



# Another Rude Awakening

— Making Sense of Russia's War Against Ukraine

Jenny Lundén, Göran Bergström, Peter Bull,  
Jan Henningsson, Johan Norberg, Peter Stenumgaard  
and Annica Waleij (eds.)



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Approved by Malek Finn Khan

# ANOTHER RUDE AWAKENING

## FOREWORD

The world, and in particular the future of Europe, changed on the morning of 24 February this year. Russia's brutal war on Ukraine has imperialistic goals of capturing a foreign nation's territory, quelling its people and, judging from their propaganda, decimating part of the population. It does not stop there: Putin's Russia wants more. It wants to dictate the security policy of its neighbours and most of the European continent. Domestically, Russia says everything goes by the book. Unfortunately for Russia's population, it seems like the book they are following is Orwell's *1984*.

The war is still unfolding and the pace of change this spring is tremendous. Security and defence policies are in flux — continuously shaped and reshaped. The implications for people in power as well as the common man are everywhere to be seen, so why an anthology now? In war, emotion can easily overthrow logic and reason. Consequently, it is important to distinguish opinion from fact, to take steps to see what lies ahead of us. At FOI, we have been studying and following Russia for decades: from policy to projectile. This anthology is our way to take stock and summarise some observations and conclusions so far. Hopefully, these texts will serve as food for thought and a sober guidance to our common future and what we as a society need to do next.

Whatever the next step will be, it might be wise to remember the words of Dag Hammarskjöld, the former Secretary-General of the UN: "It is when we all play safe that we create a world of utmost insecurity. It is when we all play safe that fatality will lead us to our doom. It is in the 'dark shade of courage' alone that the spell can be broken."

Stockholm, June 2022

Jens Mattsson  
Director-General





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# Introduction

Russia's enlarged war in Ukraine in 2022 has been painfully visible to all. There is a never-ending hurricane of information, phenomena and observations about everything from political and military affairs to technical aspects of weapons. All this can be hard to follow, let alone see what it all means. One way to try to make sense of it all is to ask defence experts.

This anthology consists of articles written by a number of researchers and analysts at the Swedish Defence Research Agency, FOI, offering a wealth of initial impressions and reflections on the war against Ukraine. The articles reflect both the in-depth knowledge and the scientific diversity of FOI, ranging from security policy and strategic studies to radar signatures, electronic warfare, and chemical and biological weapons. We hope this will help readers, including policymakers, military and political analysts, journalists and anyone else interested in the dynamics of war to contextualise and obtain perspectives on the evolving war.

This is neither a comprehensive nor a final assessment of the still-ongoing war, at the time of publication in early July 2022. The time prescribed for writing this report was only a few weeks. To produce this publication, we asked some FOI researchers and analysts to share their initial thoughts about the war and, if needed, agree to be guided by the following questions:

1. What surprised you?
2. How does the war change previously held views?
3. What are the war's implications for the future?
4. How does it affect civil and military defence capabilities in Sweden and other countries?

The anthology begins with a chapter that serves as a framework for the publication, a synopsis written from a security policy perspective, entitled *A War That Tests Theory and Ideals*. This is followed by some reflections on Russia's military capability: *Why We Got Russia Wrong*. This is in turn followed by several perspectives on the operational implications of the war, in the chapters entitled, *Military Implications of the War in Ukraine*; *"The Cruise Missile Will Always Get Through?" – Air War Over Ukraine*; *The Use of Drones in the Russo-Ukrainian War*; and *The War at Sea: Naval and Maritime Operational and Strategic Aspects of Russia's War Against Ukraine*.

Aspects of the war in the information domain are found in the articles *Cyber and Radio Activism in the Russo-Ukrainian War* and *Propaganda in the Russian War Against Ukraine, from a Swedish Perspective*. Some views on the alledged threat from biological weapons are found in the article entitled *Russian Accusations*

*against the United States of Running Military Biological Laboratories in Ukraine.* Finally, some considerations of humanitarian aspects of the war are found in *The Discussion About the Legality of Russia's Methods of Warfare in the War against Ukraine; Protection of Civilians and the Swedish Civil Military Defence; and Is it Possible to Receive Humanitarian Assistance in Sweden?*

For those who wish to learn more about the topics in this anthology, or other themes related to the war in Ukraine, a non-comprehensive list of FOI publications can be found at the end of this report.

So far, neither side in the war has reached its key objectives. Russia does not control Ukraine. Ukraine has not evicted the Russian forces. In that light, the first four months of the war may merely be a snapshot in time. We therefore refrain from making any final conclusions. It is likely we would have to change them soon enough. This anthology is our way to start making sense of an often apparently senseless war.

FOI regularly publishes anthologies. The publication of nine editions of *Strategic Outlook* since 2009 shows the width, depth and longitudinal nature of FOI's research. Sometimes, world events, such as the Covid-19 pandemic, prompt our anthologies. Regarding defence and security, *The Caucasian Litmus Test* hinted at things to come after the 2008 Russo-Georgian war, both in terms of Russian aggressiveness and dithering Western responses. In 2014, *A Rude Awakening*,<sup>1</sup> a key conclusion about Russia's occupation and illegal annexation of Crimea was that the contours of a new world were emerging and that there was no way back to a status quo ante after Russia's aggression. In that light, Russia's massively enlarged war in Ukraine in 2022 should not have been a rude awakening. For many, including some of us, however, the driving forces, and the scale and style of warfare were another rude awakening.

Stockholm, June 2022

Jenny Lundén, Göran Bergström, Peter Bull, Jan Henningsson, Johan Norberg, Peter Stenumgaard and Annica Waleij (eds.)

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1 Granholt, Niklas, Malminen, Johannes and Persson, Gudrun (eds.), 2014, *A Rude Awakening. Ramifications of Russian Aggression Towards Ukraine*, FOI-R--3892--SE



# 1. A War That Tests Theory and Ideals

Ivar Ekman

*When trying to make sense of the Russian invasion of Ukraine, it is worth considering two opposing viewpoints of the dramatic events of the last few months. One comes from a man standing in front of two blackened, hollowed-out apartment buildings in the Ukrainian town of Borodyanka. The other, from a famous American political scientist appearing on Chinese television. Their different viewpoints capture not only a central tension underlying the war in Ukraine, but also a central tension in how we go about understanding it.*

Borodyanka is a small town 60 kilometres northwest of Kyiv, past other places whose names will live in infamy: Irpin and Bucha. The date is 8 May the UN-designated Day of Remembrance and Reconciliation, and the man is Volodymyr Zelenskyy, the TV personality turned president, and now, master wartime communicator. Speaking on a day commemorating and paying tribute to the victims of the Second World War, Zelenskyy drew clear and damning parallels between what had happened in Ukraine after Nazi Germany invaded in 1941, and what is happening there today. But by repeating and reworking the phrase “never again,” he also laid out the case for all the largest aspirations of the post-war international order: the hope that a rules-based, global system, with sacrosanct borders and conflict-solving institutions would guarantee a world free of the horrors of the past.

“Never again! It was an ode of a wise man. Anthem of the civilised world,” Zelenskyy said, clad in a simple black t-shirt with the text, “I’m Ukrainian” on his chest, speaking directly into the camera. “Our ‘never again’ was enough for 77 years. We missed the evil. It was reborn. Again, and now!” But Zelenskyy also struck a note of defiance, and hope. With the support of so much of the world, of so many of the countries who had also experienced the horrors of Nazi bombings and occupations, he claimed that Ukraine would triumph, and that order would be established once again. “They remember what our ancestors fought for, and against. . . And we will get together. And there will be peace. Finally, again!”

The other viewpoint comes from someone who, at least until this war, has been viewed as a dean of the American international relations establishment. John J. Mearsheimer is a professor of political science at the University of Chicago, and has long been seen a leading proponent of the “realist” school of international relations thought. However, in this case, the setting in which he shared his views on the Ukraine war is at least as interesting as the man. Mearsheimer was interviewed on 17 April by CGTN, the international broadcaster controlled by the Propaganda Department of the Chinese Communist Party.

Introduced as having the view that “the West, especially the US, is principally responsible for the Ukraine crisis,” Mearsheimer said that Vladimir Putin, as the

leader of a great power, views Ukraine drawing closer to the West as a “threat to the survival of Russia.” The talk about Ukraine’s having the “right” to choose its own path is something Mearsheimer thinks is a distraction, because “the Russians are much more powerful than the Ukrainians. . . and if the Ukrainians were smart, they would not have pursued NATO membership.”

These two viewpoints capture not only a central tension underlying the war in Ukraine, but also a central tension in how we go about understanding it. The fact that the world order is shifting, that both power politics and international institutions are in flux, has been obvious for quite some time. But how does the Russian invasion fit into this? Is it, as Volodymyr Zelenskyy implies, a view, or at least a hope, which is shared throughout much of the West, of a former empire trying to revive a realpolitik order that will once again be consigned to the ash heap of history? Or is it, as John Mearsheimer told his enthusiastic Chinese host, a view also expressed in countless Kremlin talking points, the inevitable result of pushing dreams of institutions, rights, and a Western idea of democracy one step too far?

Of course, a war puts both theory and ideals to the test. It reveals a world with infinitely more complex relations and connections than any model can capture. It shows that aspirations and strategies live side by side with real-life limitations and facts on the ground, and that these factors interact in a never-ending dynamic. So, the answers to the questions above lie, as always, somewhere in between Zelenskyy and Mearsheimer, between the views of the West and those of Russia and China. But precisely where on this scale they lie depends on who tries to do the answering. It is very much a product of how those watching the war *wish* the world to be, and *where* they happen to stand. Beauty, or brutality, is indeed in the mind of the beholder.

## **CHINA**

On a chilly 4 February three weeks before Russian troops crossed the border with Ukraine from several directions, Russian president Vladimir Putin sat down with Chinese leader Xi Jinping in the bucolic Diaoyutai State Guesthouse in western Beijing. It was a big day in the Chinese capital, as the Winter Olympics were about to open with grand ceremony. It was also Xi’s first face-to-face meeting with another head of state in almost two years. The importance of the China-Russia summit became clear when the statement from the meeting was released. The two leaders saw a global system “going through momentous changes,” where “a trend has emerged towards a redistribution of power in the world.” The relationship between their countries was clad in the strongest terms: “Friendship between the two States has no limits, there are no ‘forbidden’ areas of cooperation.” There was also clear Chinese support for the position Russia had taken on “security guarantees” and a re-ordering of European security during the Russian military build-up on Ukraine’s borders. Yet one could also detect a certain confusion about exactly what was being defended: “Russia and China stand against attempts by external forces to undermine security and stability in their common adjacent regions,” the two countries stated, but they also “intend to counter interference by outside forces in the internal affairs of sovereign countries under any pretext.”

Precisely what was said, and not said, during this meeting, regarding Russian goals and intentions in Ukraine, is still a well-kept secret. But judging from Chinese reactions and policies following the invasion, the balancing act, between the will to see a new system emerge, and the hesitation in shaking the current order too badly, has continued. Says Dr. Christopher Weidacher Hsiung, China researcher at FOI:

“On the one hand, Chinese diplomatic support for Russia has been strong. The blame for causing the war is squarely laid on the US and NATO, and the sanctions have been strongly criticised. On the other hand, there is still a dialogue with the US and the Europeans. It is also interesting that on the economic front, we see a clear fear of the sanctions levied on Russia, and that many Chinese companies are careful to abide by them. Chinese telecoms giant Huawei is a telling example. The company has been active in Russia in the past few years, both in 5G and AI, and was becoming a fairly large player. The fact that Huawei has frozen their activities there could be a real setback.”

On balance, says Dr. Weidacher Hsiung, what is surprising is just how strong and consistent Chinese diplomatic support has been; this is observed in the fact that China's leadership is prepared to pay such a large reputational price by so clearly blaming the West and especially the US for the war. “Behind this, we see how a worldview where the US is presented as being by far the biggest challenge is becoming much more widespread, entrenched and openly stated by Chinese leaders,” says Dr. Weidacher Hsiung. “The global confrontation evident in Ukraine is seen as a confirmation of Xi Jinping's view that ‘today's world is experiencing profound changes unseen in a century,’ and that the thrust of these changes is the East rising and the West declining. The war is a manifestation of this development, something that from a Chinese point of view had to happen sooner or later. This does not mean that the Chinese are happy that there is a war, or about how it is playing out and especially how it is hitting the world economy. They had probably hoped for a peaceful or at least a much quicker resolution.” Wars are unpredictable affairs, as Putin and with him, Xi Jinping, have learned in the past few months.

“Going forward,” Dr. Weidacher Hsiung continues, “it is clear that the Chinese political system is becoming more centralised and, to understand where Chinese foreign policy is moving, we have to understand the Chinese Communist Party and especially Xi Jinping. There are, most likely, diverging views inside the Chinese system regarding for example the relation with Russia, but the flexibility that used to be there is much less pronounced, and power is today much more concentrated at the top. With ideology and narrow national interests being top priorities, it seems as if China is moving towards becoming more prepared for confrontation, especially with the US and the West.”

To sum up, and as made clear by Mearsheimer's appearance on CGTN, China's leaders see a more realpolitik order emerging, and wish for such an order to

reflect the true power of a country like China. But Xi is still treading somewhat carefully; he can't completely dismiss Zelenskyy, with his ideals, his people's will to fight, and his backing from the West. But this balancing act seems destined to end in the not too distant future.

### **INDIA AND THE MIDDLE EAST**

"India has been very measured in its reactions to the invasion," says Samuel Neuman Bergenwall, Senior Analyst at FOI and head of the Asia and Middle East project. "Abstaining from resolutions relating to Ukraine in the UN Security Council, and only criticising the Russian invasion in vague, general terms. In practical matters, India hasn't done much at all, neither diplomatically nor economically, apart from buying a bit more Russian oil at a discount."

According to Bergenwall, the Indian reaction is based on the complicated geopolitical situation the country finds itself in, and that in general "power politics guides Delhi." India's main strategic challenge is China, Bergenwall says, aligning its national interests to those of the West. "However, in Delhi's eyes, Russia is also an important factor in how to handle China. The nightmare is Russia and China becoming close allies, and together threatening India's position, especially with a view to Pakistan. This needs to be stopped, and to do this it is necessary to keep relations with Russia on a good footing. It is all part of a larger Indian strategy, call it multi-alignment or nonalignment, using relations with all major powers, playing them out against each other, to further India's long-term interests."

To a country like India, striving to emerge as a true great power, shifts in the global system can present an opportunity. But the hand one holds has to be played with care. With this realpolitik outlook in mind, what India is doing is not very surprising, according to Bergenwall. "It could seem as if India in the last few years had moved closer to the West, with cooperation in many areas, such as the strategic dialogue with the US, Australia and Japan, within the Quad. But the historical ties to Russia are strong, as are the ties from having a military more or less built on Russian materiel."

This last issue could, however, point towards a subtle, but in the long run, important shift. "I would think that Delhi, with growing alarm, is following how the Russian army is faring in Ukraine. The under-performance of Russian materiel could be an opening for the US, as well as for Europe. Not that Delhi is ready to let go of their relationship with Moscow, but that they're careful not to put too many eggs in the same basket."

The balancing seen from India is in many ways repeated in the Middle East, Bergenwall says. "There seems to have been an expectancy in the West that Middle Eastern allies would all line up behind us. But that is not how it turned out. The Gulf nations have not opened up the oil spigots, the Israelis sit on the fence, even Turkey is trying to stay neutral, with connections to both Ukraine and Russia. It is obvious that much has changed in the past 20 years, since the

unipolar dominance of the 2003 Iraq war. Today, the states in the Middle East have a much larger room for manoeuvre; they can say no to both Americans and Europeans. Most of the oil produced there is going to Asia, which means that the glue that kept the old, US-dominated order together, oil for security, is no longer very strong.” All in all, Bergenwall concludes, “in the Middle East, as in India, the war is seen as a European affair. It is not their war, it is ours. This is something that seems to have come as a surprise for many leaders in the West.”

In other words, Zelenskyy’s words about “never again” ring hollow to India, and even more so in the Middle East. It had already happened again, in countries such as Iraq, Syria and Libya, and if the US and Europe want to keep an order to their liking in place, they have to play more by Mearsheimer’s rules, where money and military hardware matter more than norms and ideals.

## **AFRICA**

One of the more striking moments in the global reactions to the Ukraine war, and one of the strongest calls for a multilateral, rules-based order, came on the very eve of the Russian invasion. At a late-night session of the UN Security Council, on 21 February the Kenyan ambassador, Martin Kimani, spoke to the other 14 members, and to the world. Explaining how Africa is a continent with borders “drawn in the distant colonial metropolises of London, Paris, and Lisbon with no regard for the ancient nations that they cleaved apart,” Kimani said that of course there were people in these countries “yearning for integration with peoples in neighbouring states.” However, he strongly rejected this yearning being pursued by force. “We rejected irredentism and expansionism on any basis, including racial, ethnic, religious or cultural factors. We reject it again today.” But with Russian forces preparing to invade Ukraine, Kimani said, “Multilateralism lies on its deathbed tonight.”

Yet this powerful speech, which garnered much attention, particularly in the West, is not very representative of the overall reaction across the African continent. Says Dr. Anna Ida Rock, Analyst at FOI and head of the Africa project: “Certainly many, smaller African countries would prefer a stable, rules-based order. But there is a great deal of scepticism towards how the West has misused this system to their own ends, with NATO bombing Libya as an example that is often pointed to, of how the West only dislikes invasions when they are a threat to themselves.”

“In general, most African countries have tried to stay on the sidelines; this is a war that isn’t seen as theirs. There is also a powerful undercurrent of anti-imperialistic and anti-Western sentiment. This was strengthened during the pandemic, with the view that the Western countries were selfish and unreliable, while China and Russia managed to portray their Covid aid and support as genuine partnerships.”

To an Africa scholar, all this is not surprising, says Dr. Rock. But she has been surprised by how unexpected the lack of support and engagement has seemed to Europeans and Americans. “This says something about how little understanding



there is of how people across Africa see the West and the relation with the West;” this is an even older stance, tinged by colonial thinking, manifesting itself.

Another somewhat surprising effect of the war, says Dr. Rock, is how clearly it has illuminated global interdependencies, and how much the broader consequences are beginning to affect and involve Africa. “On the one hand, Africa has suddenly become very important for the future energy supply of Europe. On the other, even before the fighting in Ukraine’s agricultural heartland and the blocking of the country’s Black Sea ports, we saw drought in many parts of the continent, a hunger crisis on the Horn of Africa, and rapidly increasing inflation.” All this is now becoming a geopolitical question as much as a humanitarian one, Dr. Rock says. “Russia is blaming the West and the sanctions for disrupted transportation of important staple products. Looking ahead, what happens in the coming months will be very important for the future relations between Africa and the rest of the world. Europe and the US could play an important role, both in alleviating the humanitarian situation, but also in countering the Russian narrative. At the same time, African states are looking for a partnership of equals, instead of the old condescending approach. The question is if the West has the capability to take in how the situation has shifted, and the will to do what is necessary.”

In sum, Africa is a continent where many would welcome Zelenskyy’s words about “coming together” and “never again,” if only they were applied equally and consistently. The West clearly has an opportunity here, by manifesting that the world doesn’t have to be run by Mearsheimer’s “realist” rules. However, today there is not much that suggests that the West is prepared to fully take on this challenge.

## **THE WEST**

“The strength of Western unity has been a big surprise,” says Eva Hagström Frisell, Deputy Research Director at FOI, and whose work focuses on Northern European and transatlantic security. “Before the war, there were clearly divergent views among Western countries about how to handle the threat from Russia. Some, such as the US and the UK, wanted to focus on deterrence, sanctions and a military build-up. Others, with France and Germany among them, wanted to keep the dialogue with Russia open and avoid an escalation.” But the nature of the Russian invasion, Hagström Frisell continues, how clearly they breached both norms and the European security architecture, made the Western countries unite in a way that probably wouldn’t have happened if an attack on Ukraine had been more disguised or hybrid in nature.” In addition, the massing of Russian forces on Ukraine’s borders before the war gave the West an opportunity to prepare. There were intense consultations and lots of intelligence-sharing, where US leadership played a crucial role. This laid the groundwork for all the actions that the West took following 24 February.”

The institutional instruments available to the West, especially the EU, G7 and NATO, have been used “ingeniously,” Hagström Frisell says. “Both the EU and G7 have been important for coordinating and pushing through tough sanctions.

The EU has moved surprisingly quickly to cut dependence on Russian energy, handle the refugee situation, and coordinate humanitarian and financial support to the Ukrainians. NATO has been key on the military front: reassuring allies and deterring Russian aggression. We have also seen increased military support to Ukraine, and while this has been done outside the institutions, it has been coordinated and apparently quite effective in helping Ukraine hold off the most ambitious Russian objectives and inflicts heavy losses on the Russian military.”

But for all the surprising unity and successes of the Western handling of the Ukraine war, what has happened also portends several serious challenges, Hagström Frisell says. “The international order that is being defended is a Western-led order. The fact that NATO, G7 and the EU, all institutions limited to the West, are at the heart of the strategy says as much. Within this, we can also see how central the US is to what the West has done. Now there is lots of talk about a struggle between democracies and autocracies, and how the strengthening of multilateral organisations promoting human rights and democracy is necessary.” But, at the same time, this is a way for the US, as a power player, to keep its place at the centre of a shifting international order. “This makes what is happening a double-edged sword, where countries outside the West feel a pressure to choose sides, even though this is something they might have reasons to avoid. So what we’re seeing is that unity in the West might lead to a more divided world,” Hagström Frisell says.

This poses some fundamental questions, especially for Europe. “The war in Ukraine has shown clearly how dependent Europe is on the US: militarily, but also for its internal unity. In the short run, we’re seeing an increased American commitment to Europe. But the question is what happens in the longer run, if the US shifts its resources to what is seen as America’s biggest challenge, China. With increased investments across Europe in security and defence, it is clear that Europe is preparing to take on more responsibility. But will it be enough? Is Europe prepared for the long-term costs involved?” In other words, is Europe able to emerge as a true, geopolitical player in its own right, ready to stand up, in whatever way necessary, for the ideals we hold so dear?

Within this, says Hagström Frisell, lies an even bigger question: Is a unified West ready and able to handle the global challenges ahead, both in Europe and in other parts of the world? “Will there be a division of labour between the US and the Europeans, or will there be a partnership across the globe? A central question is how to handle moves from China and Russia in the countries between the West and these other great powers – in countries like Georgia, Moldova, the Western Balkans, as well as in places like Africa and the Middle East. And how lasting can this unity be? What we saw in the beginning of the war is showing signs of fracturing,” Hagström Frisell says, “and the challenges ahead – in relation to Russia and Ukraine, but also elsewhere – might be even bigger than what we’ve seen so far.”

It is clear that Volodymyr Zelenskyy, in what he stands for, says and does, has touched a deep nerve in the West, especially in Europe. Many wish that

Mearsheimer's ideas about Russian "power" were clearly defeated once and for all, on the battlefields of Ukraine as well as in the wider world. This might yet happen in Ukraine, which by itself would take a serious, long-term Western commitment, but this wider challenge is one that the West could well find as being a bridge too far.

## **RUSSIA**

In the summer of 2021, two texts were published in Russia that, taken together, provide a key to understanding the renewed Russian invasion of Ukraine, says FOI Deputy Research Director Dr. Carolina Vendil Pallin, whose work focuses on Russia. One was the revised National Security Strategy of the Russian Federation, a document presenting Russia as a strong, sovereign player, an important pole in an increasingly multipolar international system; laying out the threat Russia saw from NATO; and emphasising internal stability as central to Russian security. The other was an article, written by President Vladimir Putin, with the title, "On the Historical Unity of Russians and Ukrainians." The article's thrust was that Ukraine is a fictional state, created by mistake during Soviet times. Ukraine, claimed Putin, is today controlled by the West, and is an arena for an "anti-Russia project."

"A lot of us following Russia felt that something had happened when we read that article," says Dr. Vendil Pallin. "The gap between how the world was viewed from Russia, and how it was viewed from the West, had become a deep chasm. Among the Russian leadership, there is a combination of insecurity, manifested in how NATO has to be pushed back and all signs of internal opposition rooted out, together with a sense of cultural superiority and having history on their side. This is manifested in a loathing of what is called 'Western civilisation,' which is seen as degenerate and leading the West towards collapse."

From the Russian point of view, says Dr. Vendil Pallin, the shifting world order should lead to increased control over what is viewed as the country's sphere of interest, with Ukraine and Belarus as key countries, but also Moldova, and parts of the Caucasus and Central Asia. There is scant hope in Moscow of better relations with the West, instead, other powers like China and to some extent India are seen as key allies in a struggle against "Western civilisation."

Then came the war. "What surprised me most is that the Kremlin seriously thought they could take Ukraine with as few as 200,000 troops. That they had not realised how much Ukraine has changed since 2014. Before this war, Russia has been quite skilled at playing a weak hand, pushing forward when they could, withdrawing when they had to. This time, it seems as if they truly believed their own propaganda." Russia thus overplayed its weak hand.

The extent of Western unity was also surprising, says Dr. Vendil Pallin, both to analysts like herself, but more importantly to Moscow. "Not only the unity, but also the strength and depth of the sanctions, and the fact that so many foreign

companies have left Russia. In the last few years, there has been a lot of focus among Russian policymakers on the need for a technology-driven development, and now it is becoming clear just how dependent the country's prosperity is on being part of a global economy with international supply chains. Another buzzword in Moscow has been 'sovereignty,' but being truly sovereign in today's world means becoming like North Korea or Turkmenistan."

Just how serious the strategic mistakes made in invading Ukraine turn out to be for Russia is hard to say today, says Dr. Vendil Pallin. "Russia is weakened, that much is clear. Internal repression will most certainly increase. The difficulties in getting hold of critical components will hamper the economy, and for a whole generation of young Russians, the doors to the future are closing." At the same time, Dr. Vendil Pallin continues, Russia is isolated, but not as isolated as many in the West seem to think. "Russia will become much more dependent on China, and how this plays out is anyone's guess. Wars and their effects are always difficult to predict, and we have to remember that this is happening in a time when much of the world is in flux. Not to draw parallels that are too strong, but a period worth keeping in mind is the early years of the Cold War, when no one really knew what the new landscape looked like, and the risk of bad things happening was quite high."

Russia, in other words, played its hand with realpolitik in mind (echoing Mearsheimer). They were surprised by the force of Zelenskyy, and the rest of the Ukrainians, and their backing from the Western-led order. Now, this struggle plays out on the charred fields of eastern Ukraine. But whatever happens on the battlefield, little suggests that even a weakened Russia will back down and reintegrate into the old order. This is no longer an option for Moscow.

## **CONCLUSION**

A monumental struggle is playing out in Ukraine, and not only a military one. It is also a struggle over the ideas and structures underlying the wider international order. So far, we have seen the relative weakness of Russian power, as well as the surprising strength of the old, Western-led system that Volodymyr Zelenskyy summed up with the words "never again." But, as has been made clear by looking at it from different parts of the world, the war in Ukraine still represents a real, fundamental shift.

What this shift will mean in the longer run, however, depends very much on the concrete choices made by the different actors in the months and years ahead: Western unity hinges on a number of choices to be made by a great number of leaders and electorates, not least in the US, this autumn and in the presidential elections in two years. The looming food crisis will be met, or not, by difficult choices in capitals and international organisations. For Xi Jinping, a choice lies ahead of when to break out of a self-imposed crouch, and fulfil China's role as a true global power, with all this entails. Then there is Ukraine, where the will to continue the fight seems strong, but where there still is a very difficult choice in

how to face their larger neighbour's power in the longer run. And finally, there is Russia, where the choice of facing what it means to be a "realist" in some way has to be made. Vladimir Putin controls his vast lands, his people, his oil, his arsenal of weapons. He feels he has history on his side. Does this mean that Russia, realistically, is as powerful as Putin seemingly thinks it is?

#### **ABOUT THE AUTHOR**

*Ivar Ekman* is an Analyst at FOI. He holds a Master of International Affairs from Columbia University, and has previously worked as a journalist, writing for *The New York Times*, *Financial Times* and *Foreign Affairs*.



## 2. Why We Got Russia Wrong

Johan Norberg, Robert Dalsjö

*Russia's Armed Forces initially performed badly in the war. Many analysts probably underestimated Russia's willingness to use military force and overestimated its military power. Pre-war assessments rarely addressed how for example political wishful thinking, overconfidence in new weapons and tactics, or systemic corruption, could affect warfighting. Other possible analytical errors include an overreliance on Russian official data and not addressing intangibles such as morale and leadership. Future assessments should ideally include, among other things, clearer terminology, realism tests, two-pronged approaches, source critique, new sources, dealing with implicit biases and assumptions and, finally, daring to have an opinion, even without hard data.*

Russia's poor military performance during the first three months of the war in Ukraine surprised many Western analysts who study the Russian Armed Forces, including ourselves. It appeared as if we had overestimated Russian military capability, while at the same time underestimating Russia's political appetite for risk and willingness to use brutal force to reach its aims. Our pre-war assessments stipulated that Russia could win a short, intense, but geographically limited war, even against NATO.<sup>1</sup> When Russia invaded on 24 February, we, and many others, expected that Russia would swiftly prevail militarily and gain control over much of Ukraine.<sup>2</sup> It did not. Why?

To begin with, Ukraine is big. A military attack on Europe's second biggest country, in terms of territory and with a pre-war population of 44 million, is a huge undertaking. Long distances create problems for both communications systems, logistics and the ability to concentrate forces. Secondly, Ukraine is angry. War is a battle between wills. Ukraine's spirited and capable defence thwarted Russian plans and exposed Russian weaknesses.

This article aims to contribute to the discussion about how to assess Russian military capability. The approach is to briefly address the potential causes of Russia's initial military performance in the war, our pre-war assessments and their limitations as well as ways to better approach them in the future. As of mid-June, the war still raged. Events may still overrun our thoughts, here, or add new phenomena to be addressed.

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1 See Eva Hagström-Frisell and Krister Pallin (eds): 'Western Military Capability in Northern Europe – Part 1: Collective Defence', FOI-R--5012--SE, Swedish Defence Research Agency, February 2021; and Frederik Westerlund and Suanne Oxenstierna (eds): 'Russian Military Capability in a Ten-year Perspective – 2019', FOI-R--4758--SE, Swedish Defence Research Agency, December 2019.

2 See Michael Kofman and Jeffrey Edmonds: "Russia's Shock and Awe - Moscow's Use of Overwhelming Force Against Ukraine", Foreign Affairs, 22 February 2022.

Then there are several possible explanations for Russia's surprisingly lacklustre performance during the war so far. One explanation focuses on reports that the war was not planned by the General Staff, but hastily improvised by the Kremlin and the FSB on overoptimistic assumptions, after an attempt at coercion had failed.<sup>3</sup> Russia's political ambition was probably to conquer Ukraine without fighting a costly war, perhaps explaining why Russia still insists on calling the largest war in Europe since 1945 a "military special operation." If so, Russia's approach failed. Kyiv denied Moscow a quick win, and the planned parade turned into improvised warfighting.

The second possible explanation holds that the military overestimated the effects of new weapons and tactics, such as Special Forces actions, cyberattacks and psychological operations, believing that these would paralyse Ukraine's government and military, as they had in 2014, or that the new precision-guided missiles would have effects similar to those in Iraq in 2003.<sup>4</sup> However, contrary to many Western musings, the Russian military never really embraced the notion of hybrid warfare, and there is scant empirical support for this explanation.

The third possible explanation for the shortcomings of the Russian military in Ukraine is that the military suffered from a deep structural rot, with sleaze, theft and corruption at all levels, although this largely remained hidden in peacetime.<sup>5</sup> Observations from the field support this explanation, and it seems improbable that overoptimistic planning was the only cause. Russia probably had fewer soldiers than we thought, especially infantrymen. Actual unit strength was probably lower than stated, perhaps due subordinate levels' intentional wrongful reporting of the personnel available. Despite launching the biggest ground war in Europe since 1945 and attacking with four Groups of Forces (GOFs), each with forces from one Military District (MD), the forces did not deploy full divisions or brigades, but small Battalion Tactical Groups (BTGs). We have seen very little of combined arms warfare, which the Russian army supposedly trains in a lot, and logistics trains have failed to supply advancing units with fuel and food. Communications have failed, lack of proper equipment maintenance has led to numerous breakdowns, and small-unit leadership and morale have been abysmal. Russian cruise and ballistic missile strikes saw high failure rates.<sup>6</sup> Neither of these three explanations were fully covered by our pre-war assessments, which had focused on other factors.

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3 Nigel Gould-Davies, 'Putin's strategic failure', *Survival*, vol. 64 no. 2, London, International Institute for Strategic Studies, June-July 2022

4 Sam Cranny-Evans and Sidharth Kaushal 'The Intellectual Failures Behind Russia's Bungled Invasion', *Commentary*, RUSI, 1 April 2022.

5 Robert Dalsjö, Michael Jonsson and Johan Norberg: 'A Brutal examination: Russian Military Capability in Light of the Ukraine War', *Survival*, vol. 64 no. 3, London, International Institute for Strategic Studies, June-July 2022.

6 Jack Watling and Nick Reynolds 'Operation Z: The Death Throes of an Imperial Delusion', *RUSI Special Report*, 22 April 2022.

## PRE-WAR ASSESSMENTS AND THE ACTUAL RUSSIAN OPERATION<sup>7</sup>

In 2019, FOI assessed that Russia, in a scenario most dangerous for Europe, could launch warfighting operations against, say, NATO or China within two months with, grossly simplified, up to five groups of forces. Each GOF would be tailored to task and consist of 65,000–130,000 soldiers in two–four combined arms armies (CAA), with air and naval forces in support, and fight in an area of roughly 300 x 300 km. This presumed a political decision to mobilise for war, i.e. that conscripts and possibly reservists would be available to man units in addition to contract soldiers. Russia's war in Ukraine should have required three such GOFs, say some 300,000 men, thus possibly leaving at least 100,000 soldiers in the two remaining GOFs. Without a decision to mobilise for war, the Russian operation started with only up to some 200,000 mainly contract soldiers, who had to be gathered from all of Russia's MDs, augmented by Russia-backed separatists in Donbas and the interior troops of the *Rosgvardia*. That number might have sufficed for exercises near Ukraine, to intimidate and coerce Kyiv, but not for fighting a de facto war of attrition in Ukraine.

**Table 1:** FOI's pre-war assessment compared to the performance of Russia's Armed Forces in 2022 (selected factors)

	Factor	FOI reports and assessments 2018–2021	Impressions from Ukraine 2022	Verdict
1	Warfare	Soviet style, but not Soviet scale	Soviet style, but even smaller	
2	Scope	Joint: ground forces centric, air- & naval spt	Joint, but poor C2	
3	Time	1–2 months	3–10 months	
4	Forces	3 GOF in Russia west of Urals	< 4 GOF in total	
5	Soldiers	< 300,000 soldiers west of Urals	< 200,000 in total	
6	Equipment	< 36,000 pieces	Probably much less	
7	Terrain	3 x "GOF areas" (300 x 300 km) in Ukraine	< 2 "GOF areas"	
8	Intangibles	Omitted by delimitations	Abysmal and decisive	

Abbreviations: C2 – command and control; GOF – group of forces; spt - support.  
Comment: The Russian MoD commonly refers to "pieces" of (unspecified) ground forces equipment. It is here a proxy for the ground forces part of the operation.

Table 1 compares selected factors from FOI's pre-war assessments, with initial observations of Russia's Armed Forces in the 2022 war. For the first factor, type of warfare, the war is Soviet style, with an emphasis on using armour and, in particular, artillery, but not Soviet World War II scale. For the second factor,

<sup>7</sup> The focus here is FOI's assessment. See also IISS: "Russia's Military Modernisation – an assessment" (IISS, London, 2020). DIA: "Russia Military Power" (Defense Intelligence Agency, Washington, 2017); Grau and Bartles: "The Russian Way of War" (Foreign Military Studies Office, Fort Leavenworth, 2016) and Sutyagin and Bronk: "Russia's New Ground Forces" (RUSI, London, 2017).

scope, there were few signs of forces operating jointly during the first three months, as well as little use of “hybrid” warfare measures. In the war, Russian command and control (C2) and coordination has been poor. Our verdict is a green light for the first factor, yellow for the second.

The assessment of factor three, the time needed to build up and concentrate forces for an attack, was wrong, but not too far off (yellow light), if the clock started in mid-autumn 2021, when the US started to warn about it. However, if the force build-up started with the major military exercises in Russia’s southwest in April 2021, then our assessment was incorrect. For factors 4–8, our assessment was badly off and we have given them all a red light here.

### **SOURCES OF ERRORS**

We did not get Russian military capabilities right for at least three methodological reasons. First, we relied too much on quantitative data from Russian official sources. We, and possibly also the Kremlin, thought Russia had bigger and better forces than it actually did. We used seemingly hard quantitative official Russian data on for example manpower, materiel, exercises, order of battle, often repeated by respected Western sources, without properly factoring in that Russia may have been projecting an inflated image of military prowess to hide weaknesses and underpin claims to great power status.

Secondly, we paid insufficient attention to some key factors. Addressing all factors pertaining to military capability is a huge task and analysts have to select factors for clarity and readability. FOI’s pre-war assessment addressed some key operational factors, such as logistics, strategic mobility and C2, only through sweeping observations, for example about the availability of infrastructure or the existence of units for C2-support or logistics. We noted their existence and assumed they would be sufficient to support warfighting operations. This, however, did not address crucial qualitative factors that are hard to observe, describe and address.

Thirdly, we did not address apparently decisive aspects. Even if we had assessed factors 1–7 correctly, we could still have been wrong, since we did not address intangibles (factor 8), which decisively hobbled Russia’s warfighting. Operational planning, officer skills, small-unit leadership, equipment maintenance, troop morale, soldiers’ training levels and interservice coordination are hard to observe and analyse from the outside. Intangibles, often anecdotes or historical examples, are hard to corroborate or generalise, but such factors seem to be at the heart of Russia’s failure in Ukraine and in outcomes in military conflicts. We pay lip service to Clausewitz’s ideas on the decisive role of the moral and political factors in war, but regularly side with Jomini’s concrete rules of thumb for victory and military arithmetic. Military analysts tend to take “objective” numbers and data seriously, but are suspicious towards “subjective” unquantifiable or intangible factors, seeing them as speculative. Future assessments must better consider intangibles and develop methods for doing so.

## TOWARDS A MORE REALISTIC APPROACH

A better approach to assess foreign forces must compensate for some of the pitfalls outlined above. With the reservation that the war still raged as we wrote this and that luck often plays a role in how correct assessments eventually are, we propose seven ways that could improve future analytical approaches to assess military capability.

### *1. Potential is general, capability case-specific*

We should choose our words more carefully. “Military capability” and “military power” often appear without specification. In peacetime, we should address a force’s warfighting potential in both general and functional terms,<sup>8</sup> based inter alia on equipment, personnel and organisation. The force’s warfighting capability only materialises in war, each with a unique time, place and adversary.

### *2. Test assessments for realism*

Assessments based on official data need to be tested for realism. How likely is it, really, that Russia could produce a world-class military based on a low-tech economy and a defence budget smaller than India’s? As a Russian oligarch in exile bluntly noted: “And how will the army be good, if everything else in the country is shit and mired in nepotism, sycophancy and servility?”<sup>9</sup>

### *3. Use a two-pronged approach*

A way to avoid patently unrealistic assessments could be to use a two-pronged approach, where one starts with quantitative data, and the other with qualitative factor patterns, and then tries to resolve the differing outcomes. At least we would then have two assessments. Even if they varied from ten feet tall to midgets, they would represent a realistic span.

### *4. Use source critique*

Source criticism is a basic tool for a historian but perhaps less so for social scientists and military analysts. This needs to change and we need to take account of the provenance of data, and, crucially, adjust for any bias and tendency. A source discussion should explicitly affect the final assessment, even if it means daring to make a call based on judgement, not on quantities.

### *5. Dare to have an opinion*

If warfare is not only science, but also an art, we need to accept that the same applies to assessments of the capability to wage war. We must dare to let go of the metaphoric banister that measuring quantitative data supplies us with and dare to venture out on the dance floor of estimates. We need to find ways to factor in qualitative factors, using professional opinion and judgement, perhaps, on sticky issues, by arguing for and against and then taking a vote in groups of experts.

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8 See Johan Norberg and Natalie Simpson: ‘ZAPAD 2021 and Russia’s Potential For Warfighting’, FPRI Research Report, 15 September 2021, pp. 8-9.

9 “Russian tycoon Oleg Tinkov denounces ‘insane war’ in Ukraine”, The Guardian, 20 April 2022.



### *6. Find new ways to shed light on key capabilities*

Instead of, like the proverbial drunken man looking for his house keys under the lamppost, we should be more open to using flashlights. Internet sleuths such as Bellingcat or Oryx or specialist bloggers or Twitterers such as Trent Telenko have shown that internet and social media may be a source for relevant data on aspects of the Russian military, such as logistics or maintenance, that were previously mostly in the shadows.

### *7. Deal with our own biases and implicit assumptions*

We rarely clarify or discuss our biases and assumptions, both as individuals and collectives, or discuss why Russia maintains large military forces, beyond that they should deter and, if need be, fight wars. We discuss whether these wars would be defensive or offensive, but rarely question the basic premise of a capability to fight wars. Thus, we tend to adjust our assessments to this premise and even fill in the blanks between available data points with what should be there. Perhaps we thus created a Golem of military capability detached from reality, especially if the real purpose of the Russian military is not to fight wars, but to deter or coerce.

## **FINAL OBSERVATIONS**

Future assessment methods must consider what this war reveals, about Russia, military capability, ourselves and our methods. Russian setbacks are not necessarily blueprints for the future. Perhaps Russian forces are not quite so bad per se, but had poor preconditions for this particular war. Poor planning, C2 and logistics would undermine the warfighting effort of most forces. And remember, defeated forces arguably have better incentives to change than those who win. Just compare Ukraine and Russia after 2014.

## **ABOUT THE AUTHORS**

*Robert Dalsjö* (PhD), director of studies, Department of Strategy and Policy, and *Johan Norberg*, deputy research director, Department of Security Policy, both work in the FOI Division for Defence Analysis, and since the Cold War have been reserve officers in the Swedish Armed Forces.

### 3. Military Implications of the War in Ukraine

Jan Henningsson

*In recent years, the Swedish debate on modern war between advanced forces in Europe has largely been dominated by concepts of hybrid and non-linear warfare. To the surprise of many, Russia's invasion in Ukraine in Spring 2022 can rather be seen as a traditional large-scale war combined with new technologies and systems. Despite the lack of facts and detailed information from the battleground, there are still a number of lessons that can be drawn and used in the development of the Swedish defence posture and capabilities. At the same time, it must be noted that the conditions in Ukraine and Sweden differ in many ways. The relevance of each lesson must therefore be carefully analysed. This chapter discusses the nature of the battle, with a mix between old-fashioned war and new concepts and technologies; Ukraine's military development from 2014 to 2022; and potential lessons for the Swedish Armed Forces.*

#### **A MIX BETWEEN OLD-FASHIONED WAR AND NEW CONCEPTS AND TECHNOLOGIES**

This war has shown that a number of the war tactics discussed in Sweden and by the West prior to the invasion have not been prominent in Ukraine. A modern conventional war between advanced forces in Europe has often been expected to be a short war. Instead, the war in Ukraine in 2022 seems to have become a protracted war, with periods of higher and lower combat intensity.

In recent years, concepts such as hybrid and non-linear warfare have been recurring in the debate. However, the war in Ukraine in 2022 should rather be seen as a traditional large-scale war. In contrast, one can see the entire conflict between Russia and Ukraine during the period 2014–2022 as a more protracted hybrid war, with periods of traditional warfare (mainly in 2014, 2015 and 2022). The example of the war in Ukraine can thus be said to support those who argue that a nation needs to be able to handle both hybrid warfare and a conventional war.

It is often expected among defence planners that a modern war begins with a violently forceful phase, with initial attacks against military and other strategic objects. The purpose is to degrade the defender's command and control system, fighting forces and resistance, before more conventional attacks on the ground, sea and air arenas. In the war in Ukraine, attacks on the ground arena were launched early, while long-range combat continued thereafter. This development could be explained by Russian expectations of being able to bring about a rapid system collapse through relatively limited effort. The relatively slow build-up of forces on the Russian side before the war began may have given Ukraine the opportunity to make preparations and reduce the important advantage of

a surprise attack. Gradually, it has become apparent that Ukrainian resistance, command and control systems and armed forces endured the initial attacks relatively well. How Ukraine has succeeded in these initial stages is a central question for in-depth analyses.

Russia and Ukraine share a long land border. They have also inherited a tradition of an emphasis on warfare in the ground arena. Therefore, it is natural that the war has so far largely been carried out by ground forces, while air and naval forces have played a more supporting or limited role on both sides. This is in contrast to recent decades of Western operations, where air power, with air domination and air support to ground forces, has played a much more prominent role.

The war has shown a mixture between conventional, almost 'old-fashioned' elements, such as trench warfare, together with modern concepts and technology, such as drone and information warfare. The Ukrainian defence, relying on anti-tank warfare, indirect fire and drones, as well as defence in urban environments, has stood up well against Russian mechanised attacks. Artillery and rocket artillery have been used to a large extent by Russia, not least in eastern Ukraine, where it has used artillery on a large scale against entrenched defenders and defenders in urban terrain.

Ukraine has reportedly received U.S. intelligence support, which may have given Ukraine an information advantage. How this has been executed and its effects is an interesting subject for further analyses.

For several decades, Western countries have conducted peace support operations and other campaigns against relatively resource-poor or low-tech adversaries. Combat actions have in many ways been limited and great consideration has been given to limit civilian casualties and damage to infrastructure. The war in Ukraine, on the other hand, is of a more large-scale conventional nature, with large-scale use of indirect fire and long-range combat. It has been reported that indirect fire has caused most of the casualties and deaths. Engineers and construction workers have been used to build shelters for soldiers and to obstruct the enemy's advance. The latter has included, among other things, the use of mines and the destruction of bridges.

Expeditionary peace support operations were the main driving force for the design of Western armed forces in the 1990s and early 2000s. In recent years, many countries in the Western world have returned to designing their armed forces mostly for large-scale conventional warfare, where indirect fire and air defence are given greater weight. The war in Ukraine underlines that large-scale conventional warfare is still important for the design of ground forces.

## **MILITARY DEVELOPMENT OF UKRAINE 2014–2022**

The war in Ukraine in 2014 showed that the Ukrainian defence at that time had major weaknesses. The image portrayed in Western media was of a largely neglected armed forces, to a significant extent based on Soviet doctrines and thinking, while the equipment was essentially a legacy of the Soviet army. That war showed that many Ukrainian units were not ready at that time to solve their tasks. The image in the spring of 2022, largely based on Ukrainian information and conveyed in Western media, is radically different, indicating a remarkable development.

Today, the image conveyed in Western media is that the Ukrainian Armed Forces have left behind a relatively strict conservative mindset and manners and shown rather more creativity and initiative. An example is how Ukraine has been able to use cyberactivism, open source intelligence and radio activism in a creative manner; this is further discussed in other chapters of this anthology. Ukraine also appears to have successfully combined older equipment with elements of newer systems, such as drones. An example of fast implementation is the Baykar Bayraktar TB2 drone system that was ordered in 2019 and had already become operational in April 2021.<sup>1</sup> It is important to analyse more deeply how Ukraine has so quickly implemented a new capability. High motivation and the support of foreign instructors, as well as the need for adaptation and development within the framework of the ongoing conflict in Donbas, may have been important to change mindsets and allow room for creativity.

The extensive military support from Western countries has also had an important role in the military development of Ukraine. Before, and during the first month of the war, deliveries of weapons focused largely on lighter equipment such as personal weapons as well as man-portable anti-tank weapons and anti-aircraft missiles. These weapons could probably be put in service relatively fast and easily, as they could be used in existing units with limited extra training. There have also been reports of more advanced systems in use, such as larger drones (Baykar Bayraktar TB2) and helicopters (Mi-17). However, these are systems that already existed in the Ukrainian Armed Forces, and they were therefore likely to have been easily integrated. The Switchblade, on the other hand, reminiscent of a drone but categorised as loitering ammunition, is a system reported to have been introduced in the Ukrainian army in a very short time and during the war. The observations and lessons from Ukraine's success in integrating these weapons into existing armed forces in such a short time is another important subject for in-depth analyses.

Gradually, Western military support to Ukraine has evolved to include larger and more complex systems, such as artillery and tanks. However, these systems generally require more training and organisation and place significantly greater

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1 <https://defbrief.com/2022/02/27/ukrainian-bayraktar-tb2-uav-destroys-russian-military-column-in-its-second-operational-strike/> downloaded 2022.05-27.

demands on other systems, such as logistics and command and control. One can therefore expect that it will take longer for Ukraine to gain the full effect of these systems.

### **IMPLICATIONS FOR THE SWEDISH ARMED FORCES**

The war in Ukraine provides several lessons of importance for the Swedish Armed Forces. At the same time, conditions differ on several crucial points. For example, Russia and Ukraine share a long land border, while access to Swedish territory needs to take place via air, sea, or the territory of another state. Another aspect is that the preconditions will change, compared to Ukraine, in the event of Swedish membership in NATO.

Sweden has usually been expected to wage a defensive war, and the aggressor is usually presumed to have more resources than Sweden. The attacker will strive to achieve surprise and make an intense and violent assault. Sweden's possibilities to endure the initial assault and contest the adversary's air and sea dominance thus become of particular importance. Ukraine's ability to stand up against Russia (in spite of the latter's larger resources) and its resilience against initial attacks are therefore important to analyse.

How Ukraine, with limited resources, has been able to successfully contest Russia's air and sea dominance is another important subject for in-depth analysis; this will be further discussed in following chapters.

The Swedish Armed Forces uses drones to some extent. Lessons from the war in Ukraine will probably lead to their increased use. However, it is likely that there will not only be a rapid development in drones, but also in protecting against them. This may lead to a duel between means and countermeasures; how such a duel will end in the long term remains to be seen. This will also be further discussed in following chapters.

The development of the Ukrainian Armed Forces, as well as its fighting spirit, from 2014–2022 is remarkable. Other armed forces are likely to study this development more closely and draw lessons in order to develop their own organisations. The Swedish Armed Forces, in a phase of growth, may identify important lessons in the development of the Ukrainian Armed Forces.

### **ABOUT THE AUTHOR**

*Jan Henningsson*, MSc, has been an operations analyst at FOI for three decades, mostly seconded to the Swedish Armed Forces and the Ministry of Defence. His work has mostly focused on the development of ground forces, peace support operations, medium- and long-term defence planning, and strategy and policy.

## 4. “The Cruise Missile Will Always Get Through?” – Air War Over Ukraine

Erik Berglund, Andreas Hörnedal

*The air war over Ukraine shows a combination of old and new concepts, and includes long-range strikes together with direct support to the front lines on the ground. Both sides depend heavily on legacy Soviet systems, but as always in war, there is room for conceptual innovation and tactical adaption.*

### INITIAL CONDITIONS

In the context of this war, the vast geography of Ukraine is an important consideration. Ukraine covers 604,000 km<sup>2</sup> of land, and stretches over a distance of 1250 km, from east to west, and 550 km, from north to south.

At the beginning of the war, Ukraine possessed about 100 fixed-wing combat aircraft, along with 35 attack and 95 transport helicopters, mostly of 1980s vintage, although partly modernised. Ground based air defence (GBAD) consisted of a variety of surface-to-air missile (SAM) systems of a similar age. Soon after the commencement of Russia’s “special operation,” Western countries supplied Ukraine with man-portable air defence systems (MANPADS), in essence shoulder-launched SAMs. Those systems are technologically mostly on par with the air defence systems already possessed by Ukraine, but provide another layer of dispersed threats against Russian aircraft.

Russia’s dispositions for air warfare in the theatre of operations have been unclear, but several hundred combat aircraft and helicopters have without doubt been committed to this end, operating from a number of airbases, from Belarus to Crimea. Russia’s materiel in the air war, e.g., its aircraft and weapons, is clearly more modern and of higher volume, and therefore superior in capability to Ukraine’s.

### RECORDED ACTIONS

Russia is said to have generated 200–300 sorties of unknown category each day, starting from a lower number and gradually expanding its operations, amounting to a total of 20,000 into mid-May, of which less than 3000 entered Ukrainian-controlled airspace, normally close to Russian ground forces.<sup>1</sup> Ukraine has generated up to 20–40 missions each day, decidedly inferior to the Russian total, but comparable, regarding sorties into Ukrainian-controlled airspace. Employment of aircraft on both sides has been piecemeal, as individual aircraft or in limited numbers, rather than as composite air operations.

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<sup>1</sup> Russia’s Air War in Ukraine is a Total Failure, New Data Show. Newsweek 2022-05-25. <https://www.newsweek.com/exclusive-russias-air-war-ukraine-total-failure-new-data-show-1709388>

In mid-May 2022, Russia had launched 630 of the 9M723 Iskander ballistic missiles and 2275 cruise missiles, mainly from sea and air platforms, twelve of these being the vaunted hypersonic Kh-47M2 Kinzhal missile.<sup>2</sup> About half of all missiles launched and 40% of all launch attempts (including launch failures) are said to have hit their aim point. This would mean that 20% of all missiles would not even have launched, decidedly poor by Western standards. Ukraine has allegedly shot down 110 Russian cruise missiles, about 10% of those reaching Ukrainian airspace. Initially, missile strikes focused on Ukrainian air defences, but after several days shifted over to storage depots, industry, transportation, and civilian infrastructure. Follow-on strikes on surviving targets have been few, or none.

Aircraft and helicopter losses have been mounting on both sides; on the Ukrainian side, more than 30 fixed-wing aircraft (about 30% of total inventory) and six helicopters (less than 5%). A large number of Ukrainian losses occurred at the outset of the Russian operation. Russia has lost a similar number of fixed-wing aircraft and 43 helicopters.<sup>3</sup> Ukraine suffers from a shortage of serviceable tactical aircraft, relative to the number of available fighter pilots.<sup>4</sup> Losses from air-to-air action have probably been few, with the vast majority of losses caused by SAMs and, for Ukraine, aircraft destroyed on the ground.

Both sides are struggling to achieve air superiority, if only temporary and local. Russian forces are able to gain the upper hand, but not rule the skies, near their own border and over friendly ground forces. Both sides have been able to conduct air operations, but have sustained heavy losses, while Ukraine's civilians suffer Russian bombs. GBAD on both sides has sustained heavy losses, often from artillery and other ground fire, when providing cover for front line ground units.

Both sides have had some successes with air strikes by manned aircraft, for Russia, most notably against Ukrainian cities and, for Ukraine, against military installations on Snake Island,<sup>5</sup> and oil depots in Belgorod, with attack helicopters; although the latter was officially denied by Ukraine.<sup>6</sup>

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2 Ibid.

3 List of aircraft losses during the Russo-Ukrainian War. Wikipedia 2022-06-01. [https://en.wikipedia.org/w/index.php?title=List\\_of\\_aircraft\\_losses\\_during\\_the\\_Russo-Ukrainian\\_War&oldid=1090813431](https://en.wikipedia.org/w/index.php?title=List_of_aircraft_losses_during_the_Russo-Ukrainian_War&oldid=1090813431)

4 Ukrainian MiG-29 Pilot's Front-Line Account Of The Air War Against Russia. The Drive 2022-04-01. <https://www.thedrive.com/the-war-zone/45019/fighting-russia-in-the-sky-mig-29-pilots-in-depth-account-of-the-air-war-over-ukraine>

5 Moment two Ukraine Su-27 Flanker fighter jets bomb Russian-occupied Snake Island sparking two major secondary explosions. Daily Mail 2022-05-08. <https://www.dailymail.co.uk/news/article-10793555/Moment-two-Ukraine-fighter-jets-bomb-Russian-occupied-Snake-Island.html>

6 War in Ukraine: Russia accuses Ukraine of attacking oil depot. BBC 2022-04-01. [https://carefully\\_removed\\_external\\_link\\_due\\_to\\_policy](https://carefully_removed_external_link_due_to_policy)

Both sides have attacked air bases with ballistic and cruise missiles. For example, on 24 February, Ukrainian airbase Ozerne was hit, with one Su-27 destroyed and seven people killed. The day after, Ukraine attacked Russian airbase Millervoy with a Tochka ballistic missile, destroying one Su-30. Ukrainian artillery has in some cases been able to destroy Russian helicopters at forward bases, e.g. Kherson airfield.

The majority of kills seem to be achieved by SAMs, on attack aircraft and helicopters. A large number of pilots have been killed, which would indicate that losses come from heavier, platform-carried SAMs, rather than lighter MANPADS.

## **OBSERVATIONS**

There is only scant reliable information about the air war so far, and it lies in the interest of both sides to “shape the information space” for psychological (PSYOPS) and strategic communication (STRATCOM) purposes. However, some reasonable assessments can be made on the basis of publicly available information.

It has been seen that medium-altitude, long-endurance, unmanned aerial systems (MALE UAS) have at times been very effective. This has probably been due to the careful use of systems with regard to risk vs reward in each situation, and only when safe avenues of approach and areas of operations have been established. Targets seem to have been carefully selected, especially rear-area targets such as GBAD, logistics, and command and control (C2) nodes. The UAS have been armed platforms, as well as having the roles of reconnaissance, targeting and Battle Damage Assessment (BDA). The psychological aspect of providing “kill cam” video for propaganda purposes should not be underestimated, for example to establish the image of Ukraine’s fighting back effectively and being victorious.

Russia has used long-range missiles (ballistic and cruise missiles), instead of aircraft, as its primary means of reaching deep into defended Ukrainian territory, with moderate effect and at a high missile expenditure. Russia has performed a limited form of Suppression/Destruction of Enemy Air Defences (SEAD/DEAD) with anti-radiation missiles (ARMs), but has failed to suppress Ukrainian air defences enough to achieve air supremacy. Manned aircraft have mainly been delivering unguided bombs against area targets, including civilian buildings.

Even though Russia’s long-range missiles have had a surprisingly low success rate (Ukraine reports that large numbers of them have been shot down), they have been delivered in enough numbers to have a real impact on the air war. To paraphrase a historical assessment of offensive air power, made 90 years ago, “The Cruise Missile Will Mostly Get Through.”<sup>7</sup>

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7 “The bomber will always get through” is a phrase used by Stanley Baldwin in the British Parliament in 1932.



Russian capability for targeting, dynamic targeting and BDA seems to be seriously dysfunctional. The absence of targeting pods and similar sensors on Russian attack aircraft is a major drawback on their effectiveness and survivability in the ground attack role, limiting target acquisition measures to the basic “Eyeball Mk1” sensor. Russia may be hampered by an inadequate C2 capability and targeting process, as well as inadequate sensor coverage for building up a satisfactory recognised air picture (RAP) and electronic order of battle (EOB) deep enough into Ukrainian airspace, in order to penetrate Ukrainian air defences with acceptable risk, or to effectively conduct co-ordinated SEAD. In combination, all this would waste resources, missions and opportunities.

Contrary to what had been expected of a major military power, Russia performed very limited initial strikes with long-range missiles and ARMs, and has generally not applied air power as effectively as anticipated. A lot of the potential effect seems to be wasted on seemingly irrelevant targets. The reason for this ineffectiveness could either be some technical shortcomings, as detailed above, or unclear and fractured leadership and planning, combined with deficient logistics preparations.

Ukraine, on the other hand, has most likely been fed intelligence from external parties, possibly including sufficient data to assemble a RAP and an EOB. This, and utilisation of civilian satellite imaging services and global communication services, such as Starlink, would be game-changing for its general situational awareness and C2. This is the most likely explanation for the surprisingly high survival and efficacy of Ukrainian air assets.

Although information about air-to-air engagements and their outcome is unclear or scarce, the main effect of counter-air missions on both sides has probably been deterrence against venturing into enemy-controlled air space with one’s own air assets. Effective tactical use of electronic warfare has been reported, though not as comprehensively nor with as great effect as had been expected.

### **CONSEQUENCES FOR SWEDEN AND THE WEST**

Both sides have sustained large losses of fixed- and rotary-wing aircraft during ground attack missions, while MALE UAS have proven their value in the air war and gained increasing attention. The trend towards using unmanned systems will probably accelerate, likely including a shift from manned fixed- or rotary-wing aircraft to unmanned systems to perform certain missions, e.g., close air support (CAS) and intelligence, surveillance, targeting and reconnaissance (ISTAR), and possibly some interdiction missions. Whether air defences can evolve to nullify or mitigate the UAS threat remains to be seen.

Most countries, not least Sweden, would welcome external help on different conflict levels against a more powerful opponent. When direct intervention with military force is not possible, provisioning supplies and hardware can still be very effective. In particular in the air domain, munitions are normally extremely expensive and therefore scarce, and supplies such as fuel can be exhausted quickly

and need replenishment. Systems, such as UAS and ground mobile sensors, could possibly suffer from quick attrition but be replaced. All this would of course be more likely accomplished with adequate pre-planning and interoperability between systems.

In the same vein, third-party ISTAR combined with telecom services could be game-changing, especially when initially available capabilities have been degraded by kinetic and cyber strikes, or electronic warfare.

The case of Ukraine shows that the primary operational capability for deep strike that Russia possesses is long-range missiles. However important and powerful, this capability also has a number of inherent weaknesses and limitations, in particular the need for targeting and BDA, together with the limited effect that even a massive and costly volley of missiles is able to deliver. However, every nation must be able to mitigate this threat by active and passive means in order not to lose the war on day one. As shown in the current conflict, a similar “day one” threat to mitigation is airborne assault against strategic positions.

The air war in Ukraine has highlighted several other capabilities that most Western European countries would need to improve, e.g., counter-UAS (protection against small, slow and low-flying drones) and survivability of GBAD deployed in range of enemy artillery.

## **SUMMARY**

The air war over Ukraine is primarily being fought with older aircraft and GBAD systems complemented by more modern cruise missiles and ballistic missiles. In addition, MALE UAS have gained some prominence. Neither side has achieved air superiority, while both sides have sustained heavy losses to GBAD systems. The Russians have shown a number of weaknesses, in particular the lack of situational awareness and of coordination. Reliable data are hard to come by at this moment, but several trends and lessons can already be tentatively identified.

## **ABOUT THE AUTHORS**

*Erik Berglund*, Research Director at the Swedish Defence Research Agency, has a broad focus on missile guidance and control and weapon system assessment.

*Andreas Hörnedal*, Deputy Research Director at the Swedish Defence Research Agency, and active in the field of missile technology and air defence assessment.



## 5. The Use of Drones in the Russo-Ukrainian War

Martin Hagström, Lars Forssell

*Drones have been present in warfare for over 60 years but have gained more attention in the Russo-Ukrainian war. The war is not only being fought on the ground and in the air, but also in the media. The use of drones has drawn much attention, and they are actively used in the war of information. They have long been considered invaluable in warfare, but it is possible that the public's interest is spurred by the explosive growth in the civilian market for drones, from simple children's toys to professional aerial photo drones. The possibility that small commercial drones provide to record video clips adapted for social media has also enabled armed forces to release large amounts of content on social media, which is likely to drive the public interest even more.*

### **A VARIETY OF DRONES BEING USED**

Drones, from the largest surveillance drones, such as the Global Hawk, to small improvised systems, are used by various actors in relation to the ongoing war in Ukraine. This includes Ukrainian and Russian forces, as well as NATO and its member states. Despite the vast amount of news from the war, there is limited information about the precise numbers, tactical usage and actual successes of drone warfare. There are many recordings of successful drone usage, such as Ukraine's use of the Turkish-made Bayraktar TB2 and Russia's deployment of its Orion, as well as photos of downed Russian and Ukrainian craft, but a deeper analysis of key success factors still lies ahead.

Drones are perceived as “high-tech” and are associated with artificial intelligence (AI), making them interesting and a focus of attention for the actors related to the war, as well as the public and media. Credible sources report over 50 downed Russian drones, including the Orlan 10,<sup>1</sup> a drone used for target localisation, and at least 8 Ukrainian TB2s.<sup>2</sup> There are also reports of successful TB2 attacks on Russian patrol boats and air defence systems.<sup>3</sup> Another armed drone in use is the Ukrainian-developed Punisher.

Drones are being used for reconnaissance and controlling artillery fire in the Russo-Ukrainian war; these are traditional tasks and to be expected. The Russian army integrates drones, or unmanned aerial vehicles (UAVs), as part of their *Reconnaissance Fire Complex*, and they have the ability to direct laser-guided artillery shells from drones. During the initial months of the war, many stories

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1 <https://www.thedefensepost.com/2022/05/24/russia-orlan-drones-ukraine/>

2 <https://www.oryxspioenkop.com/2022/02/attack-on-europe-documenting-ukrainian.html>

3 <https://www.oryxspioenkop.com/2022/02/defending-ukraine-listing-russian-army.html>

were told of improvised usage, or innovative solutions, where small Ukrainian units and special forces used drones for scouting and target localisation. Both the Russians and Ukrainians have improvised their use, for example by deploying small drones to drop grenades on troops. In Western media, small civilian drones are seen being used extensively by Ukrainian forces to document success stories for the information war.

Loitering munitions, often referred to as kamikaze drones, have been developed by several nations in the last decade and used in recent conflicts in Nagorno-Karabakh and Syria. The US has provided Ukraine with the relatively small Switchblade 300 and a few of the larger Switchblade 600, which has anti-tank capability. The US also sent a new version, the Phoenix Ghost, specially adapted for Ukrainian use. Ukraine also employs the Warmate, a Polish loitering munition. Russian forces have reportedly used their KYB-BLA, a delta-winged kamikaze drone with the ability to loiter for half an hour within a range of 40 km.

Drones have been used in warfare for many decades. The history of unmanned aircraft goes back to the end of World War I. Drones, in the original meaning of unmanned aerial targets used in missile development and testing, were developed in the early 1950s. In reconnaissance, they have been an indispensable tool for more than 60 years, and have also been used for targeting since the 1990s. In the wars in Afghanistan and Iraq, large drones were used extensively by the USA, both for reconnaissance and precision attacks with missiles. In the beginning of the Ukrainian war, in 2014–2015, Russia successfully demonstrated how to control artillery fires with drones.

During later conflicts in Syria, Libya, Iraq and Nagorno-Karabakh, smaller drones have been used for weapon delivery. In these conflicts, the Turkish MALE- (medium-altitude long-endurance) type drone, Bayraktar TB2, which carries laser-guided weapons, has been used extensively by Turkey and its allies. It is an example of increased systems efficiency, as for some tasks it can be as efficient as the older, and significantly larger, Reaper drone. There are substantiated reports of several hundred armoured vehicles being destroyed by TB2s.<sup>4</sup> In Ukraine, they have been successful against air defence systems and also, in a new application, against boats.

### **LESSONS LEARNED**

Overall, there are few surprises in the use of drones in the Russo-Ukrainian war. The lessons learned from the late 1990s, in the Balkans; the 2000s, in Afghanistan; 2014, in Ukraine; later, in Syria and Iraq; and 2020, in Nagorno-Karabakh, still hold. They are used for reconnaissance, to control artillery fires and to deliver precision engagement. The capability to efficiently engage moving targets with the – compared to the older systems – small TB2 was well demonstrated in Nagorno-Karabakh.

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4 <https://www.oryxspioenkop.com/2021/12/a-monument-of-victory-bayraktar-tb2.html>

Drones have for decades added an effective and important capability in ground warfare. Technological developments have made smaller drones cheaper and more accessible, as well as simpler to use. However, reporting in media regarding drones is biased, in the sense that successful missions are reported, and statistics on failures are lacking. The Ukrainian side, using drones to document engagements, is predominantly featured in Western media. The value and importance of drones is hard to overestimate; however, a drone is an advanced tool that needs knowledge and training to be used effectively. It has been used successfully by smaller Ukrainian units to acquire increased situational awareness.

## **COUNTERMEASURES**

The introduction of a large number of drones in warfare has also introduced the need for countermethods. Traditional air defence systems were designed to counter helicopters, bombers, and fast jets and, later, cruise and ballistic missiles. Larger drones are comparable to traditional aircraft, but smaller systems, from the TB2 down to small rotorcraft drones, pose a different threat. Air defence missiles are large and expensive and do not necessarily work well against smaller targets. Presently, the countersystems available have a shorter range than those of their opponents, the drones. A smaller drone can carry a sensor, which is effective at longer distances than what a comparably suitable countersystem can be effective at. Small drones are difficult to detect, as advanced radar systems are required to detect them at a meaningful distance.

Many drones are remotely controlled and dependent on satellite navigation; one countermethod is simply to jam those radio signals, i.e., through electronic warfare, an area in which Russia has a reputation for being particularly capable. A drawback of this method is that the jaming also affects the disturber and cannot be used continuously. It is debated whether smaller drones are easily detected and therefore risky to use. Interestingly, there appears to be a lack of capability on smaller Russian units to detect and counter smaller drones. This despite drones' known vulnerabilities against electronic warfare. There are reports from Ukrainian special forces that monitor the Russian radio countermeasures that whenever the Russian forces switch their countermeasures off in order to use their own drones, the Ukrainian forces take advantage of the moment to send up drones for their own surveillance. This illustrates that the use of drones, as well as counter-drones, requires well-developed procedures and trained forces. Other countermeasures include lasers and anti-aircraft guns, but the advantage currently seems to be with the drones, however, this could change rapidly.

Countermeasures also include signature reduction, e.g. camouflage, and mobility. Ukrainian forces are said to use "umbrellas" that prevent night-vision infrared cameras from detecting soldiers. Being able to redeploy faster than the sensor-to-shooter can react will dramatically reduce the effectiveness of the drones in the artillery targeting process. However, when a military unit is being transported, it is easily detected and vulnerable to such armed drones as the TB2, Punisher, or the Russian Orlan.

## **SUMMARY**

Drones are attracting much attention in the Russo-Ukrainian war. They are not new on the battlefield and have proven to be an essential tool for the forces. For the media, they are new as a tool in information warfare, when assaults and engagements are recorded to document success stories on both sides, although Ukrainian's warfare activities are the most visible in Western media. Small commercial drones currently have a niche as surveillance tools, being difficult to detect and counter without dedicated equipment, while armed drones seem to be effective against moving targets. Medium-sized drones, such as the TB2, have a lead over the countermeasures deployed against them, and pose a threat to air defence systems as well as armoured vehicles. Drones are indispensable in modern warfare and currently are partly ahead of corresponding countermeasures.

## **ABOUT THE AUTHORS**

*Martin Hagström* is Deputy Research Director and responsible for FOI's research programme in weapons and protection as well as unmanned autonomous vehicles. He has been active in the field for over 20 years.

*Lars Forssell* is a scientist at FOI working in the field of aerospace engineering and automation, and in valuation and analysis of the weapons and protection systems of the Swedish Armed Forces.

## 6. The War at Sea: Naval and Maritime Operational and Strategic Aspects of Russia's War Against Ukraine

Niklas Granholm, Linus Fast, Staffan Lundin

*When Russia renewed its attack on Ukraine on the 24<sup>th</sup> of February, the focus was for obvious reasons on the land domain. With the main lines of attack over land running from Belarus in the north, east from Russia and south from the occupied Crimean peninsula, the war in the Black Sea and in Ukraine's coastal zone has so far received less attention. The war at sea contains operational, strategic and military-technological aspects, with far-reaching effects beyond the region. The focus of this chapter is to provide an overview and analysis of some of those aspects and the war in the Black Sea.*

### **INTRODUCTION – THE WAR ON LAND AND AT SEA**

The classic concepts of naval warfare centre on the aim that one dominant part has to control the sea, both in order to prevent others from using it and thereby to monopolise its use for its own aims: *control of the sea* or *sea control*. The inferior party in a conflict aims to deny the dominant party sea control, usually described as *sea denial*. In the current conflict Russia is the dominant party, due to a numerically superior naval force, and Ukraine the weaker counterpart. Russia aims for sea control and Ukraine's aim is to achieve sea denial. This has set the pattern for the war at sea: Russia attacks Ukraine from the sea, and Ukraine defends its sea territory.

The fast-moving dynamics of the conflict complicate the analysis. Moreover, the accessible data is sometimes unreliable and filtered for reasons of operational security, ongoing information operations and pure propaganda purposes. Some aspects are harder to obscure, hide or misrepresent. Conclusions can only be preliminary. However, patterns in the open conflict can still be observed and assessed.

### **THE WAR AT SEA – COMPONENTS AND CHARACTER**

Russia's war aims, as far as they can be discerned, are to deprive Ukraine of access to the Black Sea, and severely limit its freedom of action and economic life by turning it into a landlocked state. Russia aims to achieve this by weaponising the export of grain, one of Ukraine's main products. By extension, Russia aims over the longer term for complete control of the Black Sea.

The two navies now clashing in the Black Sea are asymmetric in capabilities and numbers. Before the war, the Russian Black Sea fleet consisted of about 40 ships of various sizes. The background to the asymmetry is the 1998 agreement between Russia and Ukraine, with Russia taking about 80% of the naval assets



and Ukraine the remaining 20%. Russia also gained access to the Sevastopol naval base, and paid Ukraine rent. With Russia's attack on Ukraine in 2014, about three-quarters of Ukraine's remaining naval assets were lost to fighting or taken over by Russia. The asymmetry of capabilities was already stark before 24 February.

Ukraine's contestation of Russia's sea control has met with some success. A case in point is Russia gaining control, early in the war, of central islets through the capture of Snake Island (*Zmiinyi Ostriv*) in the northwestern Black Sea. These gains were in part reversed by Ukraine's sinking of the flagship of the Black Sea fleet, the Slava-class cruiser, *Moskva*, by a combination of anti-ship missiles and drones. Outdated Russian tactics, design flaws and gaps in the ship's fire-fighting routines, as well as an exhausted crew, probably contributed to the loss of the ship. The effects of the sinking were more extensive than at first perceived, mainly for three reasons.

Firstly, the risk of a Russian amphibious landing on the northern Black Sea coast receded, enabling the Ukrainian Armed Forces to redeploy substantial land forces in other threatened directions. After one of Russia's amphibious ships was lost to long-range missile strikes, the others redeployed out of range of Ukrainian missiles. Russian ships can no longer operate with impunity in the Black Sea, thus extending Ukraine's coastal defence zone.

Secondly, when the air-defence capabilities of the *Moskva* disappeared, this opened up for more sorties by the Ukrainian air force, contesting Russian control of Snake Island.

Thirdly, the loss of prestige suffered by Russia with the sinking of its flagship should not be underestimated. Taken together, this phase of the conflict at sea and in the coastal zone is a clear example of the value of a coastal defence capability: the operational-level effects enhance and enable further air and land operations.

Part of the war at sea is also characterised by extensive laying of sea mines on both sides, though the extent of these are difficult to ascertain. Ukraine probably laid minefields to protect its coast from an amphibious landing, while Russia has probably laid mines to blockade Ukraine's seaborne trade. Through the use of sea mines, Ukraine has reached a degree of sea denial against Russia, and Russia has in turn effectively blockaded Ukrainian seaborne trade. While Ukraine's coastal sea denial operation has met with some success, it has so far been unable to break Russia's de facto blockade. At the time of writing, an operational-level stalemate seems to have occurred at sea, while tactical battles continue over control of Snake Island to enable and respectively contest sea control over the northwestern Black Sea. Recently announced Western supplies of more capable long-range rocket artillery and anti-ship missiles can complement and strengthen Ukraine's coastal defence

operation, enabling a further extension and securing of the sea-denial zone. This will contribute to a weakening of the de facto Russian blockade, but cannot by itself enable reasonably safe and free-flowing seaborne trade through the Black Sea. For this to materialise, outside naval assets will be necessary.

Harder to assess more precisely is the role of intelligence support that Ukraine's Armed Forces have received from the Western powers. It seems probable that the intelligence picture is in parts transmitted in near real-time to Ukraine. It is likely that this has been a strong contributing factor to Ukraine's successes, so far, in their coastal defence operation.

### **NAVAL AND MILITARY TECHNOLOGY – GRADUAL TRENDS, OR BREAKTHROUGHS?**

The war in the Black Sea has seen a mix of old and proven classical technologies with some new components; their combination has enabled tactical success and operational advantage for Ukraine. It seems clear that the use of the sea mine has proved its worth to both sides. Sea mines contributed to substantially reducing the risk of a Russian amphibious landing in the northwest. For Russia, the use of sea mines effectively enabled the de facto blockade of Ukraine's seaborne trade.

Anti-ship missiles are not new, but have proved crucial for Ukraine's defensive efforts. Soviet-legacy missile systems, which Ukraine's indigenous defence industry could modernise, rename, and deploy as the Neptune system, proved valuable.

Drones have also shown their value. Here, the asymmetry in cost per unit proved valuable. A relatively inexpensive drone can detect an enemy vessel, provide jamming, act as an armed drone, or behave as a suicide drone that can cause serious damage. This applies equally on land and at sea.

### **SEABORNE TRADE UNDER BLOCKADE: STRATEGIC EFFECTS**

The de facto sea blockade that Russia's naval forces set up before the outbreak of hostilities in February has had effects both on the operational pattern and led to far-reaching strategic effects. The de facto blockade of Ukraine is illegal under international law, since it has not been officially declared by Russia. In the Sea of Azov, Russian control of the entry through the Kerch Strait made possible at least one amphibious landing and the support of the troops by sea.

Currently, around 80 merchant ships are bottled up in the ports of Odesa and Mykolaiv and other ports on the Ukrainian Black Sea coast. Since many of these ships are specialised on the grain trade, this adds to the global shipping shortage of suitable tonnage for grain, pushing prices even higher. Russian artillery and anti-ship missiles have hit several ships in port and at sea. At least one ship was sunk by sea mines when trying to pass through minefields. The crews in port faced difficult conditions lacking supplies and most of them have been evacuated.

The strategic effects of the undeclared de facto Russian blockade are far-reaching. Ukraine is one of the biggest exporters of grain (wheat, corn) and sunflower oil. About 22 million tonnes of grain are currently in Ukraine's storage silos and blocked from export. There is no further space to store the coming harvest, estimated to be about 75% of a normal year. While efforts are underway to export grain over land by rail, road and on barges on the Danube, there are serious bottlenecks due to lack of capacity and the difference in rail gauge between Ukraine and Western Europe. These routes can be expected to handle, at most, 10% of normal exports.

Due to the blockade, several nations in the Middle East, Africa and Asia that are heavily dependent on grain imports face substantially higher prices, shortages and in some cases outright famine. Food insecurity was already on the rise before the outbreak of hostilities. Some of these nations are already at the limit of their capacity to supply their populations, and could face serious unrest as a result. In the developments that led up to the Arab Spring, in 2010, the price of bread was a factor in the unrest that followed. The war at sea has clearly visible global follow-on effects at the strategic level.

To resolve the situation and open up seaborne trade, discussions for and against a Freedom of Navigation Operation (FONOP) have come to the fore. At the time of writing, it seems that pressure is mounting for such an operation, but there is as yet no clear openly available operational concept, assessment of the capabilities needed, or under what mandate it should be undertaken. If the current situation is not addressed, famine and increased instability with incalculable follow-on effects could soon be the result in vulnerable nations.

The passage of naval ships through the Bosphorus is yet another complicating factor for a FONOP. Under the 1936 Montreux Convention, Turkey has the right to refuse the passage of naval ships in case of the risk of war. Currently, Turkey has forbidden passage to both Western and Russian ships, while civilian trade can pass through the strait without hindrance.

A further argument for a FONOP in the Black Sea is to ensure that Ukraine can continue to earn foreign currency in order to pursue the war and support its population. Under peacetime conditions, Ukraine earns about 1,5 billion US Dollars a week exporting grain. It is estimated that about 60 billion US Dollars a year are needed to keep Ukraine in the war. The alternative is to donate funds directly to Ukraine, which might not be a good idea in the current global economic situation, riven by inflationary pressure.

There are thus two main arguments for a FONOP. While the situation for passage of naval forces into and out of the Black Sea is currently very limited, the need for an opening of Ukraine's seaborne trade is rapidly increasing. While a FONOP may currently seem difficult or undoable, part of the character of the land war has been that Western support has broken through self-imposed political barriers

as the conflict has progressed. The trend seems to be moving in the direction of some variant of a FONOP in the Black Sea, either under a clear international mandate, or through a coalition of the willing. It could either be undertaken with the acceptance of the warring parties, or without, which would affect its setup and requirements for capabilities. The so-called Tanker Wars, of 1986-87, in the Persian Gulf, when the US Navy protected the seaborne traffic from attacks by the Iranian Navy, thus enabling seaborne oil exports to continue, is a possible template for a Black Sea FONOP.

### **LESSONS TO BE LEARNED – THE CASE OF SWEDEN**

A comparison between Ukraine and Sweden from the perspective of the war at sea proves interesting. Ukraine has a long land border, but a relatively short coastline facing the Black Sea. For Sweden, the opposite applies, with 2700 kilometres of coastline. Its land borders are with friendly nations Norway and Finland, while Russia is one step removed. While the entire Swedish coastline is not of equal importance, our dependence on safe and functioning seaborne trade, energy transfer and telecommunications on the seabed is crucial to Swedish societal development, well-being and, ultimately, national survival.

Russia's war on Ukraine also shows the devastating effects of a land war on a country's territory. Upwards of ten million refugees and displaced persons, massive destruction of infrastructure and tens of thousands of civilians and soldiers killed and maimed has ensued so far. This provides a clear example that, in the event of open conflict in the Nordic region, the aim should be to keep the war outside Swedish land territory and ensure that it takes place in the air and at sea to the fullest extent possible.

When assessing a potential future conflict between Russia and Sweden, important lessons regarding naval and military technology are also to be learned from the war in the Black Sea. Given the geographical realities of the Baltic Sea region, any such conflict would have a significant naval and maritime component. At this stage in the ongoing conflict, the following observations can be made:

- Use of the sea mine continues to be hugely important in non-blue-water naval warfare. The ability to lay sea mines as well as possessing the capability to clear them are of paramount importance to any navy aspiring to relevance in modern naval warfare.
- Unmanned aerial systems, and the threat they pose, are a reality in modern war at sea, just as on land. They add flexibility and efficiency to the targeting process and to ordnance delivery, and the threat of that has to be reckoned with.
- Russian naval air defence is not impenetrable, as has sometimes been suggested. While that point was not unknown before the outbreak of this war, the sinking of the Moskva clearly illustrates it. The opposite conclusion, that Russian air defence is useless, is not supported, however.

- Shore-based anti-ship missiles can play an important role in the war at sea, extending the coastal defence zone several hundred kilometres from shore. Conventional subsonic radar-guided cruise missiles are not to be discounted out of hand. Shore-based batteries also enhance a coastal defence operation and provide operational advantages in other domains. However, the complementarity of seagoing assets and platforms is a requirement to challenge or negate an enemy striving for sea control.
- Anti-shipping warfare, aiming to blockade seaborne trade, is to be expected as part of any Russian aggression at sea. While the main Swedish port of Gothenburg is on the Swedish west coast, trade via that port will have to be kept open as long as possible. The coastal seaborne trade on the west coast, as well as via the ports around the Baltic Sea, are likewise central to keep trade operating, not least due to their centrality to the other Nordic and Baltic states. This will require credible escort resources, supported by an enhanced, recognised, maritime picture and mine countermeasure capabilities.

#### **ABOUT THE AUTHORS**

*Niklas Granholm* is Deputy Director of Studies at FOI, in its division for Defence Analysis. His fields of analysis and studies relate to geostrategic change in the Arctic, naval and maritime strategy, Nordic, transatlantic, European security and defence policy, space policy, nuclear strategic development and peace support/crisis management operations.

*Linus Fast* is Programme Manager Naval systems at FOI, at the agency's department Performance Analysis and Systems Assessment. Over the last 15 years he has been positioned at the Swedish Armed Forces Headquarter to assist R&D transfer and application to requirements and design of technical systems supporting military capability development.

*Staffan Lundin* is a scientist at FOI Division of Defence Technology. Fields of interest include, inter alia, air and naval weapon systems, air and missile defence, and non-proliferation of missile technology.

## 7. Cyber and Radio Activism in the Russo-Ukrainian War

Peter Stenumgaard, David Lindahl, Lars Moell.

*Cyber- and radio activists have had a considerably larger role in the information domain of the Russia-Ukrainian War than in previous conflicts. Here, we outline some observations about activists in two of the war's spheres, cyber and radio communications, to address how these issues should be considered in future military and civilian defence planning.*

### **CYBER-ACTIVISM**

#### **COMMUNICATION**

As early as the Kosovo War (1998–1999), activists organised e-mailing lists, allowing individuals to directly reach decision-makers in the UN and NATO, as well as media outlets all over the world. Propaganda and psychological operations (psyops) suddenly became tools available to civilian actors as well as states, and have been used by civilians in every war since. The current war in Ukraine is no exception.

In addition, modern social media have enabled individuals to self-organise on a global scale. For example, refugees in Ukraine use mobile phones to post requests for help on a webpage hosted on a server in the US, where an organiser sends this information directly to volunteer drivers in Poland who pick up the refugees via a route that locals report is temporarily safe.

This kind of activism is often overlooked in favour of the more exciting hacking attacks, but from a defence perspective this could be very important, since in a crisis every self-organiser lessens the burden on the government civil services. Simple preparations such as peacetime information campaigns might also increase the number and efficiency of activists.

#### **OPEN SOURCE INTELLIGENCE (OSINT)<sup>1</sup>**

Every step of the Russian invasion of Ukraine was posted on social media. Even before the invasion, Russian troop movements were shared, with photos or video, online. These were analysed and correlated by activists globally. Homebrew artificial intelligence programs read license plates on photos of vehicles, while other apps ripped geographical features and GPS information from the files to track unit movements. After the invasion, Russian troops were essentially moving through a dense sensor field, where every civilian could report activities that could then be collated and analysed by actors on the internet in near

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1 Intelligence analyses produced from publicly available information.

real-time. Also, far beyond the combat zone, civilian activists have been tracking the aircraft of Russian oligarchs through the ADS-B air-traffic positioning system and publishing this information on the Twitter account, “Russian Oligarch Jets.”

OSINT is clearly a force multiplier for defenders if it can be harnessed. An abundance of near real-time intelligence from many hard-to-verify sources is a new situation for intelligence services. But by training extra volunteer analysts in peacetime, and equipping the population with apps that can verify the senders’ identity and location, these problems might be mitigated.

However, this use of civilian information infrastructures might also make any public communication networks valid military targets, with disastrous consequences for civilian critical infrastructure. This is especially relevant given the trend of moving from local industrial control systems to virtualised services, such as Software as a Service (SaaS).

### **OFFENSIVE CYBER OPERATIONS BY CIVILIANS**

In 1990, hackers offered Iraq access to US Department of Defense networks, and patriotic hackers were a significant part of the pro-Russian cyber campaign during the 2008 Russian invasion of Georgia. Some aspects of civilian cyberattacks in wartime have changed only in scale; social media campaigns gain recruits faster than word of mouth previously did. And the use and downloading of ready-made and now available tools by recruits requires little competence, turning them into useful if amateurish attackers in a very short time.

But the ITA (IT Army of Ukraine) is something new. On 26 February the Ukrainian vice prime minister, Mykhailo Fedorov, called on volunteers for an “IT Army.” Activists from any country could log on to a Telegram channel where Ukraine would post “target data” on Russian internet sites that the volunteers could attack. No identification would be required and no communication other than target data would be sent. (They eventually added a web site with a click-to-download tool, as well as tutorials, a small but complete cyberattack starter kit, in other words). It was billed as a truly decentralised, crowdsourced cyber army in the official service of a nation state during a time of war.

However, it is clear that the volunteer army also has a large number of known Ukrainian members, deployed for defence of critical infrastructure, and some in offensive roles, effectively making the ITA a two-pronged cyber force, comprised of a defensive “cyber home guard,” with known members under state control, and an offensive swarm of anonymous internet irregulars who act independently.

The number of actual activists and their capabilities is hard to determine. Independent hacktivist organisations, such as Anonymous, have attacked many of the same targets; are they to be counted as part of ITA or separate? Also, it is very likely that other states’ cyberwar units have taken the opportunity to act, claiming to be activists, to strike at Russia while remaining plausibly deniable.

But it remains clear that a very large number of harassing attacks against Russian government and corporate sites have taken place. If one adds to this attacks against TV networks, Yandex and RuTube, to display propaganda, it is clear that the activist cyber assault on Russia must be costly and disruptive to many organisations and individuals.

But if activists do not understand how to protect themselves, they leave data trails that can be exploited. Russian artillery have targeted civilian houses, based on GPS data accompanying photos that activists have posted online, while at least one attack app, posted online for ITA use, uploads information about an activist to Russian servers when used. It remains to be seen whether cyber activists will face counterattacks from Russian cyberwar units, or activists, or legal retaliation, for their activities.

### **RADIO ACTIVISM**

Already during the first weeks of the Russian attack on Ukraine, it was reported that civilian radio activists were eavesdropping Russian unencrypted military radio communications and publishing recorded sequences on the internet. This was done for example on the HF band (Short Wave), where recorded transmissions from Russian aircraft bombers were published. Activists also claimed that they had been jamming Russian radio frequencies, for example by transmitting the Ukrainian national anthem on Russian military frequencies.

Western media noted that Russian military forces used unencrypted radio communications. The *New York Times* (NYT) started a cooperation with civilian radio activists and reported on the content in material recorded from Russian military radio communications. News reports have been posted where remote-controlled (via internet) radio receivers of software technology (SDR – Software-Defined Radio) have been provided to activists who themselves do not have to be skilled in radio technology, but can use these tools to collect and record Russian conversations via internet. The organisation, Ukrainian Radio Watchers (URW), is a group of people who eavesdrop on Russian military radio communications; the organisation is provided with a virtual data server for storage of recordings. Even non-members can use the URW web page to listen to recorded sequences.

Since eavesdropping by civilian activists can be used for deception through intentional transmission of false information, it is of vital importance to verify the authentication of recorded information. One way of doing this is to compare recorded voice sequences with other knowledge about Russian troop movements. When the civilian radio activists received large space in the news media, lists of frequencies that were claimed to be in use by Russian troops started to appear on the internet. This proved to be false information, probably with the purpose of misleading the civilian activists.



The eavesdropping activities of radio activists led to a larger open discussion about why the Russian military forces are using unencrypted communication services to the large extent indicated by open sources. Several hypotheses have been suggested, for example:

- Corruption in the Russian defence procurement system has led to delivery of a lower number of encrypted radio systems than what was ordered.
- The use of encryption requires both training and well-functioning logistics. Since weaknesses in the logistics support of the Russian units have been observed, in general, it is not unreasonable to assume that such weaknesses even exist in the logistics of encryption use.
- The Russian forces have not considered encryption to be necessary for the way the war has been handled so far. Therefore, the risk of eavesdropping has been accepted.
- Unencrypted transmissions have been deliberately used by Russia for the purpose of deception. An argument against this hypothesis is that several examples of recorded material have been shown to corroborate well with observed Russian activities on the battlefield.

Since reports on civilian radio activities have been part of the information war, it is important to determine what can be verified on safe grounds. As an example, a check of the SDR receivers described above shows that these are limited in quantity and can only detect Russian radio communications within a few kilometres of a transmitter in the so-called VHF band (Very High Frequency 30–300 MHz). However, in the HF band (3–30 MHz), very long-distance radio transmissions can be detected. In that case, it is nonetheless very difficult to determine geographically where the signal has been transmitted from.

One media narrative is that inadequate communication systems forced the Russians to use civilian mobile networks to maintain contact between the front forces and command and control functions over greater distances. There was also a rumour that Russian forces had an encryption solution customised to civilian mobile systems (3G/4G), so that when the Russians destroyed civilian base stations, they rendered their own encrypted solution non-functional. However, it has not been possible to verify this description via open sources. An alternative explanation suggests that such an encryption solution has not been operative from the beginning, and that the story about destroyed base stations was fabricated by Ukraine as part of its information warfare.

Sound recordings by radio activists could contribute to the collection of evidence of war crimes in a manner unavailable from mobile phone use, since Russian forces reportedly put limitations on mobile phone usage in occupied areas. Because it is not possible to impose corresponding limitations on radio systems,

since the latter are not dependent on mobile networks, voice recordings from radio communications may constitute evidence for war crimes. An example is voice recordings, published by NYT, that are claimed to prove that Russian forces were withdrawn from Makariv (approximately 60 km west of Kyiv) in order to start artillery attacks on civilian residential areas. However, since it is easy to fabricate false voice recordings, it is not likely that this material can be used as single evidence, but, together with other verifiable information, recordings of radio communications can be one piece of a larger puzzle in war crimes investigations.

## **CONCLUSION**

Cyber-activism has evolved from simple messaging to being a force multiplier that may decide the narratives of conflicts and allow the formation of global organisations virtually overnight. So far, cyber-activists in an offensive capacity have had little effect on the actual fighting. But this activity has the advantage of striking directly at the enemy population. It is also a weapon that comes at no cost, other than being grounded in a cause that the activists believe in.

What does this mean for defence planning? First, any adversary will have cyber- and radio activists working for them. If you are defending, this is a potential cost-efficient contribution to both your information war and propaganda, as well as your situational awareness. If you are attacking, your conventional forces can never hide. Second, being an efficient tool for defenders and attackers alike requires preparations, such as providing both the hardware and software that enables activists to act, for example apps and training in how to use them. Crucially, governments and planners also need to ensure adequate control over the employment of activists. Sympathy for a cause often drives activists. If lost, activists can turn themselves off, or even worse, turn against you.

## **ABOUT THE AUTHORS**

*Peter Stenumgaard* has a PhD in Radio Communication Systems and has 25 years' experience in research within radio communication. He is currently head of the department of Robust Telecommunications at FOI.

*David Lindahl* is a Research Engineer at FOI with an MSc in Computer Science. He has worked in cybersecurity and cyberwarfare research since 1999 and is also involved in cybersecurity training and exercises for personnel working in critical infrastructure facilities.

*Lars Moell* is a Senior Scientist at FOI with an MSc in Electronics. He has 40 years' experience in research on electronic warfare in the HF and V/UHF areas.



## 8. Propaganda in the Russian War Against Ukraine – A Swedish Perspective

Ola Svenonius, Sofia Olsson

*Only a few months ago, not many experts would have anticipated the Russian military campaign against Ukraine that began on 24 February 2022. The invasion had been preceded, however, by an extensive information influence campaign. Russian official sources, state-controlled media outlets, and social media accounts had pushed a narrative of the Ukrainian leadership as fascist and that there was an ongoing genocide in Luhansk and Donetsk. While this campaign had been underway since 2014, it culminated just before the attack.<sup>1</sup> Since then, there have been many shifts and turns regarding the continuing information war between Russia, Ukraine, and, to some extent, the West. Sweden is no exception.*

This chapter discusses the information environment after 24 February focussing on Russian and Ukrainian efforts to influence different audiences. It proceeds to discuss the issues of Swedish self-centredness with respect to the war, and the implications for Sweden's psychological defence.

### **REGIONALISATION AND PROPAGANDA IN THE INFORMATION ENVIRONMENT(S)**

The world has been surprised by the strong Ukrainian mentality of resistance, the population's (as well as some internationals') willingness to defend and the resolve with which the Ukrainian Armed Forces (UAF) has fought the Russian army. As described in Chapter 7, the Ukrainian side has been aided by many activists and individual social media users. A wealth of Twitter threads, meme accounts, and Telegram channels are devoted to spreading information to assist the Ukrainian resistance and to promote its perspective in the war.

The invasion of Ukraine clearly shows that the information environment cannot be understood as a single field of activity, but rather consists of a multitude of smaller environments that are partly and unevenly overlapping. The European Union banned certain Russian media outlets, and Russian authorities increasingly seek to control the "Russian sovereign Internet," including denial of access to Twitter, Facebook, and Instagram. TikTok filters certain content in Russia. In combination with the ban on reporting on the war, which effectively put a halt to many news media outlets' activity inside Russia, the development towards a regionalisation of the information environment has accelerated after February 24th. The Internet, which began as a freely accessible network of open information is increasingly a sphere of political, geographical and technical boundaries.

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1 EUvsDisinfo. "Grotesque Kremlin Farce Turns into a Bloody Tragedy". *Disinfo Review* (blog), 24 February 2022. <https://euvsdisinfo.eu/grotesque-kremlin-farce-turns-into-a-bloody-tragedy/> (last accessed: 13 June 2022).

## PROPAGANDA AND DISINFORMATION, YES, BUT DIFFERENT AUDIENCES

Both Ukrainian and Russian actors seek to control the narrative of the war by means of propaganda and disinformation. Despite the initial silence from Russian sources regarding the military's progress, and ideas about Ukraine's (and Sweden – see below) winning the information war, our understanding of the conflict's informational dimension has with time become more nuanced. Not only regionalisation plays a role here; the social media platforms' algorithms contribute to a polarisation of the information environment. Following #UkraineWar on Twitter shows the Ukrainian side "winning" the ongoing information struggle, whereas the hashtags #IStandWithPutin and #IStandWithRussia collect content with a quite different image.

Ukrainian and Russian content, respectively, largely focuses on different audiences. Whereas Ukrainian actors focus on Europe and North America, Russian covert information efforts are more concerned with China, India, Brazil, and North Africa. Also, the Balkans have been of particular interest for Russian information influence for a number of years, which is reflected in how a much higher share of the populations in the Balkan countries are sympathetic to Russia's cause and motives.<sup>2</sup>

Russian official channels and state-controlled media primarily seek to generate domestic support for the "special military operation." This is reinforced by the regionalisation discussed above – large segments of the Russian population face an information environment that is very different from that of Western users. Even though channels where Russians can access independent reporting are available, several mechanisms are at play that promote the support for the war. For example, fear of retribution by the state, genuine support for the Russian leadership, and Soviet nostalgia are all believed to contribute to the choice that many people make to either ignore the conflict or align with the state's interests. Even talking about "the war" may be punishable by imprisonment of up to 15 years and, given the Russian state's far-reaching attempts to control the Internet, it is not surprising that opinion polls show high approval ratings for both the war and for Putin himself.<sup>3</sup>

Ukrainian official sources, in turn, have been very active in generating support for their country abroad and maintaining high morale domestically. The Ukrainian Internet usage patterns have changed since 2014, when Russia illegally annexed Crimea. Then, the Russian VK platform was the most popular in Ukraine. Today,

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2 bne IntelliNews. "Serbians Blame US and Nato for Ukraine War". *bne IntelliNews*, 14 mars 2022. <https://intellinews.com/serbians-blame-us-and-nato-for-ukraine-war-237960/> (last accessed: 13 June 2022).

3 It is clear, however, that these figures are unrealistic. Fear of uttering critique against the Russian leadership, expressed in very low response and participation rates, makes the validity of such figures highly questionable. Nevertheless, such statistical evidence, in the absence of many other ways to gauge political support, is of great importance to the Russian leadership, for propaganda reasons. See: Chapkovski, Philipp, och Max Schaub. 2022. "Do Russians Tell the Truth When They Say They Support the War in Ukraine? Evidence from a List Experiment". London School of Economics, EUROPP blog. (22 June 2022).

Western social media platforms are more widely used. One prominent feature of Ukrainian information influence is the use of memes. The distribution of memes is an Internet phenomenon that is highly flexible, ambiguous, and works on several levels. The same meme can reflect honest opinion, humour, and sarcasm at the same time. A meme is basically a picture with a short text added, but normally the images are manipulated, which is part of the meme culture.

Ukrainian memes have become an effective propaganda tool, because they are both earnest and humorous at the same time. Memes ridicule the Russian soldiers and President Putin, and boost the morale of the Ukrainian army. They have posited Ukrainian fighters as David versus Goliath; ridiculed the way that Russian tanks have been towed off by Ukrainian farmers' tractors; and touched upon issues such as the Ukraine-NATO relationship, the sinking of the cruiser Moscow, and Russian soldiers' plundering of Ukraine. Much of this activity has surely arisen spontaneously, but much of it is supported by one of the many organisational units in the UAF, or the government office with tasks related to information. One example of this was the early posts with the "Ghost of Kyiv," a fake pilot said to be responsible for the destruction of a large number of Russian fighter jets. The strategy, by inference, has likely been to create information superiority on social media platforms such as Twitter, Instagram and TikTok. While Western audiences may subscribe to the opinions posted by such memes, the posts nevertheless constitute a propagandistic tool of persuasion that has become highly utilised on social media.

### **SWEDEN AND UKRAINE, BUT MOSTLY SWEDEN**

In Sweden, whose flag shares the same colours as Ukraine's, one could almost be led to believe that the many blue and yellow ribbons on social media and on pins and flags are a celebration of Sweden, or at least an acknowledgement of our affinity to Ukraine. Throughout the chain of events that led to the present situation, one of the surprising aspects of the war has been the tendency of the Swedish debate to focus on, well . . . Sweden. Sweden has also been affected by information operations, both before and during the war. Roughly a month prior to the attack, a campaign against the Swedish social services authorities caused much debate about external influence and polarisation in the country.<sup>4</sup> Parallel to this, a wave of TikTok videos and Instagram posts targeting young users showed main attack vectors in Sweden and the main areas likely to be hit. How would Sweden manage a Russian attack? Why did the Swedish Armed Forces remilitarise Gotland? News items reported about Swedish children crying themselves to sleep, and suddenly the debate in Sweden focused on what would happen *here*, instead of what was happening on the Russian-Ukrainian border. This tendency has been maintained throughout the war.

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4 TT. 'Bilderna av ett Sverige i krig sprids på Tiktok' [Images of Sweden at War Spread on TikTok]. *DN.SE*, 16 January 2022. <https://www.dn.se/sverige/bilden-av-ett-sverige-i-krig-sprids-pa-tiktok/> (last accessed: 13 June 2022).

A brief timeline illustrates this tendency. First was the immediate horror of the invasion itself. What did it mean for European, and more importantly, Swedish security? Then came the feeling of success, as Russian propaganda seemed absent. Were Ukraine and the West (including Sweden) winning the information war? It seemed that Russian propaganda machinery was completely focused on domestic opinion and on pushing increasingly implausible lies about the fascists in Ukraine. After this came the question of Ukrainian refugees. Would there be a crisis like the one in 2015? How would Swedish authorities manage to take care of the Ukrainian refugees if they came in large numbers? Following this was the NATO debate: Would NATO membership be profitable for Sweden? What were the risks for Swedish security? Why would we ally ourselves with a military pact spearheaded by a country that could someday elect a leader who we would not like? The Russian demands on Swedish submission to its geopolitical and regional interests seemed self-evident. The main question in the end was whether Finland would join faster than us, and whether Swedish continued military non-alignment would in the end have put Finland more at risk. Then came the Russian influence campaign portraying Swedish national heroes – Astrid Lindgren, Ingmar Bergman, Ingvar Kamprad, and former king Gustav V – as Nazi sympathisers.<sup>5</sup> The campaign was restricted to two posters in Moscow, but nevertheless kept the Swedish public debate preoccupied for an entire week in early May. Finally, by the end of May, #Swedengate arrived.<sup>6</sup> Another week of self-reflection ensued. Are Swedish people cheap, bad hosts? Is Sweden a racist society? Was #Swedengate fuelled by Russian trolls or bots? (Perhaps it was, to some extent, although most of the engagement on social media was likely genuine). In sum, the Swedish perception of the war in Ukraine has been quite centred on what it means for Sweden.

The many humorous tweets, Instagram posts, and TikToks about Sweden aside, this self-centred tendency tells an important and interesting story. It tells us that the Swedish audience can be fairly gullible, even in situations where antagonistic information campaigns can be expected. It tells us about the Swedes' sensitivity to social media trends; the population is likely "crisis-weary" and people are searching for easy, digestible content. Under the surface, however, there are more serious mechanisms at play that we today know little about. For example, how well did the Swedish public sector survive the Covid-19 pandemic, in terms of institutional trust? How polarised is Swedish society in terms of political ideals, social trust, and tolerance? How does political polarisation affect societal cohesion? The willingness to adopt, discuss, and spread sensationalist narratives about Swedish culture (regardless of whether it is coordinated or not) is rather high and this has surely not gone unnoticed by antagonistic actors, for example

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5 Reuters. 'Posters Appear in Moscow Accusing Famous Swedes of Backing Nazism'. *Reuters*, 6 May 2022. <https://www.reuters.com/world/europe/posters-appear-moscow-accusing-famous-swedes-backing-nazism-2022-05-06/> (last accessed: 13 June 2022).

6 Heil, Emily. 'Do Swedes Truly Not Feed Their Young Guests? Maybe Once upon a Time.' *Washington Post*. 4 June 2022. <https://www.washingtonpost.com/food/2022/06/04/swedish-hospitality-debate/> (last accessed: 13 June 2022).

in Russia. While the Swedish population is fairly media-literate and state agencies and media actors are knowledgeable about the risks of information influence, this does not seem to be enough. Being susceptible to disinformation and propaganda is only partly a matter of individual capacities for source criticism and awareness. It may equally depend on more general societal factors, such as cohesion, trust, and tolerance.

The Swedish system of countering antagonistic information influence campaigns is domestically referred to as “psychological defence.” It is not the sole responsibility of one single actor, but, rather, of a long list of public actors, each responsible for its own societal sector. For example, the Swedish Institute is responsible for the image of Sweden abroad, the Swedish Food Agency is responsible for questions of nutrition, and the Swedish Election Authority is responsible for questions about the upcoming general election. Psychological defence is thus the sum of all the individual actors’ activities that collectively aims to produce a high level of resilience against information influence, antagonistic propaganda, and disinformation.<sup>7</sup>

Psychological defence is part of the more comprehensive system of “total defence.” On 1 January 2022, a new government agency was created to coordinate and oversee the development of the psychological defence system. The Swedish Psychological Defence Agency (Known by its Swedish acronym MPF) is a small organisation with two main branches, under the authority of the Ministry of Justice: one operative department and one for capacity-building activities. How the agency will interpret and carry out its mission is still, at the time of writing, not entirely clear. What is clear, however, is that the agency has a daunting task ahead. Journalists, other state agencies, and private organisations alike look to the MPF for guidance. At the same time, the agency’s position is precarious – as recently as the Spring of 2022, the US Department of Homeland Security caused political controversy by trying to create a similar agency under its auspices, the *Disinformation Governance Board*. Protests eventually led to the cancelling of the board.<sup>8</sup> In the United Kingdom, the secretive Counter-Disinformation Unit under the Department for Digital, Culture, Media and Sport has caused many questions similar to the US case, regarding censorship and political control.<sup>9</sup>

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7 Svenonius, Ola. 2021. ”Det psykologiska försvarets legitimitet i opinionen: Var går gränsen?” [The Legitimacy of the Psychological Defense in Public Opinion: Where is the Limit?] *Journal of the Royal Swedish Academy of War Sciences/Kungl Krigsvetenskapsakademiens Handlingar och Tidskrift* (4): 87–109. <https://kkrva.se/hot/2021:4/svenonius-det-psykologiska-forsvarets.pdf> (last accessed: 13 June 2022).

8 Lorenz, Taylor. ‘How the Biden Administration Let Right-Wing Attacks Derailed Its Disinformation Efforts’. *Washington Post*. 18 May 2022. <https://www.washingtonpost.com/technology/2022/05/18/disinformation-board-dhs-nina-jankowicz/> (last accessed: 13 June 2022).

9 O’Kane, Caitlin. ‘Disinformation Governance Board to Tackle Spread of Misinformation in U.S., Focusing on Russia and U.S.-Mexico Border’. *CBS News*, 2 May 2022. <https://www.cbsnews.com/news/disinformation-governance-board-russia-us-mexico-border/> (last accessed: 13 June 2022).



Depending on how the situation develops, the Swedish MPF could become the target of similar political attacks, while the war in Ukraine, with the implications for Swedish security that follow, may put Sweden to the test.

## **CONCLUSION**

The war in Ukraine, Russian propaganda, and Swedish reactions thereto provide some insight into the challenges posed by the information environment during conflict and in peacetime. The threat posed by the Russian Armed Forces may not be directly pointed at Sweden, yet the Swedish audience partly reacted as if it were. During May, as the Swedish application to NATO was being most hotly debated, Russian actors managed to divert the attention of Swedes for about a week using very simple means. The susceptibility to such information operations will likely also remain high in future. What is more, the information operations themselves, as shown by the Ukrainian memes and the example of the Russian TikToks about the possibility of an imminent attack on Sweden, need not be very sophisticated in order to be effective. If we face more refined attempts in the future, for example using deep fakes or artificial intelligence that reacts to the reception of certain manipulated information, it is likely that these will be successful, too. Swedish psychological defence will face these challenges and – while this may sound cynical – the war in Ukraine will continue to provide us with a chance to, yet again, look at ourselves.

## **ABOUT THE AUTHORS**

*Ola Svenonius* (PhD) is senior researcher and research coordinator focusing on information influence and disinformation. He has been active in this field, at FOI, since 2018.

*Sofia Olsson* (MA) is an analyst focusing on strategic communication. She has been active in this field, at FOI, since 2021.

## 9. Russian Accusations Against the United States of Running Military Biological Laboratories in Ukraine

Per Wikström

*Russia has long accused the US of conducting research activities in former Soviet states, including Ukraine, with the aim of developing biological weapons. The Kremlin thus claims that the US is violating the 1972 Biological and Toxin Weapons Convention (BTWC). This rhetoric has intensified during the first months of the Ukraine war. The allegations are unfounded and are examples of Russian disinformation.*

### **LONG HISTORY OF RUSSIAN ALLEGATIONS TOWARDS THE US**

Since 2005, the United States has financially supported public health and veterinary laboratories in not only Ukraine, but also in Georgia and other former Soviet republics, as well as in African countries. This is done within the framework of the Biological Threat Reduction Program (BTRP) that has been part of the American Cooperative Threat Reduction Program (CTR) since the 1990s.<sup>1</sup>

The aim was initially to eliminate and demilitarise the bioweapon facilities that remained from the former Soviet Union. In recent years, the focus has been on improving the standards at these laboratories, raising the level of biosafety and biosecurity, and helping to improve public and animal health. The laboratories are not American, but owned and operated by the countries in which they are located.

Research activities with dangerous infectious agents for peaceful purposes are conducted in Ukraine, as in most other countries. Because they are peaceful they are explicitly permitted under the BTWC. Bacteria and viruses that cause diseases such as anthrax, tularemia, or Crimean-Congo hemorrhagic fever, among others, occur naturally in Ukraine. Therefore, research on these and other infectious agents is important for maintaining good public health, which is pursued through the early detection of disease outbreaks or the development of vaccines and medicines, and does not in itself involve the development of biological weapons.<sup>2</sup>

In particular, the *Richard Lugar Center for Public Health Research*, in Tbilisi, Georgia, has been the subject of Russian accusations for years. The Russian regime has accused the United States of conducting military biological research at this

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1 National Research Council. 2007. The Biological Threat Reduction Program of the Department of Defense From Foreign Assistance to Sustainable Partnerships. Washington, D.C.: The National Academies Press. <https://doi.org/10.17226/12005>.

2 Jakob U. et al. Russian allegations of biological weapons activities in Ukraine. Peace Research Institute Frankfurt – PRIF blogg. 22 March 2022

centre. In 2018, representatives of the centre invited an international group of experts to inspect the premises and operations. The 22 people, from 17 countries, who participated in the visit found that the laboratory exhibited its activity with “significant transparency” and found nothing more than that the staff works with legitimate preventive public health issues.<sup>3,4</sup> Russia, notably, declined to take part in this transparency visit.

At meetings of the UN General Assembly and the BTWC in 2021, China joined the Russian criticism of the US “military biological laboratories” abroad,<sup>5,6</sup> and made a similar statement during the opening ceremony of the 2022 Beijing Winter Olympics. Since 2020, Russian propaganda channels have increasingly raised accusations against the US that specifically concern laboratories in Ukraine.<sup>7,8</sup>

### **RUSSIAN INSINUATIONS AND DISTORTING FACTS**

In the weeks following the Russian invasion of Ukraine, the Russian regime repeatedly described which of the activities at the US-backed Ukrainian laboratories that they meant constituted violations of the BTWC. This presented several textbook examples of Russian disinformation. Facts, such as those describing planned and ongoing research projects at several Ukrainian laboratories, were presented with varying degrees of detail and then mixed with insinuations from Russian spokespersons that the biological research is for military use, and aimed to “destabilise the epidemiological situation.” This kind of disinformation has repeatedly been achieved by quite innovative use of ambiguous formulations.

One example of such distortion of facts is the Russian description of a project where researchers study whether certain viruses occur in, and thus can be naturally spread by, migratory birds. Here, Russia uses the following wording: “... to study the possibility of the spread of particularly dangerous infections through migrating

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3 Foreign Experts: Lugar Lab is transparent in its activities. 18 Nov 2018. <https://civil.ge/archives/266268>

4 Transparency visit to the Lugar Center, Georgia: An Independent Report. BWC/MSP/2018/WP.11 Meeting in Geneva 4-7 Dec 2018

5 Remarks by Ambassador Geng Shuang on the Release of the Joint Statement by the Foreign Ministers of China and the Russian Federation. <https://documents.unoda.org/wp-content/uploads/2021/10/ga-76-fc-gd-china-en.pdf> 7 Oct 2021

6 Joint Statement by the Foreign Ministers of the People’s Republic of China and the Russia Federation on Strengthening the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. <https://documents.unoda.org/wp-content/uploads/2021/11/CHN-RU-Joint-Statement-EN.pdf> Nov 2021

7 Biolaboratories in Ukraine pose a very serious danger. (Russian) Novoross.info <https://www.novoross.info/politiks/64542-biolaboratorii-na-ukraine-predstavlyayut-ochen-sereznyu-opasnost.html> 15 April 2021

8 DISINFO: THE US DEVELOPS BIOLOGICAL WEAPONS IN UKRAINIAN LABORATORIES. EU vs Disinfo. <https://euvsdisinfo.eu/report/the-us-develops-biological-weapons-in-ukrainian-laboratories> 23 Oct 2020

birds. . .”,<sup>9</sup> which could be interpreted as meaning that the researchers investigate whether birds could be used to deliberately spread infectious agents. The latter would be an illegitimate activity, while the actual purpose was to study the natural spread of viruses.

Another similar example is a project that investigates what infectious agents can be found in bats. The Russian wording to describe the project reads, “where bats are considered as carriers of potential biological weapons agents.”<sup>10</sup> This wording insinuates that the research focus is on whether bats could be used to deliberately spread such infectious agents to humans. Russia also emphasises that this project is being conducted near the Russian border, and that it also includes what they call, “Pentagon-controlled” Georgian laboratories.

In the early days of the invasion, the World Health Organization (WHO) asked Ukrainian laboratories to destroy certain collections of microorganisms that could pose a danger to the environment if they were to go astray as a result of having to abandon the laboratories because of armed attacks.<sup>11</sup> Russia also chose to consider this as proof that unauthorised activities are taking place at these facilities.<sup>12</sup>

#### **INFECTIOUS DISEASES COMMON IN CONFLICT ZONES**

Infectious diseases are common during armed conflicts, as sanitary conditions deteriorate and it can be difficult to obtain clean drinking water and sufficient quality and quantities of food. Such naturally arising disease outbreaks could play into the hands of the Russian regime, as the regime could claim that the outbreaks were caused by infectious agents from laboratory activities that previously had been pointed out as suspicious. Cholera is a disease associated with drinking water contaminated by, for example, wastewater. Cholera outbreaks sometimes occur in Ukraine, and there are media reports that Russian authorities are preparing to protect themselves from cholera outbreaks close to the Russian-Ukrainian border.<sup>13</sup>

Another example of disinformation linked to outbreaks of infection dates from 2016, when the intelligence services of the Russian-backed separatist leadership in Donetsk claimed that an outbreak of Californian flu, which would have been caused by a new deadly virus, had resulted in the deaths of 20 Ukrainian soldiers and that 200 people needed hospital care. On this occasion, it was claimed that

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9 Russian Note Verbale 2022-0316. Russian permanent mission at UN. 16 March 2022

10 *ibid*

11 EXCLUSIVE WHO says it advised Ukraine to destroy pathogens in health labs to prevent disease spread. Reuters. <https://www.reuters.com/world/europe/exclusive-who-says-it-advised-ukraine-destroy-pathogens-health-labs-prevent-2022-03-11/> 11 March 2022

12 Russian Note Verbale 2022-0316. Russian permanent mission at UN. 16 March 2022.

13 Russia bracing for “cholera epidemic” in regions bordering Ukraine – intel. Ukrinform. <https://www.ukrinform.net/rubric-ato/3473178-russia-bracing-for-cholera-epidemic-in-regions-bordering-ukraine-intel.html> 2 May 2022

the virus had leaked from a laboratory in Shelkostantsiya, where US military experts allegedly worked. The information was refuted by Ukrainian authorities.<sup>14</sup>

In addition to accusations of US-backed Ukrainian “military biological laboratories,” representatives of the Russian regime have accused Germany of collecting blood samples from Ukrainians, with the aim of mapping Slavic DNA so that the US and its allies could develop biological weapons designed to infect different ethnic populations.<sup>15</sup>

#### **RUSSIAN DISINFORMATION AND ALLEGATIONS CONCERNING THE BIOLOGICAL WEAPON AREA LIKELY TO CONTINUE**

Overall, Russian accusations against the US of suspected or illegal activities in the field of biological weapons are not a new phenomenon. During the 1980s, the Soviet Union blamed the US for developing and spreading HIV, and during the Korean War the US was accused by the Soviet Union, along with China and North Korea, of spreading infectious diseases in both of the latter countries.

There is no sign that this kind of rhetoric will subside in future. The biological field is just yet another arena where Russia can fight a disinformation war. Through such accusations, the Kremlin can sow doubt among individuals and groups outside Russia who indulge in conspiracy theories, and also unite the indigenous Russian population by depicting the United States as a major threat.

#### **ABOUT THE AUTHOR**

*Per Wikström* is a researcher at FOI's Division of CBRN Protection and Security. He primarily works with non-proliferation issues and threat assessments regarding the antagonistic use of biological substances.

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15 Russian Note Verbale 2022-0316. Russian permanent mission at UN. 16 March 2022

# 10. The Discussion About the Legality of Russia's Methods of Warfare in its War Against Ukraine

Pontus Winther, Jessica Appelgren

*Since 24 February 2022, reports of alleged Russian violations of the law of armed conflict have been numerous. At the time of writing this article, the armed conflict is still ongoing, and it remains too early to reach definite conclusions related to all of the allegations. Instead, this article contains some tentative observations about how the legality of Russia's methods of warfare have been discussed in the West, as well as some thoughts about the consequences that this may have for Sweden in future.*

## THE WESTERN DISCUSSION

Russia's full-scale invasion of Ukraine, which began on 24 February 2022, is a flagrant violation of the most central rule in international law – the prohibition of the use of force. While this is an undisputed fact, at least outside of Russia, it is not the subject of this article. Instead, the concern here is with another legal aspect of the Russian aggression. Almost four months into the invasion, there are countless reports in the West, including Sweden, about Russian war crimes and similar violations of international law. This article touches upon three questions related to this fact. The first concerns how the legality of Russia's methods of warfare has been discussed in the West during this period. The second relates to what is actually known about the legality of these methods. The third and last revolves around what knowledge is in fact required to make clear statements about their legality. The responses to these questions may provide some indications of how the law of armed conflict (LOAC) is perceived as a protective regime for civilians. They may also generate some ideas as to what conclusions could be drawn from a Swedish perspective.

In the West, one of the major discussions about Russian methods of warfare touches upon deliberate attacks on civilians or civilian property, and attacks on military objectives that affect civilians and civilian property in an indiscriminate way. For an outside observer, these discussions have been epitomised by reports of the demolished Mariupol maternity ward; of the collapsed theatre in Mariupol, with hundreds of civilians trapped in the basement; and of dead people lying in the streets of the Kyiv suburb, Bucha. As a reaction to these reports, the calls for criminal sanctions on those responsible have echoed in the West. Moreover, numerous calls have been made for politicians and other officials, as well as for military and legal experts, to declare whether certain acts or situations amount to war crimes, crimes against humanity, or genocide. Many commentators have indeed also made such judgements.

It should be emphasised here that it is unquestionable that violations of LOAC have been committed by Russia and members of the Russian Armed Forces. It should also be emphasised that every killed or wounded person (whether Ukrainian or Russian, civilian or combatant, man, woman or child) is a tragedy for those closely affected, and that the outrage over the effects of Russia's warfare is completely understandable. At the same time, it must be pointed out that it may often be difficult to judge from (or in) media reports whether killed or wounded civilians or destroyed property are the results of warfare in violation of LOAC. It may be even more difficult to determine that they amount to *criminalised* violations, for example war crimes.<sup>1</sup> This is worth pointing out, because while it seems to be generally known that, according to LOAC, neither civilians nor civilian property may be the object of attack, it sometimes appears to be overlooked that LOAC does not provide civilians and civilian objects a complete protection from the effects of war. In the following, some of the central rules of LOAC are discussed from this perspective.

### THE REALITIES OF THE LAW OF ARMED CONFLICT

During armed conflict, LOAC governs the parties' methods of warfare.<sup>2</sup> LOAC is devised to strike a balance between, on the one hand, the necessity of using military force to subdue the opponent and, on the other hand, the humanitarian considerations to respect and protect civilians and civilian property as far as possible while carrying out the hostilities. This balance of military necessity and humanity means that in armed conflict, civilian death or injury, or destruction of civilian property, does not *necessarily* imply that there has been a violation of LOAC. For example, according to Article 51 of the first additional protocol to the 1949 Geneva Conventions (GC AP I), civilians lose their protection from attack if, and for such time as, they take a direct part in the hostilities. This means that a civilian person who uses weapons against the opponent, or in other ways directly obstructs the opponent's military operations, runs the risk of being considered as directly participating in hostilities, and thereby, for the duration of that participation, becoming the object of attack. Thus, it is often difficult to state whether an act causing death or injury constitutes a violation of LOAC, or whether it is in fact an act *within* the framework of LOAC, without first making a close investigation of all the circumstances surrounding that act. The same applies for attacks of residential buildings or other property that are normally civilian in character. It is for instance not a violation of LOAC if a party to an armed conflict subjects such property to attacks if it is used by the opponent's armed forces as an ambush point or in any similar way related to the hostilities. In fact, according to Article 52 GC AP I, such buildings become military objectives

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1 See, also, for this view, OSCE ODIHR, Report on Violations of International Humanitarian and Human Rights Law, War Crimes and Crimes against Humanity Committed in Ukraine since 24 February 2022, ODIHR.GAL/26/22/Rev.1, 13 April 2022, p. 25.

2 For a basic account of LOAC applicable to the situation in Ukraine, see e.g., Winther, P. and Appelgren, J., Rysslands invasion av Ukraina – så reglerar krigets lagar den väpnade striden, FOI Memo 7823, March 2022.

that may be attacked. Moreover, according to Article 51 GC AP I, incidental loss of civilian life, injury to civilians or damage to civilian objects caused by an attack on a military objective is only a violation of LOAC if it is *excessive* in relation to the anticipated military advantage of that attack. Accordingly, LOAC in fact *tolerates* certain unintended civilian casualties as long as the attack that causes them is directed at a military objective. Finally, it should also be noted that the application of all the rules discussed here is built upon the value judgements of those who plan or decide upon the attacks. For instance, the rules about which property constitutes military objectives contains subjective notions such as “effective contribution”, “circumstances ruling at the time” and “definite advantage”. To determine in hindsight and from afar whether value judgments made on these and similar grounds have been made correctly or incorrectly is difficult. It requires access to all the information available to those deciding about each attack at the time of each decision. It thus adds to the difficulty of determining that a violation of LOAC has been committed, even more so that a criminalised violation of LOAC has been committed.

#### **THE RELEVANCE OF KNOWLEDGE AND FACTS**

Contemplating the above, it seems as if the general Western discussion about Russia’s warfare in Ukraine does not always reflect the dynamic features of the provisions governing the conduct of hostilities in LOAC. This alone may easily lead the public to believe that LOAC is more restrictive and protective than it actually is. To wrongfully or on too loose grounds label acts as war crimes that are not violations of LOAC may therefore lead to the delusion that LOAC is neither respected nor enforced to the extent that it ought to be.

To be clear, and as noted above, Russia and members of the Russian Armed Forces have committed many and horrendous violations of LOAC in Ukraine. To take just one obvious example, persons with tied hands and feet, and with gunshots in the back of their heads, can never be a result of a lawful method of warfare. Therefore, it is an important task to investigate suspected violations of LOAC, and determine any individual criminal responsibility in connection to suspected grave breaches of LOAC. However, this is a complex and laborious task that is not easily carried out in media or in a general public debate. It is, on the other hand, one that all the state parties to the Geneva Conventions and their Additional Protocols have committed themselves to carrying out (see for example Article 85 GC AP I). Since Russia does not seem to meet its international obligations in this respect, this task has now fallen upon Ukraine and the rest of the international community.

In order to properly carry out the task of identifying violations of LOAC, and in particular those violations that are criminalised, it is not sufficient to only have knowledge of the law itself. It also requires verified facts about what has actually occurred. Such fact-finding is now ongoing. Unfortunately, in 2019, Russia withdrew its previous consent to subjecting itself to the inquiries of the international fact-finding mechanism established by Article 90 of GC AP I.



However, several other national and international investigations of violations of LOAC are ongoing. For instance, in May 2022, the Ukrainian Minister of Internal Affairs reported that Ukrainian authorities have registered over 20,000 suspected war crimes committed by the Russian Armed Forces, and Ukrainian courts have in some cases already sentenced members of the Russian Armed Forces for war crimes. Other states have taken similar measures. For example, the Swedish Prosecution Authority has opened a preliminary investigation on war crimes in Ukraine. On the international level, the Office of the Prosecutor of the International Criminal Court (the ICC) has received an unparalleled 43 referrals from state parties to the Rome Statute (including Sweden) to open an investigation concerning allegations of war crimes, crimes against humanity, or genocide, on the territory of Ukraine. The Office has since announced its largest field deployment ever, supported by more than 40 states, to assist Ukrainian authorities with criminal investigations.<sup>3</sup> Moreover, the United Nations Human Rights Council (the UN HRC) has also initiated a commission of inquiry to Ukraine.<sup>4</sup> The Organization for Security and Co-operation in Europe (the OSCE) on its part has already dispatched a mission of experts and submitted their first observations on violations of international law committed in Ukraine.<sup>5</sup>

### **POSSIBLE CONSEQUENCES FOR SWEDEN**

It is the type of thorough fact-finding activities illustrated above, combined with a solid understanding of LOAC, that is crucial in order to establish both when it has been violated and any criminal responsibility for such violations. Unfortunately, the discussion about the legality of Russian methods of warfare in Western media outlets and elsewhere in the West sometimes lacks one or even both of these ingredients.

Given the present circumstances in Ukraine, it is understandable that there is an urge to discuss violations of LOAC, and that there is a pressure to speculate on violations thereof and the individual criminal responsibility of those who have committed grave breaches of LOAC. However, it is important not to jump into conclusions based on a poor understanding of the law or of the facts of the situations at hand. When that happens, it risks conveying unrealistic or even false expectations on the protective scope of LOAC.

Hence, a tentative conclusion, after almost four months of armed conflict in Ukraine, is that the general discussion about the legality of methods of warfare ought to be more substantiated than it has been until now. More precisely, it must be based on a proper understanding of LOAC, combined with the relevant facts.

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3 <https://www.icc-cpi.int/news/icc-prosecutor-karim-aa-khan-qc-announces-deployment-forensics-and-investigative-team-ukraine> (last visited 20 June 2022).

4 UN HRC, Situation of human rights in Ukraine stemming from the Russian aggression, A/HRC/RES/49/1, 4 March 2022, op. para. 11.

5 OSCE ODIHR, Report on Violations of International Humanitarian and Human Rights Law, War Crimes and Crimes against Humanity Committed in Ukraine since 24 February 2022, ODIHR.GAL/26/22/Rev.1, 13 April 2022.

If not, there is a risk of developing the view that LOAC, as well as international and domestic criminal law, provides more protection, and protection in other situations, than it actually does. Naturally, a major responsibility to correctly apply the dynamic rules of LOAC to the correct facts in each situation rests on those, such as journalists, experts and politicians, who publicly discuss these questions. However, on a structural level, ensuring that knowledge of LOAC is disseminated is also an obligation of Sweden as a state. This is so because in all of the four 1949 Geneva Conventions, as well as in their first additional protocol (see for example article 83 GC API), state parties to these treaties have undertaken to ensure that not only the armed forces, but also the civilian population, receive relevant knowledge about LOAC. The obligation for Sweden to ensure relevant awareness of LOAC is particularly important in relation to those who participate in the public discussion. However, it is also important that each and every person in Sweden has knowledge about the risks, for example in directly participating in the hostilities, or being in close proximity of military objectives in an armed conflict. Such knowledge may help civilians to make informed decisions on questions such as whether to evacuate or how to best contribute to the struggle against an opponent in an armed conflict. Therefore, one might actually say that knowledge of LOAC may help to save lives in armed conflict.

#### **ABOUT THE AUTHORS**

*Pontus Winther* is a researcher, doctor of international law and a former officer in the Swedish Armed Forces. *Jessica Appelgren* is a legal analyst and holds a Master's degree in international law. Both work at FOI and between them, they have almost 30 years of experience of practice, research and teaching in the field of military law.



# 11. Protection of Civilians and the Swedish Civil Military Defence

Helené Lackenbauer, Peter Bennesved

*The invasion of Ukraine has woken both Sweden and the international community to a new reality in Europe. Russia is demonstrating a lack of respect for the right of the civil populations to be spared and protected from attacks. The situation raises a series of questions regarding the Swedish capacity to protect civilians from the type of atrocities experienced in Ukraine. This article addresses the challenges to protection of civilians (POC) in armed conflict faced by the Swedish civil and military defence system. It seeks to develop a three-pronged approach to POC, which includes civilian defence, armed forces and the civil population, and proposes a way forward.*

The Russian Armed Forces' strategy and tactical behaviour seemingly target the civilian population. This impression is sustained by credible reports of grave atrocities, such as heavy artillery shelling of residential areas, forced displacement of Ukrainian citizens into Russia, indiscriminate sexual violence and unlawful executions of civilians. Russia is demonstrating a total lack of respect for international humanitarian law (IHL), which clearly states that civilians may under no circumstances<sup>1</sup> be the object of attack and must be spared and protected.

Although the Russian invasion has speeded up the Swedish development of a modern civil defence, few measures are being taken to address POC from an aggressor whose strategy targets civilians and violates IHL. In the light of what is occurring in Ukraine, this chapter argues that there is a need for a protection strategy that incorporates civilian authorities, the armed forces, and the civil population itself. Such a strategy should be conceptualised within both the civil and military defence, and coordinated with and be informed by lessons learned by the international humanitarian actors who are providing POC in war-torn countries.

## **CIVIL DEFENCE AND POC, A LOST CAPABILITY?**

Sweden has a long tradition of developing and maintaining civil defence capabilities. It stems from the interwar period, and grew in scope throughout the Cold War era, driven by the development of weapons technology and new military doctrines. During this period, civil defence planning was based on the assumption that the civilian population were, if not the primary target, at least part of the armed opponent's plans. Hence, Sweden constructed air-raid shelters and developed evacuation plans for the civilian population.

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1 According to International Humanitarian Law there are a few exceptions from this rule, e.g. when civilians take up arms or are defence personnel.

However, this changed in the 1990s, when the geopolitical situation in Europe improved in combination with changing military strategic thinking and tactics. During this period, it became axiomatic in Sweden that civilians would be protected, for the most part, from violence and not be affected by modern warfare between “qualified” opponents. This mentality was especially fostered by the idea that, together with the growing importance of precision bombing, wars would be over in a couple of days, and result in minimum collateral damage.

After the end of the Cold War, Sweden assumed that there was no longer a need for POC in armed conflict and therefore moved it to the background of defence planning. Swedish civil defence was dismantled and heavily decentralised, with only limited planning activities at the national level. The air-raid shelter system was maintained at bare minimum and evacuation plans archived and forgotten. From the mid-1990s, emergency preparedness grew in response to the need to protect populations against natural and manmade disasters. It supplanted a civil defence philosophy, which was concerned with responses to an armed adversary, and until recently became the focus.

The military defence shared the same destiny when security policies shifted to a focus on international peace support operations in developing countries rather than on Sweden’s territorial sovereignty. One of the effects was a decrease in military exercises that focused on territorial defence. In this process, the armed forces lost some of its capability to integrate IHL and POC measures in the planning and conduct of military operations. Even though the Swedish defence policy has again changed its focus to territorial defence, research has proven that the Swedish Armed Forces have a fragmented understanding and implementation of their obligation to avoid and mitigate the negative effect that may arise from military operations. This also includes a limited capability to protect civilians when tasked.

A few months into the war in Ukraine, Sweden is adjusting to the fact that modern warfare is indeed very *old* in character and civilians are targets in military operations. After Russia’s initial attempt at a strategic assault on Kyiv had failed, the war on the ground has begun to look like the armed conflicts fought throughout the twentieth century, especially World War II. The ongoing hostilities reveal the aggravating fact that civilians under occupation may have to fend for themselves, both physically and psychologically, without the support of the public authorities or armed forces. This means that civilians under certain circumstances, e.g., when occupying forces have territorial control, need to be prepared to protect themselves. However, the behaviour of civilians in Ukraine has not necessarily proven that people act according to what is safest for themselves. Examples of this include all those individuals who do not seek cover in air-raid shelters during bombardment, or avoid evacuating when enemy forces are approaching.

From a Swedish civil and military defence planning perspective, the capability to protect the civilian population from atrocities and the effects of military operations is seemingly not in line with the threats posed by a possible adversary. There is little evidence suggesting that the civil population is aware of the important measures that are necessary to take in order to stay safe in the event of an attack on Sweden. Knowledge and experience in how to provide POC in armed conflict were lost after the end of the Cold War.

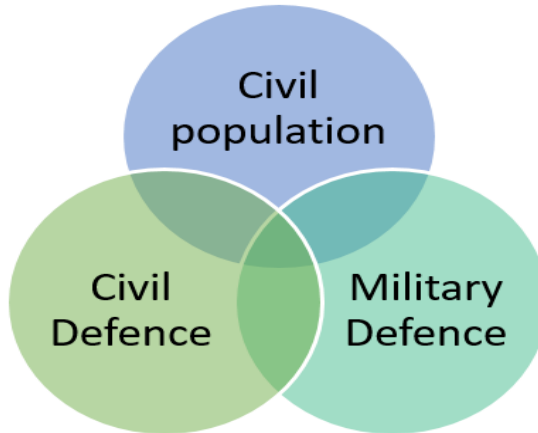
#### **LESSONS LEARNED BY THE INTERNATIONAL HUMANITARIAN SYSTEM**

Hence, experience acquired by the United Nations and humanitarian organisations in other parts of the world has come to the forefront, since it can provide necessary knowledge on how civilians can be protected and possibly protect themselves. The warfare and POC seen in the Balkans, Iraq, Chechnya and Syria, where armed forces committed acts of atrocity, have now found new relevance for both the Swedish civil and military defence. Sweden needs to draw on the knowledge, experience and lessons learned by the UN and humanitarian organisations and from history, in order to identify the best practices to integrate in a civil defence system.

However, Sweden should also consider a scenario where the public services have limited, or no, capacity to provide POC and therefore will be needing assistance from the international humanitarian system. The military aggression against civilians in Ukraine has demonstrated the vulnerability of a modern society. When infrastructure is being destroyed through shelling, the population is left without basic commodities such as water, gas, health care, housing and food. In Ukraine, and elsewhere in war zones, the humanitarian system coordinated by the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) provides POC and humanitarian aid to populations in vulnerable situations. In Ukraine, the humanitarian agencies play a critical role as providers of basic services, i.e. water, health care, food and shelter. They are providing needed protection to the civilian population, especially those who are internally displaced, and children. The POC activities include assistance to those who experience exploitation, are victims of gender-based and sexual violence, trafficking, or severe human rights violations. The ongoing rebuilding of a civil defence should include the prospect that Sweden might need the assistance of humanitarian organisations in order to be able to provide POC to its population.

### **A PROPOSAL: A THREE-PRONGED COORDINATION OF POC**

The attack on Ukraine emphasises the urgent need to develop a robust coordination for POC, within the existing Swedish total defence structure, i.e. civil and military defence, which incorporates the civil population's need and responsibility to protect itself. This coordination needs to recognise the complex interdependencies between these three dimensions, as illustrated by the following image:



The three dimensions have to be coordinated, depending on the situation on the ground, or the nature of the operations to be undertaken. In order to handle the complex coordination required, a three-pronged approach could be developed. A civil defence system would have the main responsibility for POC and the relevant infrastructure. It would also be responsible for disseminating information to the civil population on their responsibility to undertake protection measures and provide them with tools on how to proceed. In addition, a civil defence system has to be able to coordinate and integrate support from the international humanitarian system, in order to prepare for a situation of exhausted public services and limited resources.

Military defence needs to recognise the importance of reducing the impact of its operations on civilian populations in armed conflict. This will be done through upholding the obligations under IHL, i.e. to avoid, minimise and mitigate the negative effects that might arise from military operations. In order to achieve this, it is necessary that the armed forces enhance their capability to integrate measures, including coordination with the civil defence system, in the planning and conduct of operations at all levels, through training and exercises.

Although the civil and military defence have clear obligations and responsibilities with regard to the civil population, the situation in Ukraine has demonstrated that under certain circumstances civilians cannot rely on the authorities, since they

are unable to be present. This may be, for example, when hostile forces occupy a region, or the authorities, for security reasons, are prevented from having access to the population. In this type of circumstance, the civilians need information and “tools” on how to behave in order to stay safe and enhance their general security. However, this has to be developed, disseminated and integrated to achieve the civil population’s personal preparedness well before the armed conflict begins.

In order for the three-pronged POC-approach to be effective, its development needs to draw on the knowledge, experience and lessons learned by the UN and humanitarian organisations in war zones, including the civil and military defence in Ukraine and elsewhere. A three-pronged POC-approach ought to build a system that includes, among other things: a coordination mechanism between the three dimensions; preventive measures; early warning; tools on how to protect, rescue and recover civilians; training and exercises; and the provision of information to the general public on how to act and stay safe in the event of an attack, or when the authorities may not be present, for example under occupation.

### **IN SUPPORT OF A FUTURE PEACE**

In Sweden, POC is a national priority, since the security doctrine has the life and health of the population at its centre, together with the upholding of the functionality of basic public services. However, POC in times of armed conflict is also of great importance in order to realise sustainable peace. The UN has argued that violations of IHL and human rights in armed conflicts undermines the prospect of sustainable peace and stability. There are plenty of examples, from around the globe, of situations where violence and human rights abuses have continued long after warring parties have signed a peace agreement. This can be explained by how atrocities often foster sentiments of revenge, or how certain groups become accustomed to high levels of violence and continue to reproduce them in peacetime. When or if a peace agreement is achieved in Ukraine, it is not unlikely that violence and exploitation of vulnerable groups will continue, although in another form than military attacks. Therefore, it is also pivotal for Sweden to develop a robust, relevant and resilient system for POC as part of its own preparedness.

### **ABOUT THE AUTHORS**

*Helené Lackenbauer* has worked with the protection of civilians in international emergencies for several decades, both as a researcher with FOI and as a practitioner and strategic advisor in the international humanitarian system. She also has extensive experience of working with the Swedish Armed Forces in international operations and at the strategic and operational level.

*Peter Bennesved* is currently serving as an analyst with FOI, and specialises in civil defence. His research interest is the history of both contemporary, interwar and Cold War-era technology and civil defence media and propaganda.





## 12. Is it Possible to Receive Humanitarian Assistance in Sweden?

Helené Lackenbauer, Christoffer Wedebrand

*The war in Ukraine demonstrates how rapidly a modern society can deteriorate and become dependent on external assistance. Resources are depleted, the public sector is exhausted and essential infrastructure destroyed. International humanitarian organisations have become critical providers of water, power, food, shelter, health care and protection. In the event of armed conflict in Sweden, we may also need the assistance of humanitarian organisations. However, Sweden has no status agreement with humanitarian actors nor a mechanism to receive them in a coordinated manner. This article highlights some of the challenges that are necessary to address in order for Sweden to benefit from international humanitarian assistance, if needed.*

### **THE IMPACT OF WAR**

When the war in Ukraine entered its 100th day, almost 16 million people – one-third of the population – required humanitarian assistance. As the fighting continued to escalate, the humanitarian conditions were deteriorating. According to the UN Office for the Coordination of Humanitarian Affairs (UNOCHA), 7 million individuals have been internally displaced and the numbers are increasing as the fighting escalates, especially in the eastern regions of Ukraine. Civilian infrastructure and residential areas have been, and continue to be, targeted and leave people without power and water. The authorities in Ukraine report that almost 90 per cent of the buildings in some cities have been damaged. The war has had a negative impact on the health care system, with attacks on hospitals, medical transportation and medical personnel. Furthermore, there is a lack of medical supplies and a limited number of staff. The World Food Programme (WFP) has assessed that one in three families are food insecure and those who have been displaced are the most heavily affected. The United Nations High Commissioner for Refugees (UNHCR) reports that over 3 million people are in need of protection services to mitigate the risks and effects of sexual and gender-based violence, and 14.5 million need assistance related to mine action. According to Ukrainian authorities, the state is experiencing a budget deficit of 5 billion USD per month, while the spending on humanitarian and social needs is increasing. This litany could continue with a list of items necessary for basic human survival and mitigation of the impact of war.

This situation demonstrates the vulnerability of a developed welfare system and the speed with which it can deteriorate. Ukraine is a modern state in dire need of international humanitarian aid in order to ensure assistance to its population. Today, a host of international relief actors are active in Ukraine, mandated by

the humanitarian imperative to alleviate human suffering and death through the provision of needed assistance and protection to crisis-affected populations.

However, before humanitarian organisations can operate on a nation's territory, there are a number of challenges to consider, since the humanitarian system is not always compatible with domestic standards and demands. Among the main challenges are domestic legislation, management of relief organisations operating on standards different from domestic regulations, and coordination between public services and the organisations, as well as coordination between the humanitarian organisations themselves.

### **THE HUMANITARIAN SYSTEM**

All humanitarian assistance is based on the principles of humanity, impartiality, neutrality and independence. The principles are derived from international humanitarian law (IHL) and are of practical operational relevance, especially in situations of armed conflict. Unfailing adherence to the humanitarian principles enables humanitarian organisations to distinguish themselves from warring parties, or political actors, and allows them to deliver assistance to people in distress, regardless of their loyalties.

Although the humanitarian system is a panoply of international organisations, the United Nations (UN) has sought to develop a structure with the aim to coordinate principled relief, coordinated by UNOCHA under the leadership of the Emergency Relief Coordinator (ERC). UNOCHA delivers on the UN Secretariat's responsibility to ensure a coherent, principled and coordinated response to emergencies by bringing together humanitarian actors. Its mandate stems from a UN General Assembly (UNGA) resolution, adopted in 1991, which states: "The leadership role of the Secretary-General is critical and must be strengthened to ensure better preparation for, as well as rapid and coherent response to, natural disasters and other emergencies."

The UNGA resolution also establishes the role of the ERC, who works with the UN Secretary-General and the Inter-Agency Standing Committee (IASC) in leading, coordinating and facilitating humanitarian assistance. IASC brings together eighteen prominent humanitarian actors from the UN system, the International Red Cross Movement and non-governmental networks. Its objective is to formulate policy, set strategic priorities, mobilise resources and ensure principled response to humanitarian crises. IASC's operational decisions have a direct bearing on humanitarian actions on the ground. However, neither IASC nor UNOCHA has a mandate to control any of the humanitarian organisations. Abiding to guidance or decisions is voluntary, since all organisations are independent.

A vital component of IASC and UNOCHA is coordination among actors involved in delivery of humanitarian assistance. There are plenty of examples of how a lack of coordination has undermined humanitarian efforts. Coordinating relief efforts entails minimising the duplication of humanitarian services, whether by filling

gaps or preventing overlap, and ensuring various organisations are synchronised to achieve a common objective. As an attempt to increase coordination amongst humanitarian actors and improve coherence in humanitarian response, the UN established a coordination mechanism called the Cluster Approach. Clusters are groups of humanitarian organisations, both UN and non-UN, in each of the main sectors of humanitarian action, e.g., water, health, food, shelter and logistics. The clusters are designated by the Inter-Agency Standing Committee (IASC) and have clear responsibilities for coordination. There are eleven clusters operating at the global level. In the event of an emergency, the ERC activates clusters at the national level in support of humanitarian response. In Ukraine, the clusters were already activated in 2014, when the armed conflict erupted in the eastern regions of the country, and were increased and scaled up to cover all of Ukraine as a response to the Russian invasion.

### **SWEDEN AS A RECIPIENT OF HUMANITARIAN ASSISTANCE**

Sweden has always been a major donor to international humanitarian organisations and relief operations in emergencies. This support is mainly handled by the Swedish International Development Cooperation Agency (Sida) and considered an international endeavour. The government has not necessarily envisaged Sweden and its population as a recipient of international humanitarian assistance. However, the invasion of Ukraine demonstrates how quickly a modern society, when forced into armed conflict, can be depleted of resources, its systems exhausted and essential infrastructure destroyed. In the wake of the Russian aggression and the rebuilding of the Swedish civil defence, it may be worthwhile for the government to prepare for the possibility that international humanitarian assistance could be needed on our territory as well. However, being a recipient of international relief will be a complex undertaking, since there are a panoply of challenges with regard to legislation and regulations, status agreements, number of humanitarian organisations and, last but not least, coordination. Swedish law is to be upheld under all circumstances, even in the event of armed conflict. For international humanitarian organisations, this means they have to abide and follow Swedish laws; neither the humanitarian principles, nor their own guidelines, alone, will be sufficient. In order to be able to accommodate international humanitarian organisations, there is a need for a status agreement regulating the conditions under which they can operate, as well as their rights and responsibilities.

However, this is a complex task, since the Swedish decentralised governance system is a challenge to overcome. In Sweden, there are three levels of domestic government, national, regional and local, with responsibility for different parts of the welfare system. The question is: Who should sign a status agreement concerning service delivery, e.g., water, health care, shelter and food? This is, according to law, the responsibility of the independent regional and local levels, respectively. The Swedish government cannot sign on behalf of the independent regions or municipalities. However, the government could provide a status agreement similar to the agreement signed with NATO (so-called host nation agreement), where a host of duties and rights for the international organisations

– e.g., taxes and access to health and dental services - are regulated. An example that may provide valuable information is the regulations of the European Union (EU) civil protection mechanism. It is the collective response to natural and man-made disasters, through a reserve of capacities that complement the member states when their resources are not sufficient. The regulation for the mechanism, adopted by the European Parliament and the Council, recognises emergency preparedness and response by regional and local authorities, and the importance of coordination with domestic civil protection systems. The mechanism has been activated almost 120 times in response to various emergencies, including during forest fires in Sweden, at the local level. EU has gained experience in emergency response to member states and can provide essential information on how to meet domestic challenges. Nonetheless, the EU civil protection mechanism does not provide guidance on agreements between an international humanitarian organisation and a state with a decentralised governance system. A third example with regard to the status agreement is the specific legal status, privileges and immunities, under domestic and international law, enjoyed by the International Committee of the Red Cross (ICRC). This status is granted by states in order to enable the organisation to carry out its mandate as enshrined in the Geneva Conventions. Nevertheless, the ICRC still needs a status agreement with the authorities in the host nation. Often this grants ICRC certain legal protections – e.g. immunity from legal process – related to its mandate. However, none of the aforementioned agreements gives an international relief organisation, not even the ICRC, the right to provide health care or other services in a nation, municipality or region.

A related issue is accountability: To whom should the humanitarian organisations be accountable? Who will control that they uphold beneficiaries' legal rights and subscribed standards? One possibility Sweden has is to handle them as if they are private companies, procured by the government, regions, or local level, and who therefore have to act in accordance with domestic legislation and regulations. On the other hand, this may be a dilemma for the humanitarian system, since the cluster approach will be put out of play when they act as individual companies, controlled by the Swedish authorities. Sweden is a supporter of the cluster approach and may not want to undermine the improvement the cluster approach has contributed to global humanitarian assistance. Being controlled by Swedish authorities may also be considered a violation of the humanitarian principles neutrality and impartiality.

An additional dilemma is coordination. The Swedish civil defence is administrated through coordination between governmental authorities and agencies, regions and municipalities. This has proven to be a domestic challenge, since the system brings together a variety of actors from different sectors. They have different responsibilities, mandates and interests and operate at different levels. It would be an additional dilemma to both Swedish civil defence and the humanitarian system, since the international organisations would have to abide to Swedish coordination and give up the independency they enjoy in other emergencies.

Coordination of both national and international institutions will also be a demanding task in a situation with limited resources and staff.

## **SUMMARY**

This article highlights only some of the challenges necessary to address if Sweden is to receive humanitarian assistance in the event of an armed conflict. Although there is a long list of dilemmas to handle, it is still a worthwhile task to investigate and research, since a time may come when international humanitarian actors may be pivotal for the survival and well-being of the Swedish population. Preferably, any research should aim at finding possible ways to accommodate the humanitarian system in Swedish emergency planning. A possible start would be to further research existing cooperation, such as the EU civil protection mechanism, the ICRC status agreement, and the host nation agreement within NATO, since the latter also encompasses civilian crisis preparedness.

## **ABOUT THE AUTHORS**

*Helené Lackenbauer* has for several decades worked with protection of civilians and humanitarian assistance in international emergencies, both as a researcher with FOI and a practitioner and strategic advisor in the international humanitarian system. She has extensive experience of working with the Swedish Armed Forces in international operations and in the national headquarters.

*Christoffer Wedebrand* is currently working as an analyst with FOI, and specialises in security of supply and psychological defence.



## 13. Further Reading

*In the light of the ongoing war in Ukraine, FOI has already in 2022 published a number of publications, most of them in Swedish. Some of them listed below. All publications are available at [www.foi.se](http://www.foi.se)*

- Aronsson, Albin and Boström, Charles, 2022, Västligt militärt stöd till Ukraina: Innehåll, utmaningar, risker, FOI Memo 7857
- Bennesved, Peter, 2022, Civilbefolkningens roll i framtida krig – Perspektiv på befolkningsskydd och civilt försvar i ljuset av Ukraina, FOI Memo 7843
- Bergenwall, Samuel, 2022, Sympati för Moskva - Indiens svåra balanseringskonst i korselden mellan Ryssland och Väst, FOI Memo 7814
- Clausen Mork, Jonas and Reichel, Beatrice, 2022, When threats materialize - the relevance of the Russian attack on Ukraine for Swedish civil defense planning, FOI Memo 7835
- Ekman, Ivar and Nilsson, Per-Erik, 2022, Folkets underrättelsetjänst - öppna källor, OSINT och Ukraina, FOI Memo 7888
- Ekström, Thomas, 2022, Kriget i Ukraina - Ett logistiskt perspektiv, FOI Memo 7849
- Englund, Johan, Weidacher Hsiung, Christopher and Ståhl, Ella, 2022, Den europeiska säkerhetskrisen kan föra Peking och Moskva ännu närmare varandra, FOI Memo 7817
- Johnson, Andreas and Oxenstierna, Susanne, 2022, How tough are the sanctions on Russia?, FOI Memo 7842
- Jonsson, Daniel, Bennesved, Peter, Clausen Mork, Jonas, Eriksson, Camilla, Eriksson, Pär, Ingemarsdotter, Jenny, Lackenbauer, Helene, Reichel, Beatrice, Svenonius, Ola and Wedebrand, Christoffer, 2022, Forskningsbehov för det civila försvaret i ljuset av Ukrainakriget, FOI Memo 7871
- Karlsson, Malin, 2022, A future EU mission to the Ukrainian professional military education sector, FOI Memo 7899
- Ottosson, Björn and Ekman, Ivar, 2022, Ukraina och USA:s svåra strategiska balansgång, FOI Memo 7863
- Oxenstierna, Susanne and Johnson, Andreas, 2022, Sanktioner mot Ryssland, FOI Memo 7819
- Serveta, Marianna, Holmquist, Erika and Bergenwall, Samuel Neuman, 2022, Den turkiska faktorn i Ukrainakriget: En balansgång mellan öst och väst, FOI Memo 7853
- Strindberg, Anders, 2022, En översikt över den rysk-ortodoxa kyrkans Moskva-patriarkat som påverkansaktör, FOI Memo 7865
- Tunemalm, Anna Karin, Normark, Magnus and Börjegen, Susanne, 2022, Vit fosfor och krigets lagar, FOI Memo 7869
- Winther, Pontus and Appelgren, Jessica, 2022, Rysslands invasion av Ukraina - så reglerar krigets lagar den väpnade striden, FOI Memo 7823
- Winther, Pontus, Grundläggande humanitärrättsliga regler vid användande av patrullrobotar, 2022, FOI Memo 7875



The world, and in particular the future of Europe, changed on the 24<sup>th</sup> of February 2022. Russia's expanded war against Ukraine is still unfolding and has implications for us all. Security and defence policies are in flux – continuously shaped and reshaped. In this anthology, experts at FOI, the Swedish Defence Research Agency, address the ongoing war in terms of security policy, military implications, new and old ways of warfare, activism and propaganda, legal, civil defence and humanitarian aspects.

The Russian occupation and illegal annexation of Crimea in 2014 was a rude awakening and a harbinger of a new international order. In that light, Russia's renewed invasion of Ukraine in 2022 should not have been a surprise. However, the scale and style of Russian warfare is - another - rude awakening to many observers.

This report is not the final word about the war. This is how FOI's defence experts start making sense of the war.