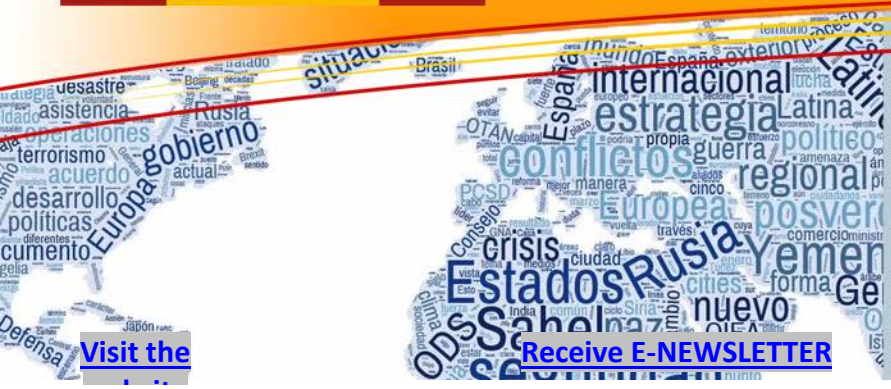
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The War in Ukraine in 2025. What the Battlefields Are Teaching Us



The war in Ukraine in 2025. What the battlefields are teaching us

Abstract:

The war in Ukraine in 2025 has been characterised by stagnation on the eastern fronts and the intensification of technological impact, especially through the massive use of drones, which is resulting in a profound transformation of the nature of the conflict. Russia retains control over Donetsk, Luhansk, Zaporizhzhia, Kherson, and Crimea, although without total dominance of all the annexed regions, while the main operations are concentrated in Pokrovsk and Kostyantynivka, which have become the operational centres of gravity.

Russia has strengthened its numerical and technological advantage, adapting infiltration and assault tactics with small groups supported by drones, enabling limited advances, but facing high human costs and significant Ukrainian resistance. On the other hand, Ukraine, despite facing serious mobilisation and attrition problems, has managed to slow the Russian offensive through intelligent urban defence, complemented by local counterattacks and selective drone strikes whose effectiveness is increasing as they target Russian military and energy infrastructure.

In a war where front lines are often blurred, attack directions are frequently unclear, and information about what is happening is often doubtful or highly complex, the strategic dynamics of the conflict are defined by the attrition of frontline fighters, strikes on targets in the rearguard, and the industrialisation of war production. The result is the consolidation of new operational doctrines that consider large-scale warfare as a characteristic of future conflicts, which requires incorporating the lessons learned in Ukraine in terms of tactics, logistics, and technology.

Keywords: Stalemate, drones, attrition, logistics, Pokrovsk, annexation, mobilisation, fortifications,

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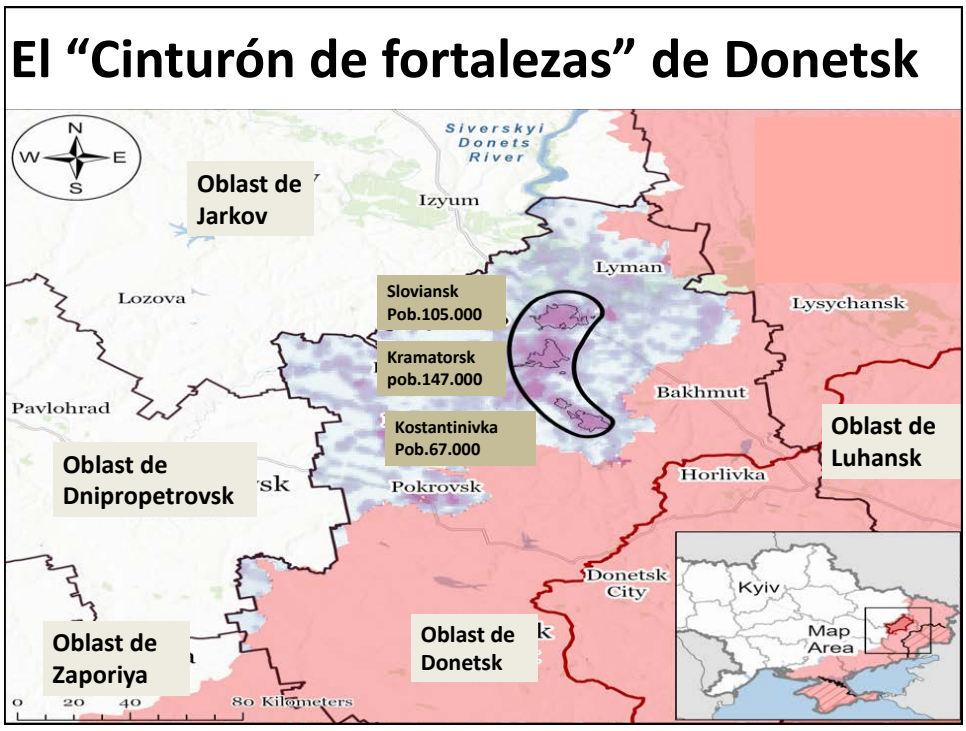
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Introduction. The Theatre of Operations in Ukraine in 2025

Ukraine is a country divided into 24 oblasts, an autonomous region of Crimea, and the special city of Kyiv. Because of the Russian invasion and previous military actions, Russia annexed Crimea in 2014 and in 2022 announced the annexation of four more Oblasts: Donetsk, Luhansk, Zaporizhia and Kherson. Although it does not fully control them, Russia formally recognises these territories as its own, something that neither Ukraine nor the international community accepts.

At the end of 2024, the war in Ukraine was in its third year since the Russian invasion began in February 2022, with no sign of it ending soon. The hottest zone remained the same since the war began in 2014. This is the Donbas coal basin, which on the Ukrainian side includes the oblasts of Donetsk and Luhansk. Russia occupies the regional capitals and its main strategic objective is to occupy the entire Donbas, even if this means paying a very high military and political price.



Source: based on https://lediplomate.media/2025/02/bilan-trois-ans-guerre-haute-intensite-ukraine/sylvain-ferreira/monde/russie-et-ukraine/

The Donbas is the scene of most of the major battles not only of this war, but also of the 21st century. These battles are mainly taking place in cities, while the combatants use the open countryside to manoeuvre. Cities where major battles have taken place in the past or are taking place, such as Bakhmut, Avdiivka and, currently, Pokrovsk, have one thing in common: their logistical importance, in addition to their significant symbolic value for Ukrainians as symbols of resistance. Until its fall in May 2023, - after more than nine months of fighting -, Bakhmut was essentially important as the main logistical

hub of the north-eastern part of Donbas; hence its capture was considered critical by Russia, even though it came at such a brutal cost in human lives that it was called "the meat grinder". Avdiivka, taken in February 2024, and Pokrovsk, which became the centre of military operations in 2025 as the main logistics hub for Ukrainian forces west of Donetsk, were successively given the same nodal importance. However, following the Russian advance throughout the year and the ferocity of the fighting, Pokrovsk has been partially surrounded, losing some of its logistical importance.

Something similar is happening in Kostiantynivka, a town located slightly north of Pokrovsk, which is also surrounded and has been turned into a battlefield. During these years of war, the town has been key to maintaining the defence of the central sector of the front and allowing forces to be transferred between the south-west and north-east of the Donetsk Oblast, so that reinforcements to the Pokrovsk front arrive from Slovyansk and Kramatorsk via Kostiantynivka. These towns form the so-called "Fortress Belt" of the Donetsk province. This is a heavily fortified line stretching some 50 kilometres in a north-south direction, which is supported by the major cities of Sloviansk, Kramatorsk, Kostiantynivka and[1] .



Source: own elaboration based on ISW.
https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

However, the centre of gravity for military operations at present is the fortress city of Pokrovsk, which has become one of the most active and bloody fronts in the war, with significant concentrations of Russian and Ukrainian troops.. Its importance lies in the

[1] Institute for the Study of War. (2025, 12 August). The critical importance of Ukraine's fortress belt in Donetsk Oblast. https://understandingwar.org/backgrounder/critical-importance-ukraine%E2%80%99s-fortress-belt-donetsk-óblast

fact that it is a crucial logistical hub, with the intersection of motorways and railways connecting major cities in the interior of the Donetsk Oblast, facilitating the supply and mobility of Ukrainian troops in the area. Pokrovsk is also the last Ukrainian defensive stronghold in central-western Donetsk, key to limiting Russian advances towards other Ukrainian cities such as Kramatorsk and Sloviansk. In this city, the defence has a tactical advantage

From an operational standpoint, control of Pokrovsk would allow Russia to consolidate its dominance over much of the Donbas and pave the way for deeper offensives into Ukraine, which would place the Ukrainian army in a critical military situation. The fall of Pokrovsk, in addition to its symbolic impact, would have significant operational value, as it would free up Russian troops for future advances in the region. Hence, Ukrainian resistance is crucial in slowing down and thwarting the Russian offensive in this critical area.

Further south, in Zaporizhzhia, the Russians have not occupied either the entire region or its capital. Zaporizhzhia plays a key role as a centre for the maintenance and repair of Ukrainian military equipment, due to the location of a multitude of factories, many of them underground, and the existing infrastructure that is difficult to destroy.

As for Kherson, liberated by Ukrainian forces in the 2022 counteroffensive, the Russians maintain some 30,000 troops behind the Dnieper line, from where they continue to carry out drone attacks and bombings on the city's infrastructure. However, much of the Kherson Oblast, including towns such as Nova Kajovka and others, remain under Russian control, with an officially estimated occupied area of 73% in 2025.

Overall, the situation has stabilised in this part of the southern front, although low-intensity fighting is frequent. Russia seeks to consolidate its control by reinforcing its positions with fortifications and active defence, while Ukraine attempts to wear down and regain territory in this strategic area of southern Ukraine, although it has not managed to advance from Kherson towards Crimea, which was essential to cut off the Russian land corridor and isolate the peninsula occupied since 2014. The Crimean peninsula remains important for its symbolic nature and operational value, Russia, however, no longer uses it as much as a platform for land attacks, having completed alternative rail routes that allow it to supply its forces without crossing the peninsula or the Crimean bridge[2] .

The Russians maintain the initiative

Throughout 2024, the Armed Forces of the Russian Federation had remained on the offensive, but with limited objectives and a cautious approach in order to minimising losses. The Russians seemed to have adapted to the demands of modern warfare and, with the fall of Avdiivka in February, achieved their fifth victory in just two years (after

[2] Author unknown. (2024, 21 June). Russia finalises a railway line that will connect the occupied Ukrainian territories in the Sea of Azov and Crimea. El País. https://elpais.com/internacional/2024-06-21/rusia-ultima-una-linea-de-tren-que-conectara-los-territorios-ucranios-ocupados-en-el-mar-de-azov-y-crimea.html

Mariupol, Sievierodonetsk, Lisichansk and Bakhmut). The offensive action did not reach its climax with the conquest of Avdiivka, but continued its advance unabated. To this end, Russian forces adopted the procedure of rotating troops within their combat units rather than a classic rotation of entire units, which allowed them to ensure continued offensive momentum. However, the advances of Russian troops in the Donbas region were marginal, due to the increasing use of drones, which had become the differentiating factor on the battlefield, suggesting that the Russian offensive could end in a stalemate.

In any case, at the end of 2024, the Russian command seemed optimistic about the favourable development of the war, since, since the failure of the Ukrainian offensive in June 2023, its army had the initiative in all the main areas of the front and was advancing slowly but steadily in the east. Using a 'salami' tactic, with minimal but cumulative advances by their troops, the Russians had been able to maintain their offensive potential, and even increase it, despite the enormous losses suffered.

As the war progressed, the Russian army had grown stronger in terms of manpower and weaponry. While in March 2022, it had 190,000 soldiers and 2,800 tanks in the area of operations, by early 2025 it had 500,000 soldiers, including regular personnel, conscripts and volunteers, in the Ukrainian theatre of operations, and continued to deploy between 1,500 and 2,000 operational tanks, although mostly using older models due to accumulated losses[3] . Additionally, the supply of artillery ammunition, loitering munitions and ballistic missiles from Iran and North Korea allowed it to reinforce its combat capability, accentuating its military advantage. Furthermore, its military strategy of attrition, which consisted of maximising enemy casualties, even at the cost of even greater losses on its own side, was something that Russia, with its larger population and greater economic and military resources, could afford and Ukraine could not.

In the same vein, during the preceding years, Moscow had adapted its economy to the war effort, limiting the sacrifices demanded of its population. With total military spending accounting for one-third of its national budget, GDP growth of 4.1% in 2024 and inflation contained at less than 10%[4] , Russia seemed capable of meeting the needs of its population while simultaneously supplying its armed forces with personnel and equipment. Under these conditions, Moscow understood that it could rely on its greater human and material potential to bleed Ukraine dry until it surrendered. Moscow did not seem to have any urgency to negotiate, at least as long as it could maintain the pace of operations and survive the embargo and Western support for Kyiv.

This position of "strategic comfort" was evident in the Istanbul peace negotiations in May 2025, when Russian negotiator Vladimir Medinski addressed his Ukrainian

[3] Statista. (2025). Russia-Ukraine War - Statistical Data. Retrieved 8 October 2025, from https://es.statista.com/temas/9091/guerra-de-rusia-y-ucrania-2022/#topicOverview
[4] Swissinfo. (2024, 20 November). Russia increases defence spending by 24.4% in 2025, although it will fall as a percentage of GDP. Swissinfo.ch. Retrieved 8 October 2025, from https://www.swissinfo.ch/spa/rusia-aumenta-un-24,4-%25-el-gasto-en-defensa-en-2025,-aunque-bajar%C3%A1-en-porcentaje-del-pib/88268773

counterparts in a manner as pragmatic as it was cynical, saying: "We do not want war, but we are ready to fight for one, two, three years, as long as necessary. We fought Sweden for 21 years between 1700 and 1721, under Peter the Great. How long are you prepared to fight?"[5]

In a speech delivered on 14 June 2024[6] , Russian President Vladimir Putin expressed his willingness to consider a ceasefire, but only if a series of harsh conditions for Ukraine were met. These were mmainly the recognition of Russian sovereignty over Crimea and the regions of Donetsk, Luhansk, Kherson and Zaporizhia, in addition to Crimea, which included the complete withdrawal of Ukrainian troops from these territories annexed by Russia after 2022. Moscow demanded that Ukraine accepted the "new territorial realities", i.e. the annexation of these regions by Russia.

Secondly, Moscow demanded Ukraine's permanent neutrality, with an explicit renunciation of NATO membership, which was to be accompanied by guarantees that Ukraine would never join the Western political-military alliance. Thirdly, an end to foreign military aid and a significant reduction in the Ukrainian army. In addition, Russia rejected any European military deployment on Ukrainian territory, even under the label of "peacekeeping forces". Finally, the lifting of economic sanctions imposed since 2022, many of them from Europe, before considering any possibility of achieving lasting peace.

As for the provinces of Kharkiv and Odessa, which were also the object of Russian aspirations, President Putin suggested that their status should be decided in the future by referendum, trusting that their predominantly Russian-speaking population would opt for incorporation into Russia. In any case, the immediate core of the conditions for a ceasefire centred on Ukraine's acceptance of the incorporation into Russia of the territories already occupied and annexed[7].

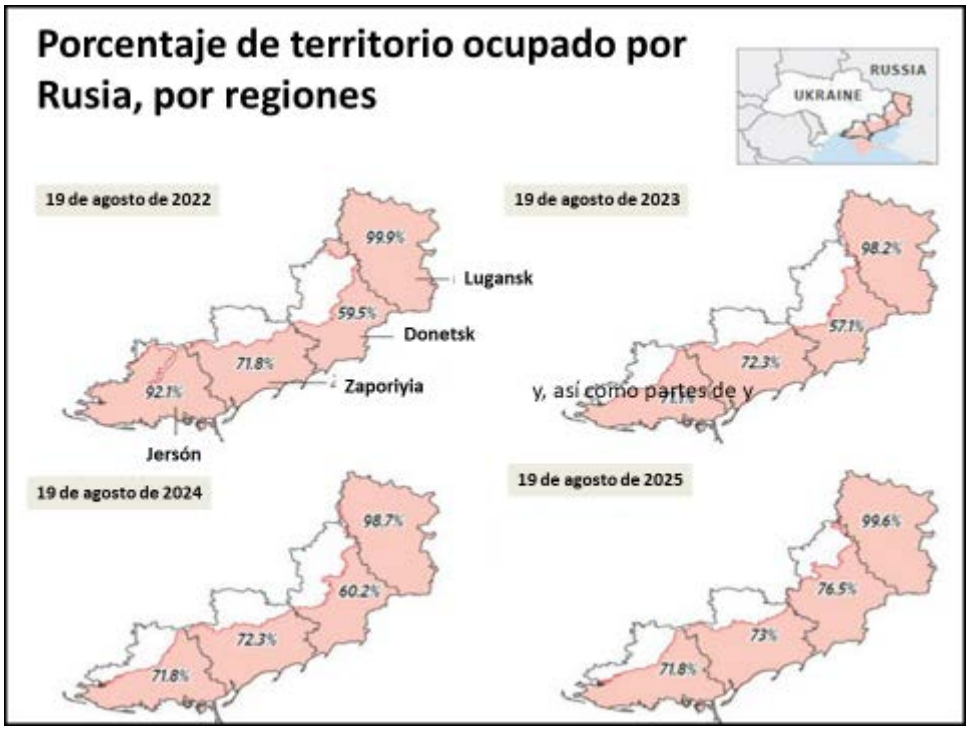
From the outset, both Ukraine and its Western allies considered Russia's demands for a possible ceasefire unacceptable, as the formal transfer of sovereignty would imply acceptance of Russia's de facto victory, as well as a serious violation of international law and Ukrainian territorial integrity. Kyiv and most Western governments understood that such Russian proposals amounted to an ultimatum—not real negotiations—and perpetuated the logic of force over international law. As Ukrainian presidential adviser Mikhailo Podoliak pointed out on his social media account, the Kremlin leader's offer

[5] Dupont, P. (2025, 15 August). Russian rhetoric insists on prolonged resistance in the face of the Ukrainian conflict. *Le Monde.* https://www.lemonde.fr/international/article2025/
[6] Seddon, M., & Schwartz, F. (2025, 14 March). *Vladimir Putin imposes tough conditions for ceasefire in Ukraine. Financial Times* (translated by Expansión). https://www.expansion.com/economia/financial-times/2025/03/14/67d3f775468aeb755d8b456d.html
[7] Le Grand Continent. (2024, 14 June). *Putin sets conditions for ceasefire in Ukraine: withdrawal from four regions, abandonment of NATO membership bid.* https://legrandcontinent.eu/es/2024/06/14/retirada-de-cuatro-regiones-abandono-de-su-candidatura-a-la-otan-condiciones-de-putin-para-un-alto-el-fuego/

was not a "peace proposal" but "the standard package (of demands) from the aggressor that we have heard many times before"[8] .

However, not everything was favourable to Moscow. Russian optimism about rapid progress, especially in the central sector of the broad front stretching more than 1,200 kilometres from the Belarusian border to the Black Sea, was exaggerated. Ukraine was tenaciously resisting military pressure and, although its armed forces had serious mobilisation difficulties and, consequently, few reserves, it had been able to minimise the Russian advance with Western military aid and an exponential increase in advanced weapons such as drones.

Thus, by the end of 2024, the Ukrainian territory occupied by Russia was approximately 18.14%, equivalent to some 109,000 km² of Ukrainian territory. This meant that, despite the fierce fighting that had taken place that year, Russia had only conquered 3,200 km² of Ukrainian territory, an insignificant increase of only 0.54% compared to the beginning of 2024, with the pace of advance slowing to a virtual standstill in December. [9]This control was mainly concentrated in the eastern regions of Ukraine, such as Donetsk and Luhansk, as well as parts of Kherson and Zaporizhia.



Source: own elaboration based on *Le Grand Continent. (2025, 9 January)*

[8] Huffington Post Spain. (2024). *Putin offers Ukraine a peace plan if it yields to these two demands.* https://www.huffingtonpost.es/global/putin-ofrece-plan-paz-ucrania-cede-dos-exigencias.html

[9] Le Grand Continent. (2025, 9 January). Russia conquered 3,200 km² of Ukrainian territory in 2024, but the pace of its advance slowed in December. https://legrandcontinent.eu/es/2025/01/09/rusia-conquisto-3-200-km%C2%B2-de-territorio-ucraniano-en-2024-pero-el-ritmo-de-su-avance-se-ralentizo-en-diciembre/Debemosr how things will end

Ukraine's biggest problem laid in the difficulties it faced in recruiting, retaining and rotating its troops, as well as in the poor coordination between the General Staff and the army operating on theterrain. If it wanted to regain the territory held by Russia, Ukraine needed more soldiers, better training for its troops and a more realistic assessment of its operational capabilities by its General Staff. The most credible estimates indicated that Kiev needed to recruit 160,000 soldiers to staff its approximately 110 brigades, organised into 18 army corps, in order to achieve an 85% personnel coverage rate[10]. With fewer troops, Ukraine's chances of covering the entire front were considerably reduced, which meant accepting gaps that had to be filled with drones. The United States had tried to convince Zelensky to lower the recruitment age from 25 to 18, but the Ukrainian president had resisted this measure in the hope of preserving the future generations needed for eventual reconstruction in a country undergoing a tragic demographic decline[11].

Beyond political considerations, the reality was more complicated. Conditions at the front had become extremely difficult, with soldiers fighting for years without rotation, having to endure a slow but steady advance by Russian forces and suffering enormous losses, which acted as a disincentive to enlist. Weariness with the war and the population's despair at the lack of positive results on the battlefronts had made military recruiters very unpopular figures. Videos on social media showing men screaming as they were dragged away by officers who had raided restaurants and bars in search of those who had not enlisted only made the situation worse. Even Ukraine's former military commander-in-chief, the popular General Valery Zaluzhnyi, had publicly denounced this situation in December 2023, which led to his resignation under suspicious circumstances[12].

The pace of operations intensifies

At the end of 2024, Russia was concentrating its efforts on dominating the southern part of the Donetsk region, an area where its army was making its most significant advances after the capture of Avdiivka on 18 February 2024. The mood among Russian commanders was optimistic, to the point that Russian President Vladimir Putin, in his end-of-year press conference, dared to declare, "I must say that the situation is changing dramatically... There is movement along the entire front line. Every day."[13].

Nevertheless, the Ukrainian armed forces had not been idle during those winter months of reduced operational intensity. On the contrary, they had taken advantage of them to

[10] The Independent. (2025, January 10). As Trump returns to the White House, and Putin's forces advance – what next for Ukraine in 2025? https://www.independent.co.uk/news/world/europe/ukraine-war-russia-2025-putin-trump-b2667274.html
[11] Galaxia Militar. (2024, 27 November). United States asks Ukraine to lower the age of conscription to increase military personnel. Retrieved 8 October 2025, from https://galaxiamilitar.es/estados-unidos-pide-a-ucrania-que-rebaje-la-edad-de-reclutamiento-para-aumentar-los-efectivos-militares/
[12] El Mundo. (2024, 13 October). Recruitment officers raid Kiev nightlife in search of men not registered for military service. https://www.elmundo.es/internacional/2024/10/13/670c00a3e85ece10108b45a8.html
[13] BBC News. (2025, 13 August). *Trump and Putin hold tense talks over Ukraine conflict at White House.* BBC. https://www.bbc.com/news/articles/c2ldpnyewx1o

establish strong defensive positions so that, as General Christopher G. Cavoli, Commander-in-Chief of the US Army in Europe pointed out, it was "very difficult to imagine the collapse of Ukraine"[14] .

In April 2025, Russia had between 620,000 and 700,000 soldiers deployed in Ukraine for its offensive, a historic high since the start of the conflict[15]. Russia had concentrated more than half of its forces deployed on the front line – more than 100,000 soldiers – along a 75-kilometre section stretching from Chasiv Yar (the northern pincer on Kramatorsk) to Udatchne (the southern pincer on Pokrovsk). In addition, more than 50,000 Russian soldiers had been redeployed to the Sumy border for secondary operations in that sector[16] .

To carry out its attack, the Russian command devised a deception manoeuvre consisting of secondary diversionary attacks in Kursk in the north and Dnipropetrovsk in the south of the front line, while directing the main attack at the central sector, mainly against the cities of Pokrovsk and Kostiantynivka. Russia was able to take advantage of its numerical superiority to apply continuous pressure simultaneously at various points along the front, forcing the Ukrainian command to overextend its forces beyond what seemed reasonable for an effective defence. The Russian attacks in sectors far from the Donbas were apparently intended to put pressure on the Ukrainian forces deployed in these regions, immobilising them and preventing them from moving towards the city of Pokrovsk in the Donetsk Oblast, where Russia had decided to concentrate the main effort of the offensive[17] . The aim was to stretch and weaken Ukrainian defences on multiple fronts in order to cause a breach in the main sector. This Russian operational design emphasised the importance of doctrinal flexibility in modern warfare.

The Ukrainian command seemed not to have understood Russia's operational strategy in the run-up to the offensive, to the extent that President Volodymyr Zelensky mistakenly identified the northeastern regions of the provinces of Sumy and Kharkiv as the main targets of a possible Russian spring offensive. Further south, Ukrainian military analysts identified increased pressure in the provinces of Kherson and Zaporizhia, where intense fighting had been going on for months and where the Russians were advancing slowly but methodically[18] .

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[14] Carey, A., & Gak, K. (2025, 9 April). Russia steps up offensive operations across the front line in Ukraine, in apparent defiance of Trump. What does it mean for the war? CNN. https://www.cnn.com/2025/04/09/europe/russia-ukraine-trump-war-analysis-intl/index.html

[15] Segura, C. (2025, 7 July). Russia launches bombing offensive against Ukrainian recruitment centres. El País. https://elpais.com/internacional/2025-07-08/rusia-inicia-una-ofensiva-de-bombardeos-contra-centros-de-reclutamiento-de-ucrania.html

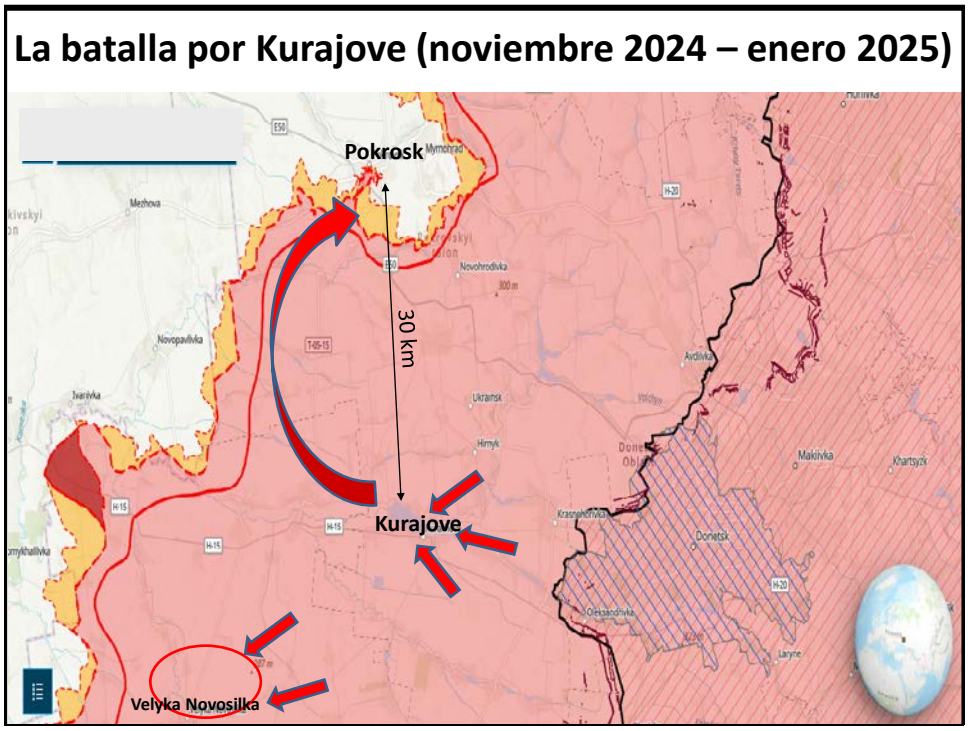
[16] Euronews. (2025, 28 May). Russia gathers 50,000 troops in the border area near Sumy, according to Zelensky. https://es.euronews.com/2025/05/28/rusia-reune-50000-soldados-en-la-zona-fronteriza-cerca-de-sumy-segun-zelenski

[17] Le Grand Continent. (2025, 15 July). Around Pokrovsk, the Russian siege tightens. Retrieved 8 October 2025, from https://legrandcontinent.eu/es/2025/07/15/alrededor-de-pokrovsk-se-estrecha-el-cerco-ruso/

[18] Bennetts, M., Ball, T., & Malofieieva, K. (2025, 9 April). Russia 'doubles assaults' against Ukraine in spring offensive. The Times. https://www.thetimes.com/world/russia-ukraine-war/article/chinese-citizens-capturred-fighting-donetsk-53shz2svn

The dominant thought was that the Russians would direct their main effort towards the Ukrainian region of Dnipropetrovsk, which was only six kilometres away, in order to advance to the Dnieper River and cut Ukraine in two. If successful, this would be not only a military victory but also a propaganda coup, as it would be the first time that Russian troops had set foot there. From a political point of view, Russian control over part of Dnipropetrovsk could be seen as a useful bargaining chip in future negotiations[19].

Initially, the Russian offensive spread across the entire front, with the main effort directed towards the city of Kurakhove, a key defensive position for Ukrainian troops in southern Donetsk, which was already almost entirely under Russian control, except for the power station and the so-called "Kurakhove pocket" to the south of the city where Ukrainian forces were still resisting. The city fell on 5 January after almost three months of intense fighting[20] .



Source: own elaboration based on ISW. https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

The fall of Kurakhove placed the Ukrainian command in a compromised position, as Russia could direct its attack towards Pokrovsk, encircling it from the north (via

[19] Carey, A., & Gak, K. (2025, 9 April). Russia steps up offensive operations across the front line in Ukraine, in apparent defiance of Trump. CNN. https://edition.cnn.com/2025/04/09/europe/russia-ukraine-trump-war-analysis-intl/index.htmlEl

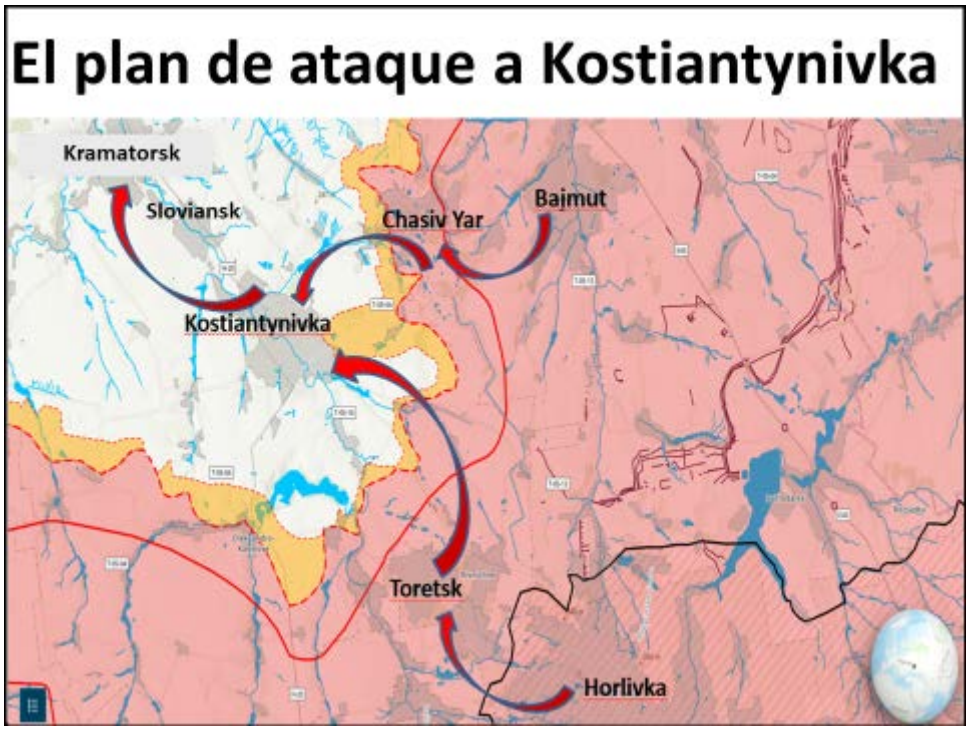
[20] Russia claims victory in Kurazhove, Donetsk, while Ukraine responds that it is still fighting there. War in Ukraine Alberto Rojas. EL MUNDO, 6 January 2025 - 20:15

Horlivka) and the south-west, and, once this city was taken, launch direct attacks on the Ukrainian rear, where the "Belt of Fortresses" of the Donetsk province was located.

This defensive belt is vital for Ukraine, acting as a defensive barrier against Russian advances, while its cities are important logistical centres for the Donetsk Oblast. Their fall would be an irreparable strategic loss, as the Ukrainian army would be forced to retreat to a less defensible line of open fields and natural obstacles along the border areas of the Kharkiv and Dnipropetrovsk provinces. However, the Ukrainian command was confident in the resilience of this 'iron belt', as Russia's failure in the 2022 invasion to seize Slovyansk, and its continued attempts over the following years to encircle the belt of fortresses, demonstrated the success of Ukraine's defensive strategy of relying on strong cities.

Further south was Velyka Novosilka, once a key point for Ukraine's counteroffensive in 2023, which was practically surrounded and where the Russians carried out a secondary diversionary offensive to weaken Ukrainian defences and force the Ukrainian command to distribute its defensive resources. The city finally fell to the Russians at the end of January 2025, after intense fighting[21] .

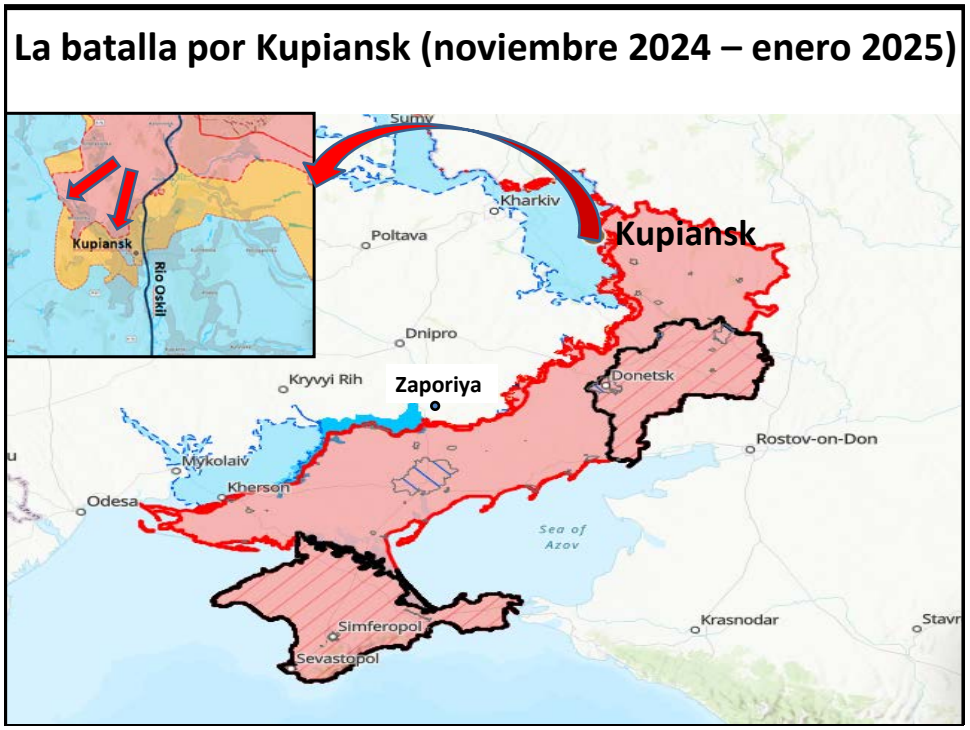
Other critical areas of the Russian attacks "on all fronts" were Toretsk and Chasiv Yar, sectors where bloody battles had been raging for months. The capture of these cities was part of Russia's plan to occupy the northern Donetsk region, which, if successful, would allow its forces to advance towards Kostiantynivka and, subsequently, the Sloviansk-Kramatorsk urban agglomeration.



[21] The Kyiv Independent. (2025, 26 January). Russia captures Velyka Novosilka after weeks-long siege. https://kyivindependent.com/russia-captures-velyka-novosilka-after-weeks-siege

Source: own elaboration based on ISW. https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

To advance towards the Sloviansk-Kramatorsk agglomeration, the Russians first need to resolve several complex tactical situations in the north of their deployment. The first was the capture of the entire left bank of the Oskil River in the direction of Kupiansk, from which they could advance south along the river with a covered flank. Although they had already reached the bank of the Oskil River in November 2024, they had been unable to expand their advance due to Ukrainian counterattacks.



Source: own elaboration based on ISW. https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

Following setbacks in Pokrovsk and Dovropilla in August 2025, Russian forces continued to advance slowly and steadily on various fronts, taking advantage of the shortage of Ukrainian defensive forces and the commitment of their reserves in Pokrovsk. To the west, they advanced along the Dnieper River towards the important city of Zaporizhzhia, which, like Sumy in the north, found itself increasingly subjected to Russian drones and artillery.

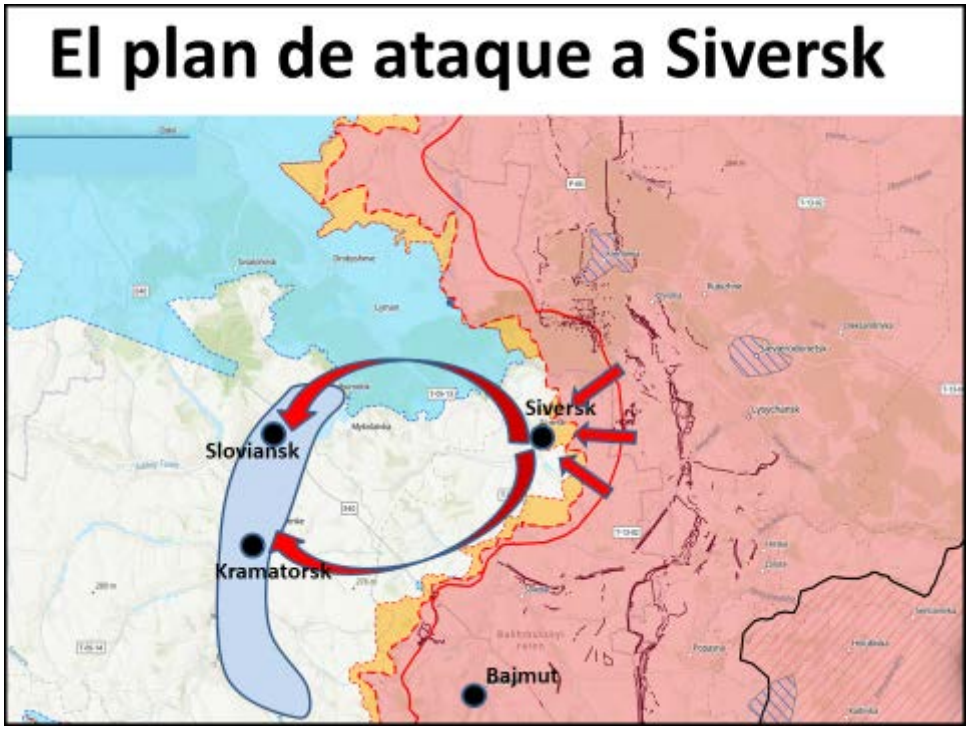
However, their most significant advance was in Kupiansk at the end of August, when they literally penetrated the conurbation they had lost in September 2022, regaining control of the suburb symbolically named Moskovska. The fact that the Russians had breached Ukrainian defences in this sector did not bode well for the Ukrainians, raising the question of whether this penetration in the north was facilitated by the redeployment of resources available to assist the Ukrainian counter-offensives that were taking place at that time around Pokrovsk.

In early September, Ukrainian forces counterattacked, making significant gains in certain areas after a series of intense battles. This advance was the result of Ukraine's rapid reaction, constant pressure on Russian forces in the area, and clever use of the terrain to force the Russians to partially retreat in order to preserve their lines and avoid being surrounded by the Ukrainian advance from Moskovska towards the areas adjacent to Kupiansk.

The battle on this axis has resulted in a widespread, fierce struggle, with continuous and intense fighting, reflecting the difficulty of advancing in terrain with natural obstacles, coupled with deployment and fortification in carefully chosen positions. It remains to be seen how the situation will evolve in the coming days and whether the Ukrainians have sufficient reserves to oppose the Russians in Kupiansk. The second task to be accomplished was to create a bridgehead in the Sviatohirsk and Lyman area, from which Russian forces could advance towards Sloviansk, a region they had lost control of during the Ukrainian counteroffensive in 2022.



The third obstacle for the Russians was Siversk, considered until then to be the most stable section of the front. Its capture would also allow Russian forces to advance on Sloviansk and Kramatorsk.



Another critical region where intense fighting was taking place was Kursk in the northern sector, where Ukrainian forces had launched a surprise offensive in August 2024 with the aim of distracting Russian troops from other fronts and capturing a territory within the Russian Federation that could serve as a bargaining chip for Kiev in any peace talks. In this sector, in early 2025, 70,000 soldiers from the Russian regular forces, together with special units such as the Chechen "Akhmat" battalion belonging to the Russian National Guard, as well as 10,000 to 12,000 North Korean soldiers, attacked the Kursk salient bridgehead from multiple directions. The result was the loss by Ukrainian forces of 40% of the 1,376 square kilometres of the Oblast they controlled at their peak, including the city of Sudzha[22] .

The final fall of this enclave came in March 2025, depriving Kiev of any significant political gains while significantly worsening its military situation in the sector. The Russian command exploited this success, allowing its troops to enter the adjacent Ukrainian province of Sumy, so that by August 2025, they were occupying some 200 square kilometres of the province, although their presence was limited to small border areas and specific localities.

[22] Euronews. (2024, 24 November). Ukraine has lost 40% of the territory it conquered in Kursk, according to reports. https://es.euronews.com/my-europe/2024/11/24/ucrania-ha-perdido-el-40-de-las-tierras-que-habia-conquistado-en-kursk-segun-los-informes



Source: Own elaboration based on ISW.
https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

The Russian offensive on Kharkiv. May 2025

To the north of Donbas lies Kharkiv, Ukraine's second most populous city and main logistical hub in the rear, as it is much easier and faster to supply the northern front in Donetsk from Kharkiv than from Poltava or Dnipro. Controlling Kharkiv would allow Russia to have direct influence over large strategic areas in the oblast of the same name and would facilitate its control of routes to the east and the interior of the country.

On 10 May, the Russian army launched a limited offensive along the border north of Kharkiv. Its aim was to force the Ukrainians to deploy their reserves away from Donbas and thereby weaken the defences of the numerous fortified agglomerations west of Avdiivka that were under Russian attack. The offensive was led by the newly created Northern Operational Group (SEVER) based in the St Petersburg Military District, which commanded the 11th and 44th Army Corps deployed south of Belgorod. Each of these Corps committed a motorised rifle division, to which were added support elements from the 6th Combined Arms Army, two independent motorised rifle brigades and elements of the 1st Guards Tank Army, as well as an undetermined number of airborne troops. This was a powerful fighting force of some 40,000 soldiers and 300 tanks[23], sufficient to create a buffer zone that would prevent the Ukrainian army from carrying out cross-border incursions into the province of Belgorod. On the other hand, it was also intended

[23] Ferreira, S. (2024, 17 May). The Russian offensive on Kharkov: initial assessment. Le Diplomate. https://lediplomate.media/2024/05/loffensive-russe-sur-kharkov-premier-bilan/sylvain-ferreira/monde/

to immobilise local Ukrainian units and draw as many Ukrainian reserves as possible from other sectors of the front (as was the case with the 92nd Assault Brigade, an elite mechanised unit that had distinguished itself in the defence and subsequent counteroffensive of Kharkiv in 2022), as well as forcing the Ukrainian command to deploy the new territorial defence brigades, still in training, there. Finally, the Russian command sought to bring Kharkiv within range of Russian artillery, with a view to a possible subsequent assault.



Source: Own elaboration based on ISW.
https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

The offensive, which was characterised by intense fighting, shelling and drone attacks, was part of a sequence of successive operations intended to 'stretch' Ukrainian reserves to the limit. The aim was to broaden the strategic dynamics of the war, combining it with movements in other sectors such as Donetsk, Luhansk and Kursk. With this operational strategy, the Russian Command hoped that Ukraine's lack of sufficient human and material resources, combined with the cumulative effect of the various offensives carried out simultaneously, would lead to the collapse of Ukraine, as had happened with the Allied offensives orchestrated by French Marshal Foch from mid-July 1918 during the First World War.

However, the limited nature of the offensive in Kharkiv and its simultaneity with similar operations in other sectors of the front were due to practical reasons. It sought to respond to the problems posed by the detection capabilities made available to Ukraine by Western countries. The information provided by satellites and, above all, the numerous drones flying over the line of contact made it impossible to conceal Russian troop concentrations near the front, thereby nullifying the element of surprise. In the new

drone wars, the battlefields seemed to have become transparent, forcing the Russian command to deploy smaller concentrations of troops, but in numerous sectors, in the hope that if the attacks were conducted simultaneously, the diminished Ukrainian troops would eventually collapse at some point on the front.

As a result, Russia advanced in the border areas towards Kharkiv, capturing several towns and establishing security zones near the Russian border. However, Ukrainian forces put up strong resistance, eventually managing to contain the Russian advances through rapid counterattacks in critical sectors. After several days of violent fighting, accompanied by massive Russian drone and missile attacks, especially concentrated in Kyiv and eastern regions, the situation stabilised with the arrival of Ukrainian reserves. The partial outcome was that Ukraine maintained its defensive lines and Russia secured a "buffer zone" with the territories it had taken, but without making decisive advances into the Kharkiv Oblast.

With the Kharkiv sector stabilised, the Russian offensive effort was directed primarily towards Chasiv Yar, Pokrovsk and Lyman. Attacks also began in the areas of Svatove towards the Oskil River, and the advance from the southwest from Ugledar towards Ivanivka. Similarly, the opening of a new front in the Sumy region on 10 May, following the expulsion of Ukrainian forces from the Russian region of Kursk, was part of the long list of Russian offensive actions that took place at the end of spring.

Operation 'Spider's Web'. Ukrainian tactical surprise with limited strategic impact

In order to relieve pressure on the front and, above all, to achieve a propaganda effect that would boost the morale of the troops and public opinion, Ukraine carried out on 1 June 2025 a daring simultaneous drone attack on five Russian air bases located more than 4,300 km from the border. The operation, dubbed "spider's web", was aimed at destroying the strategic bombers used to coordinate and launch attacks on Ukrainian cities. From an operational and media perspective, it was a resounding success, as described by the Ukrainian authorities, who claimed to have damaged or destroyed 41 Russian aircraft, including Tupolev Tu-95 and Tu-22M strategic bombers. However, US analysts reduced this number to 20 aircraft affected, of which 10 were destroyed[24] .

[24] France 24. (2025, 1 June). *Ukraine launches a large-scale coordinated drone attack on military airfields in Russia.* France 24. https://www.france24.com/fr/europe/20250601-ukraine-mène-une-opération-ampleur-contre-aviation-militaire-en-russie-selon-kiev



Source: Based on France 24. (2025, 2 June). Operation "Toile d'araignée": a Ukrainian success inspired by Pearl Harbor. France 24. https://www.france24.com/fr/europe/20250602-operation-toile-araignee-drone-succes-ukrainien-tupolev-pearl-harbor-guerre-invasion-impact

The most significant aspect in terms of damage assessment is that the effects caused by the Ukrainian drones affected the Tupolev-TU5 bombers, which were not used directly as air support for troops on the front line, but remained relevant for launching missiles at targets located inside Ukraine, from outside the Ukrainian airspace. Although Ukraine was the target of Russia's remaining 295 strategic bombers, the effectiveness of Ukrainian air defence had forced Russia to carefully choose the flight paths of the aircraft from which it launched its missiles. The distance from the launch point to the front line can be as much as 3,500 kilometres, usually within Russian airspace or over the Caspian Sea, in order to remain beyond the reach of Ukrainian air defences. The missiles fly at low altitude close to the ground to avoid detection by Ukrainian radars, guided by the Russian Glonass satellite system towards targets inside Ukraine, including major cities such as Kiev, Lviv and Odessa.

Hence, the destruction or disabling of a certain number of Russian bombers may have served, to a limited extent, to make life safer for the Ukrainian population, but this has not translated into a reduction in Russia's capacity to launch its summer offensive[25] . It should not be forgotten that Russia has other means of firing its missiles, particularly submarines, so the intensity of the bombing was not reduced, Russian troops on the front line were not affected, and Ukrainian cities in the rear were not spared either.

[25] France 24. (2025, 2 June). Operation "Spider's Web": a Ukrainian success, but limited impact on the war. *France 24.* https://www.france24.com/fr/europe/20250602-operation-toile-araignee-drone-succes-ukrainien-tupolev-pearl-harbor-guerre-invasion-impact

However, the fact that these strategic bombers represent an important element of Russian nuclear deterrence, as they are equipped to carry nuclear warheads, indicates that, with their destruction, the Ukrainians dealt a significant blow to Russian nuclear deterrence vis-à-vis the United States. In this sense, Therefore, Operation Spider's Web can be seen more as a success for NATO in the face of a possible Russian threat than as a significant gain for Ukraine in the war.

In short, Operation Spider's Web had a significant media and psychological impact, but did not alter the strategic or operational balance in terms of territorial control of the disputed area of Ukraine, which is the key condition for victory for both sides[26] . It remains to be seen whether, and to what extent, such potentially innovative operations will shed light on how drones will be used in future wars. In any case, the operation served to demonstrate that there was no place in Russia free from Ukrainian attacks, which is surely a harbinger of how drone operations will define strategy in the future.

The strategic impact of drone warfare

The war in Ukraine is highlighting the strategic impact that the introduction of new drone technologies is having on the definition of strategies. During the "spider web" operations in June 2025, Ukrainian forces used local SIM cards within Russian territory to guide their drones, hitting targets located deep inside the country[27] .

Today, both sides have adopted the same approach of equipping their drones with LTE modems that rely on civilian telecommunications infrastructure, ensuring remote control and video transmission without the need for satellite links or military repeater stations. This is a technological shift that is redefining drone warfare, as relatively inexpensive cruise drones can be transformed into high-precision drones with real-time video transmission and the ability to execute last-minute trajectory changes.

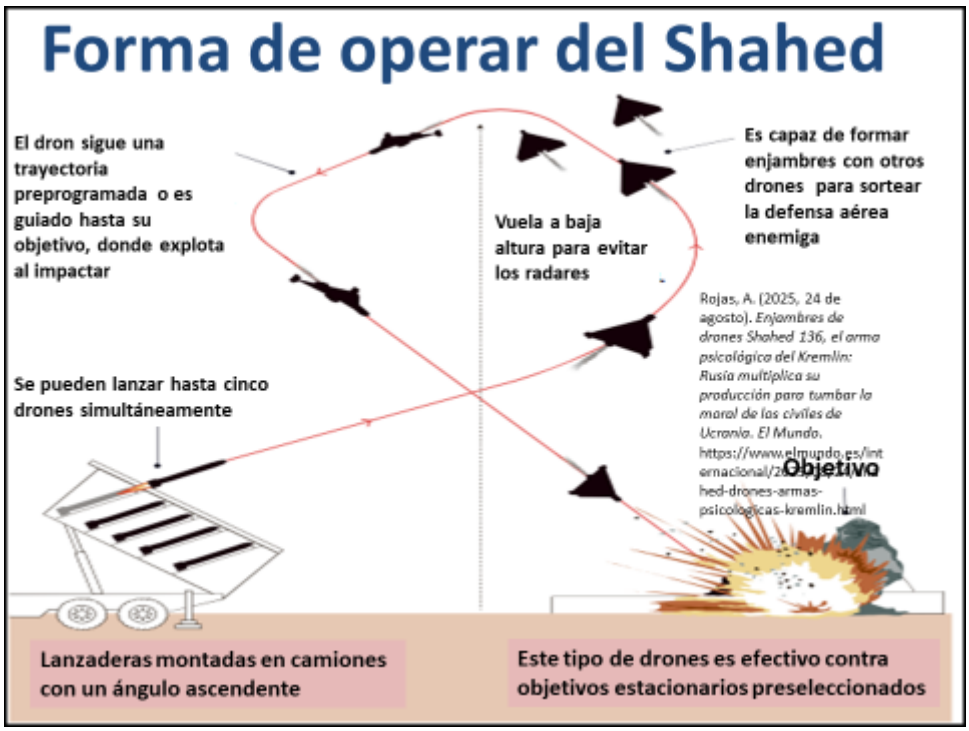
The lesson to be learned is clear: drones no longer just fly over the terrain, but exploit civilian connectivity, which has become a new hybrid front in warfare. In the future, layered air defence systems will need to evolve to quickly detect, block or isolate signals from their own civilian telecommunications networks to prevent enemy drones from benefiting from them.

In Russia's case, the star weapon is the Shahed 36, a drone of Iranian origin but manufactured in Russia under the name Geran (Geranium), given its strategic impact, low cost (around €20,000) and mass deployment. These drones are basic, slow, with small warheads, similar to cheap cruise missiles. The originals, which are still in the majority, do not even have a GPU; they cannot make decisions, they are simply programmed with a destination and fly there.

[26] Irvin, W. (2025, 6 August). *Drones are game-changing, but they are not the answer to the inherent challenges of land war.* Small Wars Journal. https://smallwarsjournal.com/2025/08/06/drones-are-game-changing/
[27] Infobae. (2025, 23 June). Ukrainian intelligence revealed new details of its Operation Spider Web. Retrieved 8 October 2025, from https://www.infobae.com/wapo/2025/06/23/la-inteligencia-de-ucrania-revelo-nuevos-detalles-de-su-operacion-telarana/

But now, a second generation of drones is emerging, produced in Russia at a cost of between $600 and $900. These are larger, with greater payloads and some decision-making capacity. Their chips are not cutting-edge (8 nanometres), but they are far superior to those used previously. The Gerán is used as loitering munition that remains in the air searching for or waiting for a target, which it then dives on and detonates when it detects it or is ordered to do so.

As it is very slow and therefore easily locatable and shootable, it is not used on the battlefield, but rather in rear cities, where it is used in swarms, keeping them at high altitude over a city to exhaust anti-aircraft ammunition and then diving them at targets ranging from apartment blocks to factories, military installations, or department stores. Many Gerans are fake, and up to two-thirds of the drones launched do not carry warheads or advanced components; they serve only as cheap decoys to overwhelm Ukrainian defences. This makes it more likely that the real drones will break through the anti-aircraft defences with devastating effects.



Source: own elaboration based on El Mundo. (2025, 24 August). https://www.elmundo.es/internacional/2025/08/24/shahed-drones-armas-psicologicas-kremlin.html

If at the beginning of 2025, Russia was manufacturing around 100 Gerans per day; a year later they were producing 500 units every 24 hours, with the aim of ending the year manufacturing 1,000 per day[28] . The high price of missiles makes their use against these drones unaffordable. In addition, Ukraine's shortage of anti-aircraft guns, such as the old but effective German 35 mm Gepard guns, of which Ukraine only has 250 units,

[28] Rojas, A. (2025, 24 August). Swarms of Shahed 136 drones, the Kremlin's psychological weapon. *El Mundo.* https://www.elmundo.es/internacional/2025/08/23/68a89f2821efa0d1468b4576.html

together with their limited effective range of about 3,000 metres, limits their effectiveness. but effective German 35 mm Gepard guns, of which Ukraine only has 250 units - together with their limited effective range of around 3,000 metres - which limits their effectiveness against high-flying drones - has made the Gerán the decisive weapon with which the Kremlin intends to win the war.

Beyond the impact of Operation Spider Web, Ukraine finds itself at a disadvantage in the technological drone battle with Russia, which is being fought largely over the skies of cities such as Kyiv. The great challenge facing Ukraine today is to protect itself from the increasingly dense swarms of Gerán kamikaze drones, which Russia is producing in ever-greater numbers and with constant improvements, including effective anti-interference systems such as black paint to reduce their visibility at night, or mixing them with other drones without explosives (decoys) to confuse Ukrainian defences. The fact that they fly at altitudes sometimes reaching five kilometres also makes them more difficult to interfere with, as they are out of range of light weapons and anti-aircraft artillery. The Geran has thus gone from a collection of attack drones to becoming an integrated offensive architecture that combines logistics, mobility, saturation and deception[29] .

All these factors of sophistication, combined with the shortage of anti-aircraft ammunition faced by the Ukrainian Army, have caused the level of interceptions to fall from the almost 100% that Ukraine once achieved to levels close to 80%. That translates into higher ratios of direct hits on targets such as weapons production facilities and critical infrastructure[30] .

The key to the success of Russian drones undoubtedly lies in the revival of an industrial strategy "from the Urals" that had not been seen since the 1940s and which consists of building factories to produce drones beyond the reach of Ukrainian weapons. Until recently, most of the drones used by the Russians came from Iran or China, usually already assembled, to which the Russians perhaps only added a warhead at the front. They therefore depended on the industrial capacity of third countries to maintain the flow of weapons. Whereas Iran used to send them almost finished, now China sends components that the Russians assemble on their territory. In this way, not only do they achieve greater autonomy, but they also increase the flow, as they continue to buy complete drones from Iran and China. The result is that they have gone from launching a few drones a day to using hundreds in each attack.

At the same time, they continue to use their abundant Soviet equipment, mainly artillery, to maintain firepower superiority on the battlefield. As this stockpile has been depleted, the low quality of their industry has increased their dependence on a significant

[29] Rojo, Á. (2025). The Russian Shahed System and the transformation of aerial warfare in Ukraine [Article]. Pucará. Retrieved 27 September 2025, from https://www.pucara.org/post/el-sistema-shahed-ruso-y-la-transformaci%C3%B3n-de-la-guerra-a%C3%A9rea-en-ucrania

[30] Editorial. (2025, 26 July). Interceptor drones against Shaheds: the new battle in the war for the skies in Ukraine. El Mundo. https://www.elmundo.es/internacional/2025/07/26/6884d4bee4d4d8bc498b4597.html

percentage of imported equipment, such as artillery shells from North Korea or Iranian Shahed drones.

Today, the situation is much more favourable for a Russian army that has traditionally identified with an artillery it has largely lost. This has forced them to innovate by taking the old Ural strategy and applying it to drone technology and artillery ammunition, for which Russia has built multiple facilities during these years of war. Currently, Russian industry produces about 3 million shells per year, in addition to increasing North Korean deliveries since autumn 2023[31] .

The Russians also coordinate these drone attacks with missile strikes, causing much more damage to Ukrainian infrastructure, even in civilian urban areas. Added to this are the fearsome 3-tonne glide bombs (FAB 3000), which are currently almost impossible to intercept and capable of wiping out a front line, destroying Ukrainian fortified strongholds and forcing defenders to disperse their resources to avoid being crushed in a single blow.

The Russians would thus be able to create a shifting no-man's-land, where small reconnaissance units can advance little by little until they find a weak point and launch a more traditional assault. It is, however, too early to say whether this industrial and operational strategy will work, but it can be said that it represents a significant shift in the way the Russians wage war.

To address this problem of Russian technological and industrial advances, the Ukrainians have had no choice but to adapt with their own changes, successfully copying Russian designs, but not their tactics. Ukraine has opted for the industrial-scale manufacture of interceptor drones that are much cheaper than missiles to shoot down drones. The problem is one of scale, because when the Russian armed forces launch 800 Geran drones in a wave, Ukraine needs at least 1,000 interceptor drones to neutralise them with any certainty, as not all hits are effective[32] . Each interceptor costs around €3,000, which amounts to nearly €3 million per wave. Until recently, attempts were made to shoot down Russian drones with anti-aircraft missiles that could cost more than €100,000 each, which was economically unsustainable.

The result is that, in practice, Ukraine can only respond with less than 20% of what is needed, just 160 interceptors compared to the more than 1,000 that would be required. This gap is not due to a lack of technology, but to a lack of funding and industrial capacity to mass-produce a larger number of interceptors. This lack of symmetry means that the Russian population does not feel the weight of the war to the same extent as the Ukrainian population. That will remain so, at least until Kiev can respond by also

[31] CNN Español. (2024, 10 March). Russia produces three times more artillery shells than the United States and Europe. Retrieved 8 October 2025, from https://cnnespanol.cnn.com/2024/03/11/exclusivo-rusia-produce-proyectiles-artilleria-estados-unidos-europa-ucrania-trax

[32] Infobae. (2025, 29 July). Will interceptor drones be able to stop Russia's terrorist bombings? https://www.infobae.com/economist/2025/07/29/podran-los-drones-interceptores-detener-los-bombardeos-terroristas-de-rusia/

sending hundreds or thousands of drones into Russia, saturating its defences and increasing its costs.

Despite its logistical limitations, Ukraine has continued its drone attacks on Russian territory, including annexed Crimea, even striking near Moscow and St Petersburg; however, fewer resources have forced the Ukrainian command to adopt a more selective approach. Instead of massive attacks, it has focused on precision strikes against vulnerable but critical targets within Russia, particularly those supporting military logistics and energy infrastructure.

Ukraine has been able to carry out these precision strikes thanks to the local development of an arsenal of loitering munitions, notably the AN-196 Liutyi drone, used in several actions against targets inside Russia[33] . For example, on 1 July 2025, two Liutyi drones penetrated 1,400 kilometres into Russian territory to attack the Kupol electromechanical plant in Izhevsk, a key producer of Tor-M air defence systems and Harpiya drones[34] .

Given its success in attacks on Russian targets, the use of the Ukrainian Liutyi has increased considerably, although its production rate remains well below that of Russian Gerán drones. Consequently, Ukraine has been forced to maintain its strategy of carrying out precision strikes with these advanced drones, rather than using them in mass bombardments like those carried out by Russia.

It remains to be seen whether Ukraine's introduction of the new Flamingo cruise missile will change this situation. With a range of approximately 3,000 kilometres and a warhead of more than 1,000 kilograms, the Flamingo can reach targets within Russia, including major cities such as Moscow and St Petersburg[35] . This missile represents a significant advance for Ukraine's strategic capability, as it does not depend on external authorisation to attack targets on Russian territory. As it is a cruise missile and therefore relatively slow and interceptable, its impact on the dynamics of the conflict will depend on production – which is expected to increase to 30 missiles per day in the near future – and on its ability to achieve precise and high-value strategic strikes.

The summer offensive of 2025

Following the advances in the spring, the conquest of the Donetsk region was the Kremlin's top priority, so an offensive could be expected at any moment. The main targets of the offensive were the cities of Pokrovsk and Kostiantynivka, whose conquest

[33] Development of the AN-196 Liutyi drone began in 2022 by Antonov ASTC in collaboration with Ukroboronprom, Ukraine's state-owned defence conglomerate.
[34] The Liutyi drone: Ukraine's response to Russia's attacks. (2025). *Forbes Spain.* Retrieved from https://forbes.es/actualidad/778339/el-dron-liutyi-la-respuesta-de-ucrania-a-los-ataques-de-rusia/
[35] Díaz, J. (2025, 25 August). Ukraine's new long-range missile can easily reach the Kremlin. El Confidencial. https://www.elconfidencial.com/tecnologia/novaceno/2025-08-26/flamingo-fp-5-misil-largo-alcance-ucrania-rusia-moscu_4197156/

would open the way to storm the belt of Ukrainian defensive cities protecting the part of Donetsk not occupied by Russia.



Source: Author unknown. (2025). Main objectives of the Russian offensive in summer 2025 [Map]. Based on open sources and own composition.

From May onwards, signs that the offensive had begun were evident in the first significant territorial advances, with a 41% increase in assault operations in the Donetsk region. The attacks were accompanied by an increasing number of drones targeting Ukrainian military industries, airfields, drone workshops, arsenals and troop concentrations[36] .

Initially, the Russian command concentrated its main effort on taking Chasiv Yar, a front-line town since its neighbouring town, Bakhmut, fell under Russian control on 20 May 2023. Unlike neighbouring Bakhmut, Chasiv Yar is located on easily defensible high ground, making it a fortified position. For the final assault on Chasiv Yar, a town that the Russians controlled almost 90% of after more than a year of continuous fighting, an encirclement from the south was chosen.

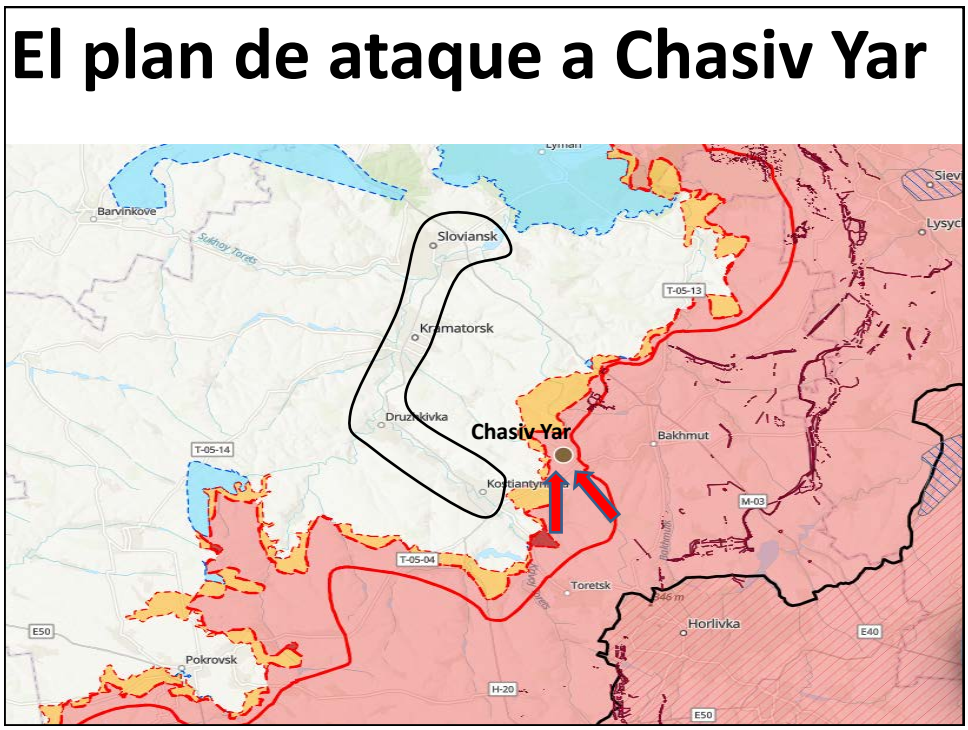
To this end, at the end of June 2025, the Russian command concentrated 110,000 soldiers[37]. The offensive was not only military, but also part of a broader political strategy to influence the dynamics of Western support for Ukraine, at a time when the

[36] Harward, C., Olmsted, J., Harvey, A., Young, J., Hird, K., & Stepanenko, K. (2025, 25 May). Russian Offensive Campaign Assessment, 25 May 2025. Institute for the Study of War. https://www.understandingwar.org/backgrounder/russian-offensive-campaign-assessment-may-25-2025

[37] Shveda, Z., & Cotovio, V. (2025, 27 June). Why Russia is advancing around Pokrovsk and what it means for Ukraine. CNN. Retrieved from https://edition.cnn.com/2025/06/27/world/pokrovsk-russia-ukraine-war-troops-intl

reduction in diplomatic attention towards peace negotiations between Kiev and Moscow facilitated an increase in Russian military operations, as they didn´t feel immediate pressure for a ceasefire.

Russia also sought to take advantage of important international events, such as the NATO summit in The Hague in June 2025, to deter countries supporting Ukraine from continuing their military and financial support. Creating security zones and consolidating its territory in key regions was intended to strengthen its negotiating position[38] .



Source: Own elaboration based on ISW.
https://storymaps.arcgis.com/stories/36a7f6a6f5a9448496de641cf64bd375

The city finally fell on 31 July, providing an important tactical and operational success for Russia, given its location in an elevated area and its importance in assaulting the 'defensive belt' of key cities Kostiantynivka-Kramatorsk-Sloviansk, the backbone of Ukrainian defences in the part of the Donetsk region still under Kiev's control.

The Russians had learned in Bakhmut and Avdiivka the enormous human cost of frontal assaults on cities and had introduced new tactics to conduct assaults by small platoons, often without direct armoured support. The rationale was simple: everything was so visible on the battlefield that any vehicle became an immediate target. Along with these assault tactics, Russian forces also regained the sense of encircling manoeuvres that had served them so well in the capture of Avdiivka.

[38] France 24. (2025, 5 July). Russia intensifies its offensive in Ukraine while peace negotiations remain stalled. *France 24.* https://www.france24.com/fr/europe/20250705-la-russie-intensifie-son-offensive-en-ukraine-tandis-que-les-negociations-de-paix-restent-bloquees

It was not, therefore, a question of launching immediate massive attacks, but rather of provoking a gradual increase in the number and frequency of assaults in various sectors of the front, particularly in the Donetsk region, targeting the cities of Kostiantynivka and Pokrovsk. These attacks were accompanied by diversionary actions in other sectors of the front, mainly the border regions of Sumy in the north and Dnipropetrovsk in the south, an oblast whose border Russian forces had reached in mid-June.

The rationale behind this strategy was simple and based on the idea that the front line was no longer clearly defined but had become discontinuous. The lack of sufficient Ukrainian troops meant that there was no unbroken line of fortifications, but rather large gaps through which infiltration could be attempted. The front now consisted of individual fortifications, often-isolated buildings, whose sectors were not always overlapped. Therefore, rather than fire control, the important factor in this area was the visual control that Ukrainian drones exercised from the air. Where this visual control was not permanent, the Russians could achieve successful penetrations with their infiltration tactics.

In the field of infiltration tactics, Russia had profoundly innovated its attack procedures. The high human cost of the massive assaults in previous years' operations, coupled with the fact that the Trump administration had begun to provide, - albeit gradually -, more military aid and the European defence industry had been increasing its capacity for three years and delivering more artillery shells to the Ukrainians, led the Russian command to design the attacks with a different approach.

The Russian army revived and refined the old tactical concept of "assault troops," popular in the world wars, introducing new infiltration techniques. The aim was to take advantage of the low density of Ukrainian troops in the central sector of the front to temporarily restore, with limited scope, the tactical manoeuvre[39] , something that the defensive strategy used by Ukraine until then - based on the extensive use of FPV drones - had made prohibitive[40] .

The use of FPVs against fixed-wing reconnaissance drones had been invented by the Ukrainians in June 2024, when they created the so-called "Unmanned Systems Force" to counter the increase in Russian drones and a shortage of anti-aircraft systems to shoot them down. This was a highly technical unit of drones designed "from the ground up" and brought together under a unified command structure specialising in deep strikes

[39] Institute for the Study of War. (2025, 19 August). New Russian foreign minister Sergey Lavrov officially appointed... [LinkedIn post]. LinkedIn. https://www.linkedin.com/posts/institute-for-the-study-of-war_new-russian-foreign-minister-sergey-lavrov-activity-7363771562673512448-a2MV

[40] Institute for the Study of War. (2025, 7 February). *Russian offensive campaign assessment, 7 February 2025.* Retrieved from https://understandingwar.org/backgrounder/russian-offensive-campaign-assessment-february-7-2025

against targets such as oil refineries and air bases, as well as attacks on Russian ships in the Black Sea[41] .

The Russians were quick to respond by creating their own "Rubicán" drone unit in August 2024, combining their best military drone pilots with engineers tasked with building and updating the technology used by these pilots in the field. This new unit proved "effective and deadly" during the Russian response to the Ukrainian incursion into Kursk in the autumn of 2023, and was responsible for the destruction of numerous Ukrainian HIMARS missile launchers[42]. However, their greatest success came on 18 August 2025, when they sank the Ukrainian Navy reconnaissance ship Simferopol, which was operating in the Danube River delta near the Ukrainian region of Odessa, using a naval drone attack[43] .

In the Pokrovsk sector, the massive use of these drone units by both sides resulted in a reduction to a minimum of aerial reconnaissance along the line of contact, as a systemic activity prior to in-depth attacks. Although Electronic Warfare (EW)/Anti-drone units were active on both sides, Russians and Ukrainians were constantly changing frequencies, overloading the systems. On the other hand, reconnaissance drones attempting to operate there during the day were located and shot down by FPV drones that were everywhere, and it was only a matter of time before they were also systematically shot down at night.

Even "flying higher" (4,000-5,000 metres) did not provide safety, because even at those altitudes, both sides had learned to shoot them down. Under these circumstances, conducting aerial reconnaissance with fixed-wing drones prior to any attack had become impossible. Without visual confirmation of targets, neither the Russians nor the Ukrainians were willing to deploy large numbers of forces for an attack. The battlefield became invisible once again.

The result was a "petrification" of the front line as Russians and Ukrainians employed increasing numbers of FPV interceptors to create so-called "death zones," where the survival of soldiers in open terrain, or of any means employed, was virtually impossible, often making escape the only option, albeit with uncertain success[44]. These zones sometimes extend up to 20 km, a depth marked by the maximum range of the drones' fibre optic cable. It is estimated that, for every kilometre of the front line, several dozen

[41] Rosenberg, A. (2024, 13 June). Ukraine's new Unmanned Systems Forces takes shape. Long War Journal. https://www.longwarjournal.org/archives/2024/06/ukraines-new-unmanned-systems-forces-takes-shape.php
[42] Parker, J. (2024, 17 August). The Bear's Elite – Russia's Rubicon Drone Unit. *Modern Warfare.* Retrieved from https://modernwarfare.substack.com/p/the-bears-elite-russias-rubicon-drone
[43] Roy, M. (2025, 28 August). Ukrainian Navy's ship sunk in drone strike: Russian Defence Ministry. News18. https://www.news18.com/world/ukrainian-navys-largest-ship-sunk-in-drone-strike-russian-defence-ministry-ws-dl-9535223.html
[44] Defensa.com. (2025, 23 April). Drones cause more casualties than artillery in Ukraine. Defensa.com. Retrieved 8 October 2025, from https://www.defensa.com/otan-y-europa/drones-causan-mas-bajas-artilleria-ucrania

to several hundred of these drones are used per military subunit, demonstrating the massive and effective nature of the use of these devices.

However, this stalemate on the front line also offered certain opportunities for a skilled attacker to manoeuvre tactically, if they knew how to take advantage of principles such as camouflage or speed. The Russians tried to take advantage of their numerical and material superiority to put new infiltration techniques into practice by introducing some SRG groups into the western part of the city of Pokrovsk at the end of July, putting the Ukrainian defence in serious trouble. The difficult situation forced the Ukrainian command to urgently send some of its best troops (the 155th Separate Mechanised Brigade and the 68th Hunter Brigade) before the Russian incursion could consolidate, "to fix the situation and prevent it from becoming a disaster"[45].

In mid-August, the timely arrival of Ukrainian reinforcements managed to stabilise the situation, so that taking control of the remaining neighbourhoods in the heart of the city remains a major challenge, as well as a primary objective, for the Russian advance.

The Russian offensive north of Pokrovsk: a potential catastrophe for Ukraine

The Russian command was aware of the shortage of Ukrainian troops on the thin front line in Pokrovsk, which had become a structural problem for the Ukrainian defence. Ukraine had a serious problem not having enough troops to defend its positions along the entire front, a circumstance acknowledged by President Zelensky himself when he admitted that Russia was mobilising up to 45,000 soldiers per month, while Ukraine was only able to mobilise 25,000 soldiers[46] . In addition, the desertion of 1,700 French-trained soldiers from the 155th Brigade (known as "Anna of Kiev") on 5 January had highlighted an additional and systemic problem of motivation and leadership within the Ukrainian forces[47] .

This situation created a clear opportunity for manoeuvre, which the Russians took advantage of to attack. Russia transferred up to 15,000 additional troops from the north to the sector, concentrating more than 120,000 troops in the area surrounding Pokrovsk. The Russian objective was to cut off the logistical routes between Pokrovsk and Kramatorsk, key centres of Ukrainian resistance.

The Russian command was aware that taking Pokrovsk would not be easy or cheap. As had been the case with other cities that had suffered costly assaults in previous years, Pokrovsk was a clear example of how controlling well-entrenched urban areas is different, and much more complicated, than controlling open terrain. The city offered

[45] Dixon, R. (2025, 29 July). 'We Could Lose It in 60 Days': Russia Closes In on Ukrainian Stronghold of Pokrovsk. *The Moscow Times.* Retrieved from https://www.themoscowtimes.com/2025/07/29/we-could-lose-it-in-60-days-russia-closes-in-on-ukrainian-stronghold-of-pokrovsk-a90004
[46] Fornusek Martin, 'Russia mobilises 40,000-45,000 troops per month, Ukraine 25,000-27,000, Zelensky says', *The Kyiv Independent,* 28 May 2025 (https://kyivindependent.com/russia-mobilizing-40-000-45-000-troops-per-month-ukraine-25-000-27-000-zelensky-says/)
[47] Lempereur, J. (2025, 13 August). Russian offensive in Donetsk Oblast, a "catastrophe" for Ukraine? Revue Conflits. https://www.revueconflits.com/offensive-russe-dans-loblast-de-donetsk-une-catastrophe-pour-lukraine/

natural cover to the defenders and hindered the attacker's advance, so Russian attempts to storm the main streets were met with continuous direct resistance from Ukrainian forces deployed in buildings and fortifications located in strategic positions.

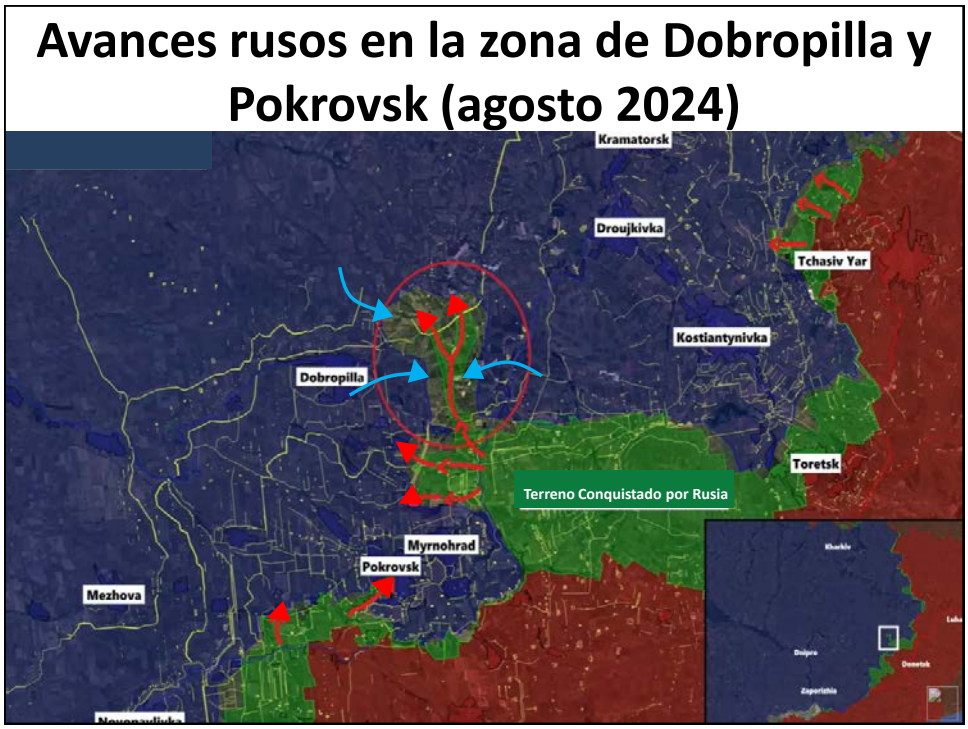
These types of battles were part of what is known as "urban warfare," a complex, continuous and extremely difficult fight in which every step forward was met with strong resistance and solid Ukrainian defensive positions. Every building and street took on strategic importance; every move and counter-move was fraught with obstacles and dangers, and every area under Ukrainian control or conquered by Russian forces was the scene of intense fighting to maintain or reverse advances. Thus, the situation in this sector became a mixture of tactical advances and responses, with intense and constant clashes on both sides, each seeking to gain the upper hand in the complex conditions imposed by the urban landscape, fortifications and technological support.

This is something that both combatants were aware of. The experience of the war in Ukraine shows that urban combat is not easy and requires a great deal of time and effort to achieve significant gains. The situation in Pokrovsk is representative of what the armed forces of any country face in dense cities, where complex military operations require careful planning and adequate distribution of troops on the ground.

In the first week of August 2025, Russia launched an offensive north of Pokrovsk, breaking through Ukrainian defensive lines near Dobropillya and advancing towards the strategic T0154 Dobropillya-Kramatorsk road, which was crucial for Ukrainian logistics. Small infiltration and sabotage units (USR) supported and supplied by drones managed to penetrate Ukrainian defences, infiltrating a dozen kilometres and creating a double "rabbit ear" salient in the direction of Pokrovsk[48] . The situation became very complicated for the Ukrainian command, to the point that the former commander of the 12th Azov Brigade of the Ukrainian National Guard, Bohdan Krotevych, publicly alerted his president to the "disastrous" situation on the Pokrovsk-Kostiantynivka line[49] .

[48] Le Monde. (2025, 20 August). War in Ukraine: Russian troops threaten the Donetsk region. *Le Monde.* https://www.lemonde.fr/international/article/2025/08/20/guerre-en-ukraine-la-percee-russe-est-bloquee-dans-la-region-de-donetsk_6632164_3210.html

[49] Bohdan Krotevych on X (https://x.com/BohdanKrotevych/status/1954987845698965587



Source: Own elaboration based on https://www.youtube.com/watch?v=6g4-tZ7ybhw

The Russians managed to gain some territory in the direction of Dobropillya in the early days, though they were unable to capitalise on their initial success as Ukrainian forces reacted quickly to contain the advances, retaking part of the lost territory. The Ukranian command sent elite troops hastily withdrawn from other fronts, among which the 1st Azov Corps of the Ukrainian National Guard stood out: This was a unit considered one of the most experienced and had distinguished itself in the defence of the city of Mariupol in 2022[50]. These Ukrainian reinforcements successfully carried out stabilisation operations and recovered two areas of approximately 50 km² taken by Russia. The open terrain and intensive tactical use of FPV drones facilitated the Ukrainian manoeuvre by preventing the deployment of Russian armoured vehicles in support of their frontline units.

The front stabilised temporarily with the deployment of Ukrainian reserves and a rapid counter-offensive that forced the Russian army to consolidate its positions around Novotoretske, at the base of the "rabbit ears" salient. The balance at the end of August showed that Russian attacks north of Pokrovsk, although tactically significant, had not resulted in a strategic breakthrough due to the rapid Ukrainian reaction and the intensive use of drones to slow the Russian advance.

At the end of August, the Russian Command increased the concentration of troops in the Pokrovsk sector, deploying a total of between 100,000 and 112,000 soldiers, marines and paratroopers from Sumy and Kherson for the decisive push against Ukraine's eastern defences. For its part, the Ukrainian 7th Airborne Assault Corps

[50] First *Azov* Corps of the Ukrainian National Guard, "Statement by the First Azov Corps of the Ukrainian National Guard," 12 August 2025 (https://x.com/azov_media/status/1955214981961503112)

declared full defensive operations around Pokrovsk–Myrnohrad. This grouping was equivalent to 10–12 divisions with 200–250 artillery systems and hundreds of armoured vehicles, marking it the largest concentration of troops on a single axis since 2022.

To summarise the situation, it could be said that by October 2025 Ukraine had stabilised the front in Dobropilla and Liman north of Pokrovsk thanks to the intensive use of drones and dispersal tactics to avoid mass casualties, as well as by the timely arrival of reinforcements composed of elite units such as the Azov Brigade, sent to critical sectors. For its part, Russia had managed to infiltrate the city by taking several industrial areas to the west. Accoding to present situation, the most likely future scenario is further Russian escalation, with a possible total encirclement of Pokrovsk cutting off the routes to Konstiantynivka and Toretsk. The loss of Pokrovsk would be a strategic blow to Ukraine[51] . Another scenario, less likely, is a tactical stalemate as a result of Ukraine's technological superiority in drones and the growth of its arms industry[52] .

Advantages and limitations of new Russian infiltration techniques

The infiltration operation by Russian forces in Pokrovsk shows the advantages and limitations of using small 'sabotage and reconnaissance groups' (SRGs) assisted by surveillance and intelligence drones, which take advantage of the 'overstretch' of Ukrainian forces to infiltrate gaps in their defences and break the stalemate on the ground.

In current operations, Russian tactics for breaching Ukrainian defences have shifted from massive armoured assaults to more discreet and carefully prepared infiltration operations. Instead of deploying battalions accompanied by columns of tanks, which are halted by fortifications and destroyed by precision artillery fire and the increasing use of drones, Russian forces are increasingly relying on small light infantry units specialised in infiltration, often without direct armoured support, taking advantage of the terrain in less fortified or more weakly defended defensive sectors. Russians and Ukrainians have learned on the battlefields of Donbas that everything is so visible that any vehicle becomes an immediate target.

The Ukrainians were the first to understand how to combat armoured and mechanised units and, from the very beginning of the invasion, they began to use increasing numbers of drones and invest heavily in them. Russia has also learned from its mistakes, developing its own drones in a kind of technological competition between the two sides to see who can design faster better systems.

The result is that the large columns of tanks characteristic of past wars are now gone, in stark contrast to the initial operations in February 2022, when there were massive

[51] López, A. (24 July 2025). Ukraine approaches a strategic battle in Pokrovsk. Diario Red. https://www.diario-red.com/articulo/internacional/ucrania-acerca-batalla-estrategica-pokrovsk/20250724185944051571.html

[52] Infobae. (2025, 6 October). Ukrainian military resisting Russian offensive: "Whoever has the best drones will win this war." Infobae. https://www.infobae.com/america/mundo/2025/10/06/los-militares-ucranianos-que-resisten-la-ofensiva-rusa-el-que-tenga-mejores-drones-va-a-ganar-esta-guerra/

movements of Russian troops equipped with abundant heavy military equipment. Armoured columns have become anecdotal and rarely consist of more than ten vehicles, generally being used as a means of transport and not directly engaged in combat.

Their operational use on the battlefields in Ukraine offers a mixed assessment. Tanks such as the Leopard 2A6 have vulnerabilities in their armour against modern threats, especially drones and anti-tank missiles attacking from multiple angles. Furthermore, their armour is designed to combat more traditional conventional warfare threats, not current challenges such as drones and advanced missiles. However, they remain an effective weapon for countering Russian offensives thanks to their firepower and advanced command and control technology[53] .

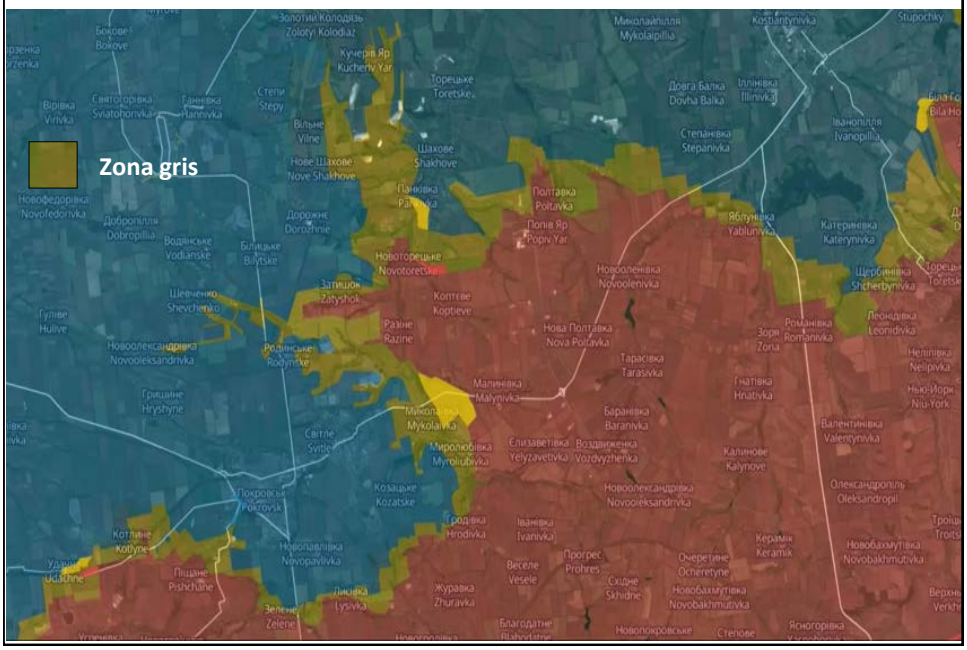
In contrast, the war in Ukraine has highlighted the importance of combining light units with drones, in what has come to be known as "warfare on bicycles". These are small groups of soldiers, even lone combatants, who occupy the terrain "inch by inch", using motorcycles, quad bikes, or advancing on foot. Their movements are preceded by drones used both to gather intelligence and to destroy targets. Local attacks are conducted by "small groups of soldiers", usually two to four members, whose great advantage is their "invisibility": at night they can wear special coats that conceal their body temperature to avoid reconnaissance drones equipped with thermal cameras.

In this way, they can circumvent the strong points of the defence and penetrate deep into Ukrainian-controlled territory. Once they have bypassed the first lines of Ukrainian defence, they take up defensive positions and request reinforcements to consolidate their advance. The penetrations are usually between 15 and 20 kilometres deep, allowing them to attack advanced Ukrainian logistics centres and occupy critical communications hubs. By threatening supply lines, the Ukrainian command is forced to divert critical resources to cover these gaps.

The result is a change, as the war progresses, in the morphology of the front line, with the emergence of certain particularly mobile sections, with positions or spaces that are not permanently occupied. This creates a wide "grey zone" between Ukrainian and Russian forces, 20 to 30 km wide, where the omnipresent presence of drones makes the chances of survival very low. In this zone, Russian soldiers can be found in one house, Ukrainian soldiers in another, or even isolated soldiers from either side behind the lines.

[53] El País Costa Rica. (2025, 18 May). Russian experts point out the weaknesses of the German Leopard 2 tank. Retrieved 8 October 2025, from https://www.elpais.cr/2025/05/18/expertos-rusos-senalan-los-puntos-flojos-del-tanque-aleman-leopard-2/

“Zona gris” en el sector de Pokrovsk-Konstatinivka

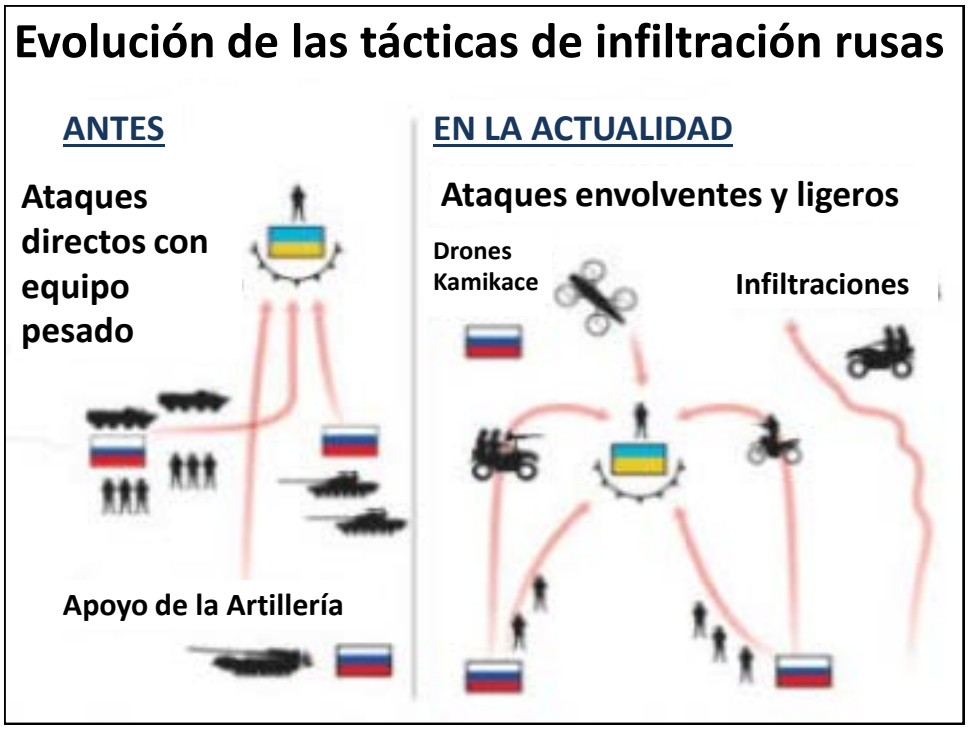


Source: Geoestrategia.eu. (2025). Grey zone in the Pokrovsk-Kostiantynivka sector. https://geoestrategia.eu/noticia/43574/ultimas-noticias/mas-cerca-del-colapso-las-tropas-ucranianas-de-la-otan-se-encuentran-bajo-presion-maxima-en-cuatro-direcciones-del-frente.html

Within the grey zone, one can distinguish the so-called "death zone", a border area from 500 metres to 6-10 kilometres wide, where the boundaries between the front line, positions and no man's land are blurred. Here, Ukrainian and Russian troops are mixed to such an extent that, at times, positions are literally intertwined, with one end of a trench controlled by the Ukrainians and the other by the Russians. A classic example is the Dobropilla direction, where Russian positions were surrounded by Ukrainian troops in September 2025 but continued to "exist" thanks to logistics provided by ground robots and heavy drones.

The key for survival iin the "death zone" lies in surprise and speed in crossing it before Ukrainian drones can react. The tactical pattern is always the same. Russian artillery forces Ukrainian soldiers to seek protection, after which kamikaze drones strike the fortifications and logistics and evacuation lines, isolating them. At that point, SGR teams set off at full speed and cross the "death zone", usually in no more than five to ten minutes. If they succeed, they dismount and continue fighting on foot.

A typical SGR unit carries between six and sixteen soldiers on six or eight light motorcycles (usually Chinese 250 to 300 cc models), purchased on civilian markets. Each motorcyclist usually carries his rifle, grenades and sometimes an RPG or grenade launcher. At least one carries a drone detector that beeps when an enemy UAV is nearby, and two or three carry triple antennas to try to jam the signal of Ukrainian FPVs.



Source: own elaboration based on recent military reports.

This infiltration technique to reactivate the manoeuvre has become popular since the first systematic use of motorcycles or quads in late 2024 in the Pokrovks axis, when the Russian Command realised that the "death zone" had extended several kilometres deep. Since then, their use has continued to grow, to the point that, currently, in some sectors of the front, around a quarter of Russian assaults involve motorcycles or combinations of motorcycles, quads and buggies, and the trend is upwards[54] .

This tactic requires an initial bombardment to pin the defender to the ground and prevent them from reacting before the SGR groups have completed their infiltration and heavier units have follow up to consolidate key positions and threaten Ukrainian supply lines. When the defender is able to react in time, FPV drones swarm the attackers. When that happens the survival rate is very low, and it is estimated that between 80% and 90% of the combatants do not return after the incursion[55], forcing rotations on a very short time in a consumption tactic that demands a very heavy human cost in exchange for a few metres of terrain. Therefore, only when the bombardment pins down the enemy, the terrain supports the advance, and there are enough troops behind to consolidate the position previously taken, does small SGR group on motorbikes resume the manoeuvre and advance again, albeit at a high cost and in a fragile manner.

[54] 1000 Noticias. (2025, 16 June). Ukraine joins Russia's motorcycle war. https://1000noticias.com.py/2025/06/16/ucrania-se-sumo-a-la-guerra-de-motocicletas-de-rusia/
[55] Hambling, D. (2025, 10 June). Race or die: Russian survival guide for Mad Max motorbike assaults. Forbes. https://www.forbes.com/sites/davidhambling/2025/06/10/race-or-die-russian-survival-guide-for-mad-max-motorbike-assaults/

The tactic of combining light vehicles (motorcycles, quads, "golf carts", etc.) with small groups of combatants in order to limit losses[56], makes the assault look very much like a science fiction film, a sort of Mad Max but on a smaller scale: groups of soldiers riding motorcycles or quads and surrounded by drones.

For its part, Ukraine's response is a mixture of high and low technology. Ukraine uses artificial intelligence (AI) to counter the effects of electronic warfare responsible of neutralising more than 70% of drone attacks, so that AI-equipped drones with the ability to self-track fast targets without a human pilot continue to attack even if they lose connection with the operator[57]. Ukraine also uses software networks that coordinate swarms of drones and cover predictable corridors, along with barbed wire fences and anti-mobility obstacles, ditches, etc. Barbed wire is once again playing a key role on the battlefield when combined with mortar and artillery fire.

The more predictable the corridor, forest or trench used for infiltration is, the easier it is to block it with suppressive fire and barbed wire, as well as with AI drones. When the defender manages to close in quickly with remote-controlled FPV drones that identify targets and deliver precise strikes, the incursion ends in disaster. The effectiveness of these drone attacks such that it is estimated that between 75 and 80% of casualties on both sides are caused by FPV drones, a percentage even higher than that of artillery[58] .

The consequence is that Russian attacks have to be small-scale and constant in order to erode Ukrainian defences through repetition, constantly seeking to create gaps for deeper penetrations. However, these slow-developing tactics do not offer instant or decisive victories. In addition, Ukrainian forces have adapted to them by deploying their own drones, laying extensive minefields, and relying on indirect artillery fire to stop and destroy infiltration teams before their penetration becomes a decisive advance. They have also used immediate counterattacks to prevent consolidation on the ground. This means that, although Russian advances are evident in various sectors of the front, they have been slow and costly, requiring an enormous effort to convert initial infiltrations into broader territorial control.

The impression provided by the battlefield in Ukraine is of a return to the trench warfare of the First World War, albeit with one fundamental difference: in that war, both sides were pinned down by artillery fire; now, what pins them down is permanent reconnaissance. Both sides see everything, and as soon as larger forces appear, they are immediately detected and attacked by all possible means. Drones have thus become the decisive element in this strategy, not only to detect targets and direct air

[56] Legrand, C. (2025, 17 June). Has the Russian summer offensive already begun? *Le Grand Continent.* https://legrandcontinent.eu/es/2025/06/17/ha-comenzado-ya-la-ofensiva-rusa-de-verano/
[57] El Confidencial. (2025, 13 August). Ukraine to use 33,000 new AI drones to halt Russian offensive. Retrieved 8 October 2025, from https://www.elconfidencial.com/tecnologia/novaceno/2025-08-13/ucrania-rusia-guerra-drones-inteligencia-artificial_4190906/
[58] Defensa.com. (2025, 23 April). Drones cause more casualties than artillery in Ukraine. https://www.defensa.com/otan-y-europa/drones-causan-mas-bajas-artilleria-ucrania

strikes and artillery fire, but also to take advantage of the disorganisation of enemy units and directly attack targets that are exposed or poorly protected.

Russian Lancet drones, or "suicide drones", faster than the Gerán, are considered loitering munitions particularly suited to attacking both fixed and moving targets, including light armoured vehicles, radar systems and artillery batteries, as they are equipped with small explosive, have a small wingspan of around 1.60 metres and are built with four wings and a rear propulsion engine[59] .

The most advanced model, the Lancet-3, has been decisive to destroying a significant portion of the Western artillery supplied to Ukraine, due to its ability to carry out high-precision counter-battery attacks using optical-electronic guidance and, optionally, remote or autonomous control. In addition, they are equipped with thermal cameras for night attacks, long range (up to 40-50 miles) and various warheads[60]. They are therefore considered a lethal and efficient weapon, with a relatively low cost that allows for their widespread use on the battlefield. The outcome is that drones have substantially changed the dynamics of the war in Ukraine by putting pressure on Ukrainian artillery and defences.

The war on the home front

But drones are not limited to the frontline. Russia has also deployed a huge number of drones and missiles against civilian and military infrastructure inside Ukraine, with figures exceeding 500 drones and more than 50 missiles in a single night-time attack[61]. This is part of a coordinated campaign aimed at weakening Ukraine's defences and undermining the will of its population to resist. Month after month, Russians have used missiles and drones to damage power stations and fuel depots, compromising the enemy's defence logistics, but also leaving the population in the dark and without heating during the winter months.

Russian attacks are conducted in a synchronised manner using various means. In a well-coordinated sequence, the slower Geran drones are launched first, followed by the faster Lancet drones, cruise missiles and finally ballistic missiles, so that they all strike at approximately the same time, overwhelming Ukrainian air defences and creating chaos.

Russia has significantly increased the frequency of its drone and missile attacks since the beginning of 2025, doubling the volume of projectiles compared to the second half of 2024. It has also significantly increased its production of ballistic missiles, which grew

[59] Israel News. (2025, 16 February). Russian Lancet drones redefine warfare with their lethality. Retrieved 8 October 2025, from https://israelnoticias.com/militar/los-drones-rusos-lancet-redefinen-la-guerra-con-su-letalidad/

[60] United24 Media. (2025, 24 September). Russia launches a state-of-the-art Lancet drone in Ukraine with greater range and more lethal payload. https://united24media.com/es/latest-news/rusia-lanza-en-ucrania-un-dron-lancet-de-ultima-generacion-con-mayor-alcance-y-carga-util-mas-letal-11935

[61] Infobae. (2025, 6 October). Ukraine reported that there are thousands of Western components in the drones and missiles used by Russia. https://www.infobae.com/america/mundo/2025/10/06/ucrania-denuncio-que-hay-miles-de-componentes-occidentales-en-los-drones-y-misiles-que-utiliza-rusia/

by 66% in the last year[62] . This has allowed Russia to dramatically increase the number of missiles and drones launched against Ukraine.



Source: CSIS (Dr Yasir Atalan), Petro Ivaniuk, UAF. BBC. https://www.bbc.com/mundo/articles/c754d0qkx42o

In June 2025 alone, Russia launched nearly 5,000 drones, fifteen times more than in the same period in 2024. This large number has reduced the interception rate to less than 50%, a figure much lower than in previous years, when it exceeded 80%[63]. This is a strategy aimed at putting pressure on Ukraine and wear down its resistance[64]. By saturating its air defences, Russian drones pave the way for future ground offensives, sowing terror and intimidation among the civilian population.

However, Ukrainian air defences are learning fast how to react and are becoming increasingly effective at shooting down drones and a significant number of Russian missiles. The Ukrainian response is also attempting to act in the same way and with the same strategy of striking deep inside Russia, although it is much more difficult for Kiev to cause equivalent damage to such a large country. Nevertheless, the geographical dimension gives Ukraine a certain advantage. Although Russia has powerful air

[62] Subirá, C. (2025, 8 August). *Putin has doubled the bombing of Ukraine since Trump returned to the White House in January.* El Español. https://www.elespanol.com/mundo/europa/20250808/putin-duplicado-bombardeos-ucrania-trump-volvio-enero-alacasablanca/1003743878995_

[63] Le Grand Continent. (2025, 29 June). The Russian army launched nearly 5,000 drones against Ukraine in June — 15 times more than during the same period in 2024. Le Grand Continent. https://legrandcontinent.eu/fr/2025/06/30/larmee-russe-a-lance-pres-de-5-000-drones-contre-lukraine-en-juin-soit-15-fois-plus-quau-cours-de-la-meme-periode-en-2024/

[64] Fouda, M. (2025, 13 July). *Zelensky denounces Russian campaign of "terror and intimidation" against Ukraine.* Euronews (Spain). https://es.euronews.com/my-europe/2025/07/13/zelenski-denuncia-una-campana-rusa-de-terror-e-intimidacion-contra-ucrania

defences around Moscow and its military installations, its territory is too large to defend everything. This explains why Russian industrial facilities, mainly energy plants, located far from the front line and previously considered safe, are being successfully attacked.

In the past, the Ukrainians had sporadically hit refineries and fuel depots across the Russian border, but in this hybrid war, which overlaps with the conventional one, Ukrainian attacks are becoming more frequent, affecting energy supplies, including those that still exist between some European countries and Russia. The Ukrainians have bombed the Druzhba pipeline, which transports oil from Russia to Hungary and Slovakia, i.e. to two EU states, which has deteriorated relations between these two countries and Ukraine and strained relations within the EU. When Budapest and Bratislava sent a letter to Brussels urging the European Commission to "take definitive measures against Ukraine's repeated attacks on the Druzhba pipeline...They constitute a direct and unacceptable attack on our country", the response from Ukrainian Foreign Minister Andriy Sybiha was swift: Hungary "should complain to its allies in Moscow about supply problems, as it is Russia, not Ukraine, that started this war and refuses to end it"[65] .

Estimates indicate that, by the end of August, Ukrainian attacks had reduced Russia's total refining capacity by at least 17%, equivalent to about 1.1 million barrels per day. In August alone, Ukrainian drones carried out no fewer than ten attacks, mainly in the area between Ryazan and Volgograd. Of particular note was the attack on 26 August against the Ryazan-Moscow oil pipeline, one of Russia's main fuel supply routes to Moscow, which forced an indefinite stop to oil deliveries to the capital[66] .

It can be said that Ukraine is achieving the beter results in the war with its attacks on Russian infrastructure than on the battlerfield. Although Russia is considered one of the world's major energy powers, massive attacks by Ukrainian drones have exposed its vulnerabilities by destroying a significant part of its refining infrastructure, causing fuel shortages in the domestic market and damaging Moscow's main source of financing for its war effort[67]. This means that the current extensive Ukrainian campaign against infrastructure such as oil pipelines and refineries is much more serious and successful than on previous occasions.

The scenario has changed. Ukraine has developed and mass-produced long-range drones capable of flying hundreds of kilometres, evading radar and striking critical areas

[65] Il Messaggero. (2025, 23 August). Cross attacks on oil pipelines and power stations. An American factory also hit. Il Messaggero. https://www.ilmessaggero.it/mondo/attacchi_incrociati_oleodotti_centrali_colpita_fabbrica_americana-9025674.html

[66] Defence Express. (2025, 28 August). Russia's energy infrastructure under pressure: Ukrainian drone attacks and Ryazan–Moscow pipeline explosion. Defence-UA. **https://en.defence-ua.com/news/russias_energy_infrastructure_under_pressure_ukrainian_drone_attacks_and_ryazanmoscow_pipeline_explosion-15626.html**

[67] Euronews. (2025, 26 August). Ukraine eliminates 17% of Russia's oil refining capacity, causing shortages. https://es.euronews.com/2025/08/26/ucrania-elimina-el-17-de-la-capacidad-de-refinado-de-petroleo-de-rusia-provocando-escasez

of a refinery such as distillation units, pumping systems or crude oil storage systems with precision. It is not just a matter of reaching the target, but of choosing the exact parts whose destruction will paralyse the entire facility for weeks. This has been achieved through a combination of highly accurate intelligence using Western satellites, commercial imagery, open sources data and a growing ability to coordinate simultaneous or repeat attacks on the same industrial complex.

Ukrainian aviation has also played a significant role in the battle against Russian drones inside Ukraine. Although military airfields such as Myrhorod and Ternopil, used as main air bases in the west, have come under attack, Ukraine, with Western help, has rehabilitated old Soviet airfields to keep its air force operational, Ukraine has, however, been unable to achieve air supremacy: Ukrainian F-16s do not risk entering enemy territory due to the risk posed by Russian air defences. Their main function is to intercept Russian cruise missiles on Ukranian soil.

Conclusions

The war in Ukraine is transforming the nature of warfare so profoundly that the lessons learned at the strategic, operational and tactical levels will be used in future conflicts. The Russian offensives and Ukrainian responses show how, within the strategic framework of operations, new possibilities are opening up for either side, to break the current stalemate and restore manoeuvrability on the battlefield.

Despite its slow progress, Russia currently enjoys a more favourable military situation. Using a 'salami' tactic, with minimal but cumulative advances, the Russians have been able to maintain their offensive potential, and even increase it in some respects, despite the enormous losses suffered and the economic blockade which they are subjected to. Russian President Vladimir Putin remains committed to his theory of victory, which consists of sustaining the war effort for longer than Ukraine while surviving, at the same time, Western sanctions, in the belief that in a war of attrition taken to the extreme the winner is the one who puts the last soldier on the battlefield.

In general, given the difficulty of taking major cities, the Russian strategy seems to be gearing more towards weakening Ukrainian defences through continuous pressure, wearing down its forces, expanding the front line and cutting supply lines, in order to achieve the collapse of some Ukrainian sector, rather than capturing cities. The centre of gravity of the Russian military effort, rather than territory, would be the Ukrainian army, in accordance with the logic of attrition that the war in Ukraine has become. This is not a simple, quick or cheap strategy, as it requires weighing up offensive efforts in different directions of attack, faced with fierce Ukrainian resistance, and prioritising those that are most likely to succeed.

Meanwhile, Ukraine, with fewer resources but a strong will to resist, is cleverly applying a general concept of defensive action of resisting tenaciously but rationally. It means inflicting as many losses as possible on the Russians while minimising its own. Ukraine has taken advantage of the fact that Russian forces have been attacking along most of

the frontline for months to build extensive fortifications in depth. Relying on strong defensive positions, usually cities, its armed forces are conducting small-scale offensive manoeuvres, given the limited resources at their disposal, planning and executing local counterattacks. The Ukrainian command is also demonstrating a great ability to quickly move its reserves to the sectors under attack in order to regain lost ground and stabilise the front line.

So far, this combination of Ukrainian strategies has been reasonably successful in containing Russian incursions, but if continued over time, the end result may be the depletion of its reserves. In any case, this seems the only realistic strategy for Ukraine given its difficult circumstances. It is possible that its armed forces will contain the Russian attacks for a long time or, at least, minimise them (Ukraine has been doing this for years), but it is also possible, if we stick to the experience of Kursk, that sooner or later the Russian forces will manage to break through the front at some point, or cut off the supply lines to the cities on which it relies. The experience of the battle for the Kursk salient in 2025 shows that, in the war in Ukraine, the defence of a sector in the front ends when logistics collapse[68] .

The inferiority of resources means that Ukraine's strategy should focus primarily on exploiting opportunities arising from a faster cycle of technological and doctrinal innovation than Russia's in order to achieve tactical surprise. This is a result of the temporary advantages provided by innovations that can be applied at key moments and in coordination with ground operations. When the technological advantage disappears, so does the surprise. The battlefield becomes partially transparent again, due to the uninterrupted action of drones that allow the observation of troop concentrations and deployments, although they cannot discern their intentions with complete reliability[69]. Being guided by fibre optics, FPV drones are almost impossible to interfere, so they are used to detect targets and direct air strikes and artillery fire, but also to directly attack exposed or insufficiently protected targets.

It can be said that, in Ukraine, the use of drones has radically changed the way reconnaissance, surveillance, attack, defence and even supply are conceived. The Ukrainians use them extensively to destroy small Russian offensive incursions. For their part, the Russians use them to erode Ukrainian defences so that they can create corridors through which to infiltrate small assault units, prior to deeper penetrations. FPV drones have become the key element of tactical doctrine in the vicinity of the line of contact, in both offensive and defensive operations. This creates an operational environment in which it is possible, at least locally, to clear the "fog of war". The result is a changing front, which is no longer a straight line, but a chaotic contact zone where

[68] BBC News. (2025, July 31). Ukrainian drones strike bombers during major attack in Russia. *BBC.* Retrieved from https://www.bbc.com/ukrainian/articles/cn0zdlzz8nlo
[69] Kagan, F. W., & Kagan, K., with Clark, M., Hird, K., Bugayova, N., Stepanenko, K., Bailey, R., & Barros, G. (2024, August 12). Ukraine and the problem of restoring manoeuvre in contemporary war. Institute for the Study of War. https://understandingwar.org/research/future-of-war/ukraine-and-the-problem-of-restoring-maneuver-in-contemporary-war/

danger is constant and survival depends not only on individual strength, but on flexibility, mobility, technological skill and thorough organisation.

The presence of infantry in the contact zone, a traditional concept of positional warfare, is no longer an axiom in the current war in Ukraine. Instead of a static line of positions occupied by infantry maintaining an appearance of territorial control, the contact zone has been transformed into a drone-controlled "death area" where defence no longer takes the form of a line of positions halting the enemy's advance.

However, the current reality of Ukrainian defence is that they continue to maintain a doctrine based on static positions, despite the fact that the large distances between them (up to 1 km) prevent them from effectively controlling the surrounding area, while their "staticity" and prolonged permanence makes them particularly vulnerable to enemy fire. It is not easy either to carry out fortification activities at the positions, which translates into low defensive capacity on the line of direct contact with the enemy. Similarly, logistics are very complicated in the "death area", which often makes it impossible to supply positions, rotate units and evacuate the wounded in a timely manner, with the consequent cumulative effect on the morale and psychological state of the units on the front line.

Finally, this Ukrainian defensive concept has an effect on fire support, as by overextending defences, artillery resources are also overextended, depleting available firepower reserves and making it difficult to concentrate fire in critical directions.

In short, Ukraine should change its concept of positional defence, as its repetitive patterns of behaviour make it easier for the Russians to predict and adjust their attacks based on information obtained from drone observation. Ukraine should focus less on territory and more on the time factor measured in combat conditions. It is a matter of obtaining and analysing intelligence and issuing orders to adjust deployments in a timely manner, so that they respond to changes on the battlefield more quickly than the Russians do. Only in this way will Ukraine be able to survive and, perhaps, defeat on the battlefield an enemy that has all the prerequisites for victory.

At present, the military challenge remains immense for Ukraine, and the big question is whether, and until when, its echeloned defences and reserves will be able to contain the Russian autumn offensive without losing the urban belt of fortified cities stretching from Pokrovsk to Slovyansk. The determining factor is not the concentration of Russian troops, but Ukraine's ability to halt their advance. If the defences hold at least until the arrival of the autumn 'rasputitsa', the narrative of inevitable Russian victory would be undermined, the front would stabilise, and the confidence of Western donors and the Ukrainian population itself would be restored. That might bring a more favourable outcome for Ukraine than the simple capitulation demanded by Russia. Ukraine could continue to sustain the war effort, and Moscow would surely be more willing to engage in peace talks on terms more favourable to Kyiv. After all, the Russian Armed Forces have not yet achieved a decisive victory, although they are maintaining their offensive

momentum with numerous open fronts and sustained advances over time.

The war in Ukraine continues to be a clash of iron wills, with military force being used to impose strategic objectives. For the time being, both sides remain committed to a military solution, with no clear intention of accepting eventual peace negotiations. It will therefore be the outcome of the current fighting that will set the pace for the next phase and the characteristics of a conflict in which the combination of new technologies, large-scale operations and hybrid attacks on infrastructure and the population is redefining the nature of warfare in the 21st century.

After almost three and a half years of devastating conflict, hundreds of thousands of dead and wounded, incessant bombing and no hope of a short-term agreement, the war in Ukraine is in danger of becoming, contrary to Clausewitz, an end in itself rather than a means to a political end. In the current context, in which both sides seem to assume that by making war an end in itself, they have a better chance of winning than by moderating its nature and allowing politics to take its course, the final outcome in Ukraine can only be decided on the battlefield.

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