

ANALYSIS

CIVIL DEFENCE IN UKRAINE PRELIMINARY LESSONS FROM THE FIRST MONTHS OF WAR

| IVO JUURVEE |

NOVEMBER 2022

RKK
ICDS

RAHVUSVAHELINE KAITSEUURINGUTE KESKUS
INTERNATIONAL CENTRE FOR DEFENCE AND SECURITY
EESTI • ESTONIA

Title: Civil Defence in Ukraine: Preliminary Lessons From the First Months of War

Author: Juurvee, Ivo

Publication date: November 2022

Category: Analysis

Cover page photo: Art rising from ashes in Vokzal'na street, Bucha, Kyiv Oblast, May 2022 (photo credit: Ivo Juurvee / personal archive)

Keywords: Ukraine, Russia, war, civil defence, societal resilience, civilian infrastructure

Disclaimer: The views and opinions contained in this paper are those of its authors only and do not necessarily represent the official policy or position of the International Centre for Defence and Security or any other organisation.

ISSN 2228-2076

© International Centre for Defence and Security
63/4 Narva Rd., 10120 Tallinn, Estonia
info@icds.ee, www.icds.ee

ABOUT THE AUTHOR

IVO JUURVEE

Ivo Juurvee is a Research Fellow and the Head of Security and Resilience Programme at the International Centre for Defence and Security. Prior joining ICDS in 2017, he had been a practitioner in the field of security for more than 13 years. Amongst other positions in Estonian public service, he has been an adviser at the National Security and Defense Coordination Unit of the Estonian Government Office and the head of the Internal Security Institute of the Estonian Academy of Security Sciences. He has also taught security related topics at the University of Tartu, Estonian Military Academy, Estonian School of Diplomacy, Diplomatic Academy of Ukraine, NATO School (Oberammergau) and on the FRONTEX master's program on border management. Ivo's professional and academic areas of interest are information warfare, intelligence services and other forms of hybrid conflict. He has worked as an Honorary Research Fellow at University College London, School of Slavonic and East European Studies and given a guest lecture in several universities, including Stanford and Georgetown. He holds a PhD degree in history from the University of Tartu (2013) and an MA from the Central European University, Budapest (2003). He is an author of two books and numerous articles and reports.

INTRODUCTION

Since Russia invaded Ukraine on 24 February 2022, military action, cities destroyed, and atrocities against the civilian population have been in the international media's spotlight. Although they deserve the lion's share of public attention, there are other aspects of the current crisis – the first major conventional war in Europe in the 21st century – from which we should draw practical lessons.

Primarily, it pertains to civil defence. How does the civilian population survive – and continue to live – in the recently liberated areas or far behind the frontlines? How does it impact the civilian infrastructure? What can other countries learn from Ukraine to prepare for a potential outbreak of war?

Unfortunately, information for outsiders is scarce, with media publications being the only reliable source. Western journalists have been doing an amazing job, yet their coverage has some limitations. First, their focus is hardly ever on civil defence. Second, they hardly speak any Ukrainian or Russian and have to rely on local fixers.

Despite the hordes of officials from the West travelling to Ukraine these days, their trips are usually time-constrained, while their agenda has to be pre-approved by the Ukrainian hosts. There are enough diplomats residing in Ukraine, and their number has been growing as the threat to the capital city of Kyiv has been decreasing. Their travels, however, remain restricted. The aid workers are too preoccupied with their immediate responsibilities and simply do not have enough time and resources.

To overcome the limitations identified above, the ICDS team decided to conduct a research trip – probably one of the first, if not the first, by the Western think-tankers to Ukraine after the escalation in February 2022. Of main

interest for the researcher team was the extent and nature of the damage inflicted by the Russian military, as well as the first efforts to repair it and mitigate further damages, communication with the civilian population, and the preventative measures taken. The plan and purpose of the trip were to conduct visual observation and interviews and not to rely on secondary sources and press coverage already available.

Of main interest was the extent and nature of the damage, as well as the first efforts to repair it and mitigate further damages, communication with the civilian population, and the preventative measures taken

Many restrictions, nevertheless, applied. The guiding principle was to always obey the rules. First, extreme care should be exercised to avoid inadvertently revealing any sensitive information – as it pertains to identifying personnel and positions of Ukrainian forces – that could later be used by the Russian forces. To prevent conflicts with the Ukrainian law enforcement authorities, any potentially sensitive information was not collected in the first place. However, considering the team's extensive travel and attention to detail, some sensitive information could have been reordered by accident and with no malign intent. With such probability in mind, this analysis was not published immediately upon the mission's completion.

Second, the research team has also discovered that meetings are still possible with a pre-existing network of contacts, but only if they are scheduled in advance, while the interviewees are provided with an option to speak anonymously. While meeting local officials, time limitations applied in order not to distract them from their primary obligations and, therefore, ruled out in-depth interviews.

It is worth remembering that unlike government officials and journalists, think-tankers are not issued any special documents (e.g., diplomatic passports or press accreditation). The same applies to the code of conduct in a conflict zone – there is no special rulebook to guide think-tankers in the war zone. Therefore, the trip was "testing the limits" to some extent.

1. NATURE OF THE DAMAGES SUSTAINED

By the beginning of May 2022, it had already become clear that there was no immediate threat to the city of Kyiv. In the northwest and northeast of Kyiv, the Russian troops had withdrawn a month ago, so the diplomatic missions – including the Estonian Ambassador – were returning to the Ukrainian capital. A successful Ukrainian counterattack around Kharkiv had already begun; the city was out of Russia's artillery's reach to a certain extent and saw its very first days free of shelling in a long time. Although the mood was optimistic at the time, shelling, unfortunately, resumed later.

The main damage, as witnessed by the research team, was caused by Russian aviation bombs and artillery: howitzers and MLRS (122 mm, 152 mm, and potentially 203- or 220-mm multiple rocket launchers). With limited time and knowledge, it was not possible to establish the exact weapons employed. In Kyiv, there was some damage by PGMs (precision guided munitions) reported,

but the exact type of weapons could not be determined either. In particular, traces of small arms fire could be detected in former combat zones and previously occupied areas, which might have resulted from engagement with the Russian DRGs (*диверсионно-разведывательные группы*, reconnaissance and diversion groups).

It is noteworthy that all the gas stations in liberated areas were destroyed by fire. Some might have been targeted before Russians advanced; some were damaged during hostilities. However, cases of arson during the Russian retreat could not be ruled out. Regardless of the reason, the civilian population was left without functional gas stations.

In the frontline metropolitan areas of Kharkiv and Chernihiv, there was some limited damage in the downtown neighbourhoods. Some of the targets could be explained with the administrative buildings located in the area – such as Kharkiv Region State Administration and the surrounding streets. Photographic evidence was widely circulated in the media, making images from this location almost iconic.



Picture 1. Bullet holes caused by small-arms fire in central Kharkiv, May 2022.
(Photo credit: Ivo Juurvee / personal archive)



Picture 2. Damaged gas station on the edge of Hostomel, Kyiv Oblast, May 2022
(Photo credit: Ivo Juurvee / personal archive)

Administration buildings in Chernihiv suffered considerable damage, with the district HQ of the Ukrainian Security Service (SBU) buildings being one example.

The most severe damage – most likely caused by the Russian artillery – was recorded in the suburbs facing the Russian advance. The latter include Saltivka, the northern suburb of Kharkiv; neighbourhoods in north-eastern and south-western Chernihiv; Borodianka and Irpin, towns in Bucha District to the west of Kyiv.

The most severe damage – most likely caused by the Russian artillery – was recorded in the suburbs facing the Russian advance

The damages may vary in nature. Small suburban private houses were the most vulnerable. Despite suburbs having no significance militarily, they were frequently targeted. Moreover, when hit, such small residential houses are completely destroyed – with only rubble remaining to indicate where a family home once used to be. The city of Chernihiv suffered such severe and widespread damage that very few buildings survived in some suburban neighbourhoods, regardless of the construction materials used.

Standard Soviet housing built of prefabricated concrete blocks – *panelkas* (панелька, a five- or nine-floor panel building) – can withstand one or two artillery strikes depending on the calibre until it collapses with several apartments burned out. However, a higher number of direct strikes, as well as heavier shelling or aerial bombs, result in large sections of these buildings collapsing. Damage may be limited to individual sections or cause a third of the house to collapse, rendering it unliveable. Such residential buildings on the outskirts of cities are more likely to suffer – the closer the house is to the city limits, the heavier the damage. Under fire from enemy's artillery or MLRS with flat projectile trajectory, these medium-rise buildings on the outskirts form a barrier and, therefore, shield the inner areas of the city. In some cases, panelkas may burn down to a varying degree. The emergency response teams may either lack access to the extinguishing water system or be unable to respond in time because of the number of simultaneous incidents or the ongoing hostilities in the area. For instance, residents in Saltivka recalled casualties among the first responders.



Picture 3. Small private houses hardly recognizable after shelling, northern Chernihiv, May 2022
(Photo credit: Ivo Juurvee / personal archive)

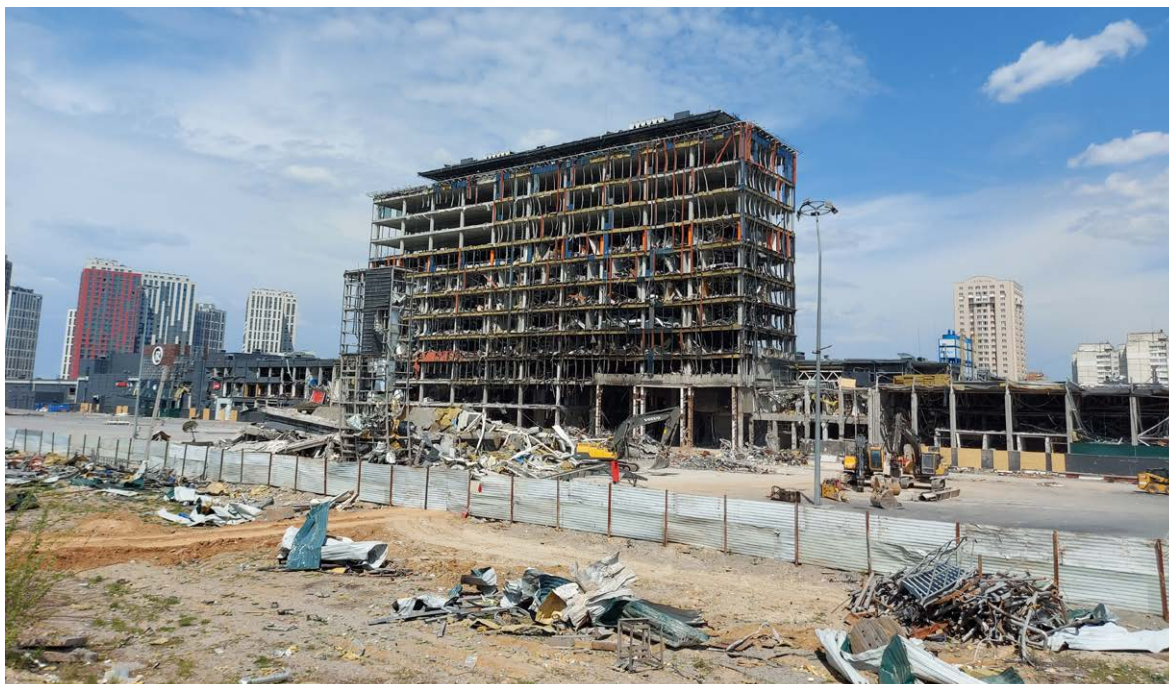
Larger brick buildings tend to be more resilient overall: they rarely collapse but are as fire-prone as panelkas. It is worth noting that brick was mainly used for administrative buildings in the Soviet era.

The third most common type of housing construction is cast-in-place concrete – a relatively modern technology. Such buildings have an enduring floor framework but rather weak walls by design. As a result, windows, and even the outer walls, are usually blown out when a building is hit. However, the field trip did not witness any buildings of this type having collapsed.

The lessons are obvious. Absent an adequate air defence in the area, administrative buildings shall be evacuated in time. If there are not enough air raid shelters in the immediate vicinity – as is the case in most countries – dispersal of state institutions is advisable. This military tactic of spreading out civilian personnel in public administration offices will avert a fatal attack on the government apparatus and guarantee it remains functioning. Such preventative measures seem to have worked rather well, even for military sites. For instance, the Air Force and air defence



Picture 4. A partially collapsed panelka in Borodianka, Kyiv Oblast, May 2022
(Photo credit: Ivo Juurvee / personal archive)



Picture 5. A concrete building behind the Retroville supermarket hit by a missile, after some initial cleaning works, Kyiv, May 2022 (Photo credit: Ivo Juurvee / personal archive)

installations continued operating largely due to this tactic. The measure proves more effective in the case of civilian administrative buildings. This war suggests that civilian objects often become targets should the enemy possess sufficient supplies of ammunition to spare.

This war suggests that civilian objects often become targets should the enemy possess sufficient supplies of ammunition

Public buildings are typically built from bricks and cast-in-place or precast concrete. Therefore, their performance is similar to that of the residential buildings, as evidenced by the hospital, school, and university buildings in the cities of Kharkiv and Chernihiv that were targeted and partially destroyed. The same vulnerabilities apply to warehouses, supermarkets, and marketplaces – important civilian infrastructure hubs.

Preparations should be made to facilitate an immediate evacuation of the civilian population should a densely populated area find itself in the range of artillery fire. It is extremely relevant for the suburban areas where private residential buildings provide no emergency shelter. Basements in small houses are not solid enough for protection – if they exist at

all. Whereas apartment blocks require more complex evacuation plans due to a larger number of residents but provide temporary shelter. Mid- and high-rise buildings on the outskirts of the cities warrant special attention – the direction from where the Russian forces are expected to advance. Their basements, on the contrary, shall not be used as bomb shelters since they might easily become death traps if the house collapses.

2. AIR RAID SHELTERS AND SIRENS

Ukraine possesses a network of air raid shelters inherited from the Soviet era. They were constructed to withstand a nuclear war and proved adequate to survive a conventional war. However, their number is limited. Furthermore, people may not always use them,

Ukraine possesses a network of air raid shelters constructed to withstand a nuclear war and proved adequate to survive a conventional war

as evidenced by a conversation with a Saltivka resident, whose house was slightly damaged by the bombing:

Question: *"Do you have an air raid shelter in the area?"*

Answer: *"Yes, we do. It's just around the corner, in the school basement. It was built in the Soviet time."*

Q: *"Have you ever used it?"*

A: *"No."*

Q: *"Were you scared when the area was being bombed?"*

A: *"I was."*

Q: *"So, why didn't you use the shelter?"*

A: *"I don't know..."*

The conversation – with minor changes – repeated in separate places. However, it is worth noting that the interlocutors were male. Their families either had evacuated abroad and to the relatively safe western regions of Ukraine or were going to the nearby shelters during the air raid alerts.

It seemed that the civilian population had grown accustomed to the ever-present danger relatively fast, while air raid sirens had become routine. From 6 May till 11 May 2022, the ICDS expedition recorded 19 air raid alerts in Kyiv (i.e., three per day on average) lasting from eight minutes to over two hours (with an average of thirty-two minutes). During the reported period, however, the capital city did not witness a single hit – the last time a missile landed in Kyiv was on 28 April, when UN Secretary General Antonio Guterres was visiting.¹ Most people observed remained poised and calm during the air raid sirens. Panic may be contagious

Civilian population had grown accustomed to the ever-present danger relatively fast, while air raid sirens had become routine

but so is poise. Concerned by this widespread defiance and anticipating an increased number of missile attacks ahead of Victory Day on 9 May, President Zelensky urged Ukrainians to exercise more caution.²

In addition to a network of actual bomb shelters, the Kyiv Metro system is also suited



Picture 6. An improvised shelter on the second floor of the hotel, Kyiv, May 2022

(Photo credit: Ivo Juurvee/ personal archive)

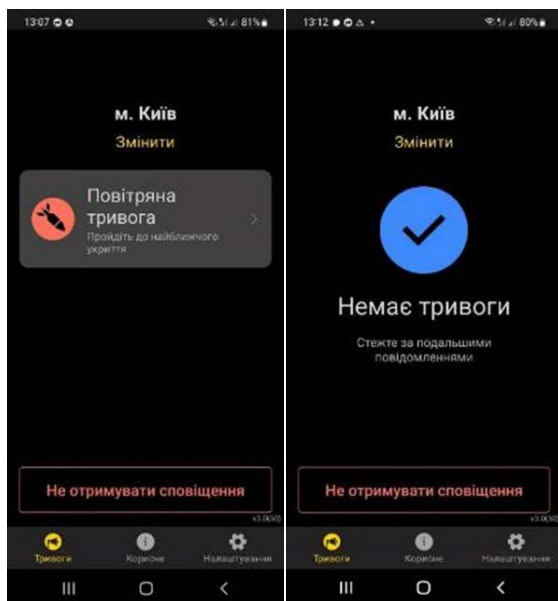
for the purpose. Nevertheless, such shelters are limited in numbers and sparse in location, so the Kyiv residents had to be resourceful and improvise. The most common solution was reinforcing the basement windows with sandbags. However, not all such measures may be equally effective. For instance, the hotel where the ICDS team was staying had converted one room into a makeshift bomb shelter, with sandbags blocking the windows. Yet the designated room was located on the second floor and, therefore, would not be suitable for the purpose.

Moreover, some shelters lacked visible markings. Civilians were either expected to know the location or rely on smartphone applications for navigation. Those applications, however, were user-friendly, even to those

¹ "Ukraine war: Rockets hit Kyiv as UN chief admits failings," BBC News, 29 April 2022.

² Office of the President of Ukraine, "Ukraine is defending itself against the onslaught of tyranny, and this struggle for freedom is comprehensible in every corner of the globe", Address by President Volodymyr Zelenskyy, 6 May 2022, 5:46.

who did not speak the Ukrainian language but required a local SIM card pre-installed.



Picture 7. Screenshots from the “Тривога!” [Alert!] mobile application: notifications in the beginning and the end of the air raid alarm
(Photo credit: René Värk / personal archive)

Although the air raid alerts were quite frequent in all big cities the expedition had visited, the sirens were rare – clearly audible only in downtown Kyiv, around Maidan Square, whereas the sound faded very quickly in high-density development areas. Less than half a kilometre away from Maidan Square, the sirens

were hardly audible indoors, to say nothing of such interfering sounds as TV or music in headphones. It is, therefore, safe to conclude that the smartphone applications were the most relying warning tool provided there would be a stable internet connection and no power outages.

3. CLEANING UP AFTER THE BATTLES

Rubble, abandoned Russian armour vehicles burning, and bodies rotting on the streets – this is not an environment where civilians could or should live. Cities must be cleaned as soon as the rescue operations are over, and the evidence of potential crimes has been collected.

The ‘before-and-after’ photos widely available in the media testify to the fact that Ukraine has been managing with this task incredibly well. Military scrap metal has been cleaned from the streets almost everywhere. Despite the ICDS expedition’s extensive travels, it only discovered only three burned-down BMPs (БМП, an infantry fighting vehicle) and one MT-LB (МТ-ЛБ, a multi-purpose, fully amphibious, tracked armoured fighting vehicle). The latter was located in the middle of a field and had not yet been towed away due to an explosion hazard.



Picture 8. A BMP-2 burned in Borodianka, Kyiv Oblast, May 2022
(Photo credit: Ivo Juurvee / personal archive)



Picture 9. A pile of destroyed civilian cars, east of Kyiv, May 2022

(Photo credit: Ivo Juurvee / personal archive)

Absent a diplomatic passport or press accreditation, the ICDS research team could not travel to Saltivka, where most of the Northern district was closed and the EOD (explosive ordnance disposal) teams continued working. In other areas, the rubble had been cleared away from the streets. There were very few wrecked civilian vehicles on the streets, with some already placed in temporary storage areas indicating a major clean-up effort.

The primary stage of cleaning must have already been completed: the ICDS team encountered heavy machinery only once. At the same time, many buildings were damaged beyond repair and required demolition.

It bears repeating that neighbourhoods that have witnessed hostilities shall not become open-air museums for foreigners to visit – people must be able to go on with their lives.



Picture 10. A destroyed bridge between Irpin and Kyiv, recognised as a memorial site, Kyiv Oblast, May 2022 (Photo credit: Ivo Juurvee / personal archive)

However, Ukraine must preserve the memory of the war. With that goal in mind, President Volodymyr Zelensky declared a destroyed bridge in the suburban town of Irpin a memorial site.

Railway and highway bridges suffered large-scale destruction – yet the authorities managed to install temporary ones rather quickly. It imposed certain limitations on the vehicles: a trip from Kyiv to Chernihiv used to take approximately ninety minutes, whereas, in early May, it would take four hours, considering all the detours needed.

Fortunately, many parts of the cities were spared from damage. Downtown neighbourhoods in Kyiv, Kharkiv, and Chernihiv were maintained in perfect order: streets were clean and flower gardens well-manicured. This might be one of the most unexpected lessons learned: a sense of normalcy, or at least an

A sense of normalcy, or at least an illusion of normality, makes a difference

illusion of normality, makes a difference. When the ICDS team was in Kharkiv, artillery was still audible in the city; public transportation was not working; there were severe fuel shortages.

Nevertheless, urban parks offered some solace to the remaining 800 000 of Kharkiv's pre-war 1 500 000 population.

War conditions – with their many unfamiliar and hidden dangers – underline the importance of common sense in the civilian population.

War conditions – with their many unfamiliar and hidden dangers – underline the importance of common sense in the civilian population

Before traveling to the city of Chernihiv and the surrounding areas, Ukraine's military personnel gave the ICDS team members a brief lecture on mine awareness that touched upon the issues of booby traps in the previously occupied territories and unexploded ordnance – “Watch your step” and “stay within the paved areas” was their practical advice. Absent any specific warning signs, common sense had to be exercised at all times, and curiosity had to be suppressed. For instance, an artillery manoeuvre area, from where Russian forces had recently withdrawn and abandoned pieces of equipment, stirred some professional interest. However, artillery shells were a clear indicator that the area warranted further work by the EOD units.



Picture 11. A park in Kharkiv, 8 May 2022 (Photo credit: Ivo Juurvee / personal archive)



Picture 12. A public warning sign installed by the Borodianka municipality: “Attention!!! Unsafe building. Please exercise caution”, Kyiv Oblast, May 2022 (Photo credit: Ivo Juurvee / personal archive)



Picture 13. A pile of used artillery shells next to an abandoned Russian AMA, southwest of Chernihiv, May 2022 (Photo credit: Ivo Juurvee / personal archive)

PRELIMINARY CONCLUSIONS

This paper does not aim to study how to avoid or win a war. Instead, it dwells upon how the civilian population lives through a war, had it already broken out. The final lessons from Russia's war aggression in Ukraine we will learn from history books and think-tanks' reports – but we must be ready to protect the civilian population, drawing from Ukraine's unrivalled and practical experience, today.

We must be ready to protect the civilian population, drawing from Ukraine's unrivalled and practical experience

First, civilian infrastructure will continue being a target for Russian forces. Damage to administrative buildings, warehouses, supermarkets, gas stations, hospitals, schools, and universities, as well as residential housing, may have a cumulative, moral – rather than physical – effect on people.

Second, nationwide robust air defence against cruise missiles and other PGMs would be impractical and extremely expensive, if not impossible, to build. It will never cover all population centres and critical facilities – and even where it does, enemy strikes may be occasionally successful.

Third, the Russian PGM may not be as precise as previously assumed. Therefore, civilian housing and infrastructure, if in the vicinity of critical infrastructure, may become unintended targets.

Consequently, we must:

- Evacuate as many people as possible – when the civilian population remains in the range of Russian artillery or under the Russian occupation, the results are tragic;
- Disperse the civil command structure – i.e., ministries, agencies, and larger municipal administrations;
- Build and organise a system of bomb shelters – not everyone can be evacuated in time;
- Develop an emergency population warning system that will be operational regardless of location, power supply, and internet service coverage;

- Conduct regular peacetime training to exercise vigilance, build awareness, and combat apathy and routinisation of the omnipresent danger;
- Clear the debris and keep population centres in good order – clean cities are not an unnecessary luxury but an invaluable morale booster;
- Analyse new data on construction materials resistance and 'war-proof' buildings;
- Conduct research on mental impact of war on civilian population under direct attack for limited period or exposed to a threat of attack for longer periods.

Ukraine's experience is a perfect example to demonstrate that although war-related damage to civilian infrastructure appears – and, in fact, is – horrendous, societies may prove resilient enough to persevere without collapsing. It is important to remember that a potential outbreak of a full-scale war following a Russian invasion has been a real and omnipresent threat in Ukraine for eight years. The continuing military conflict in the east has provided Ukrainian people with essential – albeit unfortunate and unsolicited – psychological training. In 2022, Ukraine emerged more mature and better prepared for the trial by war than most European countries would have been in similar circumstances. Invaluable lessons from Ukraine must be studied, learned, and adopted as quickly as possible.

ANNEX. RESEARCH TRIP DETAILS

The field trip involved two researchers: Dr. Ivo Juurvee, Head of Security and Resilience Programme at the International Centre for Defence and Security, and Dr. René Värk, Associate Professor of International Law at the University of Tartu and Deputy Director of the Estonian School of Diplomacy.

The team was in Ukraine from 5 to 12 of May 2022, traveling to the country only 10 weeks after the full-scale invasion had begun. In situ, the dangers were minimal contrary to the general expectations and when compared to the hardships that millions of Ukrainian civilians were experiencing on a daily basis.

The main modes of transportation inside Ukraine were trains (from the Polish border to Kyiv and Kharkiv and back) and cars with hired drivers (for travelling to other destinations, with a total of 600 km covered).

Internet connection and data roaming was working perfectly within the cities which allowed ordering taxi rides via mobile applications.

The closest the ICDS researchers ever got to the frontline with ongoing military action was 20-25 kilometres when the team visited Kharkiv's Northern suburb of Saltivka on 8 May. From that location, as well as in central Kharkiv, distant artillery was audible throughout the day.



Figure A1. Route of ICDS research trip 5-12 May 2022. Researchers visited Kyiv, Borodianka, Hostomel, Bucha, Kharkiv (including suburb of Saltivka), and Chernihiv.

RECENT ICDS PUBLICATIONS

REPORTS

- Teperik, Dmitri, Solvita Denisa-Liepniece, Dalia Bankauskaitė, and Kaarel Kullamaa. *Resilience Against Disinformation: A New Baltic Way to Follow?* Tallinn: International Centre for Defence and Security, October 2022.
- Jermalavičius, Tomas, Max Bergmann, Peter Crail, Thomas O'Donnell, Tomas Janeliūnas, and Tõnis Idarand. *Developing Nuclear Energy in Estonia: An Amplifier of Strategic Partnership with the United States?* Tallinn: International Centre for Defence and Security, September 2022.
- Arjakas, Merili, Hille Hanso, Kristi Raik, Peeter Raudsik, and Vladimir Sazonov. *Estonia's Co-operation with the EU's Southern Neighbourhood: Strategic Objectives and Focus.* Tallinn: ICDS Estonian Foreign Policy Institute, August 2022.
- Jermalavičius, Tomas, Tomas Janeliūnas, Andrian Prokip, Iliya Kusa, Alan Riley, Pier Paolo Raimondi, Andrei Beliy, and Miguel Sainz de Vicuña. *Geopolitics of Europe's Hydrogen Aspirations: Creating Sustainable Equilibrium or a Combustible Mix?* Tallinn: International Centre for Defence and Security, May 2022.
- Haugevik, Kristin, Piret Kuusik, Kristi Raik, and Niels Nagelhus Schia. *Small States, Different Approaches: Estonia and Norway on the UN Security Council.* Tallinn: ICDS Estonian Foreign Policy Institute, November 2021.
- Teperik, Dmitri, Grigori Senkiv, Dmytro Dubov, Oleh Pokalchuk, Illia Miroshkin, Oksana Iliuk, Anastasiia Apetyk, and Larysa Snihur. *Resilient Ukraine – A Delicate Mosaic? Society, Media, Security, and Future Prospects.* Tallinn: International Centre for Defence and Security, November 2021.

BOOKS

- Raik, Kristi, Frank Jüris, and Bart Gaens, eds. *Nordic-Baltic Connectivity with Asia via the Arctic: Assessing Opportunities and Risks.* Tallinn: ICDS Estonian Foreign Policy Institute, 2021.

POLICY PAPERS

- Klyszcz, Ivan U. K. "Russia's Federal Subjects at War: Background and Implications." ICDS/EFPI Policy Paper, October 2022.
- Blockmans, Steven, and Kristi Raik. "Ukraine's Path to EU Membership: How to Turn a Geopolitical Necessity into a Viable Process." ICDS/EFPI Policy Paper, June 2022.
- Shestopalova, Alona. "Forgotten and Potentially Vulnerable: Why the Online Activity of Middle-Aged Women Matters During Global Information Warfare." ICDS Policy Paper, April 2022.
- Denisa-Liepniece, Solvita, and Dmitri Teperik. "Local Russian-language Journalism in the Baltics: Challenges and Perspectives for Building Resilient Communities of Media Professionals." ICDS Policy Paper, March 2022.

ANALYSES

- Värk, René. "Russia's Conduct of Hostilities in Ukraine." November 2022.
- Värk, René. "Russia's Legal Arguments to Justify its Aggression against Ukraine." November 2022.
- Heins, Jonas. "Putin and Assad, Partners in Crime: Why Russian Forces Steal Wheat from Ukraine." November 2022.
- Gretskiy, Igor. "A War of the Final Soviet Generation: Russia's Demography, Society, and Aggression Against Ukraine." ICDS Analysis, August 2022.
- Crippa, Lorenzo. "From Rome to Kyiv, Passing Through Moscow: Russian Strategic Narratives in the Italian Public Discourse on Ukraine." ICDS Analysis, April 2022.
- Gowan, Richard. "Estonia in the Security Council: A History in Three Crises." ICDS/EFPI Analysis, March 2022.
- Weitz, Richard. "NATO's Hypersonic Challenge." ICDS Analysis, February 2022.
- Lawrence, Tony. "Command and Control for the CSDP: A Permanent Operation Headquarters for the EU?" ICDS Analysis, January 2022.

All ICDS publications are available from <https://icds.ee/category/publications/>.



ICDS.TALLINN



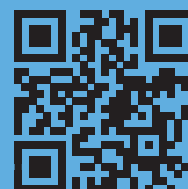
@ICDS _ TALLINN



ICDS-TALLINN



WWW.ICDS.EE



INTERNATIONAL CENTRE FOR DEFENCE AND SECURITY
63/4 NARVA RD., 10120 TALLINN, ESTONIA
INFO@ICDS.EE

ISSN 2228-2076