Institute for Science and International Security

Report

Updated Analysis of Russian Shahed 136 Deployment Against Ukraine

By Dr. Igor Anokhin[1] and Spencer Faragasso

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Russia continues to launch large numbers of Shahed 136 drones at Ukrainian military and civilian targets on a near daily basis. This report assesses data covering the period of August 1, 2024, to March 1, 2025, on the use of Shahed 136 drones by the Russian military, building upon a previous assessment released in September.[2] We assess the data as the number of Shahed 136 reportedly launched, the number intercepted, the number that successfully struck their targets, the number of drones reported as "lost", and the number of drones that reportedly returned to Russian (or Belarusian) territory. The data analyzed for this report came from open-source channels verified by the Institute and official statements released by the Armed Forces of Ukraine. Assessing the data has become increasingly complicated because Russia has been deploying decoy drones, such as the Gerbera and Parody. The Gerbera and Parody incorporate design details that allow them to mimic the shape or radar signature of the Shahed and often accompany it on strikes.[3] These decoy drones first began appearing on the battlefield in late July 2024 and are likely included in the published launch numbers. Therefore, they cannot be extrapolated from the data to provide a clear and comprehensive assessment of only the Shahed 136 drones launched against Ukraine. However, the number of Shahed 136 strikes remains a significant fraction of the total daily strikes.

Drone launches dramatically increased in February 2025, averaging 140 drones per day during that month. This is a massive increase compared to the average rate from August 2024 to January 31, 2025, which had an average of 60 drones per day. Even the period of January 1, 2025, to January 31, 2025, saw a smaller launch rate than February 2025, with daily launch counts averaging 85 drones. While these numbers are very large, it must be kept in mind that most of these drones are dummies. This diminishes the threat, but it does not diminish the need for more robust Ukrainian defenses and allied assistance.

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[1] Dr. Igor Anokhin's affiliation is the Institute for Nuclear Research, National Academy of Science of Ukraine.

[2] David Albright, Igor Anokhin, and Spencer Faragasso, "Update: Alabuga Production Rate of Shahed 136 Drones," *Institute for Science and International Security*, September 26, 2024, https://isis-online.org/isis-reports/detail/update-alabugas-production-rate-of-shahed-136-drones/.

[3] Igor Anokhin and Spencer Faragasso, "Russian Decoy Drones that Depend on Western Parts Pose a Great Challenge to Ukrainian Defenses," *Institute for Science and International Security*, December 18, 2024, https://isis-online.org/isis-reports/detail/russian-decoy-drones-that-depend-on-western-parts-pose-a-great-challenge/.

Data Assessment

From August 1, 2024, to March 1, 2025, Ukraine recorded that Russia launched 15,011 Shahed-type strike unmanned aerial vehicles (UAV). A small number of the drones, 454, are recorded as hitting their targets. 14,557 are recorded as having missed their targets, of which Ukraine successfully downed at least 9,051; 5,250 were lost in the area of operation; 156 returned to Russian (or Belarusian) territory; and 100 were recorded as just flying in the air, aka fate unknown (see Figure 1). Some drones fail during flight, likely due to mechanical difficulties. Many are downed via electronic warfare interference or via being shot down. Some drones even turn back to Russian (or Belarusian) territory. Overall, the vast majority of the Shahed 136 drones do not hit their target.

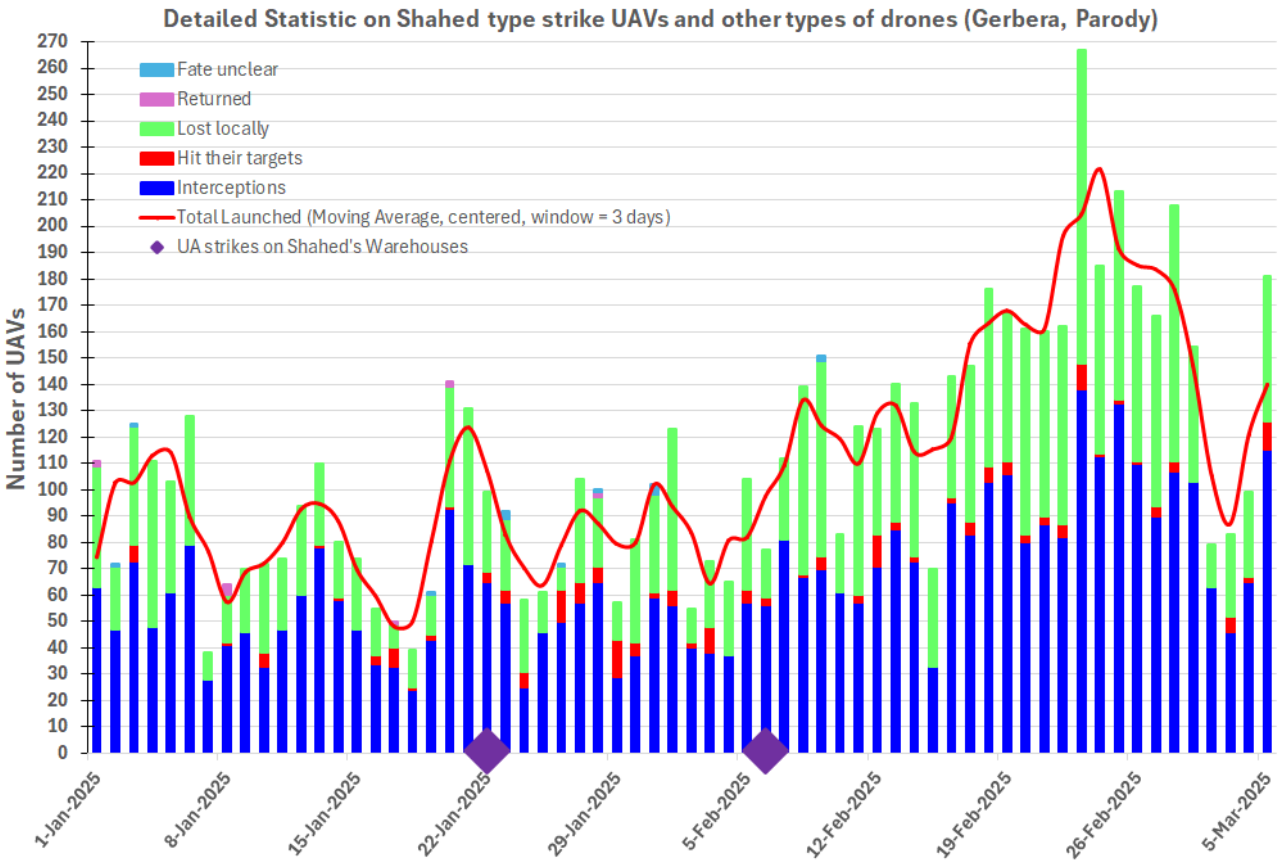

Figure 1. Recorded Shahed-type daily launches in 2025, detailing the number intercepted, the number that successfully struck their targets, the number of drones reported as "lost", and the number of drones that reportedly returned to Russian (or Belarusian) territory, including information on Ukrainian strikes on Shahed storage sites.

The chart in Figure 2 shows the daily launch rate of "strike drones" over the full period considered, August 1, 2025, to March 5, 2025, recorded from data released by the Armed Forces of Ukraine. There are several notable trends. Several spikes in the daily launch count occurred in November and December 2024, followed by the largest ever recorded UAV wave on

February 23, 2025, at 267 drones. The difference between daily launch rates in February 2025 and the rest of the assessed period is striking, as shown in Table 1 and Figure 2. The drone waves seen in February 2025 occurred daily throughout the month. Only six days in February 2025 saw drone waves that had less than 100 drones launched. No drone wave in February 2025 had less than 50 drones.

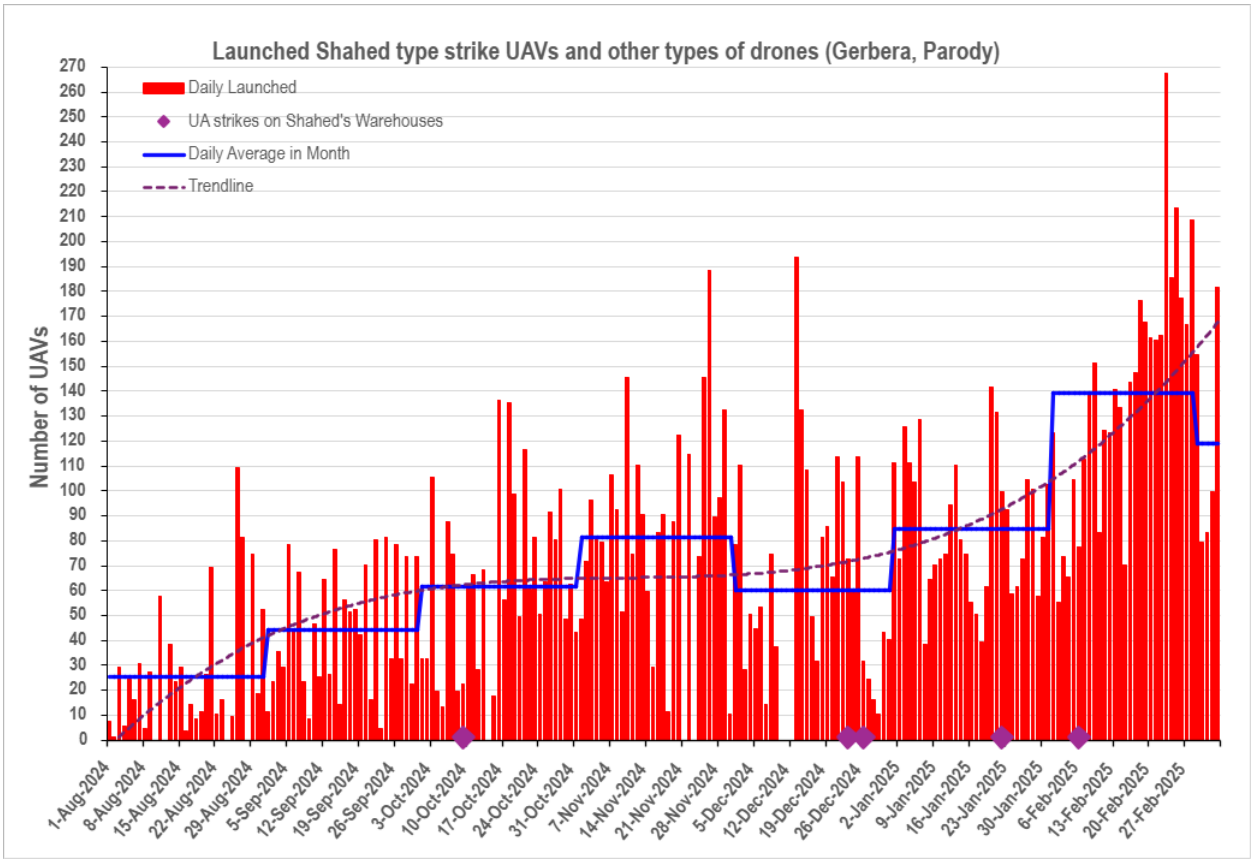

Figure 2. This chart shows the recorded Shahed 136 and dummy drones daily launches from August 1, 2024, to March 5, 2025, including information on Ukrainian strikes on Shahed warehouse storage sites. The blue line charts the daily average in each month.

	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25
Daily Average in Month	25.48	44.37	61.69	81.13	59.9	84.81	139.43
Total per Month	790	1331	1912	2434	1857	2629	3904

Table 1. The monthly total and daily average launch counts of strike drones recorded from August 2024 to February 2025.

The Trump Effect?

Figure 3 shows a view of the daily launch rate from the beginning of the new year. Multiple spikes in Shahed launches are seen around key dates involving President Trump, including on his inauguration and just days before and on the day of President Trump's meeting in the White House Oval Office with President Zelensky of Ukraine. Overall, the period since President Trump took office (January 20, 2025) to March 1, 2025, saw an average daily launch rate of 126 drones, more than double the rate for the prior months, as discussed above.

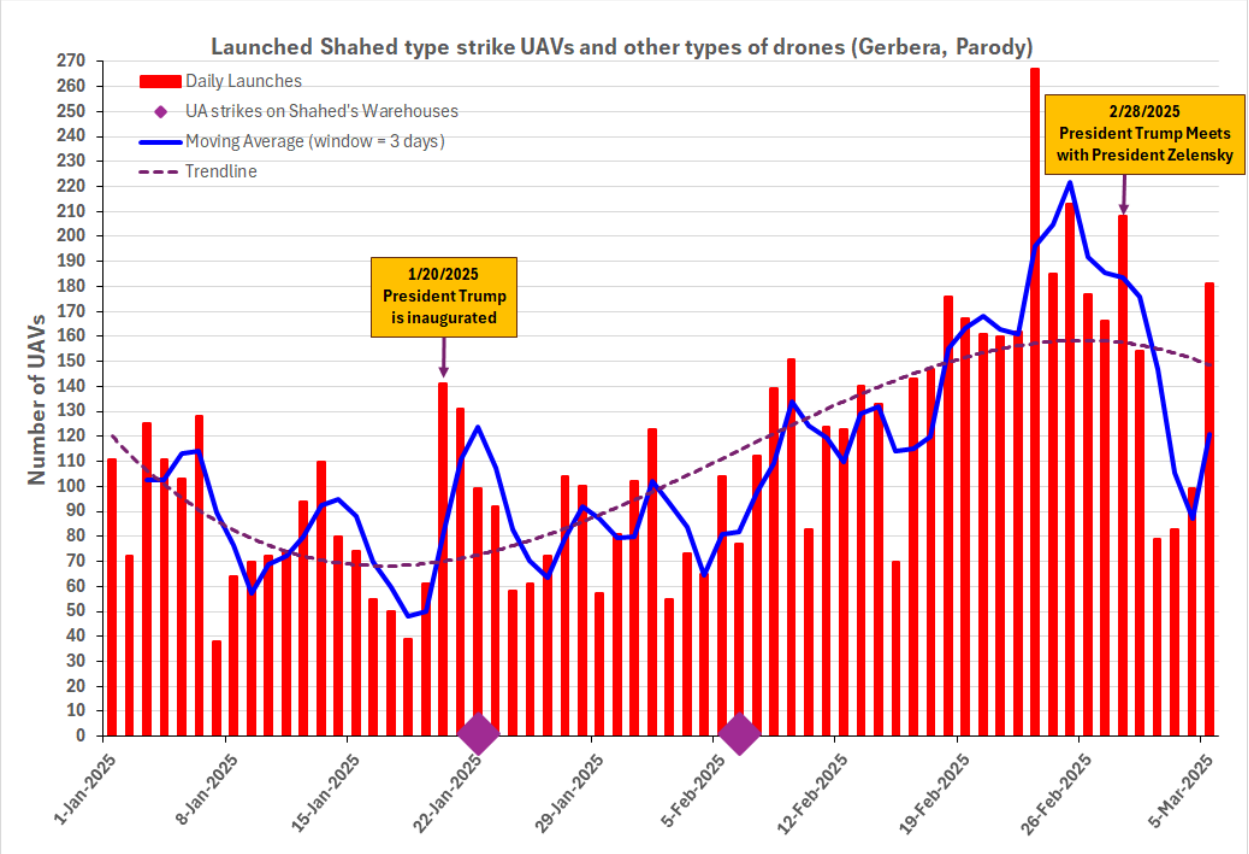

Figure 3. This chart shows the Shahed launch count from January 1, 2025, to March 5, 2025, highlighting drone waves on President Trump's inauguration and on the day of a meeting in the Oval Office between President Trump and President Zelensky of Ukraine.

Production Rates

An increase in the daily launch count indicates an expanding production rate of Shahed 136 and Gerbera drones at the Alabuga Special Economic Zone. The Alabuga Special Economic Zone continues to be active and has expanded its construction in recent months.[4] For the first eight

[4] David Albright, Spencer Faragasso, and the Good ISIS Team, "Imagery Update: New Construction Identified at the Alabuga Shahed 136 Production Facilities," *Institute for Science and International Security*, September 24, 2024,

months of 2024, monthly production at Alabuga increased on average to about 440 drones per month, significantly larger than originally planned.[5] The average rate was expected to continue to increase significantly.

Russia has been using the Gerbera and Parody decoy drones to accompany Shahed 136 strikes since at least late July 2024. The decoy drones are produced in very large quantities. The Gerbera, for example, has a production rate of at least 50 drones per day.

At these production ratios, it is estimated that at about one third of the daily launches recorded were Shahed 136 drones. However, this number is extremely uncertain.

https://isis-online.org/isis-reports/detail/imagery-update-new-construction-identified-at-the-alabuga-shahed-136/.

[5] David Albright, Dr. Igor Anokhin, and Spencer Faragasso, "Update: Alabuga's Production Rate of Shahed 136 Drones," September 26, 2024, *Institute for Science and International Security,* https://isis-online.org/isis-reports/detail/update-alabugas-production-rate-of-shahed-136-drones.