost.com/national-security/2022/08/16/zelensky-interview-transcript/>.

²¹⁰ Harris, “Road to war”; Zabrodskyi, et al., *Preliminary Lessons*.

²¹¹ Christopher Dougherty, “Strange Debacle: Misadventures in Assessing Russian Military Power,” War on the Rocks, June 16, 2022, <https://warontherocks.com/2022/06/strange-debacle-misadventures-in-assessing-russian-military-power/>.

²¹² Robin Wright, “Ukraine Is Now America’s War, Too,” The New Yorker, May 1, 2022, <https://www.newyorker.com/news/daily-comment/ukraine-is-now-americas-war-too>.

²¹³ Zabrodskyi, et al., *Preliminary Lessons*, 21–22.

²¹⁴ Ibid.

²¹⁵ Bronk, Reynolds, and Watling, *The Russian Air War*.

achieve air superiority over at least central and eastern Ukraine, Ukraine's ground forces would have had to retreat behind Dnieper River. The morale of the armed forces and civilians would have been seriously damaged, and Western aid routes become endangered. The economic viability of Ukraine would have been at peril after it had lost all Black Sea access, large parts of arable land, mineral deposits in the east, and heavy industry. The fall of Kiev would have undermined the legitimacy of Zelenskiy's government. Negotiations for peace or a coup in Ukraine would have been much probable than the continuation of the conflict.

Although Russia clearly failed in exploiting the initiative and the limited surprise it had in the beginning of the invasion, it has been able to switch to the 'asymmetry of the stronger.' In April Russia was able to change tactics, to withdraw and concentrate forces and to force Ukraine into attrition warfare, which almost depleted Ukrainian resources and can still do so. Russia has begun to build strength through mobilization of human and industrial resources.²¹⁶ Russia has managed to harness its state and societal characteristics for the war effort. It has strengthened the control of domestic information space and the manipulation of patriotic feelings. It has successfully recruited patriotic volunteers, prisoners, and ethnic minorities to fill in the gaps in its forces until mobilisation produces properly trained troops. It has ultimately successfully used federal, regional, and municipal government to gather troops and to mobilize state and private industries and Russia's vast natural resources. All of this has been facilitated by the extensive transport infrastructure through which troops, equipment, and support flow to the Ukrainian front.²¹⁷

Although Ukraine's counterattack in September-October was a success, it has since halted, and the possibilities for freedom of action for Russia have increased again. Russia has, for example, been able to reconstitute its forces in Belarus.²¹⁸ Moreover, Russia has utilized the ability to strike deep inside Ukraine while Ukraine does not have similar capabilities and/or is restricted by its allies.²¹⁹ Russia's operation to destroy Ukraine's electric network and use of winter to put pressure on Ukrainian population and leadership is an indirect method.²²⁰ As the war has reached at least temporary stalemate in December 2022, Russia is trying to make Ukraine fight the kind of war Russia's wants.

Although Russian military technology has not performed extraordinarily, Russia has incorporated new technologies and used them in novel ways. After the initial losses, Russian air forces managed to develop a system of air defence that leveraged Russian technological superiority against Ukrainian forces. Russia has used air defence and naval missiles against ground targets which was a definite surprise and allowed Russia to strike Ukrainian targets from unsuspected directions with larger amounts of missiles than was expected. Russian electronic warfare units have after initial difficulties managed to deprive Ukraine its freedom of action in using armed UAVs. And Russia has incorporated cheap Iranian-made Shahed

²¹⁶ Zabrodskiy, et al., *Preliminary Lessons*; Michael Kofman, "The Russo-Ukrainian War Ten Months in: Taking Stock," Riddle Russia, December 28, 2022, <https://ridl.io/the-russo-ukrainian-war-ten-months-in-taking-stock/>.

²¹⁷ Margarete Klein and Nils Holger Schreiber, "The Attack on Ukraine and the Militarisation of Russian Foreign and Domestic Policy," *SWP Comment* 2022/C 71, December 22, 2022, <https://www.swp-berlin.org/en/publication/the-attack-on-ukraine-and-the-militarisation-of-russian-foreign-and-domestic-policy>.

²¹⁸ Kofman, "The Russo-Ukrainian War."

²¹⁹ Tom Wheeldon, "Why the US Declined to Send Ukraine Long-Range Missiles, Tanks," France 24, December 22, 2022, <https://www.france24.com/en/europe/20221222-why-the-us-declined-to-send-ukraine-long-range-missiles-tanks>.

²²⁰ Tom Balmforth and Olena Harmash, "Russia Fires Scores of Missiles in One of Its Biggest Attacks on Ukraine," Reuters, December 17, 2022, <https://www.reuters.com/world/zelenskiys-talks-with-other-leaders-signal-diplomatic-flurry-around-ukraine-2022-12-11/>.

drones to its long-range attack capabilities which Ukraine has to defend against with more expensive air-defence missiles.²²¹ Especially the use of air defence missiles against ground targets and the use of cheap foreign drones have been examples of using cost-effective solutions to gain, or in this case prolong, an asymmetric advantage.

From the beginning of the conflict Russia has used unconventional and unexpected (by Western standards), immoral, and illegal methods. Its invasion broke multiple international treaties and bilateral agreements with Ukraine.²²² However, none of the condemnations, declarations or sanctions made to pressure or punish Russia for its actions have worked. Russia has targeted Ukrainian civilian infrastructure and population with little regard for collateral damage and there is ample evidence of war crimes.²²³ It has captured critical parts of Ukraine's nuclear energy infrastructure which has had direct effects on the civilian population.²²⁴ All this increases the need of economic and humanitarian support Ukraine needs and consequently puts pressure on the willingness of EU and NATO member states to keep helping Ukraine. Ukraine has been unable and unwilling to strike targets inside Russia excluding partisan warfare and assassination campaign against collaborators in the occupied areas and cyber operations, with apparently limited results, against Russia's government, finance, and business sectors.²²⁵ Russia also seems to have different standards of humanity than Ukraine when it comes to its own soldiers which have been treated badly and sacrificed on pointless attacks.²²⁶ Russian military academics discussed these asymmetries in moral and ethical considerations a before the war.²²⁷ Unexpectedness and surprise can be achieved by doing something that the opponent has ruled out as morally unconceivable.

Russia's successes in employing asymmetric and indirect methods and non-military measures may still be waiting in the future. At his point it can be argued that at the strategic level Russia managed to manipulate its opponents enough so that a limited surprise was achieved. It has succeeded through nuclear deterrence and information operations to restrict Ukraine's operations and its allies' support.²²⁸ Russia has also limitedly managed to force Ukraine to fight a war that will eventually favour Russia because of Russia's larger resource and

²²¹ Bronk, Reynolds, and Watling, *The Russian Air War*; Sanjana Varghese, "Mass Drone Attacks in Ukraine Foreshadow the 'Future of Warfare,'" Al Jazeera, October 20, 2022, <https://www.aljazeera.com/news/2022/10/20/mass-drones-are-a-worry-for-the-future-of-warfare>.

²²² Sofia Cavandoli and Gary Wilson, "Distorting Fundamental Norms of International Law to Resurrect the Soviet Union: The International Law Context of Russia's Invasion of Ukraine," *Netherlands International Law Review* 69 (2022): 383–410.

²²³ OHCHR, "UN Commission Has Found an Array of War Crimes, Violations of Human Rights and International Humanitarian Law Have Been Committed in Ukraine," October 18, 2022, <https://www.ohchr.org/en/press-releases/2022/10/un-commission-has-found-array-war-crimes-violations-human-rights-and>.

²²⁴ International Energy Charter, "Ukrainian energy."

²²⁵ George Barros and Noel Mikkelsen, "Interactive Map and Assessment: Verified Ukrainian Partisan Attacks against Russian Occupation Forces," ISW, November 1, 2022, <https://www.understandingwar.org/backgrounder/interactive-map-and-assessment-verified-ukrainian-partisan-attacks-against-russian>; Tadviser, "Кибервойна России и Украины," Tadviser, 5.3.2023, https://www.tadviser.ru/index.php/Статья:Кибервойна_России_и_Украины.

²²⁶ The Moscow Times, "Mobilized Russian Soldiers Protest Over 'Animal' Conditions," October 6, 2022, <https://www.themoscowtimes.com/2022/10/06/mobilized-russian-soldiers-protest-over-animal-conditions-a78995>; Emmanuel Grynspan, "Russia's Mobilized Soldiers Speak out: 'We Were Thrown on to the Frontline with No Support,'" Le Monde, November 10, 2022, https://www.lemonde.fr/en/international/article/2022/11/10/russia-s-mobilized-soldiers-speak-we-were-thrown-onto-the-frontline-with-no-support_6003764_4.html.

²²⁷ Чекинов and Богданов, "Асимметричные действия."

²²⁸ Wheeldon, "Why the US Declined"; The Kyiv Independent, "Media: NATO Members Informally Agree Not to Supply Ukraine with Aircraft and Tanks," The Kyiv Independent, May 26, 2022, <https://kyivindependent.com/uncategorized/media-nato-members-informally-agree-not-to-supply-ukraine-with-aircraft-and-tanks>.

manpower base. Although Russia's tactical indirect and asymmetric methods largely failed, it has managed, through mobilization and the use of non-military measures to switch to the 'asymmetric strategy of the stronger.' In this kind of situation resources and time create initiative, freedom of action, and ultimately surprise and victory.

Conclusion and implications

Russia's 'special military operation' was part of a strategy of indirect actions to eliminate the perceived threat of Ukrainian state and nation to Russia and advance Russia's interests towards the West, its proclaimed opponent. However, this strategy was based on false intelligence, it lacked coordination and synchronization between different actors and policies, and its resources were of poor quality or absent. Russia failed to consider that its opponent was an active, unified, creative, and strong-willed subject able to seize initiative and change the character of the conflict. It also failed to anticipate that the West would unite behind Ukraine and not give up and fracture in the face of the Russian information and economic warfare. Perhaps for internal political reasons Russia became impatient and resorted to the use of armed, violent force when non-violent asymmetric and indirect methods and non-military measures had failed to push Ukraine on the brink of collapse. There is nothing new in the history of politics and warfare in these mistakes.

Wars are full of unexpected and emergent phenomena. Some of these offer new, unforeseen possibilities, some led to a catastrophe. Based on the analysis of Russia's 'special military operation' it can be argued that when asymmetric and indirect methods are used, risks of unforeseen consequence rise. If they are not managed with contingency planning the result can be paralysis and the loss of initiative to the opponent. It is however difficult and time consuming to plan for everything, especially when time is in short supply and the plans need to be kept secret. It is easy to speculate about holistic, all-of government, multidomain military strategies, but quite another thing to implement it. Especially if such a strategy succeeds once but target states have enough time to adapt and devise effective counter methods. Thus, symmetric and direct methods have their place even in modern warfare. When surprises and counter surprises are used up, in the age of strategic nuclear weapons, war either turns to attrition, freezes, negotiations start, or war escalates to the use of weapons of mass destruction. Without strong armies to fight in symmetric and direct ways, i.e. to try annihilation, great and small powers may be tempted to use absolute weapons to avoid attrition. Moreover, if a great power fails in its indirect strategy its moment of weakness needs to be managed so that it does not resort to extreme measures. Therefore, indirect strategies of great powers can have consequences for all.

Russia's 'special military operation' has proven the point which the Russian military theoreticians have made many times: That indirect and asymmetric methods are historical and situational. One cannot copy successful operational plan form the past and expect it to work. There are too many variables, too many interconnections. However, it is quite difficult to predict beforehand which old tricks work and which ones do not. Moreover, it is quite easy afterwards to find reasons for failure. However, it can be said that there has been a certain continuity in the Russian way of war from the Soviet times until today. Despite changes in the political system, multiple military reforms, and some cultural evolution, the way Russia has used non-military and military measures in its imperial wars (Czechoslovakia, Afghanistan, Georgia, Ukraine) has retained familiar characteristics. It is therefore very important to understand what kind of methods and measures Russians consider having been successful and having relevance in the future.

Although on the operational level Russia's attack plan seems to have relied on creativity and cunningness, one of the surprises in the Russian invasion has been the evidence pointing to the low quality of Russian officers and the no-show of mission command culture on the tactical level.²²⁹ Whether this was the result of continuity in Russian strategic culture or the Kremlin's and the high command's desire to control every detail of the operation, remains to be discovered. It is therefore too early to make judgements of the effects of Russian military culture on the tactical level when battalion commanders were sent to war without proper orders, understaffed units, and logistical support. Moreover, those commanders who have survived, have become battle-hardened and gained experience. As a result, the Russian military has much experience to draw from when it starts to plan its next war. It remains to be seen if these lessons learned and identified are shared systematically amongst the troops and transferred to the new mobilized reserve units.

Perhaps the most important lesson from the 'special military operation' for countries sharing a border with Russia is that Russia will use geography, economic linkages, information tools, subversion, and strategic movements of its armed forces to create an asymmetric, strategic situation where the weaker opponent must sacrifice almost everything if it wants to survive. Russia will leave the door open for an apparent negotiated solution which basically means regime-change and abandonment of basic national interests. Russia will implement a quick military solution if seen fit, but will prepare for long attrition warfare to secure at least minimal victory. As the definition of victory is decided by the Russian authoritarian and oligarchic leadership, war can have surprising turns from troop withdrawals, to wanton destruction of civilian objects, and a freeze of the conflict at Russia's will as the stronger opponent.

Considering the above, Russia's small neighbouring countries require military and economic alliances or great power support to be able to withstand Russian non-military and military use of force. They must build a credible deterrence by denial – which, in the Russian case, must be tailored to deter an authoritarian and nationalistic state with considerably less regard for human life compared to its Western neighbours, and whose citizens are ready for offensive war when their political leaders so require.

To resist Russia's indirect methods and non-military measures states need resilience, readiness, and capabilities to counter Russian influence. As Russian influence operations could be long-term, seemingly volatile, and always trying to find and exploit weaknesses, plain resilience is not enough. Rather, antifragility is needed. Societies have to learn, adapt and get better to resist unpredictable influence operations.²³⁰ Moreover, measures are required to counter Russian influence operations in order to prevent Russia from altering the core identity and interests of the state – as this is what Russia pursues to avoid costly use of force. Intelligence collection should be continuous and all assumptions about possible Russian actions should be made with sufficient understanding of Russia's strategic culture. The information domain is where a small state secures the support of an alliance, a great power, international institutions, and the global audience.

In the event of armed, violent use of force supported by non-military measures by Russia a small state must be able to secure the survival and continuity of both the state and the nation as both will be under attack. The state must be able to create military power in a flexible, persistent, and continuous way. Enough military power is needed to stop, degrade, and push

²²⁹ cf. Dmitry Adamsky, "Russian campaign in Syria – change and continuity in strategic culture," *Journal of Strategic Studies* 43, no. 1 (2020): 104–125.

²³⁰ Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder*. (London: Penguin Books, 2013).

back attacking forces from the state's territory to eliminate all threats to its sovereignty. A small state needs the ability to defend itself in all domains, or else weaknesses and vulnerabilities are used in attempts to destabilise it, and it needs the skills to manipulate the attacker to make costly mistakes. A small state also needs the ability to strike targets in attacker's rear in all domains to deny the attacker the ability to use outer lines for freedom of action and to degrade attackers command and control and supply. If military defence fails and the state crumbles, the nation must have the will and the capabilities to continue inflicting pain to the invader. However, military means are not enough. They must be supported by non-military measures on the one hand to protect the state's viability and the continued support of its allies, and on the other hand to persuade, compel, and coerce Russia to negotiations.

Analysing the Russian way of using asymmetric and indirect methods and non-military measures is important. However, the analysis of Ukraine's actions could be even more important as it has successfully used many tricks from Russia's playbook and devised new ones. When analysing Ukraine's actions, Russian military academics' warnings should be kept in mind: cunningness, creativity, and surprise are historical and situational phenomena. What's more, inadequate knowledge of one's opponent and contempt towards it will only lead to folly and failure.

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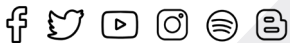
Finland

www.mpkk.fi

ISBN 978-951-25-3391-6 (pdf)

ISSN 2343-0753 (online)

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