

# Conflict Update # 167

*August 30<sup>th</sup>, 2022*

## Conflict Assessment

**Russian losses** – 47,550 (+450) soldiers killed and 142,650 injured, 1,954 (+7) enemy tanks, 4,294 (+25) armored combat vehicles, 1,079 (+19) artillery systems, 282 (+3) MLRS systems, 151 (+2) air defense systems, 234 (+0) warplanes, 204 (+1) helicopters, 847 (+3) UAVs of the operational-tactical level, 196 (+0) cruise missiles, 15 (+0) warships/cutters, 3,217 (+29) trucks and tankers, 76 fuel bowsers and 99 (+0) units of specialized equipment.

## Key takeaways

**Update** - Ukraine has "increased the weight of artillery fires" across southern Ukraine and continues to disrupt Russian supply lines with long-range strikes, the British Defence Ministry noted in an intelligence update posted earlier today on Twitter. While it's not possible to determine "the extent of Ukrainian advances," the ministry said, Russia has been reorganizing its forces since the beginning of the month, and most Russian units around Kherson are "likely undermanned."

**Ukrainian forces press offensive in south** - Speaking in his nightly address late on August 29, Zelenskiy vowed that Ukrainian troops would chase the Russian Army "to the border."

"If they want to survive -- it's time for the Russian military to run away. Go home," he said.

Earlier, presidential adviser Oleksiy Arestovych said in a video address that Ukrainian forces were shelling ferries that Russian forces were using to supply a section of Russian-occupied territory on the west bank of the Dnieper River in the Kherson region.

Ukraine's presidency said on August 30 that there was "heavy fighting" in "almost the entire territory" of the Kherson region.

"Powerful explosions continued throughout the day and throughout the night in the Kherson region," the president's office said in a morning update.

In an intelligence note, Britain's Defense Ministry said on August 30 that, although it was "not yet possible to confirm the extent of Ukrainian advances" its army had increased "artillery fire in front line sectors across southern Ukraine."

It added that it was using "long-range precision strikes to disrupt Russian resupply" lines.

U.S. National Security Council spokesman John Kirby said Ukraine's move was already having an impact on Russian military capabilities as it forced them to reposition forces and deplete some units in the east.

"Because the Russians have had to pull resources from the east simply because of reports that the Ukrainians might be going more on the offence in the south," Kirby told reporters on August 29.

**Russian ferry hit as Ukraine bombards key supply bridge in Kherson** - Ukrainian forces have hit a ferry as they targeted the Antonovskiy bridge in their long-awaited counter-offensive to retake the southern city of Kherson.

Video footage shared on pro-Ukrainian social media channels appears to show plumes of black smoke billowing above the crossing, Russia's main route across the Dnipro River, after multiple long-range strikes.

It appeared that at least one of the rocket attacks on Tuesday was aimed at a temporary pontoon constructed by Moscow in order to transport military supplies across the Dnipro.

**Ukraine breakthroughs made against Russian forces in southern offensive** - A senior adviser to President Zelenskyy said Ukrainian forces had broken through Russian defensive lines in several fronts as part of Kyiv's newly launched southern offensive near the strategic city of Kherson, which has been occupied by Russian forces since early in the war.

Ukrainian presidential adviser Oleksiy Arestovych in a video address late last night also said that Ukrainian forces were shelling ferries that Russian forces were using to supply a section of Russian-occupied territory on the west bank of the Dnieper River in the Kherson region

Ukraine's armed forces earlier yesterday announced that they had started offensive action on several fronts in the south, launching a much-anticipated counteroffensive to regain the Kherson region from Russian invading forces.

"Today we started offensive actions in various directions, including in the Kherson region," Ukrainian public broadcaster Suspilne on August 29 cited southern command spokeswoman Natalya Humenyuk as saying. She confirmed the news minutes later at a briefing.

Moscow's Defense Ministry acknowledged that a Ukrainian offensive had been launched, but it insisted it had failed, with its forces inflicting heavy Ukrainian casualties.

"Enemy's offensive attempt failed miserably," it said.

**Comment** – There are numerous reports coming in from independent news sources of multiple blasts and explosions around Crimea and some in Russia itself, all related to supply roads, replenishment centers, arms depots and Russian command centers. The reports identify strikes all across the front lines.

**Russians are unable to reinforce units across the Dnipro river in Kherson** - Damage to bridges across the Dnipro river in the Kherson region means that Russian forces are unable to cross the river to assist units on the front lines further north.

"The enemy is trying to pull up reserves from the Left (south) bank," Natalia Humeniuk, spokesperson for the Ukrainian military's Operational Command South, said at a briefing earlier this morning.

That had proved impossible, she added, "because we carefully and precisely worked on these bridges: they are the main transport arteries across the Dnipro, they became impassable for heavy equipment."

"Now, [the Russians] do not have the transport ability to pull up reserves from the left bank. Therefore, they create the illusion of pulling up reserves by moving military units between the settlements," she explained. "All bridges have been worked by us as impassable."

"They may continue to try to set up a ferry or pontoon crossing, but the whole area where it can be deployed is also under our fire control and will be hit," Humeniuk added.

There were further strikes reported on the main Antonivskyy road bridge connecting southern Kherson with Kherson city early Tuesday.

**Russia's losses in Ukraine reach 47,550** - Russia lost another 450 soldiers in Ukraine, taking the overall number to 47,550, Report informs, citing the General Staff of the Armed Forces of Ukraine.

According to the General Staff, the Russian Armed Forces lost 1,954 tanks, 4,294 armored vehicles, 1,079 artillery systems, 282 multiple rocket launchers (MRL), 151 air defence systems, 234 aircraft, 204 helicopters, 847 unmanned aerial vehicles (UAV), 196 cruise missiles, 15 ships, 3,217 cars, and fuel tanks and 103 pieces of special equipment.

**Costs of the Ukraine war are mounting ... for Russia** - How is Russia faring in its war of choice against Ukraine? With Moscow's military campaign against its western neighbor now at its six-month mark, the tally is both simple and stark: by virtually every metric, the past half-year has been nothing short of ruinous for the Kremlin.

Militarily, Russia's initial plans for a campaign to rapidly "demilitarize" and "de-Nazify" Ukraine, overrun Kyiv and install a new government there fell by the wayside long ago. In the face of fierce Ukrainian resistance, as well as spectacular battlefield missteps in the war's early phases, Moscow was forced to revise its initial plans downward to merely occupying Ukraine's east.

But even this objective isn't going particularly well; Russia currently controls around 20 percent of Ukrainian territory, having lost significant ground since the high water mark of its invasion. And, buoyed by ongoing support and a steady stream of military materiel from the West, Ukraine is poised on the cusp of a major counteroffensive that could see Moscow's gains shrink still further.

In human terms, too, the toll of Russia's Ukraine campaign has been exorbitantly high. The U.S. intelligence community now estimates that the Russian military has lost more than the total losses suffered by the Soviet Union during a decade of war in Afghanistan in the 1980s. This subpar performance, in turn, has helped puncture the aura of military prowess that had been carefully cultivated by the Kremlin since World War II. Russia, which at the start of the war was seen as the second strongest military in Europe, now does not even rank as the strongest military in Ukraine.

Nor does this situation look to improve any time soon. Whereas Ukrainians are united in their determination to fight to preserve their independence, Russians appear far less committed to Putin's pet cause. So, as the war has dragged on, Moscow has found it more and more difficult to field forces for its military offensive. As a result, it has been forced to resort to increasingly creative means to replenish its dwindling army ranks—such as the recruitment of convicts (including rapists and murderers) to serve in the military through promises of lavish stipends and amnesties if they survive. Yet even these methods haven't succeeded in fully replenishing Russia's military, and key units now lack adequate personnel.

Economically, meanwhile, Putin's war of choice—and the West's response to it—has ravaged the country. You might not know it from the public statements of Russian officials, who have taken pains to point to a rebounding ruble and other indicators as proof that the country, although not thriving, is nonetheless surviving Western pressure. The true state of affairs, however, is considerably grimmer.

According to a new study by Yale University's School of Management, the Russian economy has been "catastrophically crippled" by the cumulative impact of Western sanctions and the departure of thousands of international firms. "Russia has lost companies representing ~40% of its GDP, reversing nearly all of three decades worth of foreign investment," the report states. Moreover, sanctions have "irrevocably deteriorated" Russia's exports, while imports into the country from abroad have "largely collapsed." **Comment** – Increasing reports from inside Russia point to growing unrest and dissent.

The impact is being felt in various Russian industries, which have now become closed off to the world. Russia's aviation industry, for example, has begun to eat itself, with state-owned airline Aeroflot resorting to stripping working aircraft for spare parts in order to service its many Western-built planes amid a parts shortage caused by sanctions. Russia's automotive sector is faring even worse. Car production has constricted by a staggering 97 percent as major automakers have pulled out of the country, and just two out of 20 car plants now remain in Russia.

None of this means that the Kremlin is about to cut its losses on the Ukraine front, however. To the contrary, Russian President Vladimir Putin and his cronies appear to be gambling that increasingly extreme brinkmanship (like threatening to obliterate Europe's largest nuclear power plant) might allow them to eke out a measure of strategic victory vis-à-vis Kyiv.

Nevertheless, it is already clear that, across metrics that matter—political standing, economic prosperity, and military prowess—the costs of the present conflict have already become exorbitantly high, both for Russia and for ordinary Russians.

**Tricky, tricky, tricky** - Ukraine has been using decoy artillery batteries to trick Russia into using its long-range cruise missiles, the Washington Post reports. The wooden dummies—built to look like advanced weapons systems sent by the U.S.—have drawn "at least 10 Kalibr cruise missiles," according to a Ukrainian official. The replicas may also explain why, according to one U.S. diplomat, Russia has "claimed to have hit more HIMARS than we have even sent."

**Zaporizhzhia nuclear plant** - The White House is calling for a demilitarized zone around the Zaporizhzhia nuclear plant. "A nuclear power plant is not the appropriate location for combat operations," National Security Council spokesman John Kirby told reporters Monday, adding that the U.S. also believes the power outage last week shows why "a controlled shutdown" of the plant's nuclear reactors is necessary immediately.

Inspectors from the International Atomic Energy Agency (IAEA) were on route to inspect the Russian-occupied Zaporizhzhya nuclear plant in the south of Ukraine.

The team is meant to assess the damage to the facilities and determine the functionality of the main and backup safety and security systems, the IAEA said.

**Russia starts sealifting weapons to Crimea** - Russia has shipped a battery of S-300 anti-aircraft missiles from Syria to a Russian port near Crimea, according to an Israeli satellite imaging company, in an apparent attempt to bolster its air defenses in the war with Ukraine.

ImageSat International (ISI) captured pictures showing the presence of the S-300 anti-aircraft battery at Masyaf, Syria in April, and the empty site left behind on Aug. 25 after the hardware was shipped to the port of Tartus.

Separate images showed the battery components on a dock at Tartus between Aug. 12 and 17. By Aug. 20 they had gone, and ISI concluded they had been transferred to a Russian vessel, the Sparta II, which left Tartus for the Russian port of Novorossiysk.

Data from Refinitiv Eikon show the Sparta II is currently in Novorossiysk, having arrived via Turkey's Dardanelles Strait.

The Russian defense ministry declined to comment.

**UNESCO backs bid to give Odesa World Heritage status** - UNESCO has backed a bid by Ukraine to put its port city of Odesa on the United Nations cultural agency's World Heritage List.

Following a meeting of Ukraine Culture Minister Oleksandr Tkachenko with UNESCO Director-General Audrey Azoulay at the agency's Paris headquarters, UNESCO said it had mobilized experts to support Ukraine so that the nomination can be examined urgently by World Heritage Committee member states.

UNESCO said it also wants to add Odesa on the List of World Heritage in Danger, as well as World Heritage sites Kyiv and Lviv, which are also under threat.

Black Sea port Odessa is just a few dozen kilometres from the frontline and has already been struck by artillery fire, UNESCO said. Last month, part of the large glass roof and windows of Odesa's Museum of Fine Arts, inaugurated in 1899, were destroyed.

UNESCO will fund repairs to the museum as well as to the Odesa Museum of Modern Art since the beginning of the war and finance the hiring of additional staff dedicated to the protection of collections. It will also help with the digitization of artworks and will provide protective equipment.

**Crimean evacuation routes being developed, Zelenskyy's adviser says** - Kyiv is developing evacuation routes for Ukrainians living in occupied Crimea, an adviser to President Zelensky has said.

Mykhailo Podoliak's comments come after Ukraine launched its counter-offensive to take Kherson back from Russia.

The Crimean peninsula is next to the southern region and was annexed by Moscow in 2014.

Mr Podoliak tweeted: "For Ukraine life of every citizen is an absolute priority.

"Therefore, we are developing evacuation routes for the residents of occupied Crimea who wish to leave during active deoccupation.

"For now, we ask everyone to stay away from military facilities and to check the bomb shelters."

## Putin

**Russian opposition politician handed 15-day jail term for equating Soviet and Nazi regimes** - Russian opposition politician Leonid Gozman has been handed a 15-day jail term on a charge of equating Soviet-era Russia with Nazi Germany.

The Tver district court in Moscow handed down the ruling earlier today, a day after police detained the politician.

The charge against Gozman stemmed from his October 2020 posts on Facebook in which he compared Soviet dictator Josef Stalin and his regime with that of Adolf Hitler and Nazi Germany.

The law criminalizing equating the Soviet and Nazi regimes was adopted in 2021.

The 72-year-old politician is an outspoken critic of President Vladimir Putin. He has openly protested Russia's ongoing unprovoked invasion of Ukraine.

**Navalny's team publishes names of 200 'warmongers' it says should be sanctioned** - The team of jailed Russian opposition politician Aleksei Navalny has published a list of Russian officials, journalists, and celebrities it says should be sanctioned immediately for pushing the Kremlin's narrative in its ongoing unprovoked war against.

The list of 200 persons was made at request of Britain's Foreign Office, Navalny's team, known as the International Anti-Corruption Foundation (MFBK), said.

The list includes Russian military officials, federal ministers, lawmakers, law enforcement officials, oligarchs, and Kremlin's propagandists who have yet to be slapped with the unprecedented economic and financial sanctions with which many senior leaders in the country, including President Vladimir Putin, have been targeted.

The MFBK emphasized six names on the list -- Finance Minister and Security Council member Anton Siluanov, presidential aide Vladimir Medinsky, Central Bank Chairwoman Elvira Nabiullina, businessman Iskandar Makhmudov, and television journalists Yekaterina Andreyeva and Tina Kandelaki.

Among others included on the list are actor Marat Basharov; singers Nikolai Baskov, Yulia Chicherina, and Filipp Kirkorov; philosopher Aleksandr Dugin; lawmaker Adam Delimkhanov; and businesswoman Svetlana Krivonogikh, who is believed to be a former partner of Putin.

**Putin ordered an increase in troops, it's not exactly what you think** - For months now, Russian commanders and recruiters have been conducting a quiet but sweeping campaign to find more men to replenish the ranks.

State TV newscasts have shown telephone numbers where volunteers can call to get information about joining what the Kremlin calls its "special military operation." Lawmakers have removed the upper age limit for men to serve under contract. Headhunter websites are littered with vacancies for "contract soldiers" with lucrative wages and benefits.

Officials reportedly want to create "volunteer battalions" in every one of Russia's 80-plus regions. Reports say private mercenary companies are offering convicted inmates reductions in sentences in exchange for signing up. Conscripts, who are barred from serving in combat, are being coerced into signing contracts to extend service.

One thing the Kremlin and the Defense Ministry have refused to do, however, is declare a general mobilization, a move that could smash Russian society's tacit acceptance of the war and the Kremlin's stated aims.

On August 25, though, President Vladimir Putin took a smaller -- but consequential -- step to pull Russians deeper into the war.

In a decree published on the Kremlin website, Putin ordered a substantial hike in the number of active-duty soldiers: an increase of 13 percent, or 137,000 troops, for a total of 1.15 million.

The order, which takes effect January 1, ushers in the first change in the overall size of the military in five years. No explanation accompanied it. Neither the Kremlin, nor Putin, nor the Defense Ministry uttered a word about it in public.

"The Kremlin's biggest concern in fighting the war in Ukraine right now is manpower," said Oscar Jonsson, a researcher at the Swedish Defense University in Stockholm.

Prior to the February 24 invasion, Western analysts put the overall size of Russia's armed forces at around 850,000 to 900,000, though officially the stated number was over 1 million. Prewar intelligence analyses said Russia had deployed around a total of 170,000 troops to the regions near Ukraine's borders in the run-up to the invasion.

In the first months after the invasion, Russia's invading forces failed spectacularly on several fronts, including an early effort to seize the capital, Kyiv, that was repulsed by fierce resistance from Ukrainian troops.

Russian troops seized the port city of Mariupol after a brutal siege that leveled much of the city.

That then led to Russian commanders taking an "operational pause," shifting men and materiel withdrawn from around Kyiv and other areas to the Donbas, and reorganizing command structures. The move has yielded slow, incremental gains.

More recently, the tempo of fighting in the Donbas has slowed, to a near stalemate, and attention has turned to Ukraine's south, where there are signs of a nascent Ukrainian counteroffensive targeting Russian troops in Kherson, and possibly Zaporizhzhya.

Meanwhile, problems with Russia's on-the-ground operations have come into sharper focus, with reports of mounting casualties, equipment failures, and soldiers refusing to fight -- or even units fighting one another.

A flood of powerful modern weaponry from the United States and European countries have helped Ukrainian troops batter Russian supply lines and command posts.

Putin's decree and the troop increase suggest that the Kremlin is buckling down for a long war in Ukraine, said Tor Bukkvol, a longtime Russia military expert at the Norwegian Defense Research Establishment.

"But could not this decree equally be seen as an attempt to try to make sure he will have enough troops without having to go to a mobilization?" Bukkvol said in an e-mail. "My impression so far is that he really dislikes the idea of officially forcing people to go to war. Pressuring them in various ways or tempting them with money, yes, but declaring to the entire population that there is no longer a choice, no."

Russia's training and recruitment infrastructure is likely unable to handle a general mobilization that would mean processing, equipping, and deploying tens of thousands of soldiers, Bukkvol said.

"A steady increase in personnel within existing units may be easier to handle," he said.

The number of troops specified in the increase -- 137,000 -- also matches up with the size of the two draft cycles that occur biannually under normal peacetime conditions, Jonsson said. Under Russian law, all men between the age of 18 and 27 are required to serve a year in the military, and there are two draft periods -- one in the spring, and one in the autumn -- that each typically conscripts around that number of men.

### 'Obviously Desperate'

Another explanation is that the Kremlin drafted this decree to serve as the legal framework for all the various "hodgepodge" recruitment efforts, said Nick Reynolds, a land-warfare research analysts at the Royal United Services Institute in London.

"To my mind, it merely facilitates their current attempts to attract recruits and bring them into military service by providing legal cover and additional budget for any expansion," Reynolds said.

"Russia is obviously desperate to bolster its military manpower and has continued to rely upon reenlisting veterans and reservists with some military experience to replenish their losses and leveraged those who have worked on the international private security contractor circuit," he said.

The Kremlin still considers mobilization a risky proposition, Reynolds said.

That's why the replenishment efforts have involved things like increased conscriptions in the Luhansk and Donetsk regions that have been largely under Russian control since 2014. And, Reynolds pointed out, there are reports that Russia's most notorious private mercenary company, the Wagner Group, has begun recruiting inmates from prisons.

"These initiatives seem to still be the preferred methods of expanding their manpower," he said. "But yes, recognizing that the war will not be over any time soon is also a factor, and things could change in future."

**Pope condemns "morally unjust" and "barbaric" war in Ukraine** - In a Vatican statement, Pope Francis today issued by far his strongest words yet on Russia's war in Ukraine, calling it "morally unjust, unacceptable, barbaric, senseless, repugnant and sacrilegious."

The Vatican's daily news bulletin called for everyone to pray to "rebuild peace" and the "defense of human life and the values connected to it, and not as political positions."

In the bulletin, the Pope also responded to some of the criticism he's faced due to his recent comments concerning the death of Darya Dugina, the daughter of Russian ultranationalist firebrand Alexander Dugin.

Dugina was killed after a bomb planted in a car she was driving went off in the outskirts of Moscow on Aug. 20.

Last week, the Pope said: "I think of that poor girl who was blown up by a bomb that was under her car seat in Moscow. The innocent pay for war, the innocent."

The Russian Federal Security Service (FSB) have blamed Ukrainian special services for the murder of Dugina; however, Ukraine has denied any involvement, calling the FSB claims fiction.

Ukraine's Ministry of Foreign Affairs reacted last week by expressing disappointment over the Pope's statement, saying it "unjustly" equates "the aggressor and the victim."

## China

**Beijing's debts come due - How a burst real-estate bubble threatens China's economy** - The Chinese real estate sector is teetering. The largest private Chinese developer has defaulted on its external bonds. Most developers are struggling to refinance their domestic bonds. Home prices have gone down for the last 11 months. New construction is down 45 percent. The most acute stress can be traced back to developers who raised large sums by preselling yet-to-be built apartments. Some, however, failed to set aside reserves to guarantee the completion of these units, and households that took out mortgages to buy these homes have threatened to stop paying.

China's real estate crisis poses financial risks, but it is ultimately a crisis of economic growth. Since the development and construction of new property is estimated to drive over a quarter of the country's current economic activity, it is not difficult to see how a temporary downturn in the property market could become a prolonged economic slump.

The country's state-backed financial system can still take large losses and thus avoid a financial meltdown. One state-backed institution can put money into another state institution, limiting the chance that losses on lending to a failed property firm will lead to the collapse of its creditors and trigger a cascade of defaults.

The Chinese government can ask state-backed developers to complete building projects abandoned by private developers, providing financial help through the state policy banks. Pervasive government intervention isn't the best way to run an economy over time, but the presence of institutions with deep pockets can prevent the destabilizing withdrawal of all financing to the property market.

China's banks, trusts, and other financial institutions have lent huge sums to China's property developers, to households looking to buy apartments, and to local governments building public infrastructure even as China's big policy banks financed construction projects around the world as part of its Belt and Road Initiative.

China's financial system could do both kinds of lending without borrowing large sums from the rest of the world thanks to the country's enormously high domestic savings rate, which has averaged about 45 percent of its GDP over the last 20 years. By contrast, most large economies save about 25 percent of their GDP; before the pandemic, the high-saving Asian economies other than China generally saved about 30 percent of their GDP. Only oil-exporting economies generate comparable levels of national savings to China, and they usually do so for only a brief period after a large and unexpected rise in the price of oil.

**Comment** – When I was in China with a partner in Beijing, it was always alarming to try and count empty 50-story and higher buildings when traveling from downtown Beijing to the international airport. I would stop counting when I reached 100 buildings. There were enormous vacancies plainly obvious when merely passing these suburbs.

When I stood on the verandah around the temple in Jingshan Park, alongside the Forbidden City in Beijing, I observed hundreds of construction cranes around Beijing, an indicator of the level of investment in any city.

**Tanzania, Kenya to miss out on China debt relief plan** - Tanzania could join Kenya on a list of countries that will be left out of the Chinese debt relief deal at the end of this year by virtue of their lower-middle-income status even as the East African nations grapple with a growing debt burden.

As previously reported, Chinese Foreign minister Wang Yi has announced that the world's second-largest economy would forgive 23 matured interest-free loans for 17 undisclosed African nations that are classified as least developed countries (LDC).

Last week Chinese authorities in Nairobi said Kenya, which is struggling with a debt of over Ksh8.6 trillion (\$72.26 billion), was left out of the deal as it is classified as lower-middle-income.

**Yangtze export volumes fall as drought, power cuts curb factory output** - Barge services along large parts of the Yangtze River, a critical Chinese transport artery, are severely disrupted due to the continuing drought in central and western parts of the country.

This is not a good sign for the Chinese export community, and with it foreign exchange earnings for China. River transportation provides the vital feeder chain in to coastal ports for loading on to outbound ocean container vessels.

Similarly empty containers are moved from offloaded steamships back upriver to waiting manufacturing centers and facilities.

The impact of disruptions in this sector are delayed as it takes some weeks for the impact to register.

## Impact

**Prices of school kits in 20 Russian regions surpass average monthly income per capita** - In 20 Russian regions, the prices of school kits, which include everything a child needs before starting the new school year, have surpassed the average monthly income per capita, iStories estimates.

According to the Russian Federal State Statistics Service, the basic "school kit" for a first-grade student costs 22,300 rubles (€364) on average in Russia for a boy and 26,800 rubles (€437) on average for a girl.

iStories estimates that in 20 Russian regions, the average monthly income per capita is lower than the price of a school kit calculated by the statistics service. In Tuva, it costs nearly 24,000 rubles (€391) to get a child ready for school, while the average monthly income per capita is just 15,500 rubles (€253). A similar situation is observed in Khakassia, Buryatia, Altai, North Caucasus republics, Vladimir and Ivanov regions, and Crimea.

In 14 more regions, including Mordovia, Penza, Kirov and Ulyanovsk regions, parents will have to spend over 90% of their per capita income to buy a first-grade school kit.

**How Ukraine is remaking War** - At the outset of Russia's invasion of Ukraine, most experts expected that Kyiv would fall quickly. Ukrainian forces were fighting against a military that was bigger and better armed. Russia's troops had more combat experience and funding. The question was not if Moscow's forces would depose the Ukrainian government but when regime change would happen.

Of course, Kyiv didn't fall. Instead, the Ukrainian military stopped Russia's assault on the capital and forced a retreat. Russia downsized its initial mission from wholesale conquest, and the war now mostly consists of grinding offensives and counteroffensives in Ukraine's east and south. The question is no longer how long Kyiv can hold out. It is whether the Ukrainian government can reclaim occupied land.

There are several reasons for Ukraine's surprising success. The Russian military's logistical incompetence, its puzzling inability to secure early air superiority, and low troop morale all played a part. So did Western support for Ukraine and the sheer tenacity of the country's soldiers.

But these explanations do not tell the full story. The Ukrainian military deserves recognition not just for its troops' motivation but also for its technical savvy. It has used cutting-edge technologies and adapted existing capabilities in creative new ways, on and off the kinetic battlefield.

It has deployed loitering munitions—missiles with the ability to stay on station until an operator locates a target—and modified commercial drones that can destroy Russian troops and equipment on the cheap. It has tapped commercial satellite data to track Russian troop movements in near real time.

And Kyiv has wisely used artificial intelligence, in conjunction with this satellite imagery, to create software that helps artillery locate, aim, and destroy targets in the most efficient and lethal manner possible.

Ukraine's success with these technologies doesn't come because the tools are fancier or more complex than the ones Russia has deployed. Quite the contrary. Many of the technologies that Ukraine has used are very affordable and simple to deploy. In fact, the convenience of these tools is precisely what makes them so powerful. Because its technology is easy to operate, Ukraine can draw on soldiers with little training and even ordinary civilians to win on the battlefield.

In doing so, the country has highlighted a bigger trend in warfare, one with implications that extend beyond this conflict: the democratization of military power. Ukraine's tools have expanded the warfighting beyond the physical battlefield—and beyond traditional military and state actors—to allow everyday citizens, private companies, and civilian institutions to help in the fight. It's a trend that will change how other countries conduct wars moving forward.

The conflict in Ukraine is an outlier. Most major modern wars have been between powerful states and weak states, between two weak states, or between states or nonstate actors. But unlike Iraq and the United States, both Russia and Ukraine are large countries with well-equipped militaries. As a result, the Ukrainian steppes have been transformed into a proving ground for next-generation technologies and military innovations.

Most significant, the conflict in Ukraine represents a sort of coming of age and maturing of many advanced technologies previously thought of as more niche, from drones to loitering munitions to commercial satellites.

That's because Ukraine has wielded them with visible success. The country, for instance, has upended conventional wisdom that drones will struggle to operate in the face of air defenses. It has proved that commercially owned or open-source data are, in fact, accessible and useful sources of battlefield intelligence.

Consider Ukraine's deployment of Turkish-made Bayraktar TB2 drones. The TB2 is an unlikely hero: cheap, hard to hide, and plodding. But these drones have been very successful at neutralizing even slower or stationary targets, such as towed artillery or armored vehicles.

In March, for instance, Ukraine used the weapons to attack a Russian military convoy north of Kyiv with vicious efficiency, helping force Russia's retreat. It deployed a TB2 to transmit the coordinates for and film the sinking of a Russian rescue tug.

Ukraine has also creatively turned the drone's weaknesses into assets; the loud, lumbering weapon served as the perfect distraction for the Moskva's air defenses while Ukraine reportedly took the ship out with two Neptune missiles.

The Russian-Ukrainian war is also the first conflict in which both sides are using artificial intelligence, particularly machine- and deep-learning algorithms. Russia has used artificial intelligence to carry out cyberattacks, to create deepfake videos that show Zelensky surrendering, and to promote other pro-Russian propaganda.

Ukraine, meanwhile, has been using facial recognition technology to identify Russian operatives and soldiers, combat misinformation, and—with the help of the U.S. military—generate models of Russian tactics and strategy that it can use

for analysis and strategic planning. (It is important, however, to note that neither Russia nor Ukraine has used true AI-enabled weapons, such as a weapon that could select and engage targets without human direction; no state has.)

The underlying basis for most of these technologies originates in commercial and academic sectors, allowing them to be rapidly developed and distributed. This has made it easier for Ukraine to field a wider array of military capabilities and find more operators. For as little as \$600, ordinary Ukrainians have used 3D printers and cheap fragmentation grenades to turn toy drones—the kinds typically used for taking dramatic aerial Instagram photos—into a platform for carrying out stealthy, short-range precision attacks.

The volunteer Ukrainian drone squad Aerorozvidka, for example, has used commercial drones to drop small bombs onto the sunroofs of Russian vehicles. In early June, a 15-year-old boy also used a toy drone to help the Ukrainian military direct strikes against an approaching Russian convoy.

Even this year's Eurovision song contest played a role in drone warfare: Ukraine won by a landslide, and the country's artist sold his trophy online to purchase three Ukrainian-produced PD2 drones.

As the Eurovision sale shows, Ukraine has used digital technologies to create and then tap into what Clint Watts, a fellow at the Foreign Policy Research Institute, called "a worldwide audience that wants to help." Volunteer hacker armies have employed their digital savvy to shut down Russian websites.

Ukraine's Digital Ministry has been able to secure access to private, civilian-owned satellite networks and real-time, high-resolution imagery, and it is pressuring private tech companies such as Apple, Google, Meta, and Twitter to restrict access and shut down operations in Russia. (Peter Singer, a professor at Arizona State University and a senior fellow at New America, called this campaign the geopolitical equivalent of "canceling.") Ukrainian citizens have digitally broadcast footage of the fighting, including over TikTok, to help their country's war planners.

The ultimate result of all these changes is a dramatic diffusion of warfare, one that makes the traditional means of measuring the balance of forces far less relevant. Most of the world was persuaded that Moscow would win its invasion because when they counted up the number of tanks and soldiers Russia and Ukraine had, the former clearly outpaced the latter. But in this new era of warfare, such figures are just one part of the calculus.

Many of the technologies that Ukraine has used are not entirely new to warfare. The TB2 drone, for example, was wielded effectively by Azerbaijan against Armenia throughout the Nagorno-Karabakh war in 2020. Loitering munitions have existed for years, if not in the sophisticated form that they do today.

The Israeli Defense Forces used multiple machine-learning-based algorithms to identify targets during its 2021 operation in Gaza. And although technology is important, it is not a silver bullet.

Ukraine can't win simply because its air force has lots of TB2 drones, loitering munitions, or a digitally savvy population. Emerging systems will not do away with tanks or render current supply chains, operational concepts, stockpiles, and force doctrines irrelevant.

But Ukraine's widespread and successful use of newer systems is placing emerging tech into the military mainstream.

There's a reason why global demand for the TB2 has suddenly skyrocketed. Countries such as Bangladesh and the United Arab Emirates have reportedly started the process of purchasing the drone after seeing its impact in Ukraine, making its manufacturer Turkey's top defense and aerospace exporter.

Even larger players are becoming fans of Ukrainian-used systems. France, for example, has suddenly fast-tracked an order of U.S.-made Switchblades—a loitering munition that Ukraine has deployed to kill Russian troops. And Ukraine has demonstrated to the world that these technologies can be effective when used in tandem with other capabilities or when deployed in roles that go beyond their initial intended uses.

Ukraine will continue to be a proving ground. As U.S. Army Major Brennan Deveraux argued, the continuous influx of loitering munitions into Ukraine will put them “to the ultimate test,” as the weapons are introduced for the first time at a wider scale.

Artificial intelligence is a much more immature technology; its use in the current conflict is still quite limited, with its most tantalizing applications—coordinating drone swarms or assisting human pilots in carrying out air operations—still on the drawing board.

But in 2017, Putin declared that the state leading in AI will become the “ruler of the world,” and since then, Russia has worked to advance its development of military AI-enabled capabilities. It is not impossible to imagine that Moscow could test more of them on the Ukrainian battlefield in the months or years to come.

Yet even if no further AI weapons are unfurled in Ukraine, the war has demonstrated how modern tools can disperse military power among millions of people. The democratized nature of this conflict is not without precedent.

In *On War*, the famed military theorist Carl von Clausewitz told a similar tale from the nineteenth century. According to Clausewitz, when Austria and Prussia prepared to fight against France in the French Revolutionary Wars, they assumed it would simply be a matter of their armies versus France’s. They did not think they would be fighting against the whole of France’s population. But the French people were enthusiastic participants in the wars, and so Austria and Prussia faced the “utmost peril,” Clausewitz wrote, as the “the full weight of the nation was thrown into the balance.”

The trap that Prussia and Austria fell into—simply measuring the balance of traditional forces—is the same one that contributed to the general belief that Russia would overtake Ukraine in a matter of days. But Russia hasn’t, in no small part because Ukraine has used general purpose technologies, developed by private sector firms, to expand both what it can do in war and who can do it. It has proved that a growing number of actors can acquire useful military technology.

It has shown that states can fight in new arenas, with the help of civilian institutions and ordinary individuals. It has given itself more opportunities to succeed on what would otherwise be a lopsided battlefield. And in Ukraine’s fight for its own democracy, it has managed to democratize warfighting itself, setting a new precedent for twenty-first century warfare. (Lauren Kahn is a Research Fellow at the Council on Foreign Relations).

**Moscow court again fines Twitch for failing to delete 'false' content about war in Ukraine** - A court in Moscow has fined the interactive livestreaming application Twitch for failing to delete content from its platform that the Russian government deems illegal as the Kremlin continues to ramp up pressure on social media networks.

The Magistrate Court of the Taganka district ruled on August 30 that Twitch must pay 3 million rubles (\$49,170) for failing to take down materials related to Russia's ongoing unprovoked invasion of Ukraine.

Two weeks earlier, the court ordered Twitch to pay a 2 million ruble (\$32,800) fine for its failure to remove materials related to the war in Ukraine.

President Vladimir Putin has accused social media platforms and other foreign-based tech companies of flouting the country's Internet laws. He has been pushing ways to force foreign firms to open offices in Russia and to store users' personal data locally.

## Containment

**Ukraine to get undersea minehunter drones as Black Sea battle continues** - Ukraine is to be equipped with undersea minehunter drones in order to help the country clear its coastline amid the ongoing war with Russia in the Black Sea.

The U.K. Ministry of Defence (MOD) made the announcement in a statement on Saturday and also noted that Ukrainian personnel would be trained in the use of the minehunters.

The news comes as the Russian invasion of Ukraine has entered its sixth month and Putin's forces have suffered a series of setbacks in the Black Sea, including losing control of the strategically important Snake Island in June.



"Six autonomous mine hunting vehicles will be sent to the country [Ukraine] to help detect Russian mines in the waters off its coast," the British defense ministry said on Saturday. "Three of these will be provided from U.K. stocks, with a further three to be purchased from industry."

Dozens of Ukrainian personnel will be trained to use the mine-hunting vehicles by the Royal Navy and US partners over the coming months.

The lightweight autonomous vehicle is designed for use in shallow coastal environments, operating effectively at depths of up to 100 meters to detect, locate and identify mines using an array of sensors so the Ukrainian Navy can destroy them.

**In Prague, EU defense chiefs agree to work toward military assistance mission for Ukraine** - EU defense ministers meeting in the Czech capital have agreed to begin work on the blueprints for an EU military assistance mission for Ukraine amid broader debate on added weapons and training to help Ukraine defend itself from the current Russian invasion, according to EU foreign policy chief Josep Borrell.

Borrell is chairing two days of talks in Prague among defense and foreign ministers from all 27 EU member states.

"There are many training initiatives on the way, but the needs are enormous, and we need to ensure the coherence of these efforts," Borrell said after the defense ministers met.

The ministers are examining roles their countries might play in training new Ukrainian recruits on EU territory, with reports suggesting tens of thousands of casualties so far on each side and fewer experienced officers free to train new recruits.

"I can say that all member states agree clearly on that and on launching the work necessary to define parameters for a EU military assistance mission for Ukraine," Borrell said.

He also said the EU defense chiefs had debated ways to boost weapons production as the West feeds Ukrainian military and civilian defense efforts in the war, now in its seventh month.

### **Black Hornets: The micro drones set to spy on Ukraine's battlefields**

– As mentioned in yesterday's Update, the UK and Norway recently announced a military aid package for Ukraine that includes hundreds of tiny drones called Black Hornets. This is what the can and cannot do.

Boris Johnson announced a military aid package funded by Britain Norway worth \$63 million, which includes 850 micro drones known as Black Hornets. The dragonfly-sized reconnaissance drones were developed in Norway.



includes devices

and

The Black Hornet system is designed to be worn by soldiers on foot. It includes a screen that flips out from a vest, and a separate pouch containing two drones and a joystick-like controller. The drones can fly for up to 25 minutes, with around the same time needed for recharging. The system weighs 1.3 kilograms, while the individual drones are just 33 grams. A vehicle-mounted version is also available.

The miniaturized flying cameras are designed to approach enemy positions without being seen or heard and transmit relatively low-resolution 640 x 480-pixel video to troops up to 2 kilometers away. The devices will allow Ukrainian fighters to “defend urban areas safely,” according to the U.K. government.

Black Hornets are also able to snap and transmit still photos of 1,600 x 1,200 pixels and are equipped with basic thermal imagery to help identify enemy positions at night. The latest versions do not carry any digital storage in the aircraft, removing the risk of operational intelligence falling into enemy hands. Reported prices for the current versions of the micro drones vary widely, but they are said to have cost \$94,000 per unit in 2013.

The harmless size of the drones means flights do not need to be coordinated with other air traffic, but the size comes with a significant disadvantage. A British soldier using an earlier, 16-gram version of the drone in Afghanistan in 2013 noted that “a good gust of wind will send the Black Hornet off.”

It's been claimed that the newer, weightier versions are able to withstand gusts of wind of up to 28 kilometers per hour but sustained strong winds would significantly reduce the usability of the drone.

**Recent US weapons shipments designed for Ukraine's southern counteroffensive, US official says** - The Biden administration has been helping the Ukrainian military prepare for its now ongoing counteroffensive for the last couple of months by fulfilling specific arms requests, an administration official says.

Ukraine had been asking the US for weapons specifically suited to their planned southern counter offensive in the months leading up to the launch this week, the official says.

The US fulfilled many of those requests — including additional ammunition, artillery and Javelins — over the course of several presidential drawdown assistance packages provided to Ukraine over the last two months, the official said.

Those packages have been public knowledge, but it was not known at the time that they were designed in part to supply the now ongoing counteroffensive.

Defense Secretary Lloyd Austin and top US General Mark Milley have routinely talked to their Ukrainian counterparts to determine what specific weapon needs depending on Ukraine’s battlefield goals.

## Sanctions

**Gazprom to further reduce gas deliveries to France's Engie** - Russian state-run natural gas giant Gazprom is further reducing gas deliveries to French gas and power group Engie, heightening concerns over energy supplies to Europe as the Nord Stream 1 pipeline shuts for maintenance.

Engie said it was informed by Gazprom on August 30 that the reduction will occur immediately. It did not provide any details about the nature of the dispute with Gazprom.

It said that Russian gas supplies had already been reduced substantially since Moscow launched its unprovoked war on Ukraine in late February.

"Very clearly Russia is using gas as a weapon of war and we must prepare for the worst case scenario of a complete interruption of supplies," France's Energy Transition Minister Agnes Pannier-Runacher told France's Inter radio.

Engie said it had taken action to protect itself.

**Germany, France signal opposition to blanket EU visa ban for Russians** - A proposal by European Union members to ban tourist visas to Russians over the war in Ukraine appears to be hitting a major hurdle as the bloc's ministers prepare to meet on August 30 in Prague.

France and Germany issued a joint position paper just ahead of the meeting, saying that limiting visas for Russians would be counterproductive as the EU tries to fight for the "hearts and minds" of those Russians who don't support Moscow's unprovoked aggression against Ukraine.

**Black Sea shippers hope newly found Ukraine sea lane will serve** - Merchant vessels have a new route to reach three ports in war-torn Ukraine, a move that could further boost shipments of food out of the Black Sea where disruptions earlier this year sent wheat prices to record highs, reports the American Journal of Transportation.

The new 320-nautical mile route connects Ukraine's ports of Odessa, Chornomorsk and Pivdennyi/Yuzhny with inspection areas inside Turkey's territorial waters, according to a press release from the Joint Coordination Centre. The group includes representatives from Russia, Ukraine, Turkey and the United Nations with a mission to ensure the safe transport of food and fertiliser.

**Ukrainian sailors allowed to leave country to help crew grain ships** - Merchant sailors will be allowed to leave Ukraine if they receive approval from their local military administrative body, the Ukrainian Prime Minister said on Saturday, a move that could ease the process of shipping grain from the country's ports.

Premier Denys Shmyhal said the decision had been approved by the cabinet on Saturday. The change would cover male crew members of sea and river vessels, as well as students who need to undertake practical training aboard ships, he added.

**First UN aid ship with Ukrainian grain reaches Ethiopia** - A UN ship carrying Ukrainian grain to Ethiopia, where millions are at risk of starvation, has reached the port of Djibouti.

The ship, the Brave Commander, is the first vessel to make its way from Ukraine since Russia launched its unprovoked invasion in late February, effectively blocking all of Ukraine's Black Sea ports, one of the world's most important supply routes for grains, cereals, and fertilizers.

"We have officially docked! The first WFP ship to carry Ukrainian grain since February has just arrived in Djibouti. Now, let's get this wheat offloaded and on to Ethiopia," the head of the UN's World Food Program, David Beasley, said in a tweet on August 30.

The Lebanese-flagged Brave Commander departed from the Ukrainian port of Yuzhne, east of Odesa, on August 16 with 23,000 tons of grain.

## GeoMilitary

**This picture is how China plans to beat America if WWII breaks out** - Various experts for over a decade have warned that China's missile forces have been built up dramatically to ensure that the U.S. Navy would be hit hard if war ever broke out. Indeed, you could even call China a missile superpower:

In the last couple of years, there has been a lot of attention on the build-up of China's People's Liberation Army Navy (PLAN). It has undergone a major modernization effort and is now the largest naval force in the world. Just last month, the PLAN launched its third aircraft carrier – the second to be entirely indigenously built. This will allow China to flex its muscles in the Indo-Pacific region and beyond.

Likewise, there has been great speculation regarding China's efforts to develop a capable fifth-generation fighter aircraft and a medium- to long-range stealth bomber. In very short order, Beijing has finally made the great leap forward to become a major world power.

Yet, largely overshadowed by the ships and aircraft are China's efforts to increase its missile capabilities. These efforts haven't been ignored, it is simply a matter of fact that Beijing appears to be focused on multiple projects in a way that would have seemed impossible just a decade ago.

As a RAND Corp. study noted, China's People's Liberation Army (PLA) has transformed itself from a larger but antiquated force into a capable, modern military. What should be worrisome for Washington is the rate at which China has closed the gap, and there is a very serious risk that Beijing could overtake the United States.

**Comment** – A source close to Chinese think tanks showed me a set of maps demarcating various islands in and around the South China Sea that have been reclaimed by China over the past few decades.

He indicated that "China cannot beat the American navy, so these are our navy."

He went on to name the missile types on these islands – Dong Feng and some others – that he advised were hypersonic and with ranges of up to 800 miles.

He mentioned that China doesn't require more than that as these missiles can reach Tokyo, Manila, Seoul and other western-friendly capitals.

He also mentioned that China has stationed a number of "fishing vessels" around the South China Sea that are equipped with hidden "rail guns." When called upon they will use these against the US fleet in what he called a "good bargain" – a \$1m Chinese investment against a \$2b American investment.

**Solomon Islands places moratorium on naval visits** - The U.S. received formal notification Monday that the Solomon Islands government has placed a moratorium on all naval visits while it updates its procedures, a U.S. State Department spokesperson told VOA.

The development comes six days after Solomon Island authorities denied a U.S. Coast Guard (USCG) cutter diplomatic clearance for refueling and provisions in the capital city of Honiara. A State Department spokesperson called the incident "regrettable."

John Kirby, the National Security Council strategic communication coordinator at the White House, at a press briefing Monday afternoon addressed China's activities in the Pacific.

"Clearly, we've seen the Chinese bully and coerce nations throughout the Indo-Pacific to do their bidding, and to serve what they believe their selfish national security interests are, rather than the broader interests of a free and open Indo-Pacific," he said. "It's regrettable. We call it out when we see it."

The USCG cutter Oliver Henry diverted to Papua New Guinea to refuel and resupply, according to Coast Guard officials. SeaWaves tweeted on August 23 that the British ship, HMS Spey, was also "denied entry" to Solomon Islands.

**Russia to launch military exercises with China, India amid heightened tensions** - When Russia last launched its Vostok war games in its Far East in 2018, an estimated 300,000 of its troops exercised with Chinese and Mongolian soldiers as the Kremlin sought to project an image of military superiority and showcase deepening ties with Beijing.

As Moscow now prepares for another round of the drills, only a fraction of that previous total -- 50,000 personnel -- will take part in a series of exercises as Russia looks to demonstrate that its military capabilities are still intact despite the growing cost and strain from its invasion of Ukraine.

The weeklong war games will kick off on September 1 and involve forces from China, India, Laos, Mongolia, Nicaragua, Algeria, Syria, as well as military personnel from Belarus, Kazakhstan, Kyrgyzstan, and Tajikistan.

The drills will involve various maneuvers by air, land, and sea, with Russia saying that its Pacific Fleet and China's navy would take part in "joint practical actions to defend maritime communications and areas of maritime economic activity" in the Sea of Japan.

Experts and defense analysts say they will be closely watched by regional powers such as Japan and South Korea, particularly as Russia and China continue to show their growing political and military ties and a joint attention on the Pacific.

"This is a good opportunity for China to work with Russia with their shared focus on Japan," Haiyun Ma, a professor at Frostburg State University in Maryland who studies Beijing's relations with Russia and Central and South Asian countries, told RFE/RL. "With tensions rising over the Taiwan Strait, Japan is really in [Beijing's] sights these days and they are hoping that Russia can be closer to them in the Pacific."

The participation of India has also added another layer of intrigue to the war games.