Powerful Russian Strikes Usher in Season of Ukrainian Discontent



This past morning Russia struck Ukraine with what was said to be the largest air strikes of the war. That could be an exaggeration but it was likely in the top 3-5 at least.



The main object of the strikes appeared to be important energy substations, particularly of the 750kv variety—which, as I understand, are far more significant and irreplaceable than the smaller run-of-the-mill substations.

Official statement from the Russian Defense Ministry regarding today's strikes on Ukrainian territory: "This morning, the Armed Forces of the Russian Federation launched a massive strike with long-range precision weapons of air and sea origin, operational-tactical aviation of the Russian Aerospace Forces, and strike unmanned aerial vehicles

against critical energy infrastructure facilities that ensure the operation of Ukraine's military-industrial complex."

Affected:

- electrical substations in Kyiv, Vinnytsia, Zhitomir, Khmelnytskyi, Dnepropetrovsk, Poltava, Nikolaev, Kirovograd and Odessa regions;
- gas compressor stations in Lviv, Ivano-Frankivsk and Kharkiv regions, ensuring the functioning of the gas transportation system of Ukraine;
- storage sites for aviation weapons transferred to Kyiv by Western countries at airfields in the Kyiv and Dnepropetrovsk regions.

The most significant hit of course was on the Kiev hydroelectric plant at geolocation: 50.588256, 30.512125

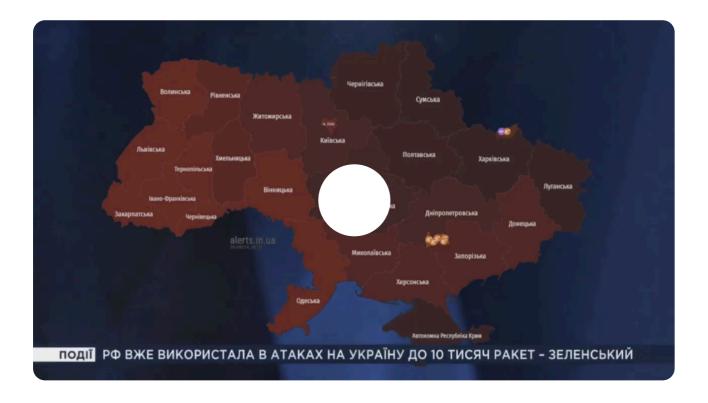








Immediately every region of Ukraine plunged into darkness, with Zelensky promising that they're working on restoring power. News stations even lost power live on air:



Most had assumed this was the awaited payback for Kursk, but interestingly, in an interview *after* the strikes had already commenced, Peskov stated that the Kursk retribution was still in the works:

News > World > Kremlin: There will be a response to Ukraine's Kursk attack

Kremlin: There will be a response to Ukraine's Kursk attack

On Monday, the Kremlin announced that they would take action in response to Ukraine's intrusion into the western Kursk region. In addition, they stated that any discussion of a ceasefire with Kyiv is no longer applicable.

Reuters **WORLD**Published August 26,2024

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https://www.anews.com.tr/world/2024/08/26/kremlin-there-will-be-a-response-to-ukraines-kursk-attack

This would seem to suggest that today's strikes had nothing to do with Kursk but were in fact the preplanned resumption of Ukraine's electric grid debasement, which was meant to have started around fall as per rumors. And in fact one Ukrainian figure espoused this very thought on X, wherein he stated such an operation can be planned for weeks or months, and likely had its intelligence gathering phase stemming from even before Kursk had occurred, which would give credence to the idea the strikes were in fact routine.

Rumors abounded that the strikes were particularly painful as Kiev pulled a lot of its remaining air defense assets toward the Sumy-Kursk axis, thinking Russia to be low on missiles. More significant even than electricity, the water went out in many urban areas, which is one of the big predicted milestones that would happen for when the grid really buckles this winter.

It will be interesting to see how many people remain in Ukraine by next year, given that a new report claims SIM card data shows the population decline has already dipped to catastrophic levels, if true:

Half of Ukraine's population is gone! "According to closed data, the number of active mobile users in Ukraine is 16 million, active SIM cards about 25 million. There are now about 18-19 million people left in Ukraine" — former Ukr. PM, Azarov Ukraine had 38 million in 2022

The "destroyed" Black Sea Fleet also played a major part, launching dozens of Kalibr missiles yesterday:

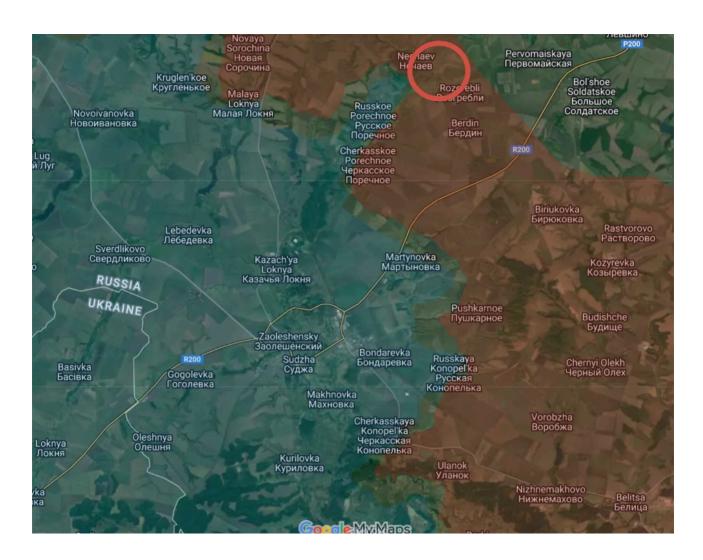


This could be the beginning of the next phase, and the beginning of Ukraine's demise, if Russia continues the systematic pressure on the power grid from here on out until next year.

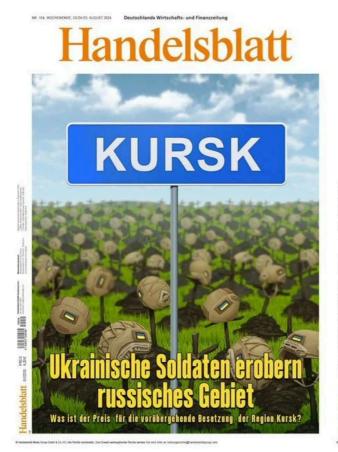
In the meantime, Kursk remains stalled with Ukraine claiming to have captured another small settlement or two while Russian forces likewise recaptured some as well, with the overall front not shifting significantly. For instance, here's Russian 1427th Regiment and "Arbat" unit liberating Nizhnyaya Parovaya today:

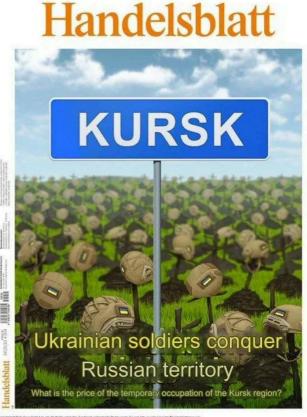


Which is about here on this map centered on Sudzha:



The only real change happening on this front is that Russian forces now regularly pick the Ukrainians apart, dealing heavy losses to them each day in the familiar static positional warfare.

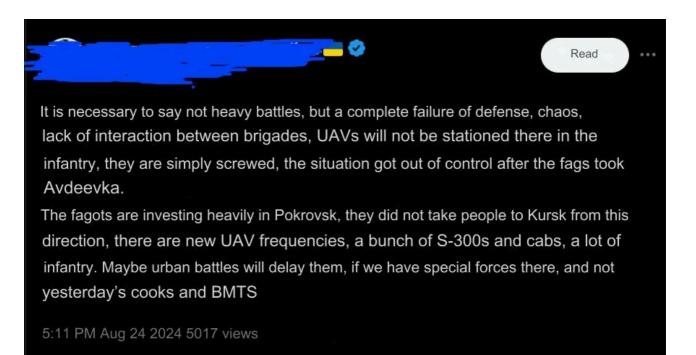


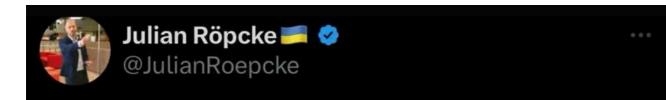


Wagner affiliated account:

Condottiero writes: The Ukrainian Armed Forces are in a sad state in the border area. They have occupied the territory, they cannot move forward, the places of concentration of forces for a breakthrough have all been copied, in particular, the place of concentration of manpower in the Glukhovsky district of the Sumy region, from where the enemy intended to jump to Rylsk and Lgov, has been copied and ironed. There, everything is still difficult, but the enemy is in a critical situation, reserves are melting away. The price of the issue looks catastrophic.

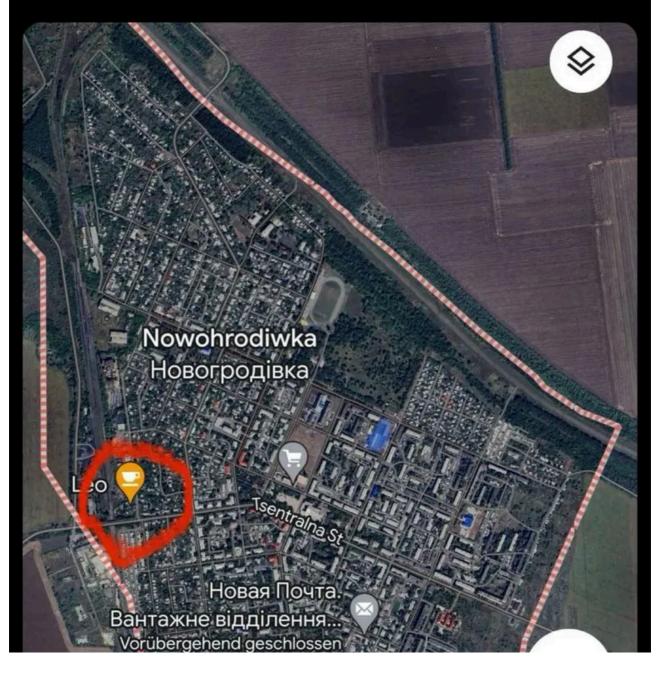
On the other hand, significant advancement continues to be made on the Pokrovsk-New York-Toretsk front. Ukrainian military accounts remain furious at the wasteful operation in Kursk, which comes at the expense of every other front:





The Russian invasion army needed three days to capture most of the 14.000 inhabitants town #Novohrodivka, 10 km S-E of Pokrovsk, without a single armored vehicle and leaving the infrastructure mostly intact.

This is ... no comment ...









#NewsMap

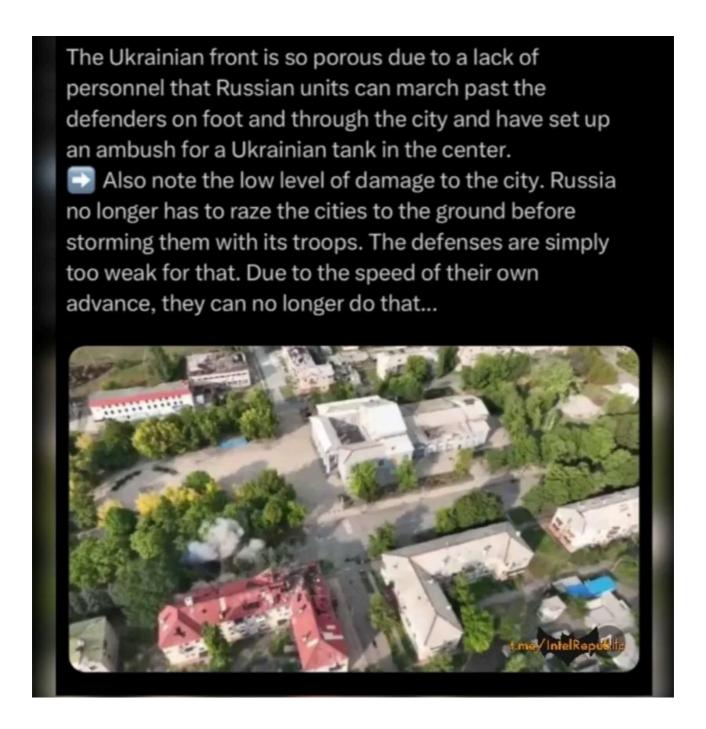
Only days after conquering the 2 eastward villages, Russian invasion forces entered #Novohrodivka and are advancing within the former 14.000 inhabitants town in Donetsk oblast. Further indication, there is no fortified Ukrainian line of defense east of Pokrovsk anymore.

Перевести пост



22:59 · 23 авг. 24 · **42,8К** Просмотры

Remarkably, Julian Ropcke points out that Russian forces hardly even have to damage the towns anymore, and are capturing them clean as Ukrainian forces simply flee for their lives:



This was confirmed by another popular Ukrainian military account, which laments that Russian forces aren't even taking losses as they steamroll through AFU positions:



Here Ropcke even points out that AFU on this front are forced to use drone operators as infantry due to dire lack of manpower:





Ukrainian activists confirm that the Russian army continues to advance rapidly towards Pokrovsk and that there are apparently so few infantrymen in the area that a brigade commander is now deploying drone pilots into the trenches.

Translated from German by Google

Ukrainian activists confirm that the Russian army continues to advance rapidly towards Pokrovsk and that there are apparently so few infantrymen in the area that a brigade commander is now deploying drone pilots into the trenches.

- Pokrovsk area
- Enemy infantry has been spotted in particular in Novogrodivka and is attempting to gain a foothold in high-rise buildings, storming houses, where heavy fighting continues. Further north, attempts are being made to push the enemy towards Krasny Yar.
- ? And in this extremely difficult situation, very strange processes are taking place, especially in the 151st Brigade, whose command neglects personnel and sends drone pilots, unique specialists, to the "trenches" to hold positions.

 The effectiveness of such orders is zero, since the fighters either become 200 or, under the enormous onslaught of



Forbes

FORBES > BUSINESS > AEROSPACE & DEFENSE

Ignoring The Ukrainian Invasion Of Kursk, Russian Regiments Keep Their Eyes On A Major Ukrainian Prize—Pokrovsk

Russian troops are steadily marching toward a key Ukrainian logistical center.



П

THE SUNDAY TIMES

■ DISPATCH

Despite Ukraine's Kursk invasion gamble, Russia is closing in on a big victory



https://archive.ph/SuwIF

The above Sunday Times article retreads a familiar story:

In phone calls with The Sunday Times, Ukrainian military commanders were at pains to explain the apparent collapse around Pokrovsk, some blaming a lack of artillery shells, others new Russian tactics or the use of glide bombs and electronic warfare. They agreed, however, that one of the biggest problems they face is being greatly outnumbered.

"The situation is difficult, we are losing positions, the enemy is pushing us back," said Captain Dzvenyslava Rymar of the 47th brigade, which is involved in combat near Pokrovsk.

"People are exhausted," she added. "We need fresh people. No matter how well-trained our fighters are, the Russians still manage to crush us with their numbers. It's not possible to hold the line when there are just two or three of you and ten to 20 of them coming at you."

They inevitably confirm the fatal truth about the Kursk operation's effect on Pokrovsk:

Ukraine had hoped its recent cross-border invasion of Russia's Kursk region, 200 miles to the northwest, might relieve the strain on its troops in the Donbas region, where Moscow's forces have been held at bay for most of the war, but are now applying almost intolerable pressure.

It did not. "It has had no effect on our part of the front line," said Rymar. "Russian assaults are continuing permanently."

As a needed reminder, they note that Pokrovsk will be the largest city Russia's taken in almost 1.5 years:

If Pokrovsk falls, it will be the largest population centre taken by the enemy since the Russians seized Bakhmut in May last year. The local administration has left and its 53,000 inhabitants are preparing for the worst.

Avdeevka only had about ~30,000 pre-war. In fact, Bakhmut was only slightly larger than Pokrovsk at 60,000 vs. 53,000. And given the fact that right next to Pokrovsk is Mirnograd—a city of some 43,000—which Russian forces may have to capture first, it would represent a nearly 100,000 urban agglomerate.

One last interesting thing the article hints at is that the Kursk operation is now all about getting allies to push Putin's red lines by authorizing long range strikes on Russian territory—a narrative that has now completely taken over the discourse, as per the plan. It gives us insight into what the remaining strategy seems to be: Zelensky merely wants to use the Kursk incursion as a springboard for inching

NATO one step closer to confrontation with Russia by utilizing ATACMS and Storm Shadows on some sensitive object deep within Russian territory.

But it seems one of the reasons the US remains cold-footed is the dawning realization that Russia's red lines were actually real, and the more they're crossed, the less chance there is of any negotiations—a 'no turning back' some in the US establishment deeply fear. Peskov already stated today that as of right now, negotiations are completely off the table.



One other important development I wanted to cover is the factor *behind* some of Russia's recent mass destructions of Ukrainian equipment on the Kursk front. First, for context: we now know that Ukraine used highly elite brigades, which included many Western mercenaries armed with state of the art equipment, to breach Russia's borders, guarded by lower tier conscripts and border guards.

They were initially overrun, partly owing to the Ukrainian side having many sophisticated EW systems for jamming drones, communications, etc. There's even rumor that they brought with them some more secretive, highly advanced European EW systems to test out, which fried a lot of Russian comms. In short: the area was flooded with the highest saturation of Ukrainian electronic warfare of any of the fronts.

In the Orekhovsky direction, an electronic warfare system from Europe appeared, which was used in early August by the Ukrainian Armed Forces to break through in Sudzha. NATO systems that selectively jam Russian communications and drone frequencies, but do not block Ukrainian ones. They put them on the lead vehicles of columns and mobile groups.

So how did Russian forces deal with this? As if expecting it, they immediately trotted out a revolutionary new system of FPV drones which operate on optical cables which are totally immune to jamming. These are drones which act as ATGMs, connected with a thin wire for up to 5-10km which transmits high fidelity signals impervious to electronic countermeasures.







Forbes was even forced to do a story on these new drones:

Forbes

FORBES > BUSINESS > AEROSPACE & DEFENSE

Russia Launches New Drone Weapons Against Kursk Offensive

David Hambling Senior Contributor ⊕

I'm a South London-based technology journalist,

consultant and author







Aug 20, 2024, 06:10am EDT

Updated Aug 20, 2024, 08:50am EDT



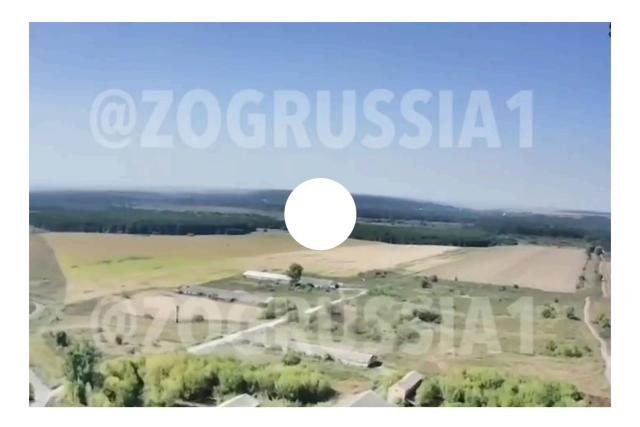
Russia is using drones with the same technology as this German HMX with fiber-optic link rather than ... [+] HIGHCAT

$\frac{https://www.forbes.com/sites/davidhambling/2024/08/20/russia-launches-new-drone-weapons-against-kursk-offensive/}{}$

Here's one video showcasing the drones—you'll note the high quality of the video signal even as it descends to its terminal point, where usually the FPVs blink out of signal range and begin fogging up with static-noise:



In this video, pay close attention to the exact 1:20 mark—look at the bottom of the video as the drone enters, you can see the sunlight glinting off the thin wire trailing behind it:



Here's a video even demonstrating the two different video feeds side by side—one is via wireless signal, the other at the bottom transmits via the optical cable:



From the Forbes article:

Ukraine's advance into Kursk succeeded with the help of an electronic warfare blitz that blinded Russia's reconnaissance drones and knocked their FPVs out of the sky. Now Russia is striking back with new drones guided by fiber optics which are immune to radio jamming. This is the first time such weapons have been used in combat.*

It is another reminder of just how fast small drones are evolving. And a warning to the rest of the world, which relies heavily on jamming to protect itself against drone attacks by terrorists.

It seems Russia has for once leapt ahead in FPV technology. Though DIY versions of such drones were used periodically before, this was the first serially produced variant seen in combat. The Russians call this new drone line the "Knyas Vandal of Novgorod" or Prince Vandal of Novgorod (KVN).

For those curious to see how they really work, here's a video of a similar, modular Chinese design called Skywalker which shows the concept more clearly:



These drones *are* said to have some limitations, such as not being quite as maneuverable in the current configuration, but in an EW contested environment they are the chef's kiss.

The other big underrated advantage of these drones is they do not bleed any signal into the environment, which means they are also totally stealth and undetectable as they approach:

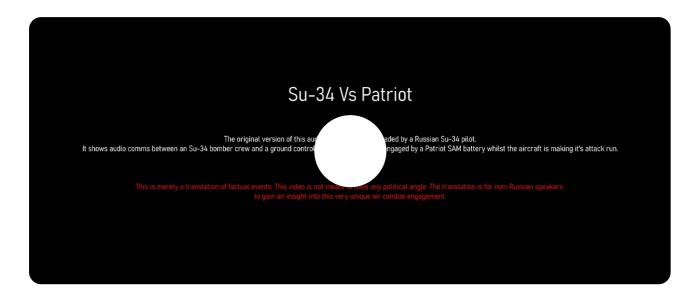
Because no radio signals are involved, fiber-optic drones and their operators are impossible to detect and locate via the usual direction-finding techniques. They are of course immune to the electronic jamming and spoofing measures used to protect civilian sites from drones. Civilian use of these drones is likely to be severely restricted.

That means the common drone detectors both sides wear to ping the soldier when an FPV is nearby would not work against these. Ultimately, this is proof positive that much of the Western propaganda about Russia being so far 'behind' even specifically in the FPV field is bunk, as I have been saying countless times here. Sure, it's still behind by a bit in a general sense, in terms of the systematization and integration of drone warfare into small unit structures, but it's no where near as clear cut or black and white as some will have you believe.

https://simplicius76.substack.com/p/powerful-russian-strikes-usher-in

Just to clear the slate of some interesting information that's been sitting, allow me to share this one final very fascinating episode.

A couple weeks back this intercepted audio was released, which depicts a Russian Su-34 pilot on a glide-bomb mission over Zaporozhye-Donetsk region being locked on by a U.S. Patriot system. What then transpires is intensely riveting, and quite elucidating:



Disclaimer, though some have wondered if the audio could be fake, there is no reason for it to be because it does not serve as positive propaganda for either side—it neither makes the Russian nor Ukrainian side look particularly good *or* bad.

Let's do a small breakdown, since the video offers some insightful looks at Russian bombing runs.

Firstly, the most interesting thing that jumps out at me is their air controller immediately notifies the Su-34 at the 0:54 mark that, *specifically*, a Patriot has been fired. It takes an extreme amount of technological advancement to know the exact missile type from such a distance as this controller is likely located. Is he inside of a Russian A-50 AWACS, or perhaps some ground S-300/400 command unit? We don't know for certain, but given the radar horizons necessary to detect a ground-fired missile from such long range, it would make more sense for it to be an AWACS with some altitude to it, scanning with look down radar.

Most importantly, right off the bat it dispels the myth that Russian radar nets in the region are not sophisticated or highly sensitive.

At 1:45, we get our next tangible clue. The controller states that the Patriot is azimuth 350, which is almost due north, and distance 80km. The missile is likely the Pac-3 MSE because that's the only Patriot variant which has the required range for 80km+, and has an active radar homing head, which it later becomes apparent this missile is utilizing.

The controller then tells the pilot to immediately notch—for those not familiar with the term, a quick AI definition:

How Notching Works

Notching exploits a limitation in pulse-Doppler radars called the "Doppler notch" or "blind speed":

- The pilot turns their aircraft perpendicular (90 degrees) to the radar source 10 30.
- This reduces the relative velocity between the aircraft and radar to near zero 10.
- The radar filters out returns with zero Doppler shift, mistaking the aircraft for stationary ground clutter ² ³ [©].

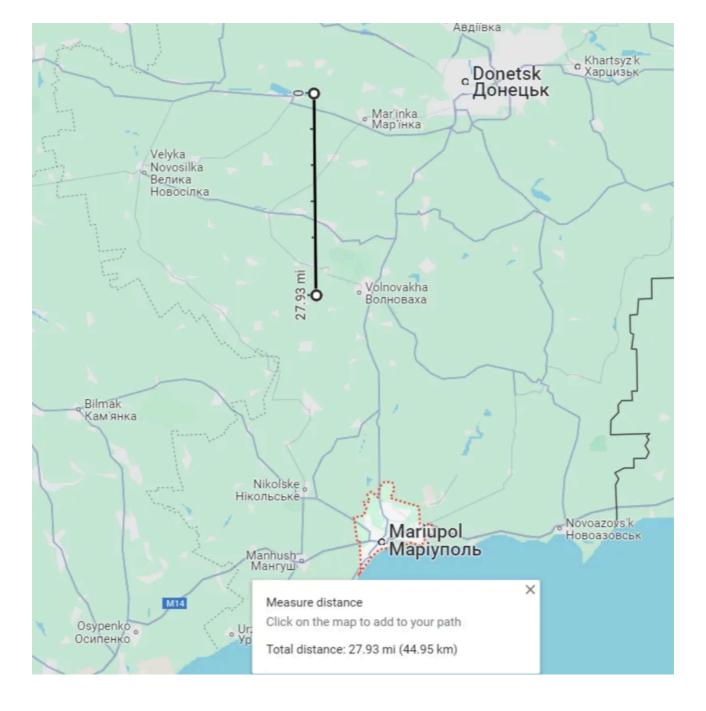
Note the heading he instructs the pilot to notch at is almost an exact right angle to the missile's heading. He also tells him to drop as low as possible, as the notching trick only works if you backdrop yourself against some actual ground clutter—which means being close to the ground. Keep in mind, at 80km and an estimated speed of Mach 3.5+ (4,280km/h), it would take about one minute to cover that 80km—assuming the jet is not running away from you at a high speed of his own.

At 2:07 he gives the distance as already 70km, and the Patriot missile at an altitude of 2500m and 4000km/h, which is near Mach 3.2 and matches known Patriot characteristics. It's taken longer to get from 80km to 70km than you'd think only because it's not going in a perfectly straight trajectory but first at a steep upward diagonal to gain altitude.

At this point it gets intense as the pilot is breathing very heavily due to the nature of pulling extremely high-G turns to try to bleed the missile out while also likely diving at a steep angle to lose altitude and potentially either get behind the missile's radar horizon or obstruct its radar via some object like a hill, mountain, buildings, etc.

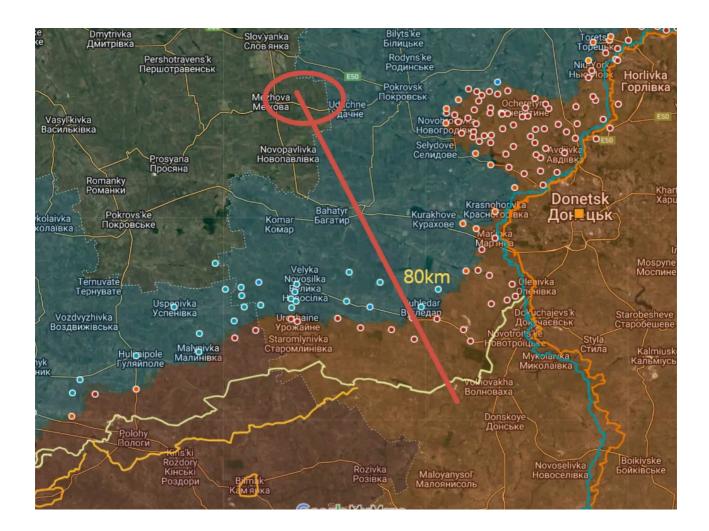
At 3:36 the pilot appears to see one of the Patriots self-destruct after it perhaps lost too much energy due to his successful maneuvers, or perhaps lost his radar signature, though there were several missile launches.

At 3:58, the controller reveals they are just north of Mariupol, which gives us a lot of pertinent forensic clues. At 5:50 the pilot even states he sees the coastline of the Azov Sea. The likely scenario is therefore that the Su-34 was doing its UMPK release from somewhere near Volnovakha area, which is approximately 40-50km from the first set of active frontlines:



UMPK ranges are in the region of 40-60km, give or take, so it's a fair guess.

Next, we know the Patriot launched from 80km, which would put it safely in Ukraine's rear somewhere here, give or take:



The Su-34 then spent 6 minutes evading for the remainder of the 50-60km back to Mariupol. There was some speculation that the audio equipment was damaged by the final missile explosion, which seemed to happen fairly close to the jet, as per the pilot's reaction at the end. But more likely it was simply something going wrong from the extreme sudden stresses he put the plane under, as the missile likely exploded too far behind him.

All in all, it's an interesting episode that in some ways gives credit to both sides. The Ukrainians are capably picking out Russian jets with the Patriot at extreme ranges, while the Russian Air Force appeared to be highly professional, practiced, and altogether well-versed in proper evasive maneuvers and anti-missile doctrine, having successfully dodged such a powerful threat—particularly if it's the Pac-3 MSE as I suspect, as that's roughly the most advanced variant. My only surprise is there appeared to be no usage of the Khibiny ECW suite, which may be an indirect admission that it's not entirely useful against the Patriot. Or perhaps it was already

acting automatic, or being operated by the copilot, and it was the Khibiny responsible for downing the Patriots well behind the jet—we'll never know.

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