

Kyiv
Dialogue

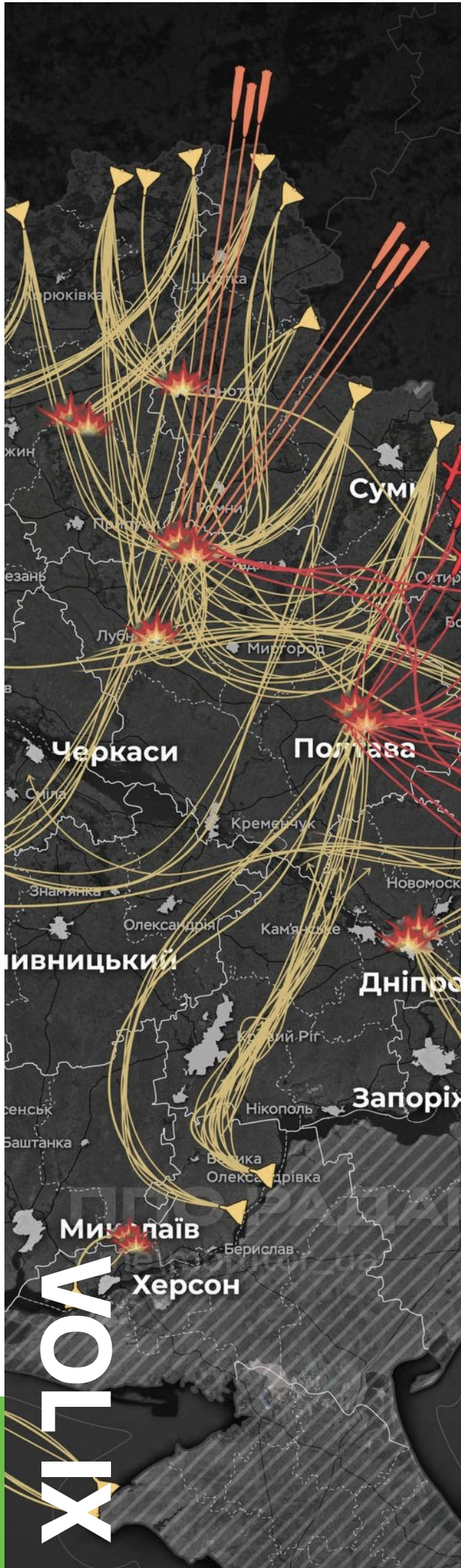
KONRAD
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UKRAINE AIR WAR MONITOR

Analyses for the Protection of Ukrainian
Cities and Infrastructure

Data and Analysis:
Marcus Welsch

2 October 2025



EXECUTIVE SUMMARY

- ▶ In September, **Russia attacked cities and civilian targets in Ukraine with 5,635 drones**. That is an average of 188 attacks per night, 34% more than in August, though still below the record of nearly 6,300 attacks registered in July.
- ▶ In addition, the Russian army deployed 188 **cruise missiles** (80%) and **ballistic missiles** (20%) in September, including the lightweight S8000 Banderol cruise missile for the first time. There was a total of 5,823 attacks in September.
- ▶ The situation for Ukrainian air defence remains critical. The **interception rate** for drones rose slightly to 87% (August: 84%). Interception rates for missiles and cruise missiles remained unchanged in September, with a tendency towards fewer ballistic missiles being intercepted.
- ▶ The **oblasts most affected** by night-time attacks in September were Sumy, Kharkiv, Dnipropetrovsk, Chernihiv, and the areas around Kherson and Kyiv. Shelling of Kyiv increased slightly, as did attacks on the oblasts of Kherson and Kirovohrad.
- ▶ The civilian population near the front line is also exposed to attacks with **glide bombs and short-range drones**. The **UN Human Rights Office in Ukraine** reports a **40% increase in civilian casualties** compared to the previous year.
- ▶ Supporting Ukraine in the development of **new drone defence systems** must therefore be a top priority. This will also benefit the armies of Western partner countries. Overall, drone defence is becoming more difficult, partly due to improved Russian control systems and a new launch site in Crimea.
- ▶ **Sanctions** against Russia **must be enforced more effectively** in order to **reduce its oil revenues**. This applies in particular to Russia's 'shadow fleet' in the Baltic Sea.
- ▶ The prospect of the US relaxing rules on the use of Western weapons against targets in Russia (**deep strike capability**), could reduce Russian offensive capabilities.
- ▶ With Russian drones attacking Polish territory and the systematic disruption of the airspace of other European countries, a **new phase of the conflict between Russia and NATO** has begun.
- ▶ Russia sees the **West's restrained response to the airspace violations** as an **opportunity to further divide the EU and NATO**. Experts observe parallels between the Kremlin's **aggressive rhetoric towards Finland** and the narratives Russia used to prepare for the war against Ukraine in 2021.
- ▶ Russia's airspace violations with combat drones have reignited the debate about a **no-fly zone** over Ukraine. In addition, **the freedom of movement of Russian diplomats in the Schengen area should be restricted** in order to prevent hybrid activities in EU states.

SITUATION IN SEPTEMBER

ANALYSIS AND TRENDS

Russia continues to attempt to overwhelm Ukrainian air defences through the massive use of long-range drones ([↗ Monitor Vol VII](#)). In September, Russia attacked cities and civilian targets in Ukraine with a minimum of **5,635 drones**. This corresponds to an average of 188 attacks per night – 34% more than in August, but less than in the record month of July (just under 6,300 attacks).

According to the Ukrainian Air Force, Russia is using **Shahed drones in 50-60%** of these attacks. The rest are **dummy drones** (mainly of the Gerbera type), which can carry significantly less explosives and are intended to overload Ukrainian air defences ([↗ ISIS 18.12.2024](#)).

Since 10 May, there has not been a single night in which Russia has not attacked Ukrainian cities. Since the summer, Russia has been deploying more than 400 drones on about five nights per month, and more than 100 on nearly 20 nights per month. **On the night of 7 September, 823 missiles were fired, marking the largest wave of attacks since the start of the war.**

DRONE WARFARE REMAINS UNCHANGED AT THE SAME INTENSITY

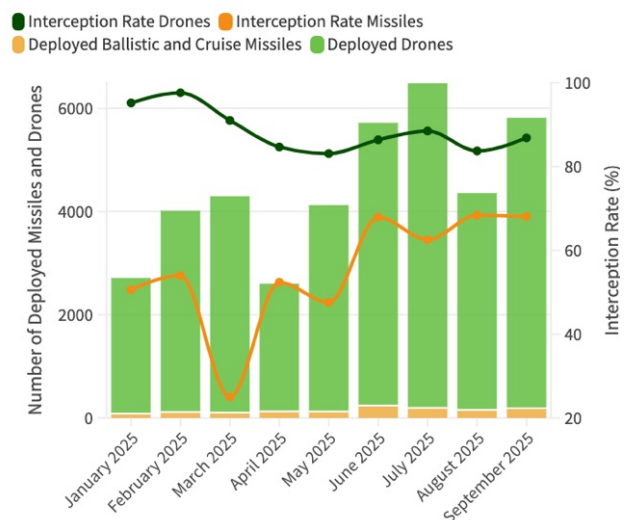
From January to the end of September 2025, Russia deployed around 40,000 long-range drones against civilian targets in Ukraine. The plan for this year was to deploy 79,000 drones ([↗ Monitor Vol VIII](#)). **Russia has not**

increased the total number of drones deployed in the past two months. A

comparison of the target production figures with actual consumption suggests that Russia is lagging significantly behind its own production targets. Currently, Russia can deploy an average of between 170 and 180 long-range drones per day. However, it can be assumed that production will increase over the coming months.

Interception Rates of Russian Missile and Drone Attacks

by month



Data sources: *Perspectus Analytics, KPSZSU, ISW Daily Reports*

In September, the Russian army also deployed 188 **cruise missiles** (80%) and **ballistic missiles** (20%). This is roughly in line with the average for the last three months. Fewer ballistic missiles were deployed in September, which Russia is presumably holding back in its arsenal. This poses a

serious threat not only to Ukraine but also to the rest of Europe (↗ [Monitor Vol VIII](#)).

The deployment of **Russian S8000 Banderol** cruise missile represents a new development, first reported in May. It is produced using a cost-effective lightweight design, made primarily from Western-manufactured components, and carries significantly less explosive material than other cruise missiles (↗ [The Defense Post, 14.5.2025](#)).

The introduction of this type and the current stagnation in missile deployment figures, suggests that Russia may be either experiencing difficulties in producing higher-quality (and therefore more expensive) missiles, or is **reserving such systems for other conflicts**.

UKRAINIAN AIR DEFENCE UNDER ENORMOUS STRAIN

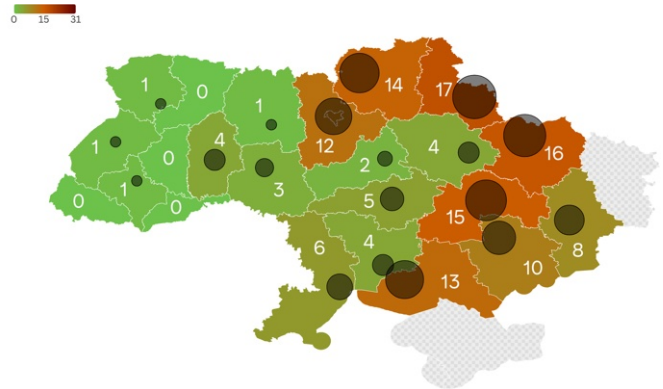
The number of **unintercepted aerial weapons** (drones, cruise missiles, ballistic missiles) rose to 800 in September. This is the **second highest figure** after June 2025.

The **interception rates** for rockets and cruise missiles have changed little. However, it is reported that ballistic missiles are being intercepted less frequently by Ukrainian Patriot missiles, due to a change in their descent trajectory (↗ [Financial Times, 2.10.2025](#)). The interception rate for drones has risen slightly to 87% (August: 84%). The success rate for air defence varies greatly depending on the region.

Cities and regions close to the front line continue to be hardest hit by the attacks. In September, the **Sumy** and **Kharkiv** regions were again ahead of **Dnipropetrovsk** and **Chernihiv**, followed by **Kherson** and **Kyiv**. Both cities were again attacked more frequently by drones in September, as was

the **Kirovohrad Oblast**. The heavy attacks on the **city of Kherson** were particularly notable.

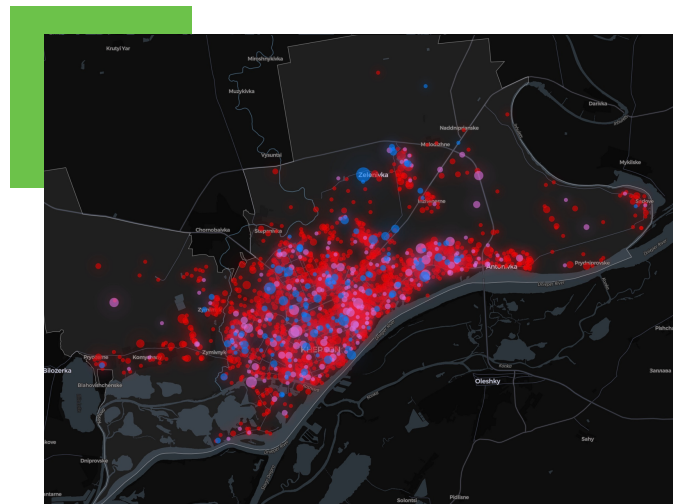
Days with Damage Reports by region, September 2025



Data: Perspectus Analytics, ISW daily reports

CIVILIANS INCREASINGLY TARGETED

The open-source investigative portal Tochnyi has separately evaluated the attacks on the city of Kherson and reconstructed their dynamics with an interactive display. Tochnyi points out that **since 2023, more than 3,000 Ukrainian civilians have been killed in Kherson alone** (↗ [Tochnyi, 30.9.2025](#)).



Screenshot „Human Safari“ von Tochnyi, ↗ [Tochnyi, 30.9.2025](#)

The fiercely contested town of Kostyantynivka was attacked up to ten times a day with **glide bombs** in the last days of September,

causing civilian deaths. Further attacks, including drones, were recorded in Sloviansk, Serhiivka, and at a hospital in the Dniproviskyi district (city of Kherson) (↗ [ISW, 25.9.2025](#)).

The **UN Human Rights Office in Ukraine** reported in early September that the number of **civilian casualties in the first eight months of this year had risen by 40%** compared to 2024. Russian short-range drones were also being used to **target and kill civilians** in frontline areas – a clear violation of international law (↗ [OHCHR 22.9.2025](#)).

Russia continues to attack power plants, electricity distribution networks, production sites and railway lines. This is not just in order to destroy infrastructure. By March 2025, **792 railway employees had been killed** and more than 2,300 injured as a result of Russia's air war (↗ [SZ, 18.9.2025](#)).

Internationally condemned **cluster munitions** were used in attacks on a multi-story building in the city of Dnipro, posing an additional threat to civilians (↗ [Euronews, 20.9.2025](#)).

It can be assumed that Russia will intensify its drone attacks in the coming months, **primarily targeting civilian targets**. In addition, the Shahed series of drones, which are difficult to control, are being continuously developed and thus becoming more accurate.

Since September, the Russian Air Force has been using an **additional launch site for drones in Crimea**, which further **reduces early warning times**, especially for the Odesa and Kherson regions.

RECOMMENDATIONS

Ukraine continues to need **high-quality anti-missile defences**, new drone defence systems, and sufficient ammunition for both. Western countries should provide technological and financial **support for the domestic development of drone defence systems in Ukraine**, drawing in particular on the experience gained from the ongoing development of drone technology.

European arms companies and armies could also benefit from this expertise, as many have failed to develop similar technologies themselves and integrate them into their own defence systems. The urgency of this need has been demonstrated most recently by Russian attacks on the airspace of European NATO countries.

Sanctions against Russia must be enforced more effectively. This includes, above all, monitoring Russia's **shadow fleet** in the Baltic Sea. This fleet enables Russia to finance its military build-up with revenues from the oil business. Moreover, the dilapidated state of the tanker fleet increases the risk of accidents and thus poses an additional threat to the countries bordering the Baltic Sea.

Ukrainian attacks on Russian production and logistics sites (so-called **deep strikes**) should be supported by modern Western guided missiles and technology (↗ [Monitor Vol VIII](#)), in order to weaken Russia's offensive capabilities in the long term. There have been recent indications that the US government could facilitate long-range attacks on Russian territory with its weapon systems (↗ [ISW, 29.9.2025](#)).

SPOTLIGHT

RUSSIAN AIRSPACE VIOLATIONS IN EUROPE

DRONE ATTACKS ON NATO COUNTRIES IN THE EAST

With the **attack by Russian drones on Polish territory** on the night of 10 September, the conflict between Russia and NATO has entered a new phase. This is not the first time Russia has violated NATO airspace.

Nevertheless, according to Estonian defence expert Aleksander Olech, this attack marked a turning point in post-war European history. **For the first time since the Second World War**, Polish armed forces had to repel a threat over their territory kinetically (by using interceptors). It was also the first time that NATO had used defensive weapons in its own airspace (↗ [Gazeta Wyborcza, 29.9.2025](#)).

The attack on 10 September was carried out by Russian long-range drones – mostly Gerbera dummies, which are also used in Ukraine. Contrary to Russia's claims, the drones were able to fly beyond their normal range thanks to additional fuel tanks (↗ [WP tech, 11.9.2025](#)).

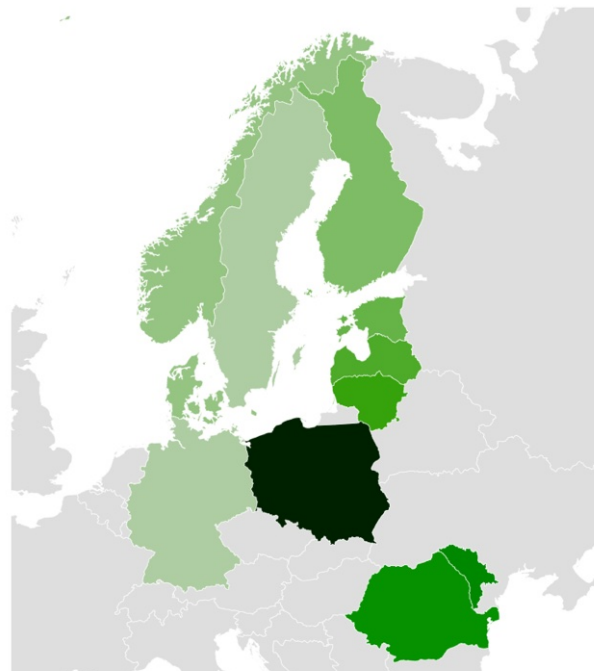
Poland then activated its **air defence** with Polish F-16 and Dutch F-35 fighter jets and was supported by NATO tanker aircraft, German Patriot systems and an Italian AWACS surveillance aircraft.

Two days after the incident, NATO launched **Operation Eastern Sentry** to reinforce the alliance's eastern borders with enhanced air and ground defences.

Russian Airspace Violations in Europe

September 2024 – September 2025

0 25



Data: ↗ [United24](#); ↗ [Maven.Mapping](#)

Russia violated the airspace of other NATO countries in the days that followed. When a drone entered Romanian airspace on 13 September, it was already the eleventh airspace violation since 2022, according to the Romanian Ministry of Defence (↗ [ABC News, 14.9.2025](#); [BBC, 14.9.2025](#)).

PROVOCATIONS IN NATO'S BALTIC SEA REGION

On 19 September, three **Russian MiG-31 interceptors entered Estonian airspace for twelve minutes**, less than ten kilometres from the coast and conspicuously close to

the capital, Tallinn. Italian F-35 fighter jets intercepted the aircraft. Finland and Sweden also deployed their own aircraft for surveillance.

Russian fighter jets have frequently touched or briefly crossed Estonian airspace.

Aleksander Olech estimates that there have been 40 such border violations in Estonia alone since 2014.

German military experts assessed the so-called **'grayzone' aggression** of 19 September as a remarkably long-lasting incident (↗ [augengeradeaus](#), 20.9.2025). Estonian Foreign Minister Margus Tsahkna described Russia's latest attempt at disruption – the fourth this year – as „unprecedentedly brazen“ (↗ [Estonian MFA](#), 19.9.2025).

Also on 19 September, Russian fighter jets violated the **security zone of a Polish oil and gas drilling platform**. The *Institute for the Study of War* (ISW) believes that Russia will carry out further airspace violations in order to gather data on NATO's response time and capacity limits and to unsettle the population (↗ [ISW](#), 20.9.2025).

Two German Eurofighters were also involved on 21 September, when a Russian Ilyushin Il-20M reconnaissance aircraft had to be intercepted. A similar incident in the **airspace over the island of Rügen** had also already triggered a *Quick Reaction Alert* (QRA) by the German Air Force on 27 March 2025 (↗ [NDR](#), 28.3.2025).

CIVIL AIRSPACE OVER EUROPE DELIBERATELY DISRUPTED

On the night of 23 September, **Oslo and Copenhagen airports** were closed for several hours due to drone sightings. Danish Prime Minister Mette Frederiksen described this as a „serious attack on Danish critical

infrastructure.“ (↗ [The Guardian](#), 23.9.2025).

Unidentified drone flights in the **airspace above Danish, Lithuanian, Norwegian and Finnish airports, power plants, and military facilities** increased significantly in September (↗ [ISW](#), 27.9.2025).

In addition, there were unexplained **hacker attacks** on airports in Berlin, London, Brussels, and Dublin in September. The EU Commissioner for Defence and Space, Andrius Kubilius, stated that around **40% of all civil flights within the EU are currently affected by hacker attacks or signal interference**. In Lithuania alone, 1,000 such cases were recorded in August (↗ [Ukrinform](#), 15.9.2025).

POSSIBLE RESPONSES

According to the *Centre for Eastern Studies* (Ośrodek Studiów Wschodnich, OSW) in Warsaw, Russia sees the **West's cautious response to the airspace violations as an opportunity to further divide the EU and NATO**. Russia is also trying to make Western governments aware of the rising costs of supporting Ukraine. Therefore, **further escalation is to be expected** as long as the West does not respond decisively and unanimously to Russia's increasingly aggressive provocations (↗ [OSW](#), 10.9.2025).

PARALLELS BETWEEN UKRAINE AND FINLAND

The ISW observes parallels between the **Kremlin's aggressive rhetoric towards Finland** and the narratives Russia used to prepare for the war against Ukraine in 2021. In the State Duma's Defence Committee, Finland was accused of becoming a “real hotbed of fascism faster than Ukraine” and that “nothing can be ruled out”. President

Putin, his security adviser Nikolai Patrushev and senior officials are making similar threats.

These resemble the rhetoric used before Russia's invasion of Ukraine. Dmitry Medvedev, Security Council Chairperson, spoke of „root causes,” a phrase Russian officials regularly use to refer to Moscow's original war aims in Ukraine (↗ [ISW, 9.9.2025](#)). All of this reflects the „script” that Russia used to shape the **information environment in order to justify an attack** on Ukraine. (↗ [ISW, 18.9.2025](#)).

PREVENTING RUSSIAN FALSE FLAG OPERATIONS

The ISW warns that Russia could deliberately blame Ukraine for acts of **sabotage or attacks on Western countries** in the future. On 30 September, for example, the Russian Foreign Intelligence Service (SVR) claimed that Ukraine was preparing a false flag attack on critical infrastructure in Poland in order to incriminate Russia and Belarus. Russia could use this argument in future acts of sabotage to deny any responsibility and to undermine trust in Ukraine (↗ [ISW, 30.9.2025](#)).

Polish Foreign Minister **Radosław Sikorski** and military expert **Gustav Gressel** are calling for a significant **restriction on the movement of Russian diplomats within the European Union** – especially in countries where Russian intelligence services operate front companies (↗ [Die Welt, 24.9.2025](#)).

Following several **arson attacks** in Poland, which are suspected to have been carried out by the Russian military intelligence service GRU, Poland is now only allowing Russian diplomats to move around in the Warsaw area. According to Sikorski, some of the approximately 2,000 Russian diplomats in the European Union are „performing tasks

that are incompatible with their diplomatic status” (↗ [Gazeta Wyborcza, 12.9.2025](#)).

Poland is therefore appealing to its EU partners to **ban Russian diplomats from moving freely within the Schengen area**.

DEBATE ON NO-FLY ZONE

Sikorski also raises the possibility of a **no-fly zone** (NFZ) over parts of Ukraine (↗ [FAZ, 15.9.2025](#)) – a proposal that was already being discussed publicly immediately after the start of the full-scale Russian invasion in 2022 (↗ [augengeradeaus, 15.3.2022](#)).

In March of this year, a European-led integrated air defence zone (IAPZ) designed to deploy combat air patrols (CAPs) over non-contested areas of Ukraine was discussed under the name „SkyShield” (↗ [Guardian, 6.3.2025](#)).

British security expert **Nathaniel England** goes one step further and advocates a comprehensive **strategy for Ukraine and Europe**. According to England, Ukraine's statehood can only be preserved if its armed forces are relieved. At the same time, Russia must be prevented from opening further fronts in Europe.

No-Fly Zone Over Ukraine

According to Nathaniel England



Map: Kyiv Dialogue, according to information provided by Nathaniel England in ↗ [RUSI, 19.9.2025](#)

In addition to a security zone along Ukraine's western border with Belarus, England advocates above all for **stronger protection of Ukraine's airspace**. He calls this a **sanctuary strategy** – a strategy that “shields Ukraine’s heartland” by having Western partners protect at least part of Ukraine's airspace.

England's proposal envisages a no-fly zone over central and western Ukraine, stretching from the border triangle (Belarus–Russia–Ukraine) southeast to Pavlohrad (Dnipropetrovsk Oblast), south-west via Kryvyi Rih to Mykolaiv, then west to Dobroslav (Odesa Oblast) and from there south of Odesa to the border of Romanian airspace on the Black Sea.

This shields Ukraine’s heartland and “covers the entire Belarusian border, **denying Moscow a northern vector to circumvent Ukraine’s eastern air defences**.” While European partner countries would protect Ukraine's interior, the Ukrainian army could concentrate on regaining territory in the east and resisting Russia's offensives.

According to England, enforcing such a no-fly zone would rely on two components: a multi-layered air defence system to intercept missiles and a rapid-response patrol to combat aircraft or drones that enter the NFZ. Its command and coordination structures should resemble NATO-style air policing, with clear rules of engagement and shared oversight. However, this is not a NATO mission. Rather, it is an attempt to find a response to Russia's actions without the involvement of the US, which is intended to have a deterrent effect (↗ [RUSI, 19.9.2025](#)).

A response to Moscow is needed that does not rule out progressive approaches for fear of Russian escalation. The recent drone attacks on NATO's eastern flank show that

Ukrainian defences alone cannot rule out the risk of hostilities spreading to NATO countries. In the interests of the security of Europe and also Germany, a joint strategy must be developed that reduces the burden on Ukraine and makes it unmistakably clear to Moscow that any expansion of the war, whether conventional, nuclear or hybrid, is doomed to failure.

ABOUT THE UKRAINE AIR WAR MONITOR



The **Ukraine Air War Monitor** ...

- ▶ **Reports on the latest developments** in Russia's air war against Ukraine
- ▶ Is built on a **unique database** tracking all air strikes since autumn 2022.
- ▶ Provides **data-driven recommendations** to enhance short- and medium-term support for Ukraine.
- ▶ Is **designed for policymakers, experts, and journalists.**

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 **Ukraine Air War Monitor** is tailored for political decision-makers, security and military policy experts, and journalists. Its primary objective is to **provide data-driven recommendations** on how Western partners can enhance Ukraine's air defence against Russian attacks.

The analysis is based on a **comprehensive and unique database** tracking every Russian

air strike on civilian targets in Ukraine since autumn 2022.

The monitor is published by „Kyiv Dialogue“ in collaboration with OSINT and data analyst Marcus Welsch and the Konrad Adenauer Foundation.

More information about the series and access to former volumes (in German) can be found on our website (↗ kyiv-dialogue.org).

Support our work:

The monthly UKRAINE AIR WAR MONITOR is a crowdfunded effort and depends on financial contributions. If you would like us to continue our English language version, please consider supporting us ↗ [here](https://kyiv-dialogue.org).

METHOD

The air strike database is regularly cross-referenced with daily reports from the **Institute for the Study of War (ISW)** in Washington ([↗ ISW](#)).

The launch records originate from the **Ukrainian Air Force** reports ([↗ KPSZSU](#)), and data on regional targets and damage—if available—is supplemented with **civilian and military administration sources**.

These figures are further verified using additional **OSINT sources** and are considered highly reliable.



Data sources of the database

Accurately quantifying **air strike damage** during an active war is inherently challenging. Providing overly precise information could aid Russian military planning, which is why certain reporting restrictions apply ([↗ Expro, 21.2.2025](#)).

Consequently, this analysis **focuses on attack patterns and dynamics** rather than detailed damage assessments.

With over **37 months of data and around 58,800 documented attacks**, robust trends have emerged. Monthly missile counts are approximate values, as irregularities have been noted in Ukraine's reporting system. Discrepancies with other OSINT sources remain within a 10% margin, often below 3%.

A comparison with the missile and drones assessment by the Center for Strategic and International Studies (CSIS) in Washington over a period of more than two years shows a deviation of only 1.6% ([↗ CSIS](#)).

For attacks lacking definitive quantification, the lowest plausible estimates have been used. Due to possible underreporting in high-intensity phases, actual interception rates may be slightly higher, with an estimated deviation of less than 5%.

ABOUT US

ABOUT THE AUTHOR

Marcus Welsch is a freelance analyst, documentary filmmaker, and publicist.

Since 2014, he has specialized in OSINT journalism and data analysis, focusing on the Russian war against Ukraine, military and foreign policy issues, and the German public discourse.

In cooperation with Kyiv Dialogue, he has conducted research and panel discussions on Western sanctions policy since 2023.

Since 2015, he has been running the data and analysis platform ↗ [Perspectus Analytics](#).

ABOUT KYIV DIALOGUE

Kyiv Dialogue is an independent civil society platform dedicated to fostering dialogue between Ukraine and Germany.

Founded in 2005 as an international conference format addressing social and political issues, it has moved to support civil society initiatives aimed at strengthening local democracy in Ukraine since 2014.

Since Russia's full-scale invasion in 2022, the focus has shifted to social resilience, cohesion, and security policy—including military support for Ukraine and Western sanctions policy.

Kyiv Dialogue is a program of the ↗ [European Exchange gGmbH](#).

CONTACTS

Kyiv Dialogue

c/o European Exchange gGmbH
Erkelenzdammm 59, D-10999 Berlin
+49 30 616 71 464-0

info@kyiv-dialogue.org

www.kyiv-dialogue.org



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Konrad Adenauer Foundation Ukraine

Bogomoltsja St. 5, Wh. 1, 01024 Kyiv / Ukraine

+38 044 4927443

office.kyiv@kas.de

www.kas.de/de/web/ukraine



Imprint

Publisher:

European Exchange gGmbH
Erkelenzdammm 59, D-10999 Berlin

Konrad-Adenauer-Stiftung e.V.
Klingelhöferstraße 23, D-10785 Berlin

Represented by:

Stefanie Schiffer (European Exchange gGmbH)
Thomas Vogel (European Exchange gGmbH)
Dr. Jan-Philipp Wölbern (Konrad Adenauer Foundation)

Editing and Design:

Matthias Meier

Translation

Michael Larry Dempsey

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