Analysis of Ukraine's Escalating Crimean Strike Campaign





There's been a strong uptick in strikes on Crimea, as Ukraine shifts focus once again on providing *some* tangible media victory to crown Zelensky's big North American tour. This is done to keep him from looking bad when put on the spot during his all-important and perhaps final alms circuit.

The Black Sea theater in general has escalated so it would be instructive to dig into that a little more in depth and bring us up to speed on what's been happening in that corridor of late.

There are several distinct categories, most notably attacks targeting the naval assets and those targeting the static land-based assets like HQs and Russian air defense batteries. The attacks have been stronger and perhaps even more successful than many in the pro-Russian sphere would like to admit, as there have been a couple that went by under the radar, and which the Russian MOD has done a thorough job of sweeping under the table.

One was a strike on 9/20 on the north part of Sevastopol:



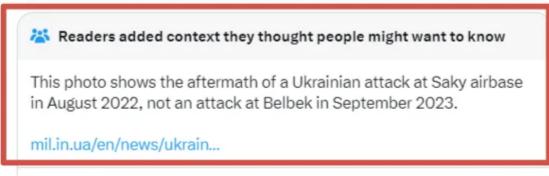
Before and after satellite imagery of yesterday's AFU Storm Shadow missile strike on the Russian Navy command post north of occupied Verkhnosadove, Crimea (44.714735, 33.704408).

As you can see above, Ukrainian sources claim this is a "Russian Navy command post", but there has been no confirmation of that which I saw and it seems doubtful, particularly given its odd location. Either way, whatever it was, it did appear to be successfully hit by a Storm Shadow missile.

There were also some fake attacks which were completely refuted. In order to maximize and amplify the propaganda effect from the couple successful ones, pro-Ukrainian bot accounts spread several other alleged attacks on Russian airfields in Crimea. One of them was even debunked by a Twitter community note:







This is just a reminder that every "strike" needs to be carefully examined and verified as a large portion, and dare I say even majority, of them are usually fake. This is why the strike on the Sevastopol port, hitting the Rostov and Minsk ship and sub was also under suspicion of being fudged with, particularly the seeming photoshopped photos of the sub.

Let's turn to that strike next and work our way up to the recent hit on the Black Sea Fleet HQ. The Ropucha class landing ship Minsk and Kilo class sub Rostov-on-Don were struck.

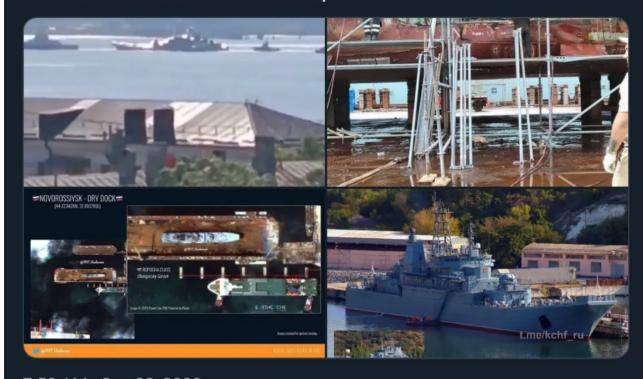
I've already covered this a bit. One interesting thing to note is that the Russian landing ship Olenegorsky Gornyak, previously struck by Ukrainian naval drone, has already returned to surface after a faster-than-expected repair:





So you know the Olenegorsky Gornyak, the Russian LST that ate a Ukrainian bomb-drone last month? Was going to be out of action for years, supposedly?

It's fixed and back in Sevastopol now. Show more



7:50 AM · Sep 22, 2023

This is the massive hole the ship incurred in its hull:







And that was fixed in only a month or less. That's *after* Ukrainians laughed and jeered that it was "done" and would be a write off. The Russian MOD likewise said it will repair the damage on the present ships.

As for the Rostov and Minsk, TASS released an official statement that the sub did not in fact suffer any catastrophic damage and its previous repair time would hardly even be affected:

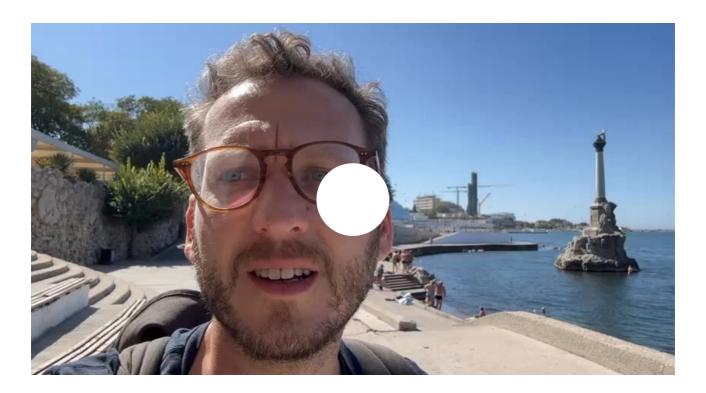
RU The damages sustained by the submarine "Rostov-on-Don" of the Black Sea Fleet on September 13th are not critical and will not significantly extend its planned maintenance time. This information was provided to TASS by a source in the defense-industrial complex.

"The submarine has minor damage that did not affect its robust hull. Eliminating them can only slightly increase the time the submarine is undergoing scheduled repairs," he said.

The agency's interviewee clarified that an assessment of the extent of upcoming repair work is underway for the other vessel affected by the Ukrainian strike, the large landing ship "Minsk" of the Baltic Fleet.

Some are skeptical, but we'll have to wait and see. Either way the sub was sitting in that maintenance dock for half a year or so, it's not like the strike took out an active component of the fleet.

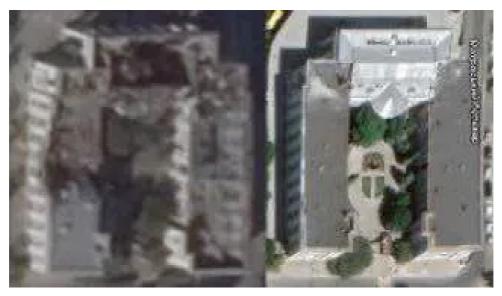
Now Ukraine has hit the HQ of the Black Sea fleet. First a little context and then we'll get into the biggest question at the heart of the matter: how is Ukraine doing this?



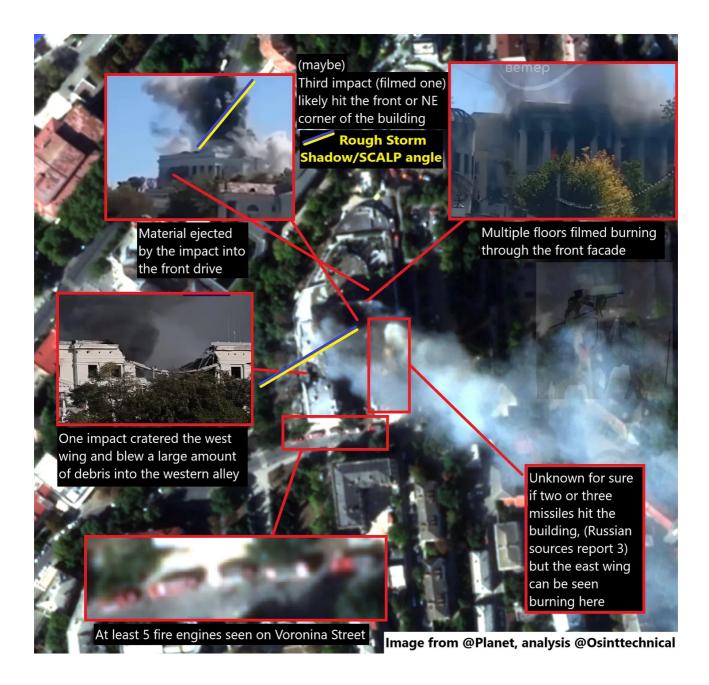
Russian MOD claims that 7/10 missiles were shot down. This is likely true as other eyewitness videos like the above have depicted many explosions in the sky, sounds of air

defense intercepting missiles, while the post-op BDA satellite photos showed only 2 or maximum 3 strikes were inflicted on the building itself:



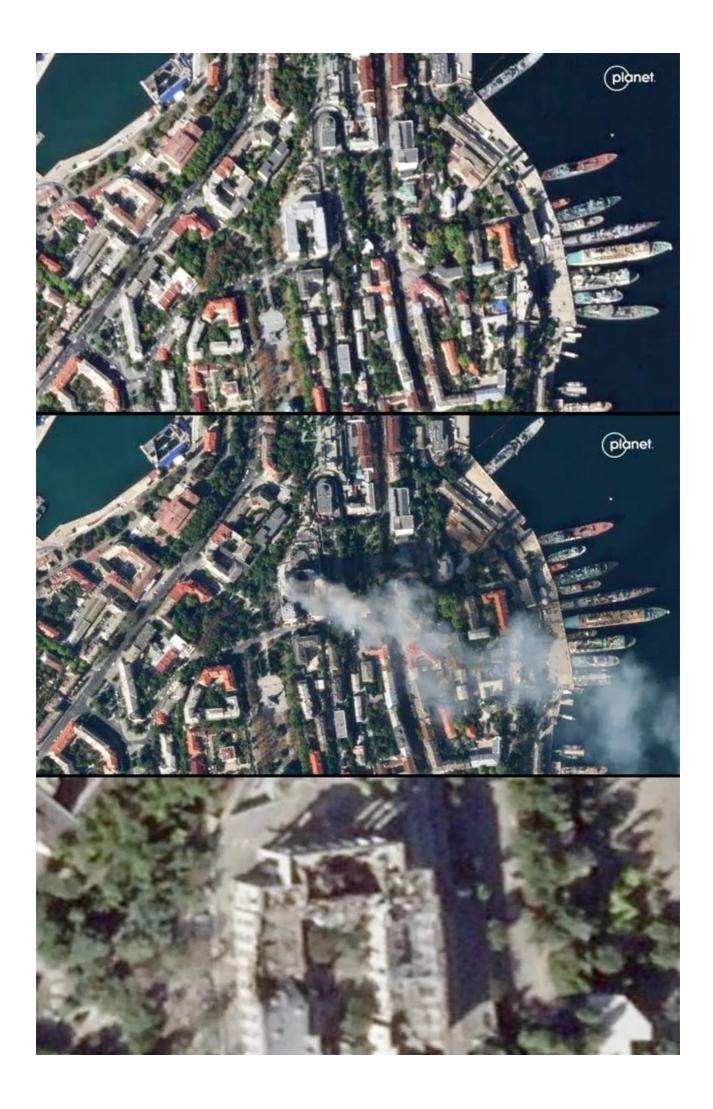






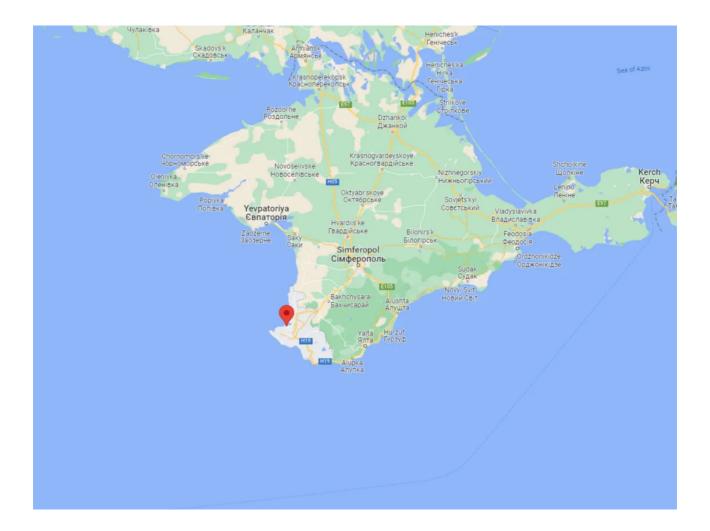
The key to understanding how Ukraine is able to hit this HQ is by understanding its proximity to the shore:







You can see that the building is almost right on the water. Here's a zoomed out map to understand its location spatially:



This means that the area lacks any forward screening line of air defense because it sits right on the edge of what would be considered the line of contact.

Normally, any mission critical assets like headquarters would be positioned deep in the rear of a frontline. This allows a safety net of multiple layers of integrated air defenses to buffer the HQ so that even if it's a low-flying, fast, or stealthy type of missile, it may be missed by the first layer but will eventually be detected as it flies along *over* several layers of the overlapping radar net coverage. For instance, the first line of area defense may detect something, but not be able to respond fast enough to down it. But they will at least pass the info down to further defenses which will receive either their sensor-fused radar data or simple verbal warning that objects are incoming, allowing them to be far better positioned and prepared to intercept it.

But due to the obvious impossibility of doing that when your HQ happens to sit right on the water, that means Sevastopol is situated on a particularly exposed and dangerous position for which there can be no forward AD or 'advance warning'. This means as missiles come in, there are only a few seconds of lead time, and given that the strikes were said to be saturation attacks which included drones from other directions as well as the ADM-160 Mald decoy missiles, it makes it extremely difficult to defend all this without any forward coverage.

Rybar illustrated how the attacks were done.

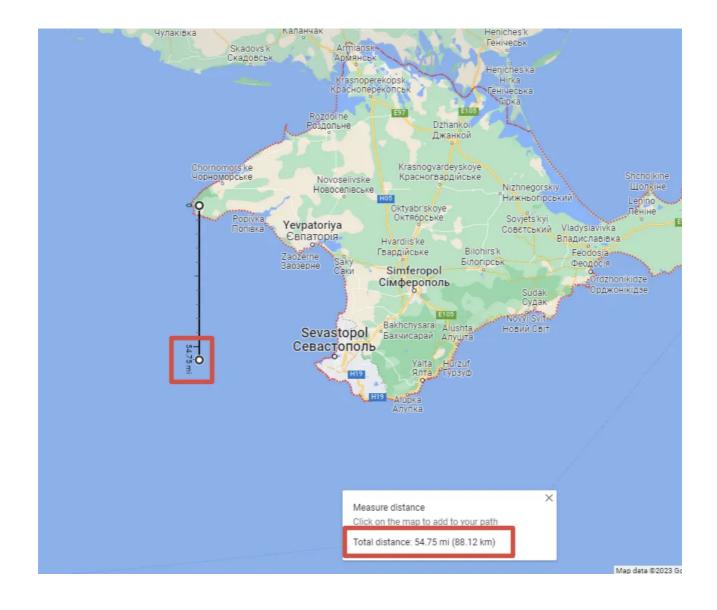


We know from past reports that a Russian S-300/400 system exists somewhere on that Tarkankhut peninsula of Crimea, where the drone icon is on the above map. This is an area that "juts out" and should give forward coverage of the Black Sea. The problem is, as I explained last time, low flying missiles allow radars to only spot them at most at something like 30-40km. This is irrespective of how powerful a radar system is—it's down to the simple physics of how radar horizons work.

You can do the calculation yourself here:

Atmospheric refraction?	Yes ▼
Radar system height	10 ft •
Target height	150 ft •
Radar horizon (with refraction)	9.129 km •
Target visibility (with refraction)	35.356 km •
Maximum distance (with refraction)	44.485 km •

This example shows that a radar system with a dish height of 10ft will see a target flying at 150ft altitude only at 35km or so. The problem is, you can see from the Rybar map the trajectory goes around radar coverage such that the distance from the 'forward point' of S-300/400s to where the missiles would pass is more than 80km+:



Also I should mention the Storm Shadow appears to often fly even lower than 150ft, which would make the detection distance even further.

Full report:

11 Su-24M bombers took off from Starokostyantyniv airfield, five of which were Storm Shadow/SCALP cruise missile carriers. Having flown to the border of the Odessa and Mykolaiv regions, the aircraft split up: nine stayed in the area, and a pair went south to Ochakiv. 8 Storm Shadows were launched around 12:00 at Crimea.

At the same time, reconnaissance groups of Medvedi PMC noted that two Su-24M, flying low about 40 m above the water, conducted launches over the Black Sea. Ahead of this, Ukrainian planes fired three AGM-160 MALD decoy missiles to mislead air defense. Pantsir-S1 air defense crews of the 31st Air Force and Air Defense Division shot down five cruise missiles over Cape Tarkhankut and the Belbek airfield. 3 Storm Shadows fell in the Verkhnesadovoye area the target was likely a former military facility near the village. A few hours before the attack, a reconnaissance drone of an unknown type took off from Kherson, which, rounding Cape Tarkhankut, set up a patrol area west of Kacha and directed aircraft. It is highly likely that it was shot down by air defense systems.

This attack demonstrates a slight change in cruise missile tactics. Previously, such mass raids were carried out at night or early in the morning, but not during the day. And the flight of bombers at extremely low altitude is something that Ukrainian crews have been practicing for many months, trying to exploit gaps in air defense detection systems.

How accurate the above is, it's impossible to tell for certain, but the general gist of the attack is likely what happened. The most important point being about the low flying altitudes which are particularly easy to do over the flat and calm sea surface, where planes and missiles don't have to worry about dodging topographical/geographical deviations, etc.

As I said, due to this practice, it is physically and scientifically impossible for a radar system to detect them at good range because the low-flying objects are simply past the horizon due to the curvature of the earth, and the radar beams cannot spot them.

Add this to the issue described earlier, of having no frontal zone of coverage due to the peculiarities of being on the sea front, and it becomes very difficult to defend against saturation attacks.

There is a solution which can give you that frontal buffer coverage, however. And that's one area where Russia is likely failing: AWACs. A 24/7 AWACs coverage will allow the plane to fly over Crimea and due to the height of its radar, see everything flying on the

Black Sea to Odessa and beyond, no problems. These radars have "look down" mode which means they can scan downward anything that's moving along the ocean surface, be it ship or missile.

But I've outlined before that Russia has an AWACS problem. It reportedly only has ~15 or less. However you must add the following considerations:

- All planes have a certain readiness percentage of 30-70% at most, which represents how many of the air frames are flyable at any given point, compared to those which are in repair, etc.
- Russia needs some of the planes for its entire long border, including in the far east against NATO, as well as in the north where heavy NATO activity takes place around the Baltics, not to mention western districts to protect Moscow's western flank
- Russia also needs them along the whole border of the SMO including north of Ukraine. For instance, we've seen from the attempted saboteur strike that Russia keeps some of them in Belarus to oversee that northern flank
- A single plane can't fly 24/7, for obvious reasons. That means even to patrol just one given area without coverage gaps, you need several planes (perhaps at least 3) which can rotate one after the other in 8 hour shifts, etc.

Given all these factors, if we allocate the appropriate amount of planes to each needed zone, as well as readiness rates which would relegate a portion of the fleet to unflyable status—undergoing overhauls, upgrades, repairs, etc.—we can assume that only 1 or 2 max will likely be available for the Crimean theater and likely result in large coverage time gaps.

Russia has been developing and building the successor upgrades to the A-50, the A-50U and A-100 for a long time. Therefore it was big news that reportedly, in the wake of the Sevastopol strikes, Russia announced a rollout of a brand new A-50U.



* Rostech handed over a modernised A-50U aircraft system to the Russian Air Force

The A-50U aircraft is a modernised version of the A-50 produced by the Vega Concern and Beriev TANTK. The craft is designed to detect air, ground and sea targets, as well as to guide fighters and front-line aviation aircraft to them.

This is supposed to be a much more advanced, modernized variant with a better radar specifically in its look-down capabilities. It's only one hand-over for now, but if Russia can keep producing them it will greatly help to secure that region from missile strikes.

Note that once again, Ukraine has not been able to reprise the attacks. Why is that? The Rostov and Minsk are still sitting in the same berth in Sevastopol, easy pickings for more missiles, especially given that Russia plans to repair them. Surely Ukraine would be highly motivated to finish those ships off.

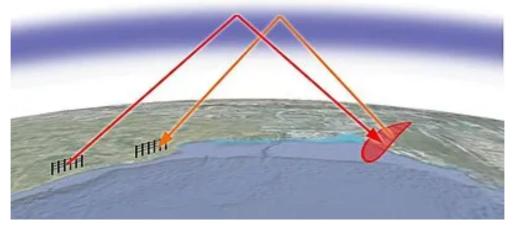
It's a game of cat and mouse. Ukraine can only conduct a successful strike once in a while when all the appropriate surveillance measures are taken by 5-Eyes partners and everything is pre-planned out with an accommodating coverage 'gap' available somewhere.

As to the Black Sea Fleet HQ, Russia says the building was empty while Ukraine claims the usual: hundreds were killed including major generals. There is no evidence of this. In fact Russia appeared to have some direct warning of the strike, so an evacuation—if the building was even used at all—would have made sense. The reason we know this is because prior to the strike, odd smoke screens were detected in the area, whose purpose I'm still not 100% aware of myself:

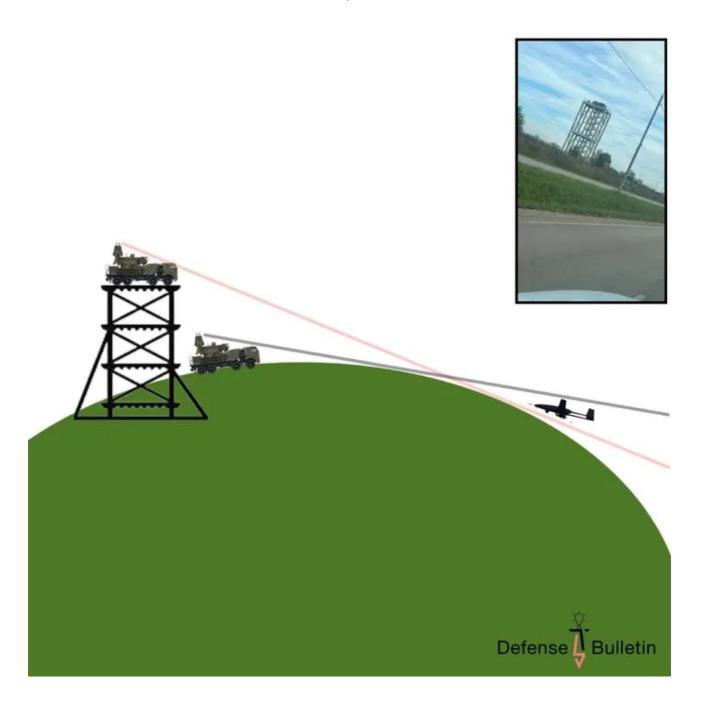
But if Russia knew a strike was incoming and took appropriate evacuation measures, then how can our previous thesis about the air defenses having no forewarning be accurate?

It's difficult to say for sure, but it goes something like this. Russia has other capabilities, both in space SIGINT and on the ground HUMINT (just like Ukraine does) that can notify them to mass takeoffs of Ukrainian strike assets from their bases. However, once they have taken off, it's not possible to *granularly* track the actual missile launches and their vectors/targets without having that more specific AD shield up front.

Russia likely even has OTH radar capabilities which can track Ukrainian jets from thousands of kilometers away seemingly breaking the physics of seeing "over the horizon" which I professed earlier. However, such radars use special high-frequency short-waves which are not adapted to seeing very small objects precisely, like stealthy missiles for instance. So they may be able to see the planes take off but not the missiles or their vectors.



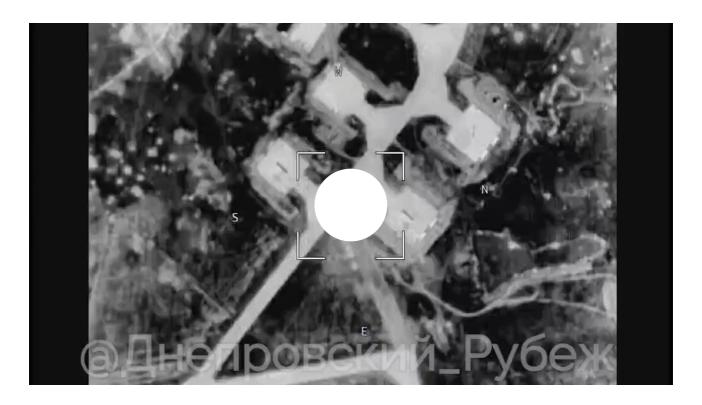
These radars bounce their special waves from the ionosphere and redirect them "over the horizon" to see objects a normal wave cannot detect.



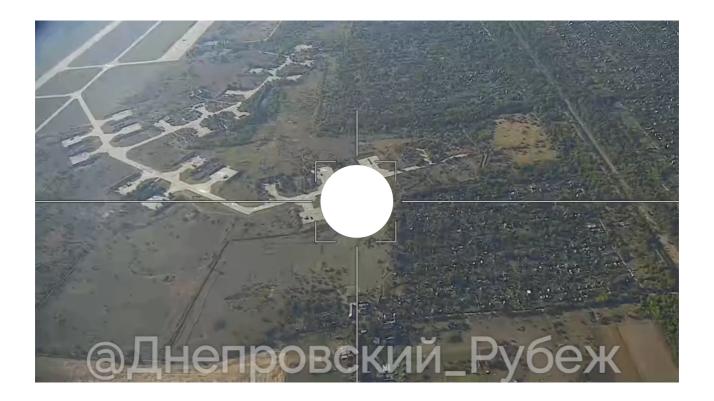
But if Russia can potentially detect Ukrainian jets in their own airfields from thousands of miles away, why haven't they destroyed them in the airfields?

Well, that's because Ukraine also has advanced forewarning from the U.S./5-Eyes of any Russian plane/missile launches, which take *hours* to cross Ukraine toward the western airfields, giving them ample time to scramble the jets and avoid the hit.

However, airfields which are closer to the frontline can lack that forewarning, and this is why yesterday we saw a Russian hit obliterate a Mig-29 in Ukraine's Dolgintsevo airbase near Krivoy Rog which is not far from Russia's positions in Energodar, etc.



This is the same field where Russia's Lancet drone was previously seen to hit the Mig-29:



Furthermore, the chronology is not known. I wrote last time how the Russian MOD had previously reported strikes on this field earlier in the month, destroying several jets. The new video may simply be the release of those strikes.

If you're wondering why these jets weren't scrambled to avoid Russia's missile strike, like I said it's close to the frontline. However, another version is that it wasn't even struck by a Russian missile, whose launch can be detected much more in advance and thus counteracted by scrambling the jets, since the missiles typically launch from near the Caspian Sea or the Black Sea by ships, etc. Instead, one version states the strike was actually done by guided BM-30 GMLRS Smerch missiles, which would have been positioned just over the Dnieper in Russian territory and would give next to no forewarning.

Ukraine is forced to house the Mig-29s closer to the frontline because the jets have much shorter range and cannot conduct combat from western Ukraine. Further, there's no indication they were even flyable jets and some sources state some/many/most of them are for parts—but it's impossible to know for sure. All we know is that Russia is clearly counteracting everything we're talking about. Planes are being hit, A-50Us are being rolled out to fill coverage gaps. There are constant countermeasures being taken to combat everything Ukraine does. Whether those countermeasures are being taken in a timely fashion and with enough urgency is another discussion.

Ultimately, despite whatever failures Russia may be incurring, we mustn't forget that U.S.'s air defense capabilities are far worse. Just a few weeks ago a new report from Taiwan

Taiwan Says US-Made Patriot Missile Malfunctioned, Lockheed Denies



1 MINUTE REA

A Taiwanese Air Force official has claimed that a Patriot PAC-3 missile malfunctioned during a recent live-fire drill, but US manufacturer Lockheed Martin said the missile involved was not a PAC-3.

Air Force Chief of Staff General Tsao Chin-Ping confirmed local reports that the surface-to-air weapon exploded before hitting its target.

Now, following the Sevastopol strikes, Russia has struck a devastating blow on Odessa, seemingly in reprisal. The Odessa hotel is claimed to have staffed many mercenaries and acted as a Ukrainian command HQ after a previous HQ was destroyed:

The outlying area had many warehouses which were destroyed:

0:16 / 0:22

These port warehouses were previously seen housing a lot of NATO equipment:







Pro-Russian commentator Masno wrote how the hotel was likely being used by Ukrainian services, was under tight security, and in recent days photos showed many windows open for ventilation, indicating that it was being occupied (though not by civilians, as it was closed to civilian use for years):





Regarding the "empty" hotel in Odessa, which was destroyed. Officially, the hotel was considered closed and mothballed since 2011. However, in July of this year, the press service of OK "YUG" of the Armed Forces of Ukraine published one of the photos of this hotel. As can be seen from the open windows, the hotel was not empty and Ukrainian officers lived there, and sometimes foreign specialists stopped by.

The question is why our command decided to strike at it only now. Perhaps important foreign guests were expected to arrive.

This hotel was certainly not empty, I was stopped less than 100 metres from here and was told I'm not allowed to go there, this place was under guard 24/7.

In fact, during the past day or two, Russia has struck a number of Ukrainian strategic objects and airfields. Dolgintsevo wasn't the only one. The Bolshaya Kakhnovka airfield in Kremenchug was said to be obliterated. The Starokonstantinov in Khmelnitsky, where Ukraine houses the majority of its Su-24s, was struck again:



Following

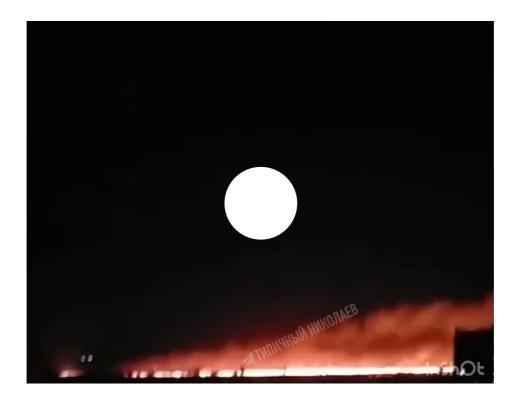
Khmelnytsky air base Starokonstantinov was attacked by loitering ammunition. Allegedly, a new reconnaissance satellite, Condor, passed over the area and performed a damage assessment after the missile attack, and the decision was made to respond quickly to lightly or undamaged targets.

Conducting different types of attacks on the same place at short intervals and speeding up the process of detection, tracking and ordering shows that Russia has begun to largely eliminate the shortcomings of field intelligence and satellite intelligence and make them more accurate and effective.





As was the Kulbakino field in Nikolayev, footage of which emerged showing the field burning after the strikes:



RUUA Near Nikolaev there are two powerful arrivals in the area of Kulbakino airport.

In Nikolaev, they had not heard explosions for a long time and had time to relax quite a bit: Su-24M carriers of cruise missiles began to be based at the airport, and Anas began to regularly land there, transferring personnel and ammunition. Although the front line is only 40 km.

The results of the arrival have yet to be clarified, but a cavalcade of ambulances rushed there from the regional center.

What exactly arrived is also a question. Because in Kiselevka, located not so far away, they hit an ammunition depot with a one and a half ton FAB with an UMPC.

In fact, new footage as of this writing has emerged showing Russian strikes obliterating more Mig-29s at the Nikolayev field at geolocation: 46°56′9.09″N 32° 4′50.96″E

0:14 / 0:27



For those wondering why now—Russia has struck this base as well as every other one multiple times before. Here's shots showing this very Nikolayev base in a previous aftermath:

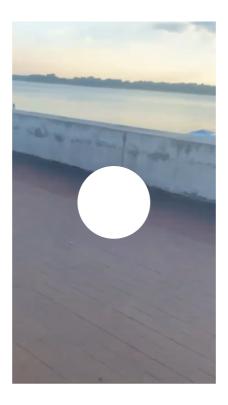




One fascinating aspect is that at one point both sides had lobbed cruise missiles against each other virtually at the same time. While the Storm Shadows were flying over Crimea into Sevastopol here (note how the Russian civilian is already acquainted with the Storm Shadow on a first name basis):



Russian Kh-101s were flying to Kremenchug at almost the same exact time:

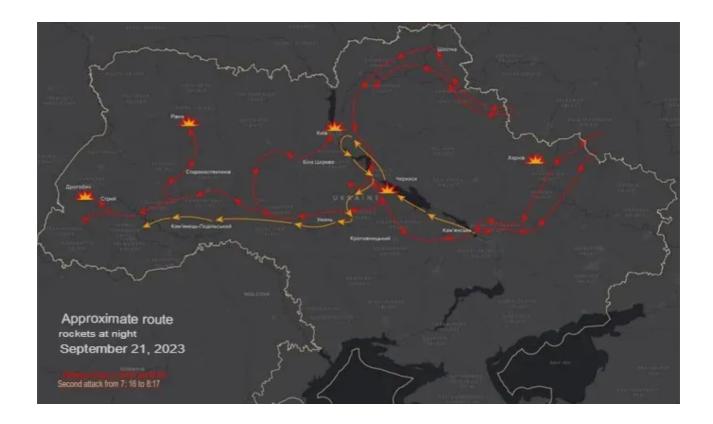


This startling fact represents perhaps the first time ever in history that a conflict is witnessed to include two opposing sides capable of striking each other with advanced cruise missiles. What other conflict have you ever seen where both sides actively and successfully launch long-ranged stand off cruise missiles at each other? Certainly nothing NATO has ever seen.

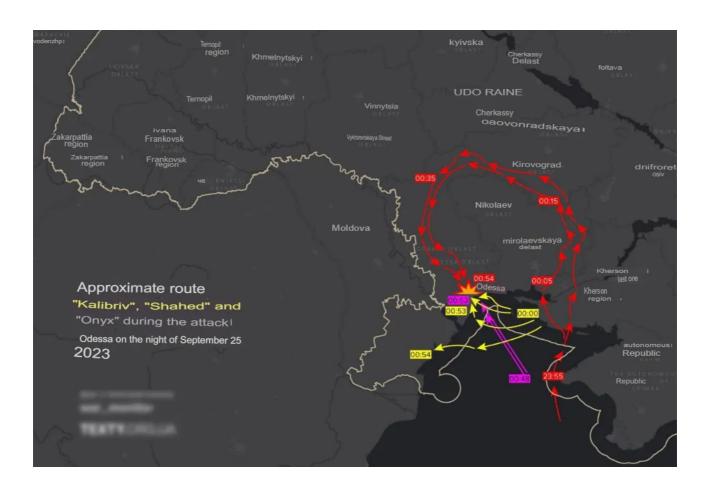
This encapsulates the fact that this war is the most high-tech peer-level conflict in history.

On top of that, Ukraine has complained that Russia's recent strikes are becoming increasingly complex (well, so are the Ukrainian ones for that matter). Here are two maps from Ukrainian sources showing the bizarre, circuitous routes Russian missiles are being programmed to take:

The first is from the mass strikes on September 21:



The second from last night. They claim the Kalibr and Onyx missiles fired from Crimea region did a full circle around Nikolayev oblast and then came to hit Odessa from the rear where AD wouldn't expect to be pointed:

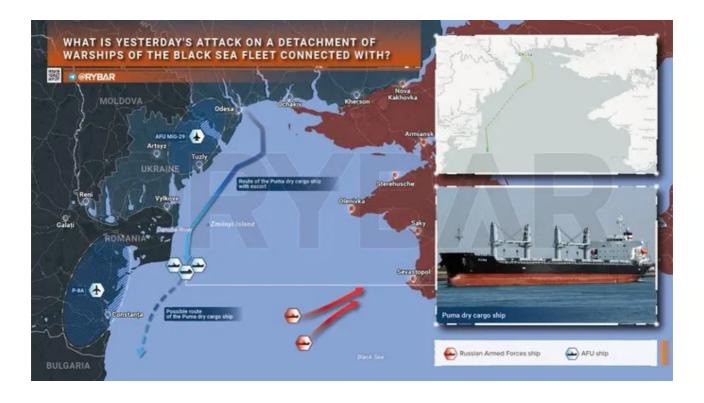


In almost all cases, particularly the hit on Dolgintsevo airport where the Mig-29s were destroyed, Russia has sent a contingent of Geran-2 drones first to deplete the Ukrainian air defense. When it's appropriately depleted, the missiles then come in to finish the job.

The bottomline is that, as with everything in this conflict, Ukraine is able to score some hits but Russia outpunches it 5:1 or 10:1, and sometimes even 20:1. For every "HQ hit" Ukraine manages to sneak in, Russia hits a dozen or more HQs, airfields, and other important facilities of Ukraine. Not to mention the fact that Russia stops subsequent attacks, which Ukraine never mentions. For instance, since the Sevastopol hit, there were two other major attacks including one today which included Storm Shadows. All of them were reportedly shot down and Russian forces completely repelled the attack. But that won't get much mention.

Lastly for this section, let me briefly cover why Ukraine has upped its strikes on Crimea so much recently. Partly as I said for appearances with Zelensky's big final hurrah visit to D.C. But another even more important reason has to do with the big grain corridor, which is one of Ukraine's last and most significant strategic-economic operations.

Ever since the grain deal expired two months ago, Russia started obliterating the port infrastructure of the entire Odessan coast and region. Ukraine has been desperate to reestablish some semblance of shipping, particularly with Poland's (not to mention other countries') bans on Ukrainian grain. It's a last economic life line for them. Thus, they are attempting to brute-force a corridor by eliminating Russian naval assets and ideally locking down Russia's Black Sea Fleet in a state of stupor in order to create a corridor that can hug the Ukrainian/Romanian coast.



Rybar gives a detailed writeup of the idea:

RYBAR Report:

What is the reason for yesterday's attack on Russian Navy ships? Today, the ship "Puma" under the flag of the Cayman Islands left the port of Odessa and headed along the already tested route along the coast of Ukraine to the south. The ship is still en route and is heading along Romania, probably towards the Bosphorus. Before entering Romanan waters, the ship was accompanied by two boats of the Ukrainian Navy, MiG-29 fighters patrolled the airspace over the Odessa region, and American P-8As were working in shifts over Romania (one of them was mistaken for a B-52).

In the context of the vessel's exit, a more complete picture emerges with yesterday's massive attack on a detachment of warships (OBK) of the Black Sea Fleet consisting of "Vasily Bykov" and "Sergei Kotov" - a total of 14 unmanned boats were destroyed (

not counting attacks on "Samum" and "Askold). One of them, as we already wrote, hit the Bykov, which caused the ship to be damaged, but continued to move under its own power to Sevastopol, and the Sergey Kotov operates nearby. That is, as soon as the Russian patrol moved away from the patrol area, the cargo ship left Odessa.

Thus, the AFU not only opened a route for the movement of the bulk carrier, but also demonstrated that, if necessary, they can distract Russian ships by launching naval drone attacks. Of course, the attack was repulsed, but in this way in Kiev they are trying to prove the functionality of this corridor without the participation of Russia.

This is all Ukraine's plan to convince shipping partners to offload grain from Odessa, for which Ukraine has been making increasing promises and desperately working deals to provide insurance for potential carriers:

Exclusive: Lloya's in talks with UN over new Black Sea grain insurance cover



Ukraine nears deal with global insurers to cover grain ships

Scheme could cover up to 30 commercial vessels in Black Sea under threat of potential attack from Russia

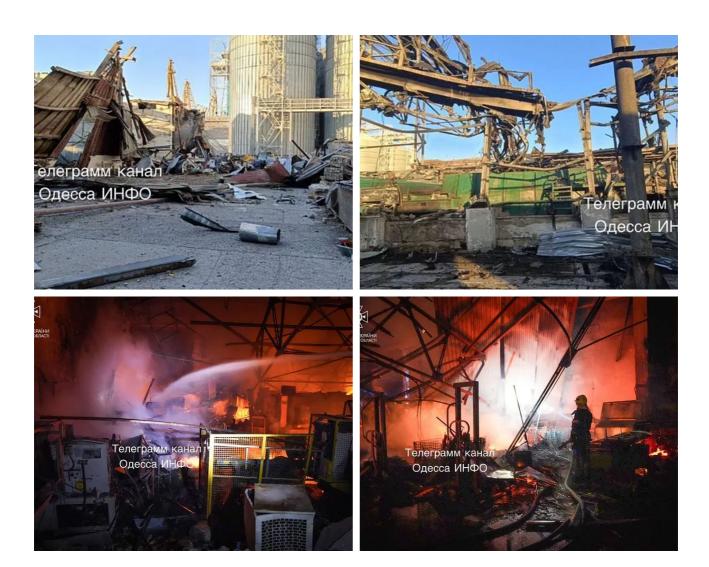


•A special fund in the amount of 20 billion hryvnias (about \$547 million) has been created in Ukraine to insure ships that will transport grain across the Black Sea

Earlier, the Ministry of Economy of Ukraine reported that the ship insurance scheme could be introduced in September, up to 30 ships could be involved in it.

Thus it can be seen that this recent flare up of the Black Sea theater has everything to do with Ukraine's desperate attempts to reactivate its grain corridor, after facing complete shut-off from both Russia and Ukraine's own European 'partners'.

Of course it can be said that Ukraine's effort is certainly not a flimsy one. They've scored outsize successes, however much to their detriment I fear all they've done is 'stirred the hornet's nest' and caused the Russian MOD to concentrate on a part of the theater they had been lax about in recent times. Now a huge series of devastating blows are being dealt to any and all Ukrainian assets that have even a farthing to do with this recent campaign. On top of the hotel and adjacent warehouses, Odessa's ports also suffered major blows to various (possibly grain related) infrastructure:



In the spirit of this weapons and technical-minded post, let's move on to another bit of news, which is the ongoing back and fort vacillation over the ATACMS deliveries to Ukraine. During Zelensky's visit it was denied, then quietly approved only to be denied again, and now there's another seeming approval.

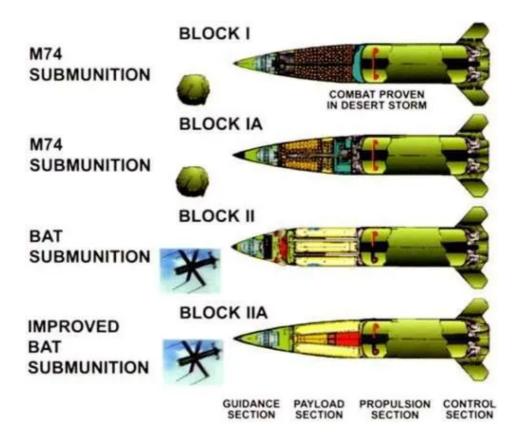
However, the devil is in the details. It wasn't actually approved as most people think. You see, Ukraine wanted the much more devastating normal high explosive version. Biden and his people demurred to that *but* ended up potentially approving the DPICMS version. This detail will be lost amongst the celebratory shuffle set to take place.

DPICMs is the sub-munition or cluster bomb version of ATACMS. This represents a compromise: we give you the missile, but the most useless version which actually can't strike hardened compounds, HQs, bridges, or anything important for that matter. They're made to strike personnel only, which will have a negligible effect as Ukraine's artillery cluster munitions usage has already proven to be useless, a fact I predicted long ago.

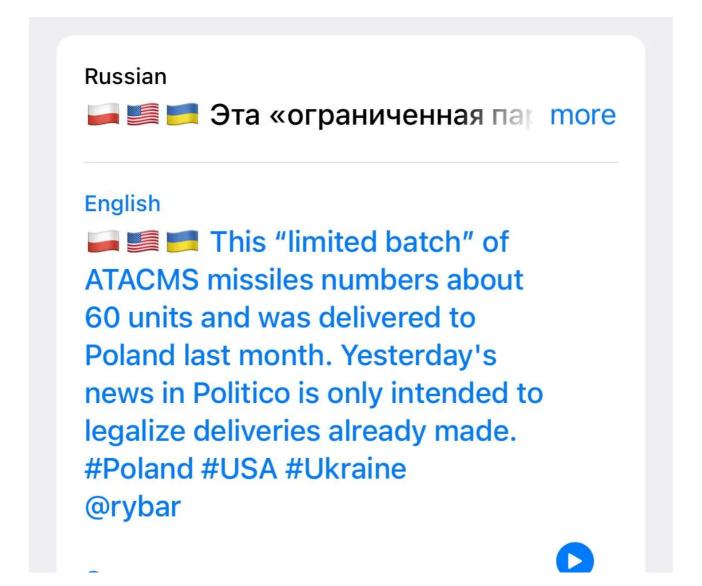
Watch the ATACMS DPICMS version explanation below:



Cluster submunitions cannot be used to destroy buildings or anything of note. The whole *point* behind Ukraine's deep desire for this missile was to be able to hit Russian C3 compounds in the rear, as well as threaten the Kerch bridge. Now it's moot—submunitions are useless for that. They'll maybe take out a light civilian car at the most.



Secondly, you can read this and laugh. The announced small test batch of ATACMS to be sent to Ukraine will reportedly be only around ~60 units:



But listen to what Budanov himself plainly states in his D.C. interview from several days ago. KB = Kyrylo Budanov:

TWZ: On Tuesday, a U.S. official said the new Precision Strike Missile (PrSM), a replacement for ATACMS, is coming online soon and could potentially open up the availability of ATACMS for Ukraine. Do you have a sense of how many ATACMS the U.S. has that they can give you?

KB: So let's wait for the official announcements to be made. There are still different ways how this situation can turn out so let's wait for [the official announcement] but I can say conditionally that if it's 100 missiles, this won't change the situation.

TWZ: You need thousands?

KB: At least hundreds.

So Budanov himself says anything under 100 missiles is pretty much worthless and won't do anything. Biden not only announces 60, but not even the destructive ones.

I will make one caveat though. It's true the cluster versions are *mostly* useless but there *is* one area where they could potentially do a lot of damage: striking Russia's target rich airfields. Submunitions won't destroy airplanes entirely, but a whole missile full of them peppering an airfield could put dozens of craft out of service at once.

So for that, it definitely is dangerous. But it simply doesn't have the *strategic* danger a regular one had, with the ability to not only wipe out entire command bunkers deep behind Russian lines but potentially hit and wipe out the Kerch bridge.

With that said, interestingly they may be much easier than expected to shoot down for Russian AD, particularly the premier S-300/400 systems designed specifically to shoot down such ballistic-style missiles. The reason is, a saturation attack typically works when you have a lot of objects coming at you at a similar altitude. But when you saturate an AD system with a bunch of drones (which are physically incapable of flying high) as well as low flying cruise missiles, it would be very easy for an AD system to differentiate those "screening" objects versus a ballistic style missile which flies much higher. That means AD should be able to point out which one is the dangerous quasi-ballistic missile on the monitor based on its altitude alone, which would allow prioritization in targeting it.

On the topic of equipment, another update I wanted to bring forward was one organization's tracking of Russian tank losses. I found this to be very illuminating.

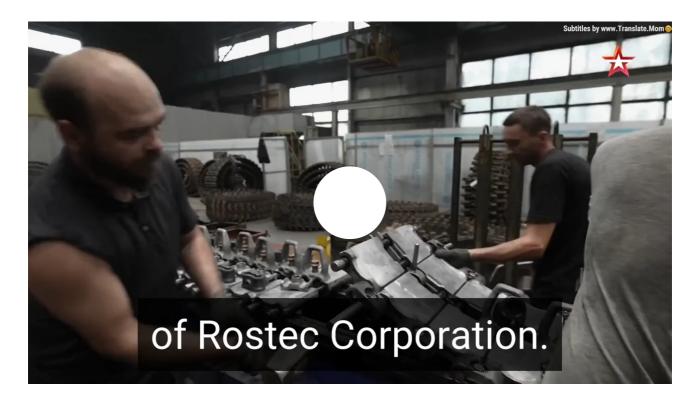
Tanks	Totals	Total	Che	e #####	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
Tanks	1973	1973	0	56	310	167	135	61	68	60	220	166	121	52	52	108	86	49	53	73	78	58	36
T90	65	65	0	6	5	2	2	1	0	1	8	2	6	3	5	9	1	2	2	2	3	5	8
T80	567	567	0	20	64	32	16	15	18	15	69	52	39	15	14	32	37	12	17	39	37	24	8
T72	1057	1057	0	30	225	122	101	30	40	29	119	65	57	25	24	46	34	27	17	17	29	20	14
T64	56	56	0	0	8	6	12	7	1	2	1	1	1	4	1	5	1	1	1	1	2	1	0
T62	71	71	0	0	0	0	0	0	0	0	5	33	15	2	2	2	4	1	3	1	1	2	1
T55	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Unkown	156	156	0	0	8	5	4	8	9	13	18	13	3	3	6	14	9	6	13	12	6	6	5
Checksum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The most important part is not the actual totals themselves per se, which may or may not be exaggerated, but the general trend. For instance one can see in the top totals column where the peaks and low points were. Since early this year, Russia has continued on a down trend, with the beginning of Ukraine's counteroffensive being one minor blip upwards.

50-70 tanks lost per month is not bad at all. This averages to somewhere like 2 per day which would be about 600-700 per year. The reason that's good news is because that's under what Russia is now producing yearly, which means the tank losses are *sustainable*—that's the most important part.

So how do we know what they're currently producing?

In this new video interview, head of Uralvagonzavod, the largest tank manufacturer in the world, Alexander Potapov states some interesting things:



He appears to be referring to engines since T-80s, as he later says, are not at the moment produced from scratch but only refurbished. But Russia is already matching record years.

Just for reference here is a chart of tank production from the 70s and 80s.

years	T-72 TANKS MANUFACTURED BYUVZ	T-72 TANKS MANUFACTURED BY CHTZ	T-72 TANKS THAT ENTERED SERVICE WITH THE SA	T-64A AND T-64B TANKS	T-80 TANKS
1969-1972	_			1560	
1973	30	-	30	500	7
1974	220		220	600	
1975	700	_	700	700	
1976	1017	_	1017	733	30
1977	1150	_	1150	875	40
1978	1200	-	1170	902	53
1979	1360	_	1360	910	80
1980	1350	_	853	910	160
1981	1420	25	977	910	278
1982	1371	50	1096	910	400
1983	1420	100	969	880	540
1984	1501	150	1323	825	670
1985	1559	200	1431	633	770
1986	1530	215	1145	660	840
987	1534	260	1489	600	860
988	1503	307	1237		1005
989	933	215	890	-	710
990	776	_	774		630
otal:	20 574	1522	17 831	12 508	7006

Now, multiple sources like The Economist claim Russia produces 20 brand new tanks per month and up to 90 refurbs:

This means that, although Russia can only build 20 new tanks a month, it may soon be able to resurrect 90 or so a month from its boneyards. Still, that would not make up for the estimated 150 it is losing each month, according to analysis by Oryx. And

Wallstreet Journal gives a figure of 250 tanks per year prior to the war:

Russia in recent years has produced around 250 tanks and 150 aircraft annually, according to Mark Cancian, a senior adviser at the Center for Strategic and International Studies, a think tank in Washington. That means Ukrainian forces in two months have destroyed the equivalent of at least two years of Russian tank production.

In fact most of the years around 2010 and afterwards, Russia produced anywhere between 175-250 new tanks per year. Now the production is said to have gone up several times over.

If we take the Economist's numbers, 110 total (produced + refurbs) per month = 1,300+ per year, which is at least in the neighborhood of what several Russian figures have stated.

Getting back to the losses, chart, we can see that *this* year, Russia is on track for something like 600-800 total tank losses. That should easily be made up for with production. And keep in mind, many of those losses are likely over-calculated. For instance, at the beginning of the counteroffensive Putin had noted in a speech Russia lost a certain amount of tanks, like 40-60, but he said that many of these were subsequently towed back and would be repaired. Most loss counting organizations simply tally any field photo as a loss but ignore the fact that many Russian tanks that appear "hit" will be recovered and repaired, or only suffered minor track damage. Thus a perceived 600-800 yearly losses may really be something like 400-600.

Also, a new video has showcased the mass use of Russian inflatable decoy tanks on the Zaporozhye frontline. So don't be surprised if Oryx and co. start adding "destroyed" inflatables to their database of real Russian 'losses'.



Last month Forbes lamented that Russia's only remaining bottleneck for mass tank production has ended:



FORBES > BUSINESS > AEROSPACE & DEFENSE

A Shortage Of Optics Was Holding Back Russian Tank Production. That Shortage May Have Ended.

David Axe Forbes Staff

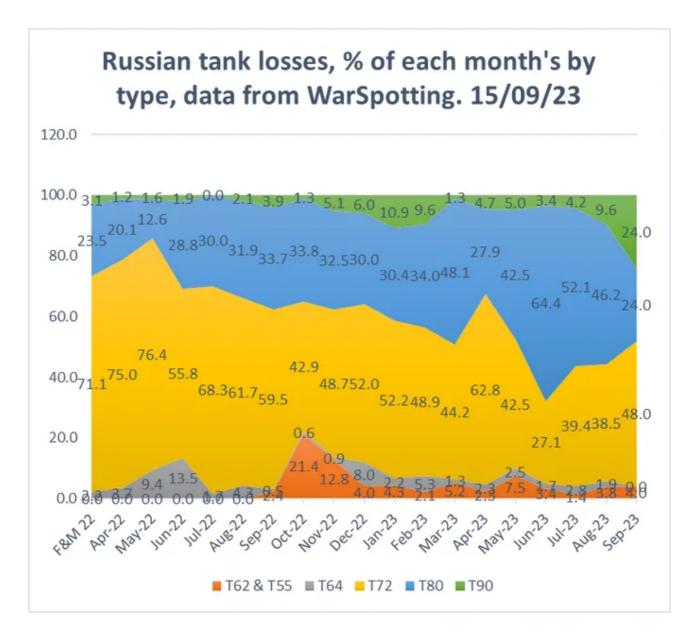
I write about ships, planes, tanks, drones, missiles and satellites.



24

Aug 7, 2023, 06:33pm EDT

Lastly, a chart was put together attempting to derive some sense from Russia's tank losses, whether for instance they were running out of certain hulls like the premier T-72/T-80 and replacing them with old T-62s and T-55s as so many Ukrainian propagandists claim:

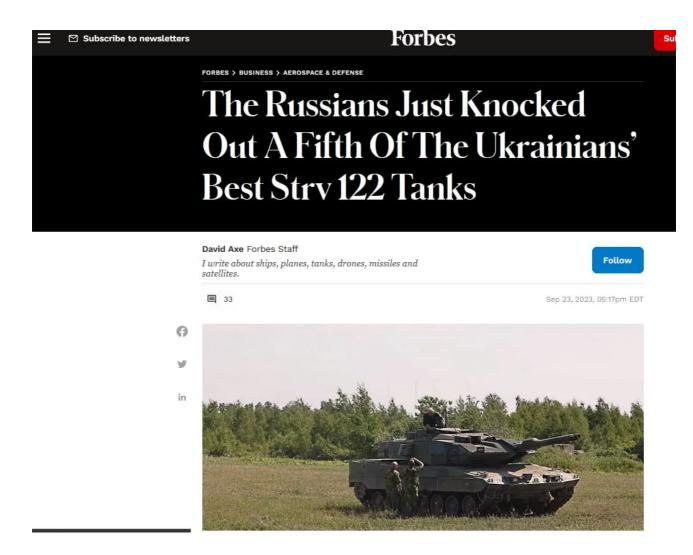


The chart found the opposite correlation. Russian T-90s have skyrocketed from 3-4% to 24%, showing that T-90Ms are being fielded—and thus produced—in increased quantities. T-55/T-62 not only had no appreciable gains, they seemed to *decrease*. There goes *that* narrative.

The only other notable change was Russian T-80s appeared to decrease drastically as share of losses, but it can be said to be cyclical as they previously decreased in April/May and then shot back up.

The important part is that there is no scientific basis for Russia fielding old T-62/T-55s and in fact Russia is verifiably fielding three times more T-90Ms than before.

For Ukraine it's the opposite. The only thing seen anymore are T-64s and older stuff. Few T-72s are seen and each time a new tiny injection of NATO tanks arrives, they are promptly obliterated:



The above are the Swedish modified variants of German Leopard 2A5s. A few of them were already destroyed in a single day the day before yesterday, which represented a huge chunk of all those received. Now the first 10 or so Abrams samples are said to have arrived:

THE KYIV INDEPENDENT

NEWS FEED

Zelensky confirms first Abrams tanks already in Ukraine

Share **9** n in **M**









by Dinara Khalilova and The Kyiv Independent news desk • September 25, 2023 3:18 PM • 1 min read



A M1A1 Abrams main battle tank fires during Exercise Chong Ju at the Puckapunyal Military Area on May 09, 2019 in Seymour, Australia. (Photo by Scott Barbour/Getty Images)

Russia has been hitting trainloads of armor and equipment as well:



A few last sundry items.

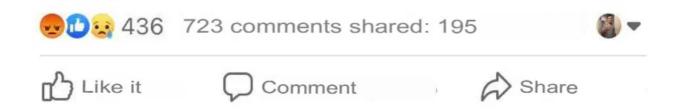
I had forgotten to post this a while back. Ukrainian journalist Roman Revedzhuk who had previously run for office and was involved in Ukrainian politics for a long time revealed that he had received an insider report from the SBU that Ukraine had more than 310,000 KIA as of July:



I received the data today from their sources from the SBU: As of today figure of dead soldiers

The Armed Forces of Ukraine more than 310 thousand.

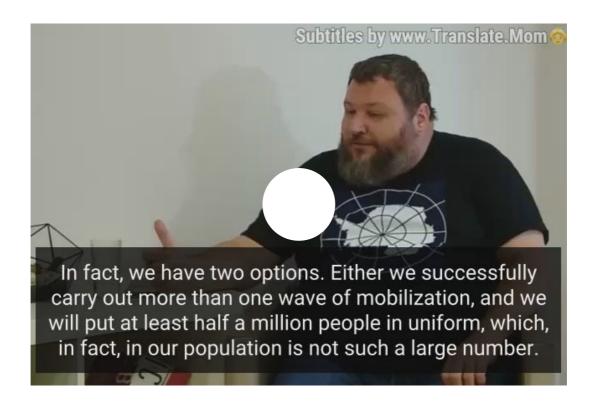
Praise Zaluzhny.



My understanding is he's a pro-Ukrainian *not* pro-Russian journalist, however he's critical of the current ruling regime.

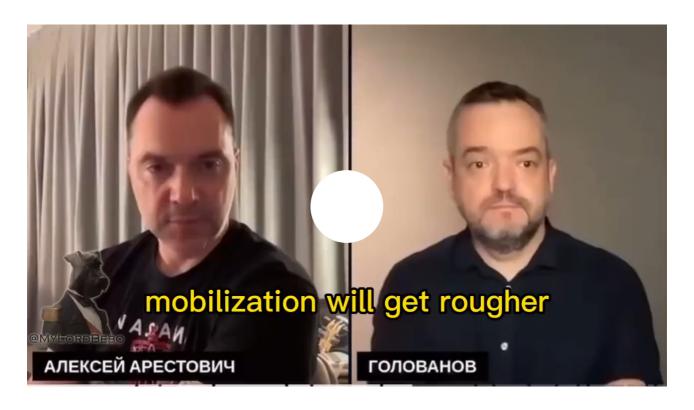
You'll note this number is consonant with other recent reports, like that of wartears.org which tracks obituaries and has a current total of 280k KIA for Ukraine.

Now, the consequences of this are being felt more and more. In a new video ex-Aidar commander Yevgeniy Dikag said Ukraine can only win by mass mobilizing up to 1 million more people:



Ukrainian military analyst Yevgeniy Dikag, who was the commander of the infamous Aydar formation, the Ukrainian president must as soon as possible declare a general mobilization and raise 500 thousand soldiers in order to overthrow the status quo that was in force before the start of the summer counteroffensive.

And this was echoed by a new video from Arestovich who says that soon every man in Ukraine bar none will have to be mobilized:



You'll recall that last time I posted a **Ukrainian analyst who confessed** that eventually not just teenagers—which is a given, according to him—but even *children* will have to be mobilized.

On this note, Russian State Duma Speaker Vyacheslav Volodin reinforced some of my recent reporting, that Ukraine's fate is either total capitulation and surrender to Russia or...complete destruction:

UKRAINE CRISIS 25 SEP, 04:10

Ukraine to either surrender on Moscow's terms or cease to exist top Russian lawmaker

According to Vyacheslav Volodin, the outcome also includes economic problems in Europe and the US, as well as a lack of manpower for the Ukrainian armed forces



Ukraine is fated either to capitulate on Moscow's terms or cease to exist as a state - Vyacheslav Volodin, speaker of the Russian State Duma.

"When speaking about the conflict in Ukraine, [US President Joe] Biden, [NATO Secretary General Jens] Stoltenberg and other Western officials have started calling it 'a war of attrition.' They have put huge amounts of money into militarizing the Kiev regime. Where has it gotten them? The simple facts are these: the West is experiencing weapons and ammunition shortages, people in Europe and the US have lost trust in politicians, and the Kiev regime's counteroffensive has failed," Volodin stated.

According to him, the outcome of the "war of attrition" also includes economic problems in Europe and the US, a lack of manpower for the Ukrainian armed forces, and ultimately bankruptcy and demographic disaster for Ukraine. "These seven facts speak for themselves: Ukraine will cease to exist as a state unless the Kiev regime capitulates on Russia's terms," Volodin stressed.

"More than 10.5 million people have fled Ukraine. Another 11.2 million residents of Crimea, Sevastopol, the Donetsk and Lugansk people's republics and the Zaporozhye and Kherson regions decided to join Russia. Ukraine has lost 53.7% of its population since 2014," the State Duma speaker highlighted.

TASS

We can see that one side has fully accepted that a total societal mobilization of women, children, teenagers, and everyone in between is fine by them, and the other side will accept only complete unconditional surrender. Sadly, this can only lead to the utter destruction of Ukraine. No amount of silly NATO weapons shipped in negligibly tiny tranches can change that.

As a quick sum up of the last day or two, there's nothing but slaughter for the AFU. Graphic warning:

Video 1 Video 2

Video	3
Video	4

Video 5 Video 6

Video 7

Video 8

Next:

A frank discussion between Russian military commentators on the ongoing counterbattery issue that I've been covering here from time to time.

4:41 / 6:19

You'll note that they confirm pretty much everything I've been saying. Yes, the AFU has a few certain shells like the newly debuted Vulcan with an advertised 70km range that outperforms everything Russia currently uses (at least on the purely artillery side, that's not counting MLRS and other things). But they have a tiny handful of these, as well as other "specialty" shells like Excalibur, etc.

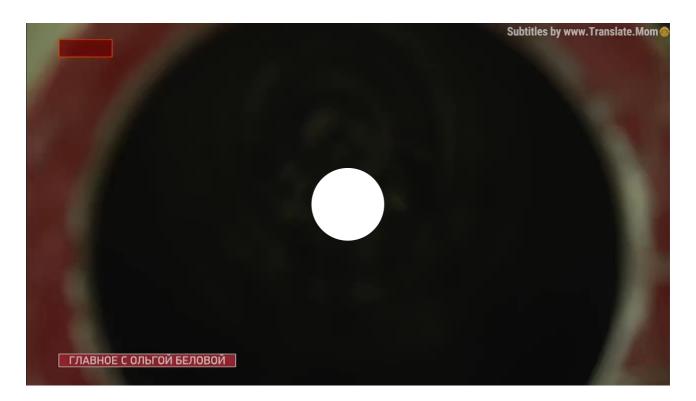
You can't use an outlier for an argument over who's winning the artillery war. When Russian systems are outnumbering and outperforming them the majority of the time, the rare usage of such a shell does not swing the balance in their favor, particularly when Russia has many other asymmetrical systems which can neutralize that.

It confirms Russia's standard shells fire ~24km, though they make a mistake with the 35-40km as standard for AFU, which once again is only counting other semi-specialty systems like French Caesar which they don't have many of. The run-of-the-mill M777s etc., with standard shells fire less than Russia's range.

But as I've likewise covered, those who've been following my reports on this will note the confirmation that Russia's 2S5 Giatsint and 2S7(M) Peony/Malka are more than a match for AFU's systems, not counting those specialty shells. But they do bring up a good point that Russia still needs a system which can more regularly match such ranges. And as they said, it has one with the new 2S35 Koalitsiya-SV artillery, which is supposed to be a wholly redesigned 2S19 Msta-s, with 40km standard round ranges, and 80km for specialty rocket-assisted rounds, which shames every top NATO system.

Unfortunately Koalitsiya continues to wallow in the Russian MIC black hole, same as Armata, etc. There were allegedly a couple copies said to be 'tested' in the SMO earlier but no one knows when exactly mass production may begin, though there are always rumors that it will be "soon".

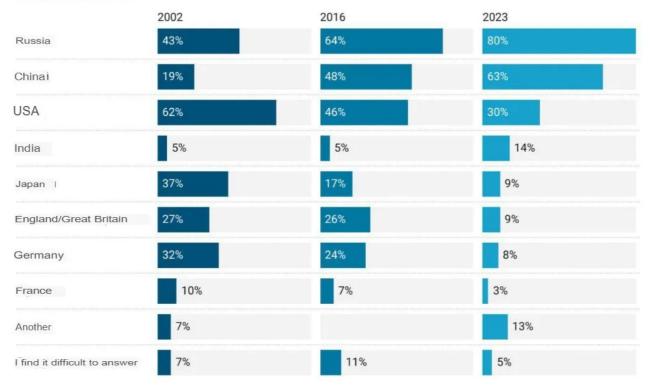
In light of all the tank discussions here's a new report from Russia's main Nizhny Tagil factory of Uralvagonzavod:



Next, an interesting poll from Russia's top Levada survey center. It shows the steady growth of Russian national pride, the re-emergence of Russian identity from the bleak 2002 period to present:

Name three countries that you could call great

in %% of respondents



THE MATERIAL (INFORMATION) WAS PRODUCED AND DISTRIBUTED BY A FOREIGN AGENT OF ANO "LEVADA-CENTER" OR CONCERNS THE ACTIVITIES OF A FOREIGN AGENT OF ANO "LEVADA-CENTER".

Created with Datawrapper

In 2002, more Russians considered the U.S. great than their own country, and thought next to nothing of China. Now the majority considers China great and the U.S. has been relegated from 'great' to 'second rate'.

Lastly, another Russian military ad in a recent spate of them which appear to be dropping major hints. First, days ago, was one hinting at the future takeover of Kiev. Now a new one hints at the re-uniting of Odessa with the Russian motherland:



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27 Comments



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Frantic 4 hrs ago

OMG Simp if they depose Zelensky and install Klitschko as president of Ukraine as you suggest, I would start worrying about Russian chances. Klitschko is a beast of a man carved out of

	granite, he will instil fighting spirit in the AFU https://www.youtube.com/watch?v=9WvFVtK9uHg&pp=ygUZa2xpdHNjaGtvIHZzIGxIbm5veCBsZXdpcw%3D%3D					
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