

Kyiv
Dialogue

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UKRAINE AIR WAR MONITOR

Analyses for the Protection of Ukrainian
Cities and Infrastructure

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RUSSIA LAUNCHES WINTER CAMPAIGN
— KYIV IN THE CROSSHAIRS — JET
DRONES DOMINATE THE AIR WAR

Data and Analysis:

Marcus Welsch

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VOLXXI

SUMMARY

Russia has massively stepped up its attacks on Ukraine’s energy supply; the winter campaign—intensified air strikes on energy infrastructure—most likely began on the last day of September. What is new is the exceptionally heavy concentration on the capital.

The challenge for Ukrainian air defence lies in modernised, jet-powered long-range drones with improved targeting and new warheads that are also effective against power pylons and bridge structures—at the same time a warning signal for Europe to align its own counter-drone defence with Russia’s innovation cycles. A swift solution is needed for the protracted maintenance routines of Ukraine’s F-16s, more than half of which are not operational.

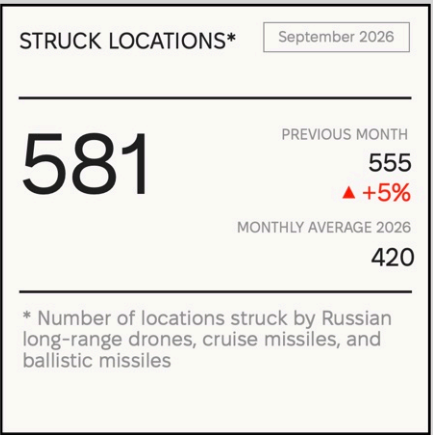
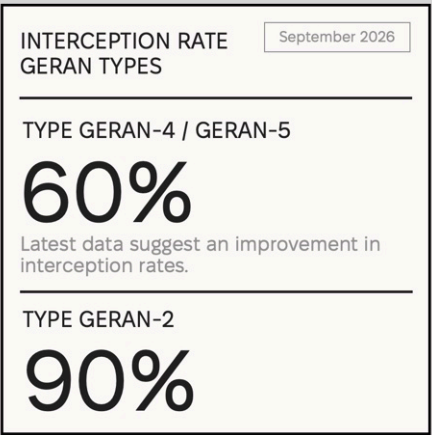
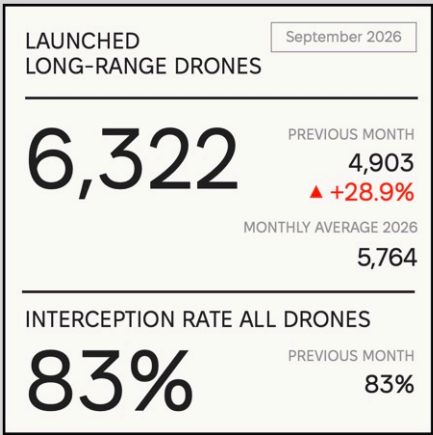
Russia continues to attack the Ukrainian economy on a large scale: port facilities

in Odesa, steel production, railways and filling stations are now joined by data centres and internet providers, bridges in major cities and the alternative export routes to Romania.

Conversely, Ukraine’s strike campaign is gaining depth and increasingly hitting Russia’s industrial heartland. Strikes on refineries are less frequent, but their impact is greater—with repercussions reaching into Russia’s public finances. The targeted strikes on fuel supplies were also a factor in Ukraine’s advance near Lyman.

A telegraphed escalation is to be expected this winter: with Russia barely advancing at the front, Putin is additionally relying on massive air strikes to force Ukraine to capitulate. At the same time, provocations against European countries are increasing—exposing the considerable capability gaps of EU member states.

KEY FIGURES ON RUSSIAN ATTACKS—SEPTEMBER 2026



SITUATION IN SEPTEMBER

ANALYSIS AND TRENDS

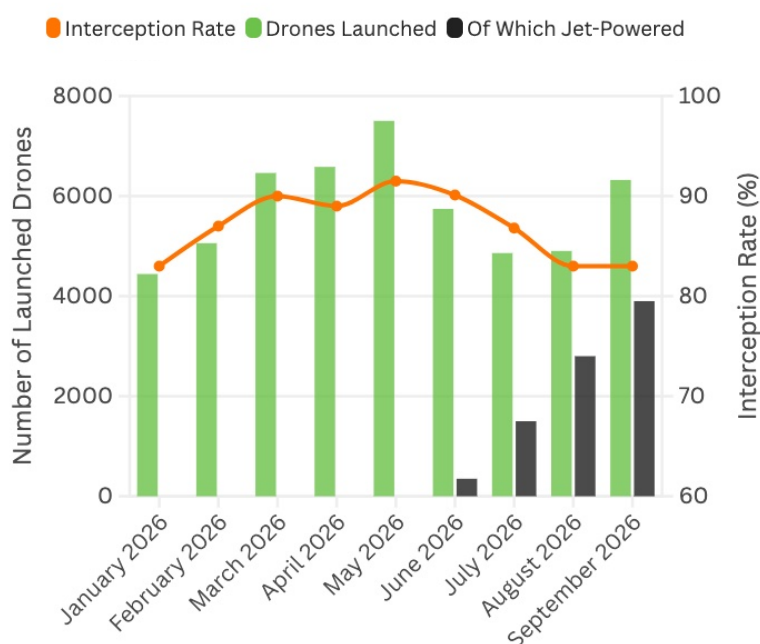
Drone attacks on Ukrainian cities and infrastructure rose by almost 30% in September compared with the previous month. A total of 6,322 long-range drone attacks on civilian targets were recorded in September (August: 4,903). This falls short of the record set in May (7,503). However, the shift in Russian production from the two-stroke-engine Geran-2 to jet-powered models poses a considerably greater challenge for Ukrainian air defence.

The **average interception rate** for all long-range drones stood **at 83% in September**, nominally on a par with the previous month. The interception rate for conventional Geran-2 drones was most recently around 90%. Figures for the interception rate of jet-powered drones vary. We currently assume an average of approx. 60%. Indications of Ukrainian air defence successes during the most recent nights of attacks on Kyiv point to higher shoot-down rates of 70–80% for Geran-4 and 50–65% for Geran-5 drones (↗ [ISW, 29.9.2026](#)).

SHARP RISE IN JET-POWERED DRONES

The **share of jet-powered models has risen sharply**. By our calculations, around 3,900 jet-powered Geran drones were probably used in attacks on Ukraine in September. The increase is rapid: in August the figure was 2,800 jet drones, in July 1,500 and in June a mere 350 (↗ [Armyinform, 14.9.2026](#)).

Drones deployed in 2026 and share of jet-powered models



Data: Perspectus Analytics, KPSZSU, ISW Daily Reports

The unchanged average interception rate of 83% should therefore be seen as an improvement on the previous month, since it includes a substantially higher share of newer models. This shows that Ukrainian air defence is increasingly able to adapt to the new challenge as well.

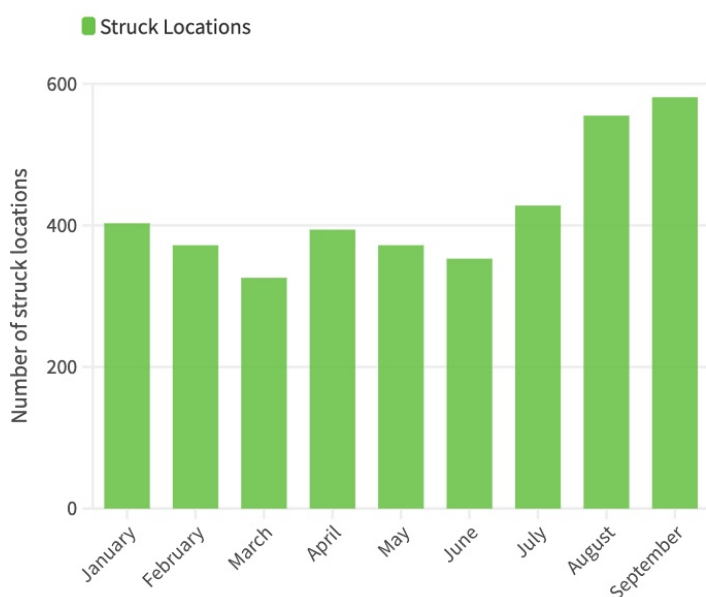
HITS ON INFRASTRUCTURE REACH RECORD HIGH

However, owing to the overall increase in drones deployed, the absolute **number of drones not intercepted** reached 1,090 in September (previous month: 832), the highest

level of the entire war. Likewise, the number of targets hit rose to 581 (previous month: 555). There are still no reliable deployment figures for missiles and cruise missiles (↗ [Monitor Vol. XX](#)).

Russia stepped up its use of the Geran-5 in September after Ukrainian air defences were able to intercept the jet-powered Geran-4 more effectively—according to an assessment by a Ukrainian military journalist (↗ [ISW, 29.9.2026](#)). After the interception rate rose to 91.5% in May (↗ [Monitor Vol. XVII](#)), Russia shifted its focus to the new generation of Geran drones. If Ukraine succeeds in deploying effective countermeasures against jet-powered models as well, Russia is likely to increasingly resort to ballistic missiles.

Russian hits continue to rise in September



Data: *Perspectus Analytics, KPSZSU*

BURDEN ON THE OBLASTS: KYIV IN FOCUS

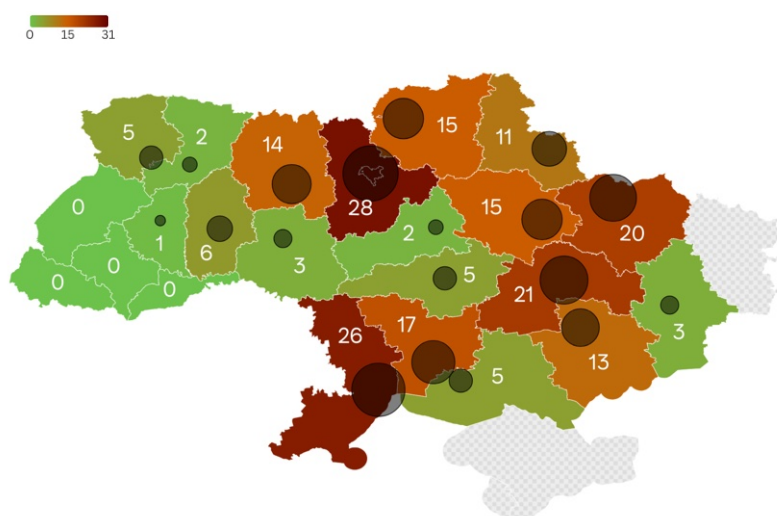
In the regional distribution of attacks on Ukraine, **Kyiv** (city and oblast) topped the list of the hardest-hit regions in September for the first time since the start of the air war in autumn 2022. It was followed by **Odesa**,

Kharkiv and **Dnipro**, which had been hit hardest in previous months.

At the same time, western regions came under heavier fire. With **Volyn**, **Zhytomyr** and **Khmelnytskyi**, oblasts that had previously been attacked far less often appeared more frequently in damage reports in September.

Kyiv hit hardest by air strikes for the first time, western regions increasingly targeted

Days with reported damage in September 2026



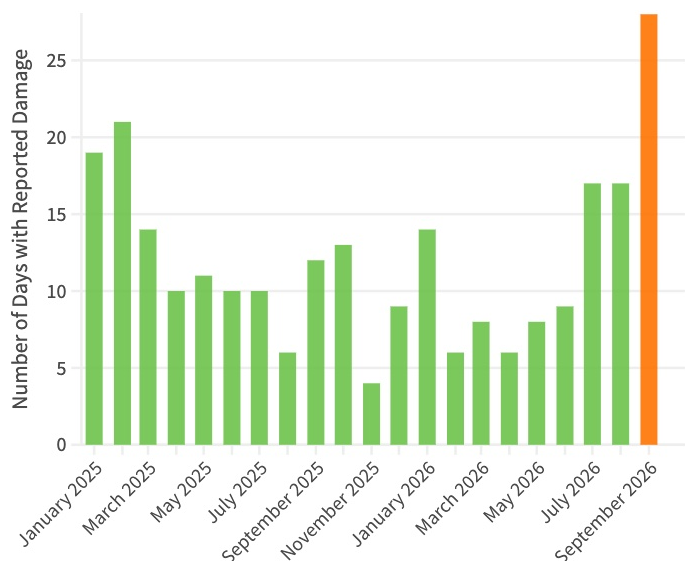
Data: *Perspectus Analytics, Diverse data sets*

This can be attributed to the technical development of airborne relay networks operated from Belarus to extend range (↗ [Ukrinform, 2.10.2026](#)).

SUSTAINED ATTACKS AND ALERTS

Psychological terror against the civilian population remains a central element of Russia's air war strategy. In the last days of September, the capital was attacked for days on end, including during daytime, with only brief interruptions. The largest wave of attacks of the month came on the night of 13 September, **when at least 770 drone attacks** were recorded within 24 hours.

Attack load profile of Kyiv city and Kyiv Oblast



Data: Perspectus Analytics, KPSZSU

The prolonged waves of attacks are intended not only to **systematically paralyse civilian life** but also to **inflict economic damage**.

According to Economy Minister Oleksandr Kravchenko, every hour in which an air-raid alert disrupts business operations costs Ukraine around USD 45 million. The new two-tier warning system is designed to limit this standstill: during a “yellow” alert, which merely signals incoming drones, more than half of businesses now continue working (↗ [Ukrinform, 30.9.2026](#)). Only the “red” alert, which indicates a missile threat, brings public life to a halt (↗ [Monitor Vol. XX](#)).

EVOLUTION OF THE GERAN-5 DRONES: NAVIGATION WITHOUT SATELLITES AND HIGHER SPEED

Jet-powered drones with turbojet engines such as the Geran-4 can fly considerably faster and higher than the older Geran-2 models with boxer engines (↗ [Monitor Vol. XIX](#)), which could still be intercepted with conventional barrel weapons (e.g. autocannons). Geran-5 drones represent a further stage of development, their design more closely resembling a cruise missile. A further modification was observed in September. The **Geran-5-K5 model** features

an autonomous navigation system that uses an electro-optical system and image matching of ground and terrain features to navigate, allowing it to correct its position and route without satellite navigation. A repositioned engine also reduces aerodynamic drag and allows even higher speeds (↗ [Militarnyi, 27.9.2026](#)).

EVOLUTION II: STRIKES ON BRIDGES AND CRITICAL INFRASTRUCTURE WITH NEW WARHEADS

The Russian strikes on the **Southern Bridge** in Kyiv (↗ [BBC, 1.10.2026](#)) on 1 and 2 October 2026—the first hits ever on any of Kyiv’s bridges—and the strikes on the **Northern Bridge** on 3 and 4 October are intended to disrupt economic and civilian life in the capital. On 5 October, a bridge across the Dnipro in Zaporizhzhia that is also important for military supplies was attacked; five people were injured (↗ [Ukrainska Pravda, 6.10.2026](#)). Notably, Russia is using fewer ballistic missiles and increasingly relying on new-generation drones with superior guidance. This was also evident in the attacks on power plants in Kyiv on the night of 30 September, which at the same time signal a **new phase in the air war** and herald an early start to Russia’s **winter campaign** (↗ [Monitor Vol. XX](#)). Prime Minister Serhii Koretskyi stated that this was **the most massive combined attack on Ukraine’s energy infrastructure since the end of the last heating season** in April (↗ [Suspilne, 30.9.2026](#)). In the turbojet drone attacks, Russia for the first time used a special **shaped-charge warhead** (Russian designation: KRSN), which concentrates the blast energy and is more destructive than conventional warheads, particularly against high-voltage pylons or lattice structures (↗ [Hromadske, 30.9.2026](#)).

According to the *Institute for the Study of War* (ISW), Russia could use such charges against targets such as the Southern Bridge; significant damage would, however, require repeated precise hits within a short period (↗ [ISW, 1.10.2026](#)). The first hits on the Southern Bridge show no critical damage (↗ [RBC-Ukraine, 1.10.2026](#)).

EVOLUTION III: AUTONOMOUS TARGETING WITH AI

Autonomous drone navigation must be seen against the backdrop of advances in target guidance, with AI increasingly used in individual phases of the attack process. As Ukrainian drone expert Serhii “Flash” Beskrestnov stresses, three capabilities must be distinguished: automated target recognition, AI-powered automatic target selection and autonomous guidance towards a target. While target recognition and tracking using neural networks are already technically established, automatic target selection, according to Beskrestnov, was still at an early testing stage in both Ukraine and Russia in spring 2026 (↗ [Ukrainska Pravda, 24.6.2026](#)). Autonomous terminal guidance, by contrast, has already been implemented in Russia’s Geran Seeker drone (variants of the Geran-2 and Geran-4 types): the pilot assigns the target, after which the drone steers itself onto it—in good visibility from a distance of five to ten kilometres (↗ [Beskrestnov, 30.6.2026](#) and ↗ [20.9.2026](#)). While more precise targeting increases the probability of hitting a specific point, the effect of a hit—for example in attacks on a bridge—also depends on other factors such as the type of warhead and the size of the explosive charge.

A recent study by the **Australian Army Research Centre (AARC)** also concludes that AI is increasingly being integrated into guidance,

targeting and navigation, and that autonomous terminal guidance is already possible in FPV drones, for example. The study does not, however, equate these capabilities with fully autonomous weapon systems: Human oversight remains central to target selection and engagement decisions. The capabilities are thus operationally relevant, but their integration into the overall decision-making and strike process remains uneven (↗ [Australian Army Research Centre, 3.8.2026](#)).

The latest analyses by Ukraine’s military intelligence service (HUR) show that Geran-4 models are fitted with the “Susanin” navigation system, which—similar to the Geran-5-K5 model—can navigate by image matching of ground and terrain features, making guidance even more autonomous (↗ [HUR, 5.10.2026](#)).

EVOLUTION IV: FLYING RELAY STATIONS WITH REACH AS FAR AS THE WEST

The expansion of image recognition (↗ [Monitor Vol. XIX](#)) and the use of repeater drones acting as flying relay stations via mesh networks (communication networks in which several drones are interconnected and can exchange signals) are extending the range over which Russian pilots can control their drones; over the final kilometres, the drones increasingly find their target autonomously, i.e. without a jamming-prone radio link. Since these relay networks began operating from Belarus, attacks have expanded westwards—with consequences in September for Volyn, Zhytomyr and Khmelnytskyi (↗ [Ukrinform, 2.10.2026](#)). The remotely piloted Geran drone was also steered on its terminal approach during the Russian attack on SBU headquarters in Kyiv (4 Sept) via an internet-connected mesh repeater that an agent had activated within a 5 km radius (↗ [Kyiv Independent,](#)

5.9.2026). Serhii Beskrestnov assumes that relay stations were also used in the attacks on the Kyiv bridges, as precise targeting would otherwise hardly have been possible (↗ [Beskrestnov, 3.10.2026](#)).

STRENGTHENING UKRAINIAN AIR DEFENCE

The search for available **interceptor missiles** against ballistic missiles, and their procurement by Ukraine and its Western allies, remains essential (↗ [Monitor Vol. XVII](#)).

In addition, the race against time is increasingly focused on the development of **interceptor drones** capable of intercepting jet-powered drone models as well. Several systems are being tested, kills have been confirmed even at speeds above 400 km/h, and a number of manufacturers are awaiting further testing stages. Besides adapting to very short innovation cycles, the main challenge lies in scaling up production. Ukraine depends on foreign assistance for the manufacture of jet engines. Production outside Ukraine can minimise losses from the destruction of production facilities.

F-16S AS JET-DRONE HUNTERS

F-16 fighter jets play an important role in countering jet-powered drones: they intercept 50 to 60% of all Russian jet-powered drones (↗ [Zelenskyy, 2.10.2026](#)). They can also be deployed more flexibly across regions (↗ [ZDF, 1.10.2026](#)), but are very maintenance-intensive. According to the *Wall Street Journal*, more than half of Ukraine's F-16s are currently not operational. The aircraft are awaiting repair in Belgium: *Sabena Engineering* received the maintenance contract from the US licensors but works considerably more slowly than comparable facilities in the US. In addition,

there are **shortages of spare parts**. Retired US Lieutenant General David Deptula speaks of a "sustainment failure" that is turning into a crisis for Ukrainian air defence (↗ [WSJ, 29.9.2026](#)). Compounding the problem, the US itself is increasingly facing maintenance and spare-parts problems with military aircraft: the US Air Force currently lacks spare parts worth around USD 14 billion (↗ [Defense News, 18.9.2026](#)).

The armament of the interceptors is currently decisive. Air-to-air missiles, which have so far been used mainly against cruise missiles, are expensive and increasingly scarce. The F-16's internal 20 mm cannon is the obvious alternative (↗ [Kyiv Independent, 10.9.2026](#)). Its ammunition is plentiful worldwide, inexpensive, and can be procured at short notice (↗ [Bloomberg, 30.9.2026](#)). Although high ammunition consumption makes procurement a challenge as well, the onboard cannon remains the best available solution for now.

The problem remains the provision of operational aircraft. Besides expanding F-16 capacity, **aircraft types from other air forces** are also an option. Sweden, France, Czechia and the Netherlands are under discussion. Subsonic military jets such as the Czech Aero L-39 can also provide significant regional relief in intercepting Geran drones (↗ [ZDF, 1.10.2026](#)).

Ukraine is therefore not defenceless in the face of the anticipated escalation of Russia's winter campaign. A layered defence is to be built up over the winter: propeller- and jet-powered interceptor drones, low-cost surface-to-air missiles, manned and automated gun turrets, man-portable air defence systems. Technically, this is the right answer to Russia's winter campaign—the decisive question remains whether production can be ramped up in time.

WHICH TARGETS RUSSIA CHOOSES IN UKRAINE

LOGISTICS, DATA CENTRES, AND HEAVY INDUSTRY

In September, Russia further intensified its air war against Ukraine's **civilian logistics and supply chain**. In addition to the attacks on **retail, postal and warehouse logistics** and **filling stations** (↗ [Monitor Vol. XX](#)) and the systematic destruction of Ukraine's **export infrastructure**, there were, for the first time, attacks on **data centres and internet providers** in Kyiv: after strikes on the UTELS and Pavutyna data centres on 23 September, some 100,000 households were temporarily without internet access (↗ [Kyiv Independent, 24.9.2026](#)).

Ballistic missiles knocked out all three remaining major **steelworks in Zaporizhzhia, Dnipro and Kryvyi Rih**, which together account for around 90% of Ukraine's steel output. In one week in September, Ukraine produced **not a single tonne of steel for the first time in 100 years** (↗ [Interfax, 23.9.2026](#)). According to the *Financial Times*, of a total of **5 million m² of modern warehouse space**, 900,000 m² have been **destroyed** in recent months; Prime Minister Korotshuk expects tax losses of USD 1.5 billion **and a financing gap of USD 27 billion** (↗ [FT, 20.9.2026](#)).

RAILWAYS, RAIL LOGISTICS, AND PASSENGER TRAINS

According to *Ukrzaliznytsia*, **more than 500 locomotives have been damaged or destroyed since the start of the war**, more

than 60% of them since January 2026.

Attacks on moving passenger trains in particular represent a new level of danger for civilian mobility (↗ [Politico, 17.9.2026](#)).

On 13 September, a drone hit the locomotive of the Kyiv–Warsaw train two kilometres from the Polish border.

Around 60% of the attacks target passenger trains, 40% freight trains. Railway chief Oleksandr Pertsovskiy is asking partners for **locomotives for Ukraine's broad gauge and for spare parts** (possible sources include Finland, Slovakia and partially Germany). Ukraine is currently coordinating with partner countries, in particular on legal hurdles that have so far blocked such deliveries (↗ [FAZ, 27.9.2026](#)).

Ukrainian Railways has adapted its evacuation procedures to the new threat environment. It decides on the **evacuation of a train** itself, with direct access to airspace surveillance data. Staff in its own security centres assess the type and distance of the threat. If the situation is unclear, for example because a drone disappears from radar, it coordinates with the Air Force and evacuates when in doubt (↗ [FAZ, 27.9.2026](#)).

EXPORTS, PORTS, AND TRADE ROUTES

Damage to **Ukraine's export infrastructure** is one of the biggest problems (↗ [Monitor Vol. XIX](#)). With ships now rarely calling at the port

of Odesa owing to constant attacks, Russia in September targeted the alternative export routes to Romania: the Orlivka ferry on the Danube (↗ [Odesa MVA, 1.9.2026](#)) and likely hit a pontoon bridge. This has also impaired the connection between the port of Izmail in Odesa Oblast and Romania (↗ [ISW, 19.9.2026](#)). The captains of two foreign cargo ships were killed. Another problem also affects individual transport: attacks on filling stations shifted from the Kharkiv–Poltava corridor to the city of Kyiv.

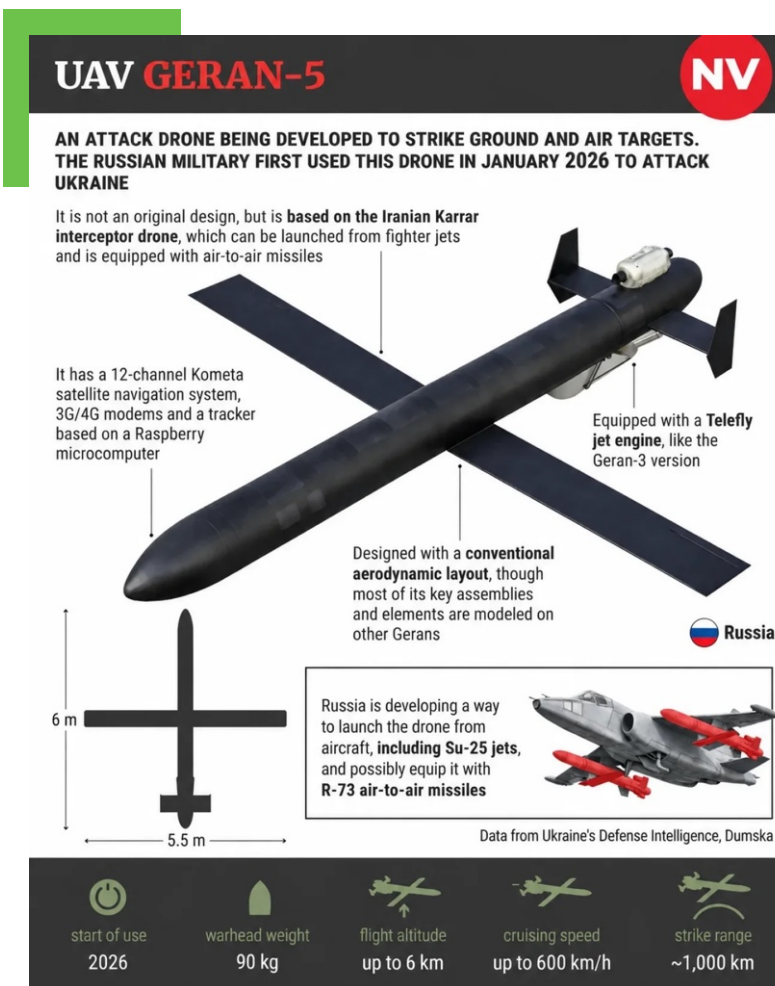


Image: The shape of the Geran-5 drone bears clear similarities to that of a cruise missile (↗ [NV, 14.9.2026](#)).

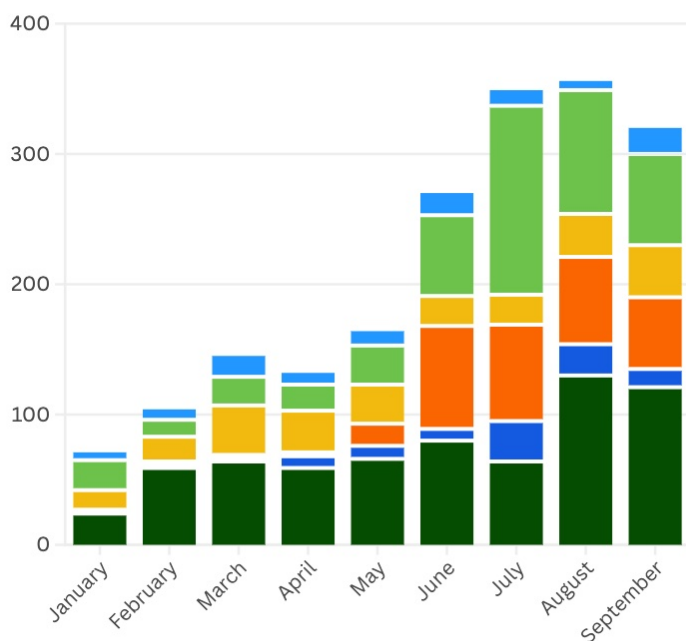
SPOTLIGHT

HOW UKRAINIAN AIR STRIKES ARE HITTING RUSSIA

In September, our database recorded 321 verified Ukrainian hits on Russia and occupied territory—10% fewer than in August (358), the third-highest monthly figure of the year; since January, the total stands at 1,948 (as of 1 October 2026). Yet the nominal decline is deceptive.

In September, Ukrainian strikes hit more production facilities and air defence systems in Russia and Russian-occupied territory

■ Military Ground Forces
 ■ Navy
 ■ Supply Routes
 ■ Air Defence
 ■ Oil/Energy Infrastructure, Ports
 ■ Production/Industry



Data: Perspectus Analytics

THE CAMPAIGN IS NOT SHRINKING, BUT GOING DEEPER

Long-range hits rose from 66 to 90, while hits on Russian-occupied Crimea halved from 86 to 43. The target profile is also shifting: production facilities (12 to 20) and air defence systems (36 to 40) reached their highest levels this year, whereas hits on energy infrastructure (106 to 70), naval targets (26 to 14) and supply routes (73 to 55) fell markedly. The focus of the attacks is moving from the periphery—Crimea, sea lanes, lines of communication—into Russia's industrial heartland.

REFINERIES: FEWER HITS, LONGER OUTAGES

Despite fewer hits, the attacks on energy infrastructure are having a greater impact because the approach has changed: Ukraine is deliberately targeting secondary units with repair times of up to eight months, using several drone waves per facility, while sanctions are blocking the procurement of spare parts. The IEA revised down its forecast for Russian crude processing over the next 18 months to around four million barrels per day (30% below pre-invasion levels); product exports have almost ground to a halt ([↗ Bloomberg, 11.9.2026](#)). After the strike on Gazprom Neft's Moscow refinery on 20 September,

the share of offline Russian refining capacity rose from 10% to 14% (↗ [ISW, 20.9.2026](#)). The damage is thus becoming cumulative rather than temporary: there are fewer hits, but they lead to longer outages.

This has direct consequences for Russia's public finances. After ten cuts, the Russian central bank held its key rate at 14% for the first time, citing the fuel shortage as one of the causes of the summer price rise (↗ [CBR, 11.9.2026](#)). According to leaked government documents, defence spending is set to rise by 27% in 2027, to be offset by cuts to pensions, education and healthcare (↗ [ISW, 29.9.2026](#)). A decree of 28 September classifies production volumes, refinery throughput, buyers and the coordinates of oil depots (↗ [Reuters, 28.9.2026](#)), an indirect admission of how effective Ukrainian strikes have become.

FEWER SEA-LAUNCHED CRUISE MISSILES FOLLOWING STRIKES ON THE BLACK SEA FLEET

The same pattern can be seen in maritime hits (26 to 14), whose impact is particularly relevant to the air war: the potential for sea-launched Kalibr strikes has **been cut by half**, and the **Black Sea Fleet is cut off** from its main repair base, as the dry docks in Novorossiysk and in Crimea are within drone range (↗ [Armyinform, 22.9.2026](#)).

VIVALDI COUNTEROFFENSIVE

Even more decisive for the immediate course of the war is the impact on the fighting at the front during Ukraine's **Operation "Vivaldi"**. Ukrainian strikes shut down the pipeline from Voronezh Oblast that had covered half of the diesel needs of Russian troops in occupied Luhansk. Since then, supplies have been running via a 400-kilometre road route

(↗ [Militarnyi, 21.9.2026](#)). As Russian electronic warfare depends on diesel-powered generators, the fuel shortage also took out the counter-drone defences (↗ [ISW, 17.9.2026](#)) —an important factor in Ukraine's successful advance north of Lyman.

ASSESSMENT AND OUTLOOK

PUTIN'S NEW "THEORY OF VICTORY"

The air war is likely to be waged at a higher intensity in winter 2026/27 than in previous winters. This is due to the greater commitment of resources, including missiles (↗ [Monitor Vol. XVII](#)), and the current lead in new drone models—but above all to the situation at the front. Russia has made virtually no net territorial gains since March 2026 (↗ [ISW, 1.10.2026](#)), while Ukraine has been successfully striking back near Kupiansk, Oleksandrivka and Lyman since late 2025 and has gained strategic advantages with Operation "Vivaldi". This puts pressure on the strategy for victory that Putin formulated in June 2024, which the ISW describes as his "theory of victory": steady advances along the front would eventually cause Ukraine's defences to collapse (↗ [ISW, 26.9.2026](#)).

The ISW therefore assesses that Putin is additionally relying on a **second strategy**: massive air strikes with ballistic missiles and new Geran models are intended to force Ukraine to capitulate over the winter. He is not giving up on the front, but he now sees the air war as the most important option (↗ [ISW, 1.10.2026](#)).

For the winter, this means a **telegraphed escalation**. On 25 September, Putin declared that Ukraine "must" "feel" Russia's "retaliatory strikes", portraying the attacks as a response to Ukrainian "provocations"—even though Russia had already escalated its campaign in previous winters. The rhetoric justifies harsher strikes both at home and abroad and aims to delegitimise Ukraine's long-range strikes,

whose considerable economic consequences are increasingly being discussed within Russia. A let-up in attacks on Ukraine's energy infrastructure is therefore as unlikely as serious concessions before the end of the winter campaign (↗ [ISW, 27.9.2026](#)). The message to the West is that support for Ukrainian long-range strikes will provoke Russian "responses".

RISING RUSSIAN PROVOCATIONS AGAINST EUROPEAN COUNTRIES

Intimidating the countries that support

Ukraine is also part of Russia's strategic calculus. The attacks on logistics points near Polish-Ukrainian border towns (13 and 28 September) show that civilian logistics routes far in the west of Ukraine are also exposed to attack. Russia's provocations against its western neighbours are thus becoming ever more direct.

These also include numerous **drone overflights** of Moldova and Romania and **airspace violations** in Lithuania. Poland remains a focus of the provocations: on 10 September, 19 violations of Polish airspace by Russia were recorded (↗ [GOV.pl, 10.9.2026](#)). In addition, a Russian helicopter flew over Polish territory in the border area with Kaliningrad Oblast (↗ [ISW, 23.9.2026](#)). Poland responded to repeated violations of its airspace by adjusting the rules of engagement for its pilots so that they can react more quickly to potential threats (↗ [Gazeta Wyborcza, 24.9.2026](#)).

An incident in which a Russian frigate fired a flare at a Danish Fennec helicopter marks

a new level of Russian boundary-pushing in the Baltic Sea: the reconnaissance flight followed a routine movement pattern. According to a statement by the Danish government, the Russian side failed to issue the customary radio warning (↗ [Lovguiden, 25.9.2026](#)).

The arson attacks on defence companies in Munich (Rohde & Schwarz and Helsing on 3 September), attributed to Russia's military intelligence service GRU, also represent a new level of provocation (↗ [FAZ, 25.9.2026](#)).

CAPABILITY GAP IN EUROPEAN DETERRENCE

Russia's activities thus raise not only the question of the immediate protection of European territory, particularly in the rear areas, but also that of the credibility of European deterrence. Military expert Gustav Gressel sees a considerable capability gap here: although Europe is increasingly developing and procuring long-range weapons—from Taurus and SCALP/Storm Shadow to the future Taurus Neo—range alone does not deter. Gressel identifies three capability gaps:

- I. **Penetration capability:** Europe's arsenal consists predominantly of subsonic cruise missiles, of which, according to Gressel, Russian air defence intercepts around 70% on average; several missiles must therefore be planned per target.
- II. **Composition of the arsenal:** ballistic missiles would stand a much better chance against air defences but are produced in Europe only by Türkiye and Ukraine. There is a lack of low-cost long-range weapons for mass deployment—Gressel names the Ruta cruise missile as the only operational European system with a long range.
- III. **Mass:** small national stockpiles hardly impress Moscow, since Russia knows

from the war how much fire it can absorb. Falling back on the US does not close the gap: the American defence industry can barely meet its own needs, and under Trump dependencies become a means of leverage.

From this, Gressel derives two demands: a **broad mixed arsenal of cruise missiles, ballistic missiles** and lower-cost systems for large-scale use, and the **pooling of European capabilities**. Only then could the "critical mass" be achieved that makes deterrence credible (↗ [T-online, 5.9.2026](#)).

How far Europe is from such pooling is shown by a **confidential interim report by the European Defence Agency (EDA)**: although EU member states have massively increased their defence spending, they invested only 13% of it jointly in 2025—against a self-imposed target of 40% by 2030. The EDA therefore warns of fragmented procurement and continuing dependencies, above all on the US. The EDA sees the largest capability gaps in air defence, strategic reconnaissance and early warning, ammunition and emerging technologies—precisely the areas that are proving particularly critical in the war in Ukraine (↗ [FAZ, 29.9.2026](#)).

EUROPE AND UKRAINE

What is missing? Europe continues to treat the war in Ukraine as a conflict that it supports but does not regard as part of its own defence, argues Alina Frolova, Deputy Chair of the *Centre for Defence Strategies* in Kyiv. Frolova considers precisely this strategic separation increasingly dangerous in view of Russia's activities in Europe. Russia has long been putting pressure on European countries on their own territory as well, through drones,

airspace violations, sabotage, cyberattacks and hybrid operations. What is needed, therefore, is a change of perspective: Ukraine must not only be supported but understood as an integral part of Europe's defence architecture. Europe should link its capabilities—particularly air defence, reconnaissance, logistics and intelligence—more closely with the operational capabilities of the Ukrainian armed forces within a joint European-Ukrainian operational framework (↗ [IISS, 25.9.2026](#)).

The goal must be to make clear to Russia, not merely in rhetoric, that it is not facing Ukraine alone, but the pooled defence capabilities of Europe—and thus an incomparably larger adversary—that supports Ukraine effectively and for the long term.

ABOUT THE MONITOR

The monthly newsletter **“Ukraine Air War Monitor—Analyses for the Protection of Ukrainian Cities and Infrastructure”** provides analyses on ongoing Russian air strike campaigns, identifies emerging trends, and enables assessments of Russia’s evolving military strategy and capabilities.

The Monitor is based on a database of all Russian air strikes on cities and civilian infrastructure in Ukraine and currently records over 128,900 attacks since September 2022.

The **Ukraine Air War Monitor** is published by Kyiv Dialogue in cooperation with OSINT and data analyst Marcus Welsch and the Konrad Adenauer Foundation.

The current issue, as well as further information about the series and methodology, can be found on our website (↗ kyiv-dialogue.org).

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Marcus Welsch is an independent analyst, documentary filmmaker, and publicist.

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ABOUT KYIV DIALOGUE

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Since February 2022, its work focuses on military support for Ukraine and Western sanctions policy.

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