

UKRAINE AIR WAR MONITOR

Analyses for the Protection of Ukrainian
Cities and Infrastructure

IN THIS ISSUE:

JET-POWERED DRONES LOWER
INTERCEPTION RATE — PROLONGED
ATTACK WAVES — SPOTLIGHT:
INCREASING PRESSURE ON RUSSIA

Data and Analysis:

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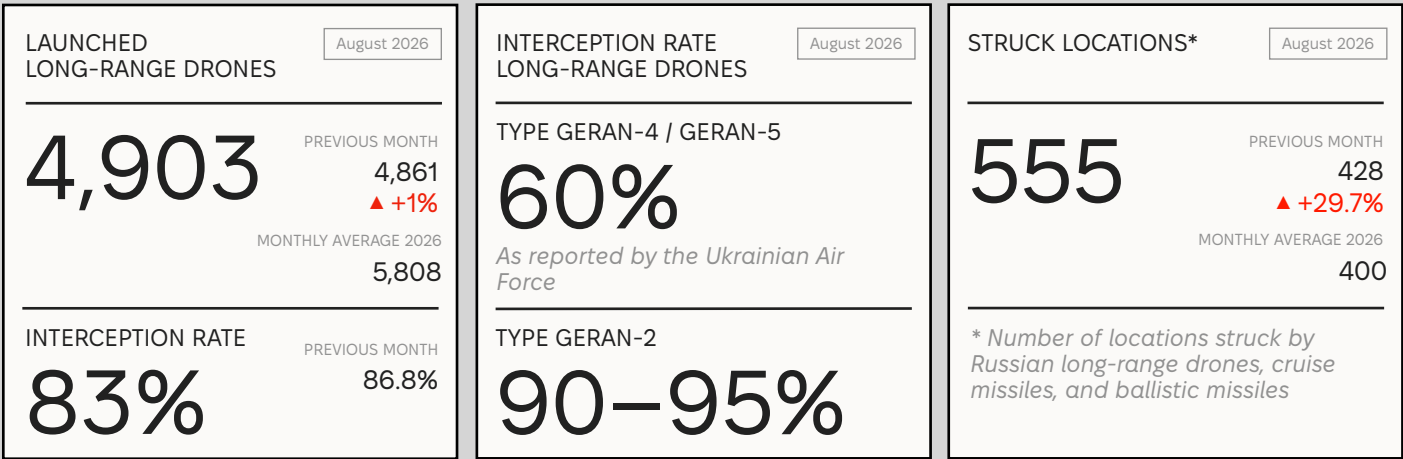
SUMMARY

The war in Ukraine is currently marked by an expansion of the air war. This is evident in waves of attacks that lasted up to 28 hours in Kyiv in August, leading to an adaptation of the alert system for the population. Modernized Geran drones, which are harder for Ukraine to intercept, are increasingly being deployed. Ukraine’s supply of Patriot interceptor missiles remains precarious.

At the same time, both sides are shifting their strategic targets. In addition to residential areas, Russia is attacking civilian logistics and supply chains even more deliberately: trade and postal logistics, railways, ports and Black Sea shipping, as well as gas stations and fuel infrastructure—flanked by recurring attacks on energy facilities and the publicly announced winter campaign against Ukraine’s power grid.

Meanwhile, Ukraine is increasingly succeeding in circumventing and weakening Russian air defense, without Russia having so far found an effective countermeasure. For the first time, Ukrainian drones struck facilities of the Russian space program. Ukraine is also significantly expanding its attacks on material depots, command posts, and drone launch sites.

KEY FIGURES ON RUSSIAN ATTACKS – AUGUST 2026

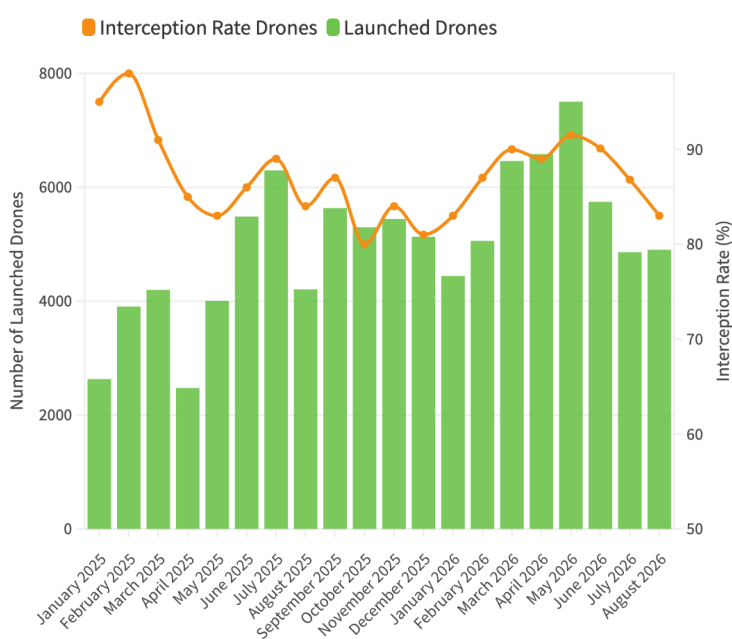


SITUATION IN AUGUST

ANALYSIS AND TRENDS

The Russian army is continuing its attacks on Ukrainian cities and infrastructure at high intensity. In August it deployed 4,903 long-range drones against civilian targets (previous month: 4,861), but this remained well below the record figure from May (7,503)—likely because the production of long-range drones is currently being restructured. The Kremlin continues to shift the Geran program from piston-powered Geran-2 drones toward jet-powered variants—most notably the Geran-4, which flies significantly faster and at higher altitudes than its predecessors (↗ [Monitor Vol. XIX](#)).

Jet-powered drones lower the interception rate



Data: Perspectus Analytics, KPSZSU

The share of jet-powered Geran models in nighttime attacks is given as one to two thirds, though precise figures are not available.

Ukraine's military intelligence service HUR estimates that **Russia produces around 3,000 drones of the Geran-4 and Geran-5 types per month** (↗ [Militarnyi, 12.8.2026](#)). Satellite imagery also shows the construction of ten new production halls in the Alabuga special economic zone (Republic of Tatarstan), which suggests a further increase can be expected (↗ [StrategicaviationT, 1.9.2026](#)).

The most recent development in the Geran series builds on a highly adaptable modular design. The Geran-5 model increasingly resembles a cruise missile. A CSIS study emphasizes that the real danger of the Geran's development lies not in its simple technology, but in the pace of adaptation: Russia modernizes the drone on a weekly cycle in reciprocal response to enemy defenses. For Western alliances, which think in procurement cycles measured in years, this speed poses an ever-greater challenge (↗ [CSIS, 4.9.2026](#)).

Due to the rising share of Geran-4 drones, the interception rate fell in August to 83% (previous month: 86.8%)—the worst figure this year. According to the Ukrainian Air Force, the interception rate for Geran-2 models is 90 to 95%, whereas for jet-powered drones it is only around 60% (↗ [Suspilne, 1.9.2026](#)).

PROLONGED WAVES OF ATTACK

Russia is also once again attempting to sustain air raid alerts in Ukrainian cities through prolonged waves of attack over unusually long periods—a pattern reminiscent of the waves of attacks in March (↗ [Monitor Vol. XV](#)). The apparent aim is to durably disrupt civilian and economic daily life and to place psychological strain on the population. A combined series of drone and missile attacks on 28 and 29 August lasted more than 28 hours and triggered 28 air raid alert warnings (↗ [CNN, 30.8.2026](#)). Several people were injured, and a girl was killed (↗ [Suspilne, 29.8.2026](#)).

NEW RULES FOR TIERED AIR ALERTS

Ukrainian authorities are looking for ways to mitigate these disruptions caused by prolonged air raid alerts, particularly in rail operations. The Kyiv city administration and the rail operator *Ukrzaliznytsia* are currently coordinating on how transport, logistics and road traffic on bridges can be organized during longer-lasting air raid alerts.

President Zelensky announced a **two-tier air alert system**: in future, drone attacks are to trigger a yellow alert level, while missile threats will trigger the more serious "red alert." Under a "yellow alert," certain businesses, social services and **public transport will be able to continue operating**, and Metro Line 1, which runs above ground east of the Dnipro, will also continue running.

The criteria for these arrangements are to be reviewed every week, and curfews are to be made more flexible. The alert system as a whole has also been adjusted: a siren now sounds only at the start of an alert—the end will be announced via other information

channels such as apps. Protection for schools and educational institutions remains unchanged (↗ [Zelensky on X, 2.9.2026](#)).

UNCLEAR DATA SITUATION REGARDING MISSILES

Since August, the Ukrainian Air Force has only partially published data on attacks by cruise missiles and ballistic missiles, meaning reliable statements about deployment and interception rates are not possible. Deployment patterns suggest that previously observed trends are continuing (↗ [Monitor Vol. XIX](#)). In August, a slight decline in cruise missiles—which have a high interception rate—can be assumed, along with a continued high share of ballistic missiles, which, due to the shortage of Patriot interceptor missiles, could barely be shot down for a time. Since 27 August, however, **ballistic missiles have again been intercepted**.

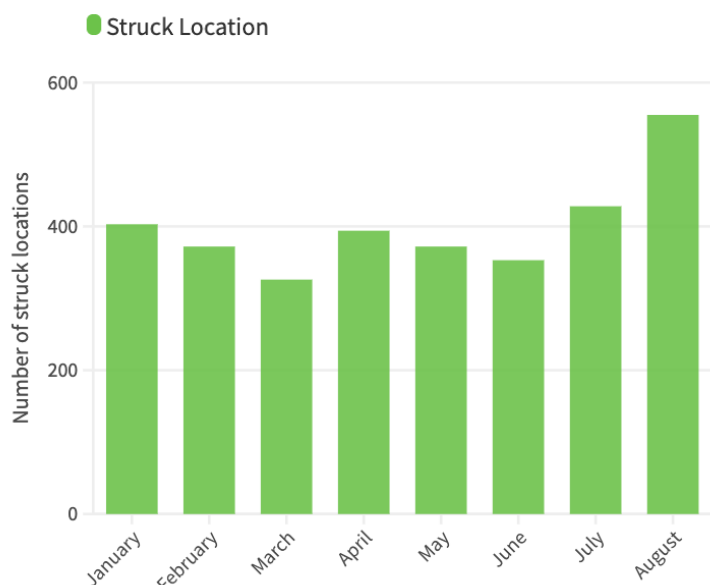
Whether Ukraine will actually receive further Patriot interceptor missiles from abroad is currently more than questionable (↗ [Monitor Vol. XVI](#)). Given the global bottleneck, the *Institute for the Study of War (ISW)* assessed in August that the Kremlin appears to believe it can force Ukraine into capitulation through an expansion of the air war.

INCREASING NUMBER OF STRUCK LOCATIONS

The growing strain on Ukraine's air defense capabilities, driven by shortages of interceptors and the continued development of Russia's Geran drones, is also reflected in the increasing number of impacts. Our analysis of daily reports tracks the number of locations where impacts from long-range drones, cruise missiles, and ballistic missiles were recorded. This figure is influenced not only by the number of incoming weapons that evade

interception, but also by their geographic dispersion and Russia's targeting choices. In August, the number of locations with recorded impacts reached its highest monthly level of the year.

In August, more locations were hit by Russian airstrikes than in any other month this year



Data: Perspectus Analytics, KPSZSU

EXPANSION OF MISSILE ATTACKS EXPECTED

An **expansion of missile attacks**—particularly in the ballistic category—is therefore to be **expected**, in line with growing Russian production capacities (↗ [Monitor Vol. XIX](#)). In addition, **ballistic missiles from North Korea** are expected, for which six positions are currently being built in Voronezh Oblast. In July, North Korea had delivered 50 short-range ballistic missiles of the KN-23, KN-24 and KN-30 types to Russia. These sometimes carry significantly larger warheads, but are noticeably less accurate and not infrequently miss their target by hundreds of meters—

posing additional risks to the civilian population (↗ [ISW, 20.8.2026](#)).

NEW LAUNCH SITES ALONG THE BORDERS WITH UKRAINE AND BELARUS

Along the borders with Ukraine and Belarus, **59 new launch sites** have been built, at least 20 of which are suitable for launching long-range drones. This also poses a **threat to NATO countries** (↗ [Telegraph, 16.8.2026](#)).

The Ukrainian army must therefore be supplied with longer-range munitions to fend off the new Geran long-range drones, and also needs additional combat aircraft (recommendations in ↗ [Monitor Vol. XIX](#)).

CIVILIAN SUPPLY CHAINS IN THE CROSSHAIRS

In August 2026, the Russian army increasingly targeted Ukraine's **civilian logistics and supply chains**. **Trade, postal and warehouse logistics** were attacked almost daily.

The systematic destruction of Ukraine's export structure (↗ [Monitor Vol. XIX](#)) also remained the main target of Russian attacks in August. In Odesa Oblast, **ports, fuel storage facilities, shipping and grain export infrastructure** were repeatedly hit. As a result, an increasing number of shipping companies are withdrawing due to rising insurance costs.

According to Ukraine's minister of agrarian policy Taras Vysotskyi, around **90% of the warehouses of major food retail chains** (including *Fora, Varus, Silpo, Novus*) **have been destroyed**. Nevertheless, supply shortages are not expected: there will be "no famine and no systemic shortage of food," the minister said (↗ [Ukrinform, 28.8.2026](#)).

Gas stations along the main rear supply roads (M-03, M-18, P-51, M-30) continue to be destroyed. The main focus areas are Kharkiv Oblast (where the most attacks took place in August), Poltava, Chernihiv and Dnipropetrovsk.

Attacks on **substations, heating plants and power plants**, as well as on extraction and mining facilities, continue. **Power outages** recurred repeatedly in six administrative districts in southern and eastern Ukraine. The Russian Ministry of Defense is now openly announcing "preparations for massive attacks on Ukrainian energy facilities" (↗ [MOD Russia, 30.8.2026](#)). This suggests that the winter campaign will begin significantly earlier this year (↗ [Monitor Vol. XIX](#)).

Drone attacks hit **trains, railway tracks and stations** particularly in the oblasts of Dnipropetrovsk, Kharkiv, Odesa, Zaporizhzhia and Sumy. On the Zhytomyr–Odesa line, a train carrying 593 passengers was evacuated in time (↗ [Ukrainska Pravda, 23.8.2026](#)). From 28 August, *Ukrzaliznytsia* suspended ticket sales on certain routes.

ATTACKS ON VULNERABLE TARGETS

At the same time, the Russian army continues its attempts to **wear down the civilian population**. In Kyiv, a **children's hospital and a school** were hit, as well as the Lithuanian embassy and warehouses belonging to the *WHO*, the *Red Cross*, and the aid organization *Proliska*. In Kramatorsk, attacks hit the hospital's emergency department. Churches were also attacked again, including the Greek Catholic cathedral in Kharkiv and the central mosque in Kyiv (↗ [Ukrinform, 1.8.2026](#)).

In addition, people continue to be deliberately hunted and attacked using FPV drones—a practice that has become known as *human*

safari. Above all in Kherson, but increasingly also in Dnipropetrovsk, pedestrians and cyclists, buses, markets and ambulances have been attacked (↗ [Monitor Vol. XV](#)).

TARGETED DESTRUCTION OF UKRAINIAN CULTURE

In July and August, around **a third of Ukraine's annual print production was destroyed** when the Russian army attacked six book warehouses, logistics centers and offices in Kyiv and Kharkiv oblasts. In a single attack on a warehouse near Kyiv on 27 August alone, 60,000 books were destroyed. Ukraine's *Center for Strategic Communications* describes this as part of a campaign against the Ukrainian language and culture (↗ [Spravdi Center, 30.8.2026](#)).

CONTINUED STRAIN ON THE REGIONS

The distribution of attacks across the oblasts has changed little compared with the previous month (↗ [Monitor Vol. XIX](#)). This **broad regional spread** fits the ongoing "summer pattern" of attacks—during the winter campaign, attacks are expected to concentrate more heavily on individual regions, as the Russian army targets energy infrastructure even more precisely (↗ [CSIS, 7.7.2026](#)).

SPOTLIGHT

INCREASING PRESSURE ON RUSSIA

The Kremlin continues to refuse any compromise to end the war—such as freezing the current front line—and ties negotiations to its unchanged maximalist objectives. It claims that Ukraine's defense is on the verge of collapse and that Russian troops are making rapid territorial gains. Moscow counts infiltrated territory—incursion without permanent control—as actual territorial gain. Measured by territory actually held, the advance is slowing, while losses remain high (↗ [ISW, 2.9.2026](#)). Putin's current assessment of developments at the front is therefore likely to keep him on his current course. Ukraine has therefore set itself the goal of increasing pressure on Russia at points where the costs of the war become tangible for the economy and society beyond the battlefield.

INCREASING ECONOMIC PRESSURE ON RUSSIA

For a faster end to the war, several levers must work simultaneously. First, Russia's economic sources of revenue must be drastically curtailed. There is still a lack of more decisive action against Russia's shadow fleet, as well as EU access to the frozen assets of the Russian central bank. By transferring these assets to an EU custodial body, as proposed by Annegret Kramp-Karrenbauer, Chairwoman of the *Konrad Adenauer Foundation* and former Federal Minister of Defense of Germany, Nathalie Loiseau (former French Minister for European Affairs) and Daleep Singh (sanctions

expert in the Biden administration) (↗ [FAZ, 8.8.2026](#)), Europe could provide Ukraine with additional means for its defense and strengthen its negotiating position.

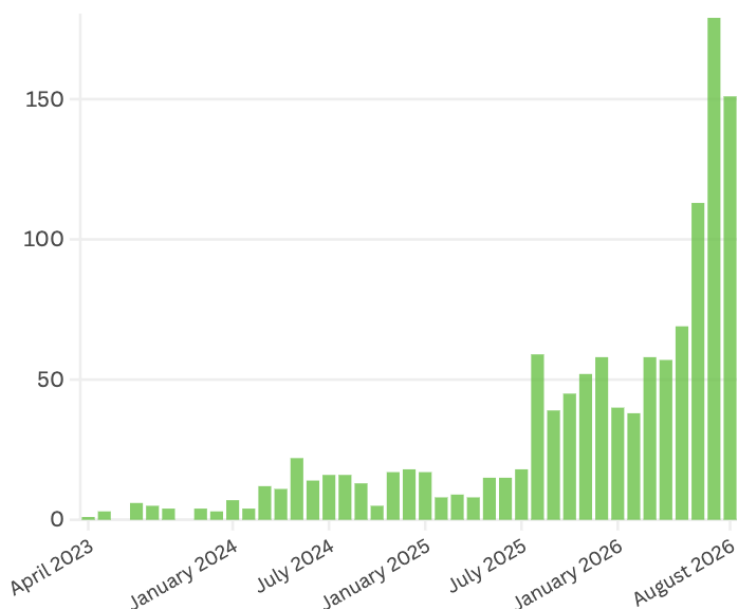
More decisive, however, is providing Ukraine with strategically effective means that directly force the Kremlin into genuine negotiations and also compromises. This includes, first and foremost, continued **financial and technical support** for the development and production of **deep precision strike systems**, which Ukraine is already deploying successfully.

TARGETS OF UKRAINIAN *DEEP STRIKES*

I. RUSSIAN MILITARY INFRASTRUCTURE

Ukraine's strike campaign remained **quantitatively at a high level** in August (357 verified hits; previous month: 373, see ↗ [Monitor Vol. XVIII](#)). The target focus has shifted: from maritime facilities toward military infrastructure, including airfields, air defense and radar installations, and, for the first time, also the military space infrastructure.

In August, Ukraine carried out 151 successful airstrikes targeting the occupied Crimea and Russian territory alone



Data: Perspectus Analytics

In August, the Ukrainian army **hit twice as many military targets** as in the previous month: command posts, ammunition and aviation weapons depots; early-warning and air surveillance radars for low-altitude detection and landing control; air defence equipment,

drone launch sites and aircraft themselves.

Attacks on military airfields such as Millerovo (Rostov Oblast), Engels-2 (Saratov Oblast) and Yeysk (Krasnodar Region) have a direct impact on the air war, by disabling launch bases for Geran drones, neutralising air defence systems and destroying combat aircraft and helicopters (↗ [Kyiv Independent](#), 30.8.2026). Attacks on the Savasleyka military airfield (Nizhny Novgorod Oblast) were additionally directed against the capability to launch Kinzhal missiles, as the corresponding MiG-31K launch platforms are stationed there (↗ [Militarnyi](#), 15.8.2026).

II. RUSSIAN SPACE PROGRAM *RASSVET*

A previously barely visible dimension of Ukrainian long-range strikes emerged in August: they are specifically **disrupting infrastructure for military space activities**, thereby potentially further delaying Russia's efforts to build up its own satellite system, *Rassvet*, as a replacement for *Starlink* access, which has been blocked since February. On the night of 15 August, the Ukrainian army successfully attacked the Progress Rocket Space Centre in Samara—the only Russian plant producing launch vehicles for the deployment of *Rassvet* satellites. On 23 August, it attempted to attack the Plesetsk Cosmodrome, from which the two previous batches of *Rassvet* satellites had been launched (↗ [Militarnyi](#), 23.8.2026).

Of the second batch, launched on 19 July, according to data from the ↗ [tracker N2YO](#), none of the 16 satellites had reached the target

altitude of 550 kilometers by 31 August. This significantly increases propellant consumption and shortens the satellites' service life. Many are orbiting at an altitude of 300 to 400 kilometers, and at least two are heading toward re-entry into the atmosphere (↗ [Numerama, 29.8.2026](#)).

Of the first batch, launched on 24 March, twelve of 16 satellites had reached the intended altitude of around 550 km. So far, these provide the Russian military with two daily communication windows totaling 90 minutes (↗ [Monitor Vol. XIX](#)). Russia therefore still lacks a high-bandwidth satellite communications network comparable to *Starlink*, which limits reliable command and control, coordination and real-time data transmission at the tactical level.

III. RUSSIAN FUEL SECTOR

The **real pressure on Russia**, however, **arises** not solely from the lack of capacity in space, but from **deep within its own territory**: Ukrainian attacks are increasingly exposing the **limits of Russian air defense**. Neither the Kremlin nor Russian military bloggers still believe in the possibility of comprehensive air defense against Ukraine (↗ [ISW, 20.8.2026](#)). Developments in August also demonstrate this: the burden of defense is being shifted onto businesses and regions; reliance is now placed on passive measures such as netting, protective structures and redundancy; commercial demand for counter-drone systems increased more than sixfold to 441.3 million rubles in H1 2026 year-on-year (↗ [Vedomosti, 12.8.2026](#)).

Economically, Ukrainian attacks are having an impact on two strategically important sectors in Russia. In the **fuel sector**, refinery capacity hit a **20-year low** in mid-August (↗ [Bloomberg, 28.8.2026](#)).

The resulting fuel crisis is now being felt not only in Russia's periphery, but even in Moscow (↗ [Moscow Times, 19.8.2026](#)). Gasoline was available at only 28% of filling stations. In Moscow, Gazprom Neft introduced fuel rationing; the export ban on diesel, marine fuel and gas oils was extended until 30 September (↗ [ISW, 29.8.2026](#)).

The countermeasures are causing knock-on damage extending into arms production, as aromatic hydrocarbons are being diverted into low-grade gasoline instead of into synthetic materials such as rubber or polymers that are important for the defense industry; in Crimea, the petrol released for Euro-2 and Euro-3 standards is causing engine damage. To prevent unrest, the Kremlin has stationed National Guard units at at least 13 filling stations in Russia and in occupied Crimea (↗ [ISW, 19.8.2026](#)).

IV. RUSSIAN TRADE SECTOR

In addition, there are **effects on the trade sector**. The attacks on the logistics of the online marketplaces Ozon and Wildberries, which account for 15% of private household spending in Russia (↗ [TASS, 30.8.2026](#)), are having an impact: **consumer spending fell by 15% within a few weeks**. The platforms are passing rising repair and security costs on to their sellers through higher commissions and logistics fees, in some cases now charging up to 55% of the value of the goods. Average retail profitability on Russian marketplaces has fallen from around 15% to 5% (↗ [SZRU, 30.8.2026](#)).

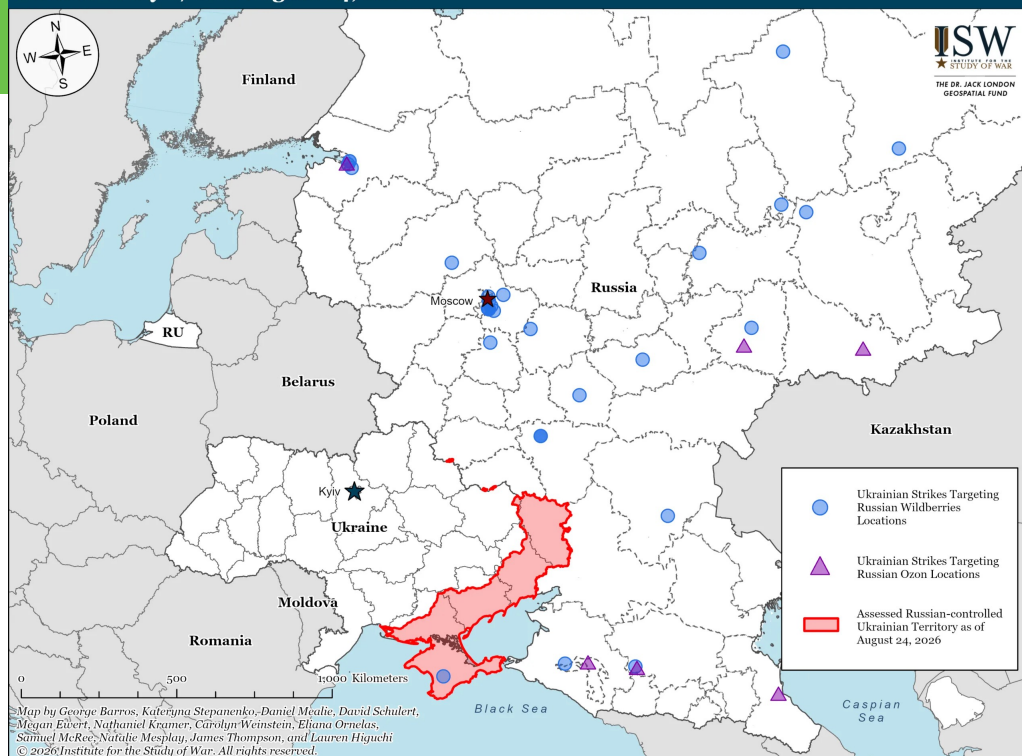
Ozon and Wildberries also serve as procurement channels for soldiers at the front (↗ [Monitor Vol. XIX](#)). Ozon sells, among other things, body armour, firearm components and drones (↗ [Verstka, 28.8.2026](#)).

The Russian government responded to the attacks by providing relief to the affected companies, suspending taxes and levies for Wildberries and other retailers until 28 July 2027 (↗ [Interfax, 24.8.2026](#)).

At the same time, a decree issued on 24 August orders the takeover of critical infrastructure—ranging from fuel to essential services—should it be inadequately protected. The background to this is the budget situation: in April, the state treasury balance slipped to a deficit of 5.5 trillion rubles; since then, funding for numerous budget areas not affected by the war has been cut by 35% (↗ [Bloomberg, 27.8.2026](#)).

The Ukrainian population faces another, and likely very harsh, winter of war. Putin continues to pursue a strategy of buying time and stringing the United States along, hoping that the sustained air war will weaken Ukraine militarily, economically, and socially to such an extent that it will be forced to make far-reaching concessions. To break this calculus, pressure on Russia must continue to increase, and Moscow must come to recognize that this war cannot be won—especially as the growing vulnerability of its air defenses, economy, and military infrastructure becomes increasingly apparent. To achieve this, **Ukraine needs significantly stronger support**, most effectively through the development and production of *deep precision strike* capabilities.

Ukrainian Strikes Targeting Russian Wildberries and Ozon Locations Between July 17 and August 24, 2026



Ukrainian Strikes Targeting Russian E-commerce Wildberries and Ozon Locations (↗ [Institute for the Study of War, 24.8.26](#)).

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 122,300 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.

Since 2014, he has focused in particular on the Russian war against Ukraine, military and foreign policy issues, and the German public discourse surrounding them. He runs the data and analysis platform ↗ [Perspectus Analytics](https://perspectus-analitics.com).

ABOUT KYIV DIALOGUE

Kyiv Dialogue is a civil society platform founded in 2005 to promote German-Ukrainian cooperation, and an international conference format.

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

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