

## **Aggression of Russia**

### ***Two Years of War Facts and Figures (24.02.2022-24.02.2024)***

**The collapse of the USSR in 1991 significantly changed historical Russia's borders. In the Kremlin's corridors, discussions started about territorial claims to the Baltic countries, Ukraine, and Moldova, citing the fact that under the conditions of a single country called the USSR, some allied republics received historically Russian lands. Russia created and used conflicts in Moldova (Pridnestrovie), in Georgia (Abkhazia, South Ossetia), between Azerbaijan (Nagorno-Karabakh) and Armenia in order to prevent these countries from being independent from Russia. As a result, this stupid policy pushed countries away from Russia. Latvia, Lithuania and Estonia escaped from the influence of Russia while it was weak and conversations about ancestral Russian lands had not yet acquired specific geopolitical contours. Azerbaijan defeated Armenia in the 44-day war (September 27 - November 9, 2020) and resolved the Nagorno-Karabakh problem. Ukraine was less fortunate in this regard, but annexation, war, and intimidation by Russia cannot stop the integration of post-Soviet republics Ukraine, Moldova, and Georgia into Europe.**

In 1999, Hungary, Poland, and the Czech Republic joined NATO. In 2004, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia became its members. In 2009, Albania and Croatia joined NATO. In 2008, the idea of including Georgia and Ukraine in this military alliance emerged. In the same year, Russia annexed 3,900 km<sup>2</sup> of Georgian territory (Tskhinvali). Six years later, on February 20, 2014, Russia's impunity led to a new aggression: this time, they occupied Ukrainian territories: Crimea (an autonomous republic within Ukraine) and a significant part of the Donetsk and Luhansk regions, 125,000 km<sup>2</sup> in total. At that time, neither the West nor Ukraine could offer Russia anything except negotiations, which continued for 7 years between Ukraine, the US, the EU, and NATO on one side and Russia on the other side, and did not bring fruits. As a result, on February 24, 2022, Russia started a large-scale military operation against Ukraine. RF President Vladimir Putin called its goal "the protection of people who have been subjected to abuse and genocide by the Kyiv regime for eight years." Therefore, according to him, it is planned to perform "demilitarization and denazification of Ukraine".

The distance from Donetsk to Kyiv and Mykolaiv is more than, respectively, 700 and 600 km. Russian troops entered Ukrainian territory from not the Donetsk and

Luhansk regions but the territory of Russia and Belarus. Russian troops bombed Lviv and Zhytomyr for 30 days, and besieged and bombarded the outskirts of Kyiv, Chernihiv, and Sumy for 40 days. Mariupol, Kharkiv, Mykolaiv, and Odesa were besieged and bombarded. Mariupol, Berdiansk, Melitopol, Kherson, and dozens of settlements were captured. It was a cruel, undeclared attack accompanied by bloody crimes against the peaceful population of Ukraine. The number of killed and wounded is estimated in dozens of thousands. As of May 19, 2022, the total number of refugees to other countries reached about 6.4 million with over 7.7 million internally displaced persons. According to the UN report, as of the beginning of February 2024, about 6 million Ukrainians are still abroad. More than 2 million would like to return.

*About 7 million people have left Syria, where a civil war has been going on for 13 years. In Azerbaijan, as a result of Armenian aggression in 1992-1994, more than 1 million civilians became refugees. After the end of World War II, the most massive displacement of one nation was the forced resettlement of about 10 million Germans from the territories of Czechoslovakia (now the Czech Republic and Slovakia), Poland, Hungary, and Yugoslavia (now Serbia, Croatia, Slovenia, North Macedonia, Montenegro, and Bosnia and Herzegovina).*

From February 24, 2022, to February 10, 2024, about 11,000 civilians were killed in Ukraine, including about 600 children. About 20,000 civilians were injured, including 1,200 children. Bombings and shelling in Ukraine destroyed or damaged more than 2,000 educational institutions and over 200 hospitals. Thousands of kilometers of gas and water pipelines, power grids, roads, railways, as well as bridges, factories, apartments, and houses with a total value of over \$800 billion were destroyed.

According to Western intelligence estimates, Russia has deployed a military contingent of 150,000 troops and 40,000 pieces of equipment to Ukraine, supported by 1,000 aircraft. More than 20 Russian generals were involved in the invasion. At the beginning of the fighting in the direction of Kyiv, a Chechen regiment emerged, which was then moved to the Mariupol area. Later, several thousand PMC Wagner fighters were moved to Eastern Ukraine.

The Wagner Group is an unofficial armed formation, Russia's private military company (PMC Wagner). Since 2014, the Group has operated in Ukraine, then in Syria and Libya. As of June 16, 2022, Russia involved about 330,000 people in the large-scale armed aggression against Ukraine. By May 19, 2023, thousands of mercenaries from Central Asia were involved in the aggression; they were offered a good salary and Russian citizenship. Herewith, people up to 60 were called volunteer fighters. By the end of 2023, the number of volunteers had reached 486,000. If a volunteer dies, his family is paid RUB 5 million (about 50,000 euros). Upon signing a contract, volunteers receive RUB 195,000 (1,950 euros).

Salary: RUB 207,400 (2,070 euros); RUB 8,000 (80 euros) for 1 day of participation in military actions; RUB 50,000 (500 euros) for 1 km of advancement as stormtroopers; RUB 50,000 (50 euros) for the destruction of military equipment. This is the calculation of death.

Military operations were and continue to be led by:

**Army General Sergey Shoigu**, *Minister of Defense of the Russian Federation since November 6, 2012. After graduating from the Krasnoyarsk Polytechnic Institute (studied at the military department) in 1977, he received the rank of Lieutenant of the Reserve.*

*From 1991 to 1994, he was the Chairman of the new State Committee of the Russian Federation for Civil Defense, Emergencies, and the Elimination of Consequences of Natural Disasters (EMERCOM). In 1993, he received the rank of Major General. From 1994 to 2012, he was the Minister of EMERCOM of Russia. In 2003, he received the rank of General of the Army. He participated in the fight against terrorism in the North Caucasus, the Crimean operation, and the military operation in Syria. He did not serve in the army.*

**Army General Valery Gerasimov**. *Chief of the General Staff of the RF Armed Forces - First Deputy Minister of Defense of the Russian Federation since November 9, 2012. Participant in the Chechen War and the military operation in Syria; since January 11, 2023, he has been the commander of the Joint Grouping of Russian Troops in Ukraine.*

**Colonel General Sergey Rudskoy**. *First Deputy Chief of the General Staff, Chief of the Main Operations Directorate of the RF Armed Forces. Participant in the Chechen War and military operation in Syria.*

*The son of Major General Fedor Rudskoy, who has been the head of the Minsk Suvorov Military School for 13 years from 1969 to 1982.*

*Sergey Rudskoy was born in 1960 in Mykolaiv, Ukraine. In 1977, he graduated from his 'father's school.' In 1981, he graduated from the Moscow Higher Combined Arms Command School; in 1995-1996, he was the commander of the 255th Motorized Rifle Regiment, Lieutenant Colonel.*

*Then he served as the First Deputy Head of the Main Operations Directorate of the RF Armed Forces. This period of his biography, 1996-2012, is classified. There is no information on him from 1996 to 2012. A colonel and commander of a regiment in 1996, he became the First Deputy Head of the Main Operations Directorate of the RF Armed Forces in 2012.*

*On November 6, 2012, V. Putin dismissed Defense Minister Serdyukov. Shoigu became Minister of Defense, and Gerasimov – his first deputy and chief of the General Staff. Rudskoy led the fight against 'Serdyukovism.' For these services, on*

*December 13, 2012, he was awarded the military rank of Lieutenant General. In 2015, he became the Head of the Main Operations Directorate of the RF Armed Forces. In 2017, he received the rank of Lieutenant General, and in 2020, he was already a hero of Russia. His rise is directly related to Shoigu's name.*

**Army General Sergey Surovikin.** *Commander-in-Chief of the RF Aerospace Forces. Participant in the Chechen War and the military operation in Syria. Since June 2022, he has been the Commander of the Southern Grouping of Russian Troops; since October 8, 2022, he has been the Commander of the Joint Grouping of Russian Troops in Ukraine; since January 11, 2023, he has been the Deputy Commander of the Joint Grouping of Russian Troops in Ukraine.*

*Since June 24, 2023, he has been in the shadows since he supported the PMC Wagner uprising. In August 2023, he was dismissed from the position of Commander-in-Chief of the Aerospace Forces of the Russian Federation.*

**Army General Aleksandr Dvornikov.** *Commander of the Southern Military District. From September 2015 to June 2016, he was the commander of the RF Armed Forces Group in Syria. Participant in the Chechen War and the military operation in Syria. He fulfilled tasks, regardless of the death of his soldiers and the death of civilians, for which he was nicknamed the 'butcher of Syria'. He constantly uses foul language when communicating with subordinates. In case of operation failure, he always looks for scapegoats among his subordinates. In April 2022, he was responsible for military operations during the Russian invasion of Ukraine.*

*On April 8, the Kramatorsk railway station was hit by rocket fire, which killed 52 people, including five children. Western sources reported that the order to strike the station with rockets was personally given by Aleksandr Dvornikov.*

**Colonel General Gennady Zhidko.** *Deputy Minister of Defense of the Russian Federation, Chief of the Main Military-Political Directorate of the RF Armed Forces. A participant in the military operation in Syria. He commanded a grouping of troops in the Sloviansk direction (Izyum). According to some reports, since May 26, 2023, Colonel General Gennady Zhidko has been commanding Russian troops in Ukraine.*

**Colonel General Andrey Serdyukov.** *Commander of the Russian Airborne Forces. A participant in the forced march to Pristina (Bosnia and Herzegovina), the Chechen War, the military operation in Ukraine and Syria, and the operation in Kazakhstan.*

**Colonel General Mikhail Mizintsev.** *Head of the National Defense Management Center of the Russian Federation. A participant in the military operation in Syria. Former Putin's favorite. He was responsible for the siege of Mariupol, where, according to Ukrainian data, more than 22,000 people were killed. In September*

2022, he was appointed Deputy Minister of Defense for Logistics, and in April 2023, he was dismissed.

At the beginning of the Russian aggression, by the Decree of President Vladimir Putin, 25 RF military servants were awarded the title of Hero of Russia 'for the liberation of Ukraine from the Nazis.' As of December 31, 2023, about 300 participants in Russia's invasion of Ukraine have received this title. The total number of Heroes of Russia is 1,409. The first award took place on April 11, 1992. By the decree of V. Putin, 774 people were awarded.

As of the 730th day (February 24, 2024) of the war against Ukraine, the Armed Forces of the Russian Federation (RF Armed Forces) have not achieved significant progress. According to independent military experts, the RF Armed Forces have lost their advantage in the air. The Russian Air Force loses aircraft every day, including the latest fighters and helicopters. Therefore, they started using missiles X-55, X-555, R-500 (Iskander), Kalibr, Onyx, and Dagger.

*X-55 – cruise missile. Range – up to 2,500 km, flight speed – 800 km/h, warhead - 410 kg, accuracy – up to 100 m.*

*X-555 – cruise missile. Range – up to 2,000 km, flight speed – 800 km/h, warhead – 410 kg, accuracy – up to 20 m.*

*X-22 - cruise missile. Range – up to 600 km, flight speed – 6,000 km/h, warhead – 410 kg, accuracy – more than 30 m.*

*R-500 – cruise missile. Range – up to 500 km, flight speed – 7,560 km/h, warhead – 480 kg, accuracy – up to 30 m.*

*Kalibr – sea-launched cruise missile. Range – up to 2,600 km, flight speed – up to 2500 km/h, warhead – 400 kg, accuracy – up to 10 m.*

*Onyx - supersonic anti-ship missile (Bastion coastal missile system). Range – up to 600 km, flight speed – up to 3,182 km/h, warhead – 300 kg, accuracy – up to 20 m.*

*Dagger - hypersonic air-launched missile (MiG-31). Range – up to 2,000 km, flight speed – up to 14,688 km/h, warhead – 500 kg, accuracy – up to 1 m.*

*X-101 (X-102 with a thermonuclear warhead) - cruise air-to-surface missile manufactured according to the stealth technology. Range – up to 5,500 km, flight speed – up to 1,000 km/h, warhead – 400 kg, accuracy – up to 10 m. It was created to replace Soviet X-55 missiles.*

*The cost of the X-22 missile is about \$0.5 million. The cost of R-500, X-55, X-555, and Kalibr missiles is about \$1 million. The cost of Onyx and X-101 missiles is about \$3 million. The cost of Dagger missiles is more than \$10 million.*

According to Russian norms, the service life of missiles is initially set at 20-25 years, followed by a control check and a ten-year extension. Missiles require continuous technical maintenance. In fact, the service life is up to 20 years, but over time, the weapon specifications change. Western missiles are completely different. For example, Israeli missiles have a storage period of 7 years under field conditions and do not require technical maintenance. In November 2015, in Syria, two Tu-160s used up 16 X-101 missiles. According to foreign media reports, one or two missiles of three salvos did not reach their targets and fell on the territory of Iran. There were only a few years of service life left for missiles developed and manufactured in the USSR. According to American intelligence estimates, the level of Russian precision attack missiles' deviation from the target changes from day to day. This depends on the missile type. The deviation from the target is more than 50 percent; about 60 percent of Russian precision attack missiles do not reach the target. Thus, e.g., there was a case when Russian missiles hit the Retroville shopping center in Kyiv. The shopping center was located 20 km from Bucha, where fierce battles were waged. Fortunately, the shopping center was closed, and civilian casualties were avoided. In fact, the missile deviated from the target.

From the start of the military operation, the deadliest blow was a Tochka-U missile strike on the Kramatorsk railway station on April 8, 2022. As a result, 61 people were killed and 110 were injured.

Civilian objects in Kyiv and other large cities of Ukraine were repeatedly subjected to attacks. The Russian side explained that military depots were supposedly located there, but according to experts, Russian missiles deviated from the target.

In October 2022, 83 missiles were fired at Ukraine, 43 of which were neutralized by the Ukrainian air defense system. Russian troops also used 24 UAVs, 13 of which were shot down. Russian forces began to strike at energy facilities in western regions of Ukraine. From October 10 to 18, 408 Ukrainian infrastructure objects were attacked and destroyed. As a result of the attacks, one-third of Ukraine's power plants were destroyed.

Throughout November-December 2022, Russian military forces carried out missile strikes on energy facilities in Kyiv and western regions of Ukraine again. About 350 missiles were fired and 150 UAVs were launched. 60-70% of them were shot down by Ukrainian air defense forces.

Russia's missile strikes were aimed at destroying the infrastructure of large cities in Ukraine. On the one hand, Russia hoped to undermine the morale and psychological state of millions of Ukrainians and break their spirit of resistance. It is no coincidence that the vice-speaker of the State Duma, Boris Chernyshov, called these bombings 'retaliatory' strikes and an expression of their 'holy hatred'.

"They will sit there without gas, without light, without everything!.. They must freeze and rot there," he said on a Russian TV channel.

On December 8, 2022, during the ceremony of awarding the Golden Star medals to Russian heroes, Vladimir Putin said: "There is a lot of noise now about our strikes on the energy infrastructure of a neighboring country. Yes, we are doing this. But who started it? Who struck the Crimean Bridge, blew up the power lines from the Kursk nuclear power plant, and cut the water supply to Donetsk? The refusal to supply water to a million-plus city is an act of genocide. No one anywhere has said a word about this. But as soon as we start to make a motion, do something in response - noise, uproar, crackling throughout the Universe".

Missile strikes first disabled 110 kV (power transmission between cities) and 330 kV (long-distance power transmission) substations. Then, the highest voltage – 750 kV substations, responsible for the interregional power transmission, were disabled by the strikes.

As a result of the Russian missile attacks, more than 50% of Ukraine's energy infrastructure objects were damaged. To restore them, Ukraine needed about 1,000 powerful transformers and generators.

Fourteen countries have agreed to help Ukraine with equipment supplies. The EU provided 200 medium-power transformers and a large autotransformer from Lithuania, a medium-power autotransformer from Latvia, and 40 heavy generators from the EU reserve in Romania. Aid was also forwarded by Azerbaijan, Germany, Georgia, Denmark, Israel, Spain, Italy, etc. From March 2022 to the end of January 2024, Ukraine received energy equipment with a total weight of more than 1,585 tons from only Azerbaijan, including 51 power transformers and 111 transformer substations. The world community helps, Russia destroys, virtually daily striking the Ukrainian cities, especially Kyiv. Against the background of these strikes on the Ukrainian infrastructure, Kyiv requested air defense assets and heavy weapons from the United States, Great Britain, and the EU. The Armed Forces of Ukraine, in turn, also started hunting for Russian strategic bombers. Thus, on December 5, 2022, there were two explosions at the two airfields of the Russian Aerospace Forces' strategic aviation base in Engels and Ryazan. According to some reports, the Armed Forces of Ukraine struck with modified Tu-143 Strizh jet unmanned scouts. It should be noted that the Dyagilevo airbase in the Ryazan region is home to strategic bombers and tanker aircraft. The Engels airbase in the Saratov region is home to strategic bombers. On December 6, 2022, a strike was made at the Kursk-East airfield, which is the place of joint deployment of military and civilian aircraft. Since February 24, it has not accepted civilian planes, as do ten other airports in southern and central Russia. Also, in August, there was a powerful explosion at the Saki airfield in Crimea as a result of an attack by UAVs on the Black Sea Fleet facilities in Sevastopol. In October, a strike was made at the

Shaikovka airfield in the Kaluga region. These objects were located at a distance of more than 500 km from the combat zone. What does this mean?

Firstly, Ukrainian military forces struck at airfields where aircraft carrying nuclear weapons are based. And these airports should have the highest level of security.

Secondly, the strike was made at supersonic intercontinental strategic bombers Tu-95MS and Tu-160. They are used to fire cruise missiles X-22 and X-55 at infrastructure and civilian objects on the territory of Ukraine from the airspace of Russia. On top of that, the Tu-95MS is no longer manufactured, and the construction of one Tu-160 takes several years. It is impossible to compensate for the loss of these bombers.

Thirdly, attacks on the deep rear objects demonstrated the capabilities of the Armed Forces of Ukraine to hit targets in the deep rear at a great distance from the line of contact.

On February 28, 2023, Ukraine arranged a large-scale drone attack on objects deep in the territory of the Russian Federation again, and this action confirmed that Ukraine worked actively to develop deep-fire weapons. Drones launched by Ukraine were detected in the vicinity of St. Petersburg, the Moscow region, Belgorod, 60 km from Krasnodar (the Republic of Adygea), Tuapse (Krasnodar Territory), and the Bryansk region. Apparently, the launches were of a warning nature, and combat missions were not set.

Late in the evening of March 20, 2023, in the area of Dzhankoy in the north of Crimea, air defense systems were activated against air targets. The Main Intelligence Directorate of the Ministry of Defense of Ukraine stated that as a result of the explosions in Dzhankoy, Russian Kalibr NK cruise missiles (for surface ships) were destroyed during their transportation by rail. Dzhankoy is a major railway hub. On December 23, 2019, the railway route connecting Crimea with mainland Russia through the Crimean Bridge was resumed. This railway was used to supply weapons and ammunition to Russian troops dislocated in the occupied territories of the Kherson and Zaporizhzhia regions, as well as Crimea. Earlier, there were explosions at an ammunition depot in Dzhankoy, on the territory of the Black Sea Fleet headquarters in Sevastopol, and a military airfield in Saki.

In turn, Russian forces continued striking at Ukrainian infrastructure with missiles of various types and Iranian Shahed UAVs.

After Ukraine received new air defense systems, including the Patriot capable of shooting down both ballistic missiles, the percentage of destruction of Russian cruise missiles and UAVs is, respectively, 75-85 and 90-95%.

By the spring of 2023, Ukraine became the country with the strongest air defense and securely closed its airspace to Russian, Korean, and Iranian missiles and drones.

On May 13, 2022, former Commander-in-Chief of the Armed Forces of Ukraine, General Zaluzhny reported that Russia had started using more strategic cruise missiles. According to him, the Russians daily fire up to 14 Kh-22 supersonic anti-ship missiles. Russia has changed tactics and begun to use less aviation, which incurs large losses. Developed in the 1960s, these missiles are old and inaccurate. In technical terms, preparing a missile for use is labor-intensive and extremely dangerous due to the use of highly toxic rocket fuel components. It is not accidental that the equipment of rocket technicians includes a thick rubber protective suit and an insulating gas mask. Strict precautions are taken during refueling - an emergency team is on standby.

If earlier the Russian Armed Forces launched 50 missiles against the Armed Forces of Ukraine, now their number reduced to 14. According to the USA calculations, the Russian military should have run out of missiles at the figure of 1,200, but by May 13, 2022, the number of missiles exceeded 2,100. Many experts thought that Russia would soon face a missile famine.

According to the data of the Minister of Defense of Ukraine Reznikov, as of February 24, 2022, Russia had 900 Iskander ballistic missiles. Of these, as of January 2023, only 144 remained, and 56 were manufactured in 2022.

As of February 24, 2022, Russia had 500 sea-launched Kalibr cruise missiles. Then another 150 were manufactured. As of the beginning of January 2023, there were 59 left.

As of the beginning of January 2023, there were 444 units of Kh-101 and Kh-555 air-launched cruise missiles, and in 2022, another 290 were manufactured. As of the beginning of January 2023, there were 118 units left.

There were 433 units of supersonic (Kh-22 and Kh-32) and hypersonic (Dagger) anti-ship cruise missiles, and 215 remained.

In 2022, Russia used 2,110 tactical missiles (ZM-55, Kh-29/31/35/58/59, S-300). 450 units were manufactured, and 7,310 remained.

By the end of 2023, the Russian army had used more than 4,000 operational tactical missiles. This is more than during the 12 years of the Afghan war. This is an incredible figure. There is information that Russia is buying missiles from North Korea and Iran. This means that Russia, North Korea, and Iran will soon face a missile famine.

On December 15, 2022, in an interview with the British The Economist journal, former Commander-in-Chief of the Armed Forces of Ukraine, General Zaluzhny

said that Ukraine "needs additional supplies of anti-aircraft and anti-missile weapons." He also said that "24 of a hundred Russian missiles reach the target, but the damage they cause needs to be eliminated for a couple of years."

Now let us say a few words about military cooperation between Moscow and Pyongyang. Since the 1960s, the USSR has been directly transferring missiles and appropriate documents to North Korea through Egypt and Syria. Since the 1990s, Russia has continued to transfer missile technology to North Korea. The range of Korean missiles is up to 4,000 km. As for Iran, since the late 1980s, the process of creating missile production has started there with the help of North Korea. The range of Iranian missiles is up to 2,000 km.

*It is known that the missile programs of the DPRK, Pakistan, and Iran used R-17 (Soviet liquid single-stage ballistic missile) technologies to create their medium-range missiles.*

Despite supplies from Iran and North Korea, Russia's reserves are already exhausted. Given the intensity of the strikes, this is quite logical. For example, on May 28, 2023, Russia carried out the most massive drone attack on Kiev. 40 drones were targeted at the capital. The Ukrainian air defense shot them down, but the wreckage of some devices fell on residential buildings, as a result of which several people were injured, and one killed.

Missile and drone attacks on Ukrainian cities never stopped and by the end of 2023, they became continuous and massive. Thus, on the night of November 25, 2023, Russian troops launched a massive Shahed-131/136 drone strike on Kyiv and the Kyiv region. Of 75 drones, the Ukrainian air defense destroyed 74, and one did not reach the target. The wreckage of the drones fell on residential buildings and houses.

On the morning of December 8, 2023, Russian troops launched a massive missile strike on Kyiv from the Tu-95MS strategic aviation aircraft. The Ukrainian air defense destroyed all the missiles even before they reached the city. After a long pause, which lasted 79 days, 10 missile-carrying bombers launched Kh-101/555/55 cruise missiles from Engels in the Saratov region. Each of these bombers may carry up to 6 such missiles.

On the night of December 13, 2023, Russian troops launched a missile strike on Kyiv. 10 S-400 missiles and Iskander cruise missiles were launched. All of them were shot down.

On the night of December 15, 2023, Russian troops launched a massive drone strike on the territory of Ukraine with the Shahed drones. All 30 launched drones were destroyed by the Ukrainian air defense.

On the night of December 16, 2023, Russian troops launched a massive drone strike on the territory of Ukraine with Shahed-136/131 drones. Of 31 drones, the Ukrainian air defense destroyed 30, and one did not reach the target.

*According to the legend, Kyiv, now a three-million city, was founded in the early 5th century. Kiy lived on the hills near the Dnieper River together with his younger brothers Shchek and Khoryv and sister Lybid. The city was named Kyiv in honor of Kiy. The chronicles traced the Polyan tribes from Kiy and his brothers. The exact city's foundation date is unknown. According to some assumptions, the first Slavic settlement on the territory of the present-day city existed as far back as the 6th century. The first historian of the Grand Duchy of Lithuania, the Polish historian Maciej Strykowski reproduced this legend, dating the foundation of Kiev to the year 430.*

*There are other strong versions deserving attention. E.g., according to the hypothesis of scholar George Vernadsky (1887-1973), Kyiv was founded by the Khazars no earlier than 830. The three brothers were Khazars. The ruling clan of the Khazar Khaganate (650-969) was of Turkic origin. The name Kiy comes from the Turkic 'kiyi' (meaning 'river bank'). Hungarian (Magyar) leader Lybid Lebedy in the 830s was approved by the Khazar Kagan and married a noble Khazar woman.*

*In 882, Kiev became the capital of Rus, and was part of Lithuania, Poland, and the Russian Empire. Since 1918, it has been the capital of the Ukrainian state.*

*В 882 году Киев стал столицей Руси, входил в состав Литвы, Польши и Российской империи. С 1918 года столица Украинского государства.*

The drone war chronicle is impressive. The Ukrainian side gave as good as it got. On the night of December 16, Ukrainian forces launched a massive strike on the territory of Crimea. All 32 drones were destroyed by Russian air defense.

On the night of December 17, Ukrainian forces launched a massive strike on the territory of the Volgograd, Lipetsk, and Rostov regions of the Russian Federation. According to the Ministry of Defense of the Russian Federation, all 35 long-range drones were destroyed by Russian air defense. However, according to the Armed Forces of Ukraine, the military airfield in Morozovsk, Rostov region, was damaged. At least one Su-34 bomber was damaged.

One cannot say that in the years before the start of the Russian invasion, Ukraine sat back and did nothing. In September 2020, e.g., the United Efforts – 2020 military exercises were conducted. At that time, British and Ukrainian troops landed in the Mykolaiv region. The British Mirror publication reported that the landing in Ukraine was the largest British airborne operation over the last 20 years since it involved more than 450 British troops led by Brigadier General James Martin.

At the end of September 2021, the United Efforts - 2021 military exercises were conducted. According to the scenario, after the announcement of mobilization and bringing its troops to the highest level of combat readiness, the Ukrainian leadership addressed NATO for help. A multinational troop group was formed to counter Russian-Belarusian aggression.

Also, a training of air defense missile forces was held at the Yagorlyk Polygon (Kherson region). The maneuver practiced the repulse of a simultaneous air attack by enemy aircraft and cruise missiles. Soviet UAVs Tu-141 and Tu-143, as well as Su-25 strike aircraft and Su-27 and MiG-29 fighters, were used as 'targets.'

The Ukrainians successfully learned to shoot down Kalibr, Iskander, and other missiles. Ukrainian forces shot down Russian missiles with Soviet Buk-M1 and Iгла air defense systems, American Stinger, English Martlet and Starstreak, and fighters (a testament to the pilot skills).

In short, the Armed Forces of Ukraine (AFU) were underestimated by Russia. No one expected that the Ukrainian army would offer a stiff resistance. The Russian command believed that the Ukrainian army would lay down its arms. Therefore, large concentrations of Ukrainian troops were not attacked during the invasion. As a result, they regrouped and entered the battle in an orderly manner.

Starting on February 24, 2022, the 'special operation' (which had five tactical directions) of the Russian Armed Forces was bogged down in almost all directions. No one large unit of Ukrainian troops was surrounded and destroyed in any direction.

On February 2, in his article (Predictions of Bloodthirsty Political Scientists) for the Independent Newspaper, Reserve Colonel Mikhail Khodaryonok noted: "In general, there will be no Ukrainian blitzkrieg. Statements by some experts like 'The Russian army will defeat most of the AFU units within 30-40 minutes...' do not have strong grounds. And finally, the most important thing. The armed conflict with Ukraine does not currently meet Russia's national interests. Therefore, some over-excited Russian experts would be better off forgetting their braggadocio-laden fantasies and never remembering them again to avoid further loss of image."

During the Second Karabakh War (September 27 - November 9, 2020), Khodaryonok underestimated the capabilities of the Azerbaijani army. But then, admitting his mistake, he noted: "... I underestimated the combat and operational capabilities of the Azerbaijani Armed Forces. Even on the tenth day of the fighting, it seemed to me that the war would soon end, and the parties would stop at the demarcation line. I was frankly mistaken then."

Deputy Chairman of the State Duma Committee for Civil Society Development, Colonel General Vladimir Shamanov noted that in Ukraine, the 'school,' fundament of the army has been preserved since the USSR. "Therefore, those who

expected us to be greeted with flowers in Ukraine... This is one of the main mistakes we felt very acutely in the first five days of the special operation," he stressed and continued that then "this component was overcome," however, the Russian Federation "still has a lot to do." Shamanov also spoke about the difficult-to-predict future of Ukraine. The General suggested that its demilitarization would take from five to ten years. Another question is whether Russia will endure these five to ten years. Will it withstand a protracted war? E.g., Uralvagonzavod - a T-90 tank production enterprise has suspended work due to the lack of imported parts. Replacing them with Russian analogs will take a lot of time. Such messages come to the Kremlin from everywhere. We are not yet talking about morally and technically outdated weapons Russia uses. Such weapons were used by Armenia. The latest weapons – modern Western anti-tank guided missiles turned out to be very effective against both Russian technology and the Armenian army, which was defeated in just a month and a half during the Second Karabakh War. Today, UAVs of various types allow artillery, rocket artillery, and missile systems to destroy moving and concealed combat vehicles with high accuracy. The weak system of the Russian air defense, especially that of small and medium range, as well as the lack of high-precision aviation ammunition, make the Russian army vulnerable. All these factors plus the resilience and fighting spirit of the Ukrainian people played a decisive role in the failures of the Russian offensive.

Ukrainian troops held the defense at the Azovstal Metallurgical Plant in Mariupol, where about 2,000 servicemen and civilians were located, for 86 days. Since February 25, the city has been under siege, and residential areas have been subjected to artillery shelling and bombardment. The city was heavily damaged. Since the beginning of March 2022, there has been a humanitarian catastrophe in the city due to a lack of medicines, food, electricity, and water. The Russian army bombed and attempted to storm the Plant, the territory of which was equal to 11 km<sup>2</sup>, daily. According to the Head of the Donetsk Regional Military Administration, during the blockade of Mariupol, up to 20-22 thousand people died. On April 21, V. Putin stated that storming the Plant's industrial zone by Russian troops was 'inexpedient' and ordered to block the territory with more than 2,000 fighters inside. This story is similar to the defense of the Brest Fortress (June 22 - July 23, 1941). The Germans could not take the fortress, went further, and on July 11, 1941, started the assault on Kyiv, and Brest continued to resist until July 23, 1941. And now, the RF Armed Forces took Mariupol, but the Ukrainian military did not surrender and continued to defend the industrial zone. Azovstal held the line for 86 days, until May 20.

The German occupation of Mariupol lasted almost 2 years (October 8, 1941 - September 10, 1943). The Ilyich Plant (by 70%), Azovstal (by 80%), the port (by 80%), and about 85% of housing were destroyed. During the 70-day blockade of Mariupol by Russian troops (February 24, 2022 - May 5, 2022), within 2 months,

the Ilyich Plant (by 20%), Azovstal (by 100%), and the port (by 20%) were destroyed. About 90% of housing was damaged or destroyed. The Donetsk Academic Regional Drama Theater in Mariupol was also completely destroyed as a result of an air strike.

## **Losses of the Parties**

### **Data by the General Staff of the Armed Forces of Ukraine as of February 24, 2024**

#### ***Losses of the Russian Armed Forces:***

Destroyed:

aircraft	- 332
helicopters	- 325
tanks	- 6,433
armored vehicles	- 11,043
artillery systems	- 9,566
air defense systems	- 671
reactive multiple launcher vehicles	- 984
cruise missiles	- 1,882
UAVs	- 7,371
Cars and special equipment	- 14,185
Ships (boats)	- 25
Submarines	- 1
ATACMS/TACMS launcher units	- 4

Personnel losses are more than 398,140 according to Ukrainian data. According to foreign sources, more than 500 thousand, of which 180,000 were killed.

#### ***The War Prisoner Issue***

The UN Secretary-General Antonio Guterres has repeatedly called for the exchange of war prisoners. On May 23, 2022, Ukrainian President Volodymyr Zelensky announced that Ukraine was ready to exchange prisoners ‘even now,’ and the process should be activated. There is no data on the exact number of war prisoners. According to media reports, by the end of November 2023, the number of war prisoners was about 7,000 from both sides.

The first exchange of war prisoners took place on March 21, 2022. Then Moscow exchanged the Mayor of Melitopol for nine Russians. The second exchange of war prisoners took place on April 1. According to the Ukrainian side statement, the exchange of war prisoners took place in the Zaporizhzhya region. The exchange formula was 86 for 86. According to Deputy Prime Minister of Ukraine Iryna Vereshchuk, Ukrainian war prisoners included 15 servicewomen.

On September 21, 2022, with the mediation of Turkey, another exchange of war prisoners took place, where 49 servicemen and the Ukrainian opposition politician Viktor Medvedchuk were handed over to Russia, and 215 prisoners from Azov were handed over to Ukraine. 5 commanders from the Azov regiment: Serhiy Volynsky, Svyatoslav Palamar, Denys Prokopenko, Oleh Khomenko, and Denys Shleha were among those released. They will remain in Turkey under the personal protection of President Erdogan until the end of the war.

The exchange of war prisoners between Russia and Ukraine is underway in the format of 50 for 50 servicemen.

On January 3, 2024, thanks to the mediation of the United Arab Emirates, a large-scale exchange of war prisoners took place. Russia returned 230 Ukrainian servicemen, and Ukraine returned 248 Russians.

On January 24, 2024, a Russian military transport aircraft Il-76 flying from the Chkalovsk airfield in the Moscow region to Belgorod with Ukrainian war prisoners for exchange crashed in the Korochansky district. According to Russian media reports, on that day, it was planned to exchange 192 Russian military men for 192 Ukrainian. 65 Ukrainian war prisoners, three Russian military men, and 6 crew members were killed. The missile launch was made from Kharkiv, 130 km from the scene of the incident.

The Ukrainian side stated that the Russian side did not report the exchange of war prisoners that day. Why should Ukrainians shoot down a plane with their prisoners? The Russian side's statements that the Ukrainians deliberately shot down the plane do not correspond to reality.

Firstly, Ukrainian military staff did not know about the exchange of war prisoners.

Secondly, they took measures to destroy the means of delivery and take the Belgorod - Kharkiv airspace under control since in recent times, the intensity of Russian missile attacks on the Kharkiv region has increased.

Thirdly, knowing this, the plane could have flown to Kursk airport, 140 km from Belgorod.

Fourthly, why was the plane flying along the Ukrainian-Russian border?

Also, are Ukrainian prisoners being held in the Moscow region?

On January 31, 2024, Russia and Ukraine conducted another exchange of war prisoners according to the 195 for 195 scheme.

On February 8, 2024, Russia and Ukraine conducted another exchange of war prisoners according to the 100 for 100 scheme.

*During World War I (1914-1918), one of the largest exchanges of war prisoners took place in 1918, when Germany and Russia exchanged more than 60,000 prisoners. During World War II (1939-1945), the largest exchange of war prisoners took place in 1944, when Germany and the Soviet Union exchanged more than 90,000 prisoners. After the Iran-Iraq War (1980-1988), in August-September 1990, Iraq and Iran exchanged more than 70,000 war prisoners. After the Suez Crisis of 1956, Israel exchanged 5,500 Egyptian military men and 77 others for an Israeli pilot and three soldiers. On October 18, 2011, Israel exchanged tankman Gilad Shalit, abducted by HAMAS (Palestinian Islamist movement) in 2006, for 1027 Palestinian prisoners.*

Let us consider other war statistics. According to the New York Times, by mid-March, during Russia's invasion of Ukraine, more than 7,000 Russian military men were killed within three weeks. This exceeds the number of American military men killed in Iraq and Afghanistan over 20 years. According to Pentagon officials, 14,000 to 21,000 Russian military men were wounded. In early June 2022, Ukrainian Defense Minister Oleksii Reznikov stated that they were losing about 100 soldiers daily, and 500 soldiers were being wounded on average. The average daily losses of the Ukrainian army were estimated at 200-500 soldiers. On July 22, 2022, in an interview with The Wall Street Journal, Ukrainian President Volodymyr Zelensky stated that every day, about 30 Ukrainian military men are currently dying on the front lines, and about 250 are being wounded. According to him, at the peak of hostilities in May and June, Ukraine was losing between 100 and 200 military personnel daily. According to media reports, Russia was losing an average of about 500 soldiers killed and more than 600 soldiers wounded every day. On June 22, on the Solovyov LIVE talk show, Russian TV presenter Vladimir Solovyov, referring to 'own sources,' stated the following: "According to my data, from 62 to 68 thousand have died on the Ukrainian side. The total number of lost fighters is about 200 thousand. This is on the fronts, and not only the DPR and LPR but along the entire front length. Western reporters give the figure of 200 thousand fighters who have left."

During 2023, in January and February 2024, Russia lost 800 to 1000 military men killed daily, and Ukraine's losses were three to four times lower. The same proportion applies to the wounded.

It should be noted that the media of both sides waged an information war and actively spread disinformation. The goals of the Russian side were to create an excuse for invasion, justify the invasion, and demonstrate its strength. Russia

falsely claimed that it was responding to Ukrainian aggression and liberating citizens from fascists and neo-Nazis. After the start of the invasion, it falsely claimed that Ukrainians were bombing their hospitals and killing civilians. Ukrainian propaganda is aimed at spreading dramatic stories of Ukrainian resilience and Russian aggression.

## **Russian and Ukrainian Naval Forces**

The Russian Ministry of Defense claimed to have destroyed the Ukrainian Navy. In reality, the Black Sea Fleet of Russia has suffered significant damage, its ships are under threat of destruction by anti-ship missiles and UAVs. Ukraine, in fact, did not have modern ships or boats. In 2020, a contract was signed with Turkey for the construction of Ada-type corvettes for the Ukrainian Navy. Turkey has 4 such corvettes and has built another four for Pakistan. By December 2021, the first corvette was 75% ready. The first corvette Hetman Ivan Mazepa was launched in Istanbul in October 2022. The ship will be fully operational in 2024. Three more corvettes had to be constructed by the Ukrainian Ocean enterprise (Ocean Mykolaiv Shipbuilding Plant LLC was founded in Mykolaiv in 1951; it is one of the three largest shipbuilding plants in Ukraine). This corvette can navigate in shallow waters. It is built according to the reduced radar signature technology, equipped with automated equipment condition control and fire extinguishing systems, and can carry a light helicopter on board. The corvette is planned to be equipped with modern weapons control and data exchange systems according to NATO standards, as well as Ukrainian Neptune or American Harpoon anti-ship missiles. On August 18, 2023, at one of the shipbuilding yards in Istanbul, a ceremony was held for the keel-laying of the second corvette Hetman Pavel Skoropadsky. Ukraine also plans to produce patrol boats with France and torpedo boats with Great Britain. Ukraine has shipbuilding plants, manufactures marine engines, and most importantly, has experience and qualified specialists. Until 2022, the Hetman Sahaidachny frigate was the flagship of the Ukrainian Navy. The total fleet of the Ukrainian Navy was about 40 combat and landing ships, boats, and auxiliary and special vessels. The Hetman Sahaidachny frigate was built in 1990, did not have strike missile weapons, and was intended for border protection. During the Russian invasion of Ukraine, it was scuttled by the crew in Mykolaiv to prevent capture by Russian troops. The other vessels were mostly old ships built in the 70s and 80s of the last century. More modern were the river gunboats of Ukrainian design of the Gyurza project. 4 boats were launched in 2016-2020. Some Ukrainian ships were scuttled by the crew, and some were captured, including 2 Gyurza-type boats.

Ukraine has the most powerful port potential among all the Black Sea countries. It has 18 seaports on its Black Sea and Azov Sea coasts. In 2014, the RF Armed

Forces captured Ukrainian ports in Sevastopol, Yalta, Evpatoria, and Feodosia, and in 2022, ports in Kherson, Berdyansk, Skadovsk, and Mariupol. Today, 18 Ukrainian ships and boats are in safe ports. Their location is not disclosed. They may be in territorial waters bordering Romania.

Today, the Azov Sea is factually Russia's internal sea. Along with the occupation of the entire territory of Donetsk and Luhansk regions, this was another goal of the Russian invasion of Ukraine. This also includes the occupation of the territory from the Dniester Estuary (Liman) to the city of Izmail in the Odesa region (border with Romania) to obtain direct maritime and land access to Transnistria.

At the beginning of the invasion of Ukraine, the Russian Armed Forces destroyed old Ukrainian ships that had no military value. In response, the Ukrainian Armed Forces started destroying the Black Sea Fleet of the RF. By the end of May 2023, 25 Russian ships and boats had been destroyed.

On March 24, 2022, Ukrainian forces destroyed a large landing ship (LLS) Saratov in the port of Berdyansk with a Tochka-U missile. As a result of the missile attack on the ship, the ammunition detonated, leading to a massive explosion and the sinking of the ship (capable of carrying up to 20 tanks or 45 APCs and 300 paratroopers with a crew of 55 people).

Along with the Saratov LLS, other Russian ships were also damaged. There was a fire on the Orsk LLS (similar to the Saratov LLS), and the Caesar Kunikov LLS (capable of carrying up to 10 tanks or 30 APCs or 40 trucks and 225 paratroopers with a crew of 87 people) and the Novocherkassk with a crew of (similar to the Caesar Kunikov LLS) were damaged. Captain 3rd rank Aleksandr Chirva, commander of the Caesar Kunikov LLS, died from injuries.

In March, the Ukrainian Navy's reactive salvo fire systems hit the Russian small missile Project 21631 Buyan-M ship. The ship's hull and superstructures received multiple punctures. In mid-June, it was towed along the Volga for repair. The ship's name could not be identified since its side number and name were painted over. Such ships are built by A.M. Gorky Zelenodolsk Plant JSC – a shipbuilding enterprise in the city of Zelenodolsk (Republic of Tatarstan), located on the left bank of the Volga, 38 km from Kazan. There were four such ships in the composition of the RF Black Sea Fleet. The ship showed Kalibr missiles on Ukrainian cities. Its key advantage was the equipment with a vertical launch system for 8 cruise Onyx and Kalibr missiles.

*The Project 21631 Buyan-M FAC is a multi-purpose missile and artillery ship of small displacement, capable of operating in the near sea zone or entering rivers. Its main purpose is to protect state interests in internal sea basins. These ships do not have anti-aircraft or missile defense and, in the event of a collision with an adversary, should enter the channels of large rivers to be protected by powerful*

*anti-aircraft missile systems and fight from there. In the summer of 2021, projects for the modernization of these ships were developed but not implemented. These ships, although new, are far behind modern corvettes. E.g., Azerbaijan is building two 72-meter missile corvettes Saar-72 with the assistance of Israel Shipyards. These ships are equipped with radio electronics, anti-aircraft and missile defense, as well as a hangar for a helicopter. Azerbaijan already operates six 62-meter Saar-62 patrol boats. The stern part of the ship has a helipad for a light helicopter. Modern Israeli-made radio-electronic equipment is installed, including a combined detection and fire control station and a system of launchable countermeasures.*

On April 14, near the Ukrainian Snake Island, the Ukrainian Armed Forces destroyed the flagship of the Russian Black Sea Fleet, the Moskva missile cruiser, with the Neptune missile system. The cruiser participated in military conflicts in Georgia (2008), Crimea (2014), Syria (2015), and Ukraine (2022). From 2016 to 2020, it passed scheduled repairs at the 13th Ship Repair Plant in Sevastopol.

In the course of the Russian invasion of Ukraine on February 24, 2022, the ship participated in the capture of Snake Island. The crew consisted of 510 people. The first information was as follows: 58 people were rescued, the fate of others was unknown. Then information came on 100 rescued sailors. Exact data is not specified. According to unofficial data, more than 300 sailors died. The commander of the cruiser, Captain 1st Rank Anton Kuprin was among the dead.

*The Neptune ASM is a Ukrainian subsonic low-altitude anti-ship missile designed to destroy ships with a displacement of up to 5,000 tons, as well as ground targets. It is fired from ships and airborne and ground launchers. The missile was adopted in August 2020. It has a 380 mm caliber, 150 kg warhead weight, 280 km range, 1000 km/h speed, and GPS correction.*

Corresponding member of the Russian Academy of Missile and Artillery Sciences, Captain 1st Rank Reserve Konstantin Sivkov, stated the following regarding the loss of the Moskva missile cruiser: “In fact, we are talking about the loss of a third of the fleet’s potential in the far sea zone. The RF Black Sea Fleet had four modern ships capable of operating in the far zone and having powerful modern weapons: three frigates and the Moskva cruiser.” According to him, this warship cannot be replaced today, it is an irreplaceable loss. The scientific secretary of the Military Research Group of the Black Sea Fleet, Captain 1st Rank Sergey Gorbachev, stated: “The Moskva cruiser is a part of the lives of hundreds of thousands of sailors, shipbuilders, ship repairmen, ordinary Sevastopol residents, Crimeans, and other compatriots. We pay tribute to its iron, soul, and the maritime school.” According to S. Gorbachev, the Moskva cruiser symbolized the entire power of the Russian Navy for almost 40 years. The governor of Sevastopol wrote

on social networks that the Moskva guards missile cruiser was a symbol of Sevastopol.

Forbes Ukraine estimated the damage caused by the sinking of the cruiser at \$750 million. In 2016-2020, the cost of repairs was about \$363 million.

On May 2, 2022, near the Snake island, the Ukrainian Armed Forces, destroyed two other Russian Raptor Project boats – high-speed coastal zone patrol boats with UAVs.

On May 6, near the Ukrainian Snake Island, the newest Admiral Makarov frigate was damaged by the Neptune missile system. The frigate commander, Captain 1st Rank Grigory Breev, who served in the Armed Forces of Ukraine, violated the oath in 2014, when Russia began the annexation of Crimea.

The frigates of this project have a powerful air defense system. The major striking weapons are the Kalibr and Onyx missile launchers, with which they bomb Ukraine.

In 2022, the Admiral Makarov frigate jointly with the Admiral Grigorovich and Admiral Essen frigates took part in the Russian invasion of Ukraine, shelling Ukrainian oil refineries and depots near Odesa using Kalibr cruise missiles.

On May 7, 2022, near the Ukrainian Snake Island, the Ukrainian Armed Forces destroyed the Russian high-speed landing Serna Project boat (capable of carrying 1 tank or 2 APCs or 45 tons of cargo or 92 paratroopers) with UAVs. On the same day, the second landing boat of the same type was destroyed.

On May 12, 2022, near the Ukrainian Snake Island, the Ukrainian Armed Forces destroyed the Russian Vsevolod Bobrov logistics support vessel, which was trying to deliver an air defense system to the island, with the Neptune missile. The ship was towed to Sevastopol.

The ship is multifunctional: it is designed for cargo transportation, towing, hydrographic research, and aiding ships in distress. The dynamic positioning system allows the ship to stay at a given point in any weather. Its displacement is 9,500 tons. The hull allows it to operate in Arctic latitudes, overcoming ice thickness of 0.6 m. It was adopted for service by the Navy in August 2021.

On June 17, 2022, near the Ukrainian Snake Island, the Ukrainian Armed Forces hit the Russian Rescuer Vasily Bekh rescue tugboat, which was transporting Russian sailors, weapons, and ammunition, including the Tor air defense system, to the island, with a Harpoon missile. The ship, adopted for service by the Navy in 2017, sank.

On June 30, 2022, the D-106 Akula (Shark) Project landing boat (capable of carrying 1 tank or 50 tons of cargo or 20 paratroopers), designed for landing on an unprepared shore, was blown up on a mine in the port of Berdyansk.

Since mid-June, Russian ships have moved more than 100 km away from the Ukrainian coast. This occurred after it became known about the supply of American Harpoon anti-ship missiles to Ukraine.

On August 4, 2023, as a result of the attack by Ukrainian surface drones in the port of Novorossiysk, the Olenegorsky Gornya large landing ship (capable of carrying 500 tons of equipment and cargo and 225 paratroopers) was damaged.

On September 3, 2023, in the northwest part of the Black Sea, the Ukrainians destroyed the KS-701 Tunets boat, trying to land paratroopers, with Bayraktar.

On February 1, 2024, Ukrainian Magura V5 maritime unmanned aerial vehicles sank the R334 Ivanovets missile boat in the Black Sea near the Crimean lake Donuzlav.

On February 14, 2024, Ukrainian Magura V5 maritime UAVs sank the Caesar Kunikov LLS in the Black Sea near the southern Crimean city of Alupka. This LLS was damaged on March 24, 2022.

The total numerical composition of the RF Black Sea Fleet consisted of about 100 combat and landing ships, boats, and auxiliary and special vessels.

The major combat ships are the Moskva missile cruiser (destroyed), 2 frigates built in the 80s, the three newest frigates Admiral Grigorovich, Admiral Essen, and Admiral Makarov (damaged), and two smaller corvettes, which are still passing trial tests. There are also 9 small anti-submarine ships, one of which, the Vasily Bykov patrol ship, was destroyed on March 7. A total of 23 ships and boats were destroyed.

The heaviest Russian ships are the Admiral of the Fleet of the Soviet Union Kuznetsov heavy aircraft-carrying cruiser and the Admiral Nakhimov heavy nuclear cruiser. The first one is the only aircraft carrier in Russia; since 2017, it has been repaired at Rosneft's 82nd Ship Repair Plant in Murmansk. The second one has been repaired at the Severodvinsk shipyard in the city of Severodvinsk, Arkhangelsk region, since 1999. These ships are in critical emergency conditions. In fact, they are out of order.

In general, the Russian Navy has 11 LLSs (large landing ships). All of them were built 35-40 years ago. Russia could not build new ships of this type. Neighboring Turkey has 9 LLSs. 2 ships have been built in recent years. The capacity of Turkish ships is higher than that of Russian ones. Also, Turkey has built the TCG Anadolu – a universal landing ship configurable as a light aircraft carrier. The ship can accommodate up to 30 medium-sized helicopters or up to 12 F-35B aircraft

and 12 helicopters. Anadolu LLS can accommodate 900 infantrymen with equipment, 46 tanks, or 77 wheeled vehicle units, as well as 4 landing boats to land equipment and live force on the shore. The ship is equipped with radar, radio electronics, missile and anti-submarine weapons, and artillery pieces. It was handed over to the Turkish Navy in April 2023. Turkey is starting to build a second ship of this class.

One of the main topics of the war in Ukraine is its naval blockade. Russia directly captured part of the coast, and the Black Sea ports were blocked by the Russian Navy. Through the seaports, Ukraine exported more than 70% of its cargo for a total of about USD 47 billion. Due to the blockade of ports, the Ukrainian economy was losing about USD 170 million daily.

The blockade of the ports of Odesa, Chornomorsk, Yuzhny, and Mykolaiv by Russia could have triggered a global food catastrophe. In a normal time, these ports help feed 400 million people in the world. If Ukrainian ports had not opened, then dozens of millions of people, especially in Africa, would have faced the threat of hunger and death, and food riots and mass migration would have begun.

Ukrainian Black Sea ports were blocked. The UN called on Russia to open access to Ukrainian ports. The Russian Foreign Ministry stated that to do this, "you should consider, among other things, the possibility of lifting sanctions against Russia."

On July 8, 2022, a G20 foreign ministers' summit was held in Bali, Indonesia, where US Secretary of State Antony Blinken made the following statement: "I appeal to our Russian colleagues: Ukraine is not your country. Its grain is not your grain. Why are you blocking the ports? You must release this grain."

After negotiations between Turkish President Erdogan, Putin, and Zelensky, under the auspices of the UN, a roadmap for the export of grain from mined Ukrainian ports was agreed upon.

On July 22, 2022, agreements were signed in Istanbul between Turkey, the UN, and Ukraine, and between Turkey, the UN, and Russia on the transportation of grain products from Ukrainian ports. On August 1, the Razoni corn-loaded ship under the flag of Sierra Leone left the port of Odesa to Istanbul.

Ukrainian grain began to be exported from three Ukrainian ports: Odesa, Chornomorsk, and Yuzhny. On July 17, 2023, Russia refused to comply with the agreement.

On February 24, 2022, Russia captured the Snake island, which gave control over all trade routes going to Ukraine and the northwestern part of the Black Sea. This is also the closest path to Transnistria, through which Russia can provide military support to separatists and the Russian military contingent in Moldova.

Theoretically, by capturing the Dniester Estuary (Liman), Russia could enter Transnistria and cut off the territory from the Estuary to the city of Izmail in the Odesa region (borders with Romania) from Ukraine.

Therefore, from the end of June, the Ukrainian army started intensive operations to liberate the Snake island. Three Pantsir-C1 anti-aircraft gun and missile systems, ammunition depots, and infrastructure were destroyed.

*The Dniester-Prut interfluve, called Bessarabia, has long been of interest to Peter I. In 1711, he arranged an unsuccessful Prut campaign against the Ottoman Empire. Before 1812, Bessarabia was occupied by Russian troops five times. After the Russo-Turkish War (1806-1812), under the Treaty of Bucharest 1812, the Dniester-Prut interfluve was annexed to Russia, and in 1818, the Bessarabian province was established on this territory. This historical region is located between the Black Sea and the rivers Danube, Prut, and Dniester, now part of Moldova and Ukraine. From 1918 to 1940, it was part of Romania.*

On June 30, 2022, the Russian Ministry of Defense announced the withdrawal of troops from **Snake Island** as a ‘gesture of goodwill.’

Ukraine has no modern missile ships and boats. It will only be able to break the blockade of its Black Sea ports with high-precision and long-range anti-ship ground-based missiles, strike UAVs, and maritime drones.

Otherwise, NATO should introduce combat ships into the Black Sea to ensure freedom of navigation and the safety of civilian maritime vessels.

Ukraine started manufacturing maritime UAVs for the first fleet. It will protect the waters of Ukrainian seas and peaceful cities from cruise missiles launched by Russian troops from their ships. It will also open a corridor for civilian vessels carrying grain.

The Ukrainian fleet uses the Mykola-3 maritime UAVs, which were successfully used in the attack on Sevastopol on October 29, 2022, and the Crimean Bridge on July 17, 2023.

Mykola-3 is a 5.5-meter boat weighing 1000 kg, with a sea endurance of up to 60 hours and a maximum speed of 80 km/h. The kamikaze boat may carry up to 200 kg of explosives.

The Ukrainian fleet also uses the Magura V5 maritime UAVs, which were successfully used in the attack on the ship and the Caesar Kunikov LLS on February 14, 2024.

Magura V5 is a 5.5-meter boat weighing over 1000 kg, with a sea endurance of up to 60 hours and a maximum speed of 80 km/h. The kamikaze boat may carry up to 300 kg of explosives.

On October 29, 2022, Ukraine struck the Sevastopol port. Strike UAVs participated in the attack. According to the Russian Ministry of Defense, the Ivan Golubets sea minesweeper and the bridge protective boom and net installation (barriers intended to prevent penetration by submarines or surface craft) in the South Bay received minor damage.

*From 1475 to 1774, the territory of present-day Sevastopol was part of the Keefe Eyalet of the Ottoman Empire, then the Crimean Khanate. After the liquidation of the Crimean Khanate in 1783, this territory was part of the Russian Empire until 1917. From 1917 to 1990, it was part of the Soviet Union; from 1990 to 2014, it was part of Ukraine. In 2014, the Russian Federation annexed the city together with Crimea.*

There are 19 small bays in Sevastopol Bay. In the North, South, and Quarantine bays, ships and vessels of the RF Black Sea Fleet are located. The major combat ships: the Moscow missile cruiser (sunk on April 14), the Admiral Makarov frigate (damaged on May 6), and the Admiral Grigorovich and Admiral Essen frigates were based in the North Bay (also called Old North). Opposite this bay is the city's architectural symbol – a monument 16.7 m high (Monument to the sunken ships). The monument was built in 1905. In 1854-1855, during the Crimean War, Russian sailing ships were sunk to block the entrance to the bay for English and French ships. 75 warships and 16 auxiliary vessels were sunk. After the war, 20 ships were raised, repaired, and returned to service. Cleaning Sevastopol Bay took more than 10 years.

In total, 10 UAVs and 8 autonomous maritime drones were involved in the attack. According to the Ukrainian side, up to 9 ships were damaged, including the Admiral Makarov frigate and the corvette, which fired Ukrainian cities with Kalibr missiles.

In August 2023, Ukrainian operators started training to operate underwater REMUS vehicles. In late August, Great Britain announced handing over maritime kamikaze drones to Ukraine to combat anti-ship mines. The type of maritime drones handed over is unknown. The direct distance from Odesa to Sevastopol is about 180 km. The maritime kamikaze drone range does not exceed 100 km. Most likely, Ukraine received the REMUS M3V, developing a speed of up to 10 knots (18.5 km/h) and diving to a depth of 300 meters. Uniquely, the drone can be airdropped.

On the morning of May 24, 2023, three Ukrainian unmanned boats attacked the Russian Ivan Khurs instead of the Liman ship. In April 2017, in the Black Sea, the Liman medium reconnaissance ship sank after colliding with the Youzarsif H. livestock carrier. At the moment of the collision, Liman was observing the NATO Sea Shield naval maneuvers in the Black Sea. The Youzarsif H. livestock carrier under the flag of the African state of Togo was carrying over 8,000 sheep from the

port of Midia in Romania to the city of Aqaba in Jordan. The collision occurred 29 km northwest of the coastal Turkish town of Kilios. Liman received a hole on the starboard side below the waterline and sank. The Russian Navy did not file any claims against the owner of the vessel that rammed the Russian military ship. According to the media, the Liman crew, including the commander, were in a state of severe alcohol intoxication.

The Ivan Khurs ship was provided as a replacement. This medium reconnaissance ship has a length of 95 m and a displacement of 2,500 t. It is armed with 4 machine guns of 14.5 mm caliber and Igla (hits targets at a distance of 6 km and a height of 3.5 km) and Verba (hits targets at a distance of 6.4 km and a height of 4.5 km) MANPADS (Man-Portable Air Defense System). According to the Russian side, all three unmanned marine vehicles were destroyed. According to Ukrainian data, one drone collided with the ship. On May 26, Ivan Khurs returned to the port of Sevastopol.

On the night of September 13, 2023, the Armed Forces of Ukraine launched ten cruise missiles at the S. Ordzhonikidze Shipbuilding Plant in Sevastopol and three unmanned boats at a squadron of the Black Sea Fleet ships. As a result of the missile strikes, the Minsk LLS was destroyed, and the Project 636 Varshavyanka Rostov-on-Don diesel-electric submarine was damaged. According to one version, the Storm Shadow cruise missiles were launched by Ukrainian Su-24M bombers. According to another, the attack was performed with Ukrainian Neptune missiles.

Then, the main forces of the Black Sea Fleet of Russia were withdrawn from Sevastopol to the ports of Feodosia and Novorossiysk.

*The destruction of a submarine by aviation is an extremely rare event in military history. A similar incident occurred in the South Atlantic during the British-Argentine War for the Falkland Islands. On April 25, 1982, three British Westland deck helicopters sank the Argentine Santa Fe (S-21) submarine with AS-12 anti-tank missiles. Another case occurred near the northern coast of Norway. On September 21, 1944, a Soviet American-made A-20 torpedo bomber was on a raiding flight and identified an unknown surface cruising submarine in the area of Cape Gatvik, where the world's northernmost lighthouse is still located. The plane went on the attack, descending over the water, released a torpedo from a distance of 600 m, and destroyed the submarine. It was the Soviet Shch-402 submarine patrolling that area.*

Varshavyanka belongs to the most modern and best Russian submarines. They bear 18 Kalibr missiles. The Black Sea Fleet has 6 such submarines.

*The Turkish Navy has 2 Project 214TN diesel-electric submarines, another 4 will be received by the end of 2027. The 214 TN submarine, an improved version of the German Project 214, is built at the Golcuk shipyard. The Turkish submarine of this*

*project is less noisy compared to the Russian one. It is known that at a slow speed in a submerged position, they emit sounds weaker than the background noise of the sea. The Turkish submarine can remain underwater for more than two weeks while the Russian ones can only do so for up to 2 days. The diving depth of the Turkish and Russian submarines is, respectively, up to 400 and 300 m. Also, the Turkish submarine may act as a mine layer, secretly placing any sea mines on the enemy's communications.*

On November 4, 2023, Ukrainian pilots launched air strikes on the infrastructure of the Zaliv Shipbuilding Plant in Kerch. The Askold small missile boat (800 t displacement, 67 m length, can carry 8 missiles, launched in 2021) carrying Kalibr cruise missiles was destroyed.

On the night of November 10, 2023, Ukrainian scouts destroyed two Russian Project 1170 Serna high-speed landing ships (1-day endurance run; capacity – 45 tons of cargo or one tank or 2 IFV/APC or 92 servicemen) in the west of Crimea.

On January 31, 2024, Ukrainians destroyed the Molniya-type R-334 Ivanovets missile boat with marine UAVs. Such boats are equipped with four Moskit anti-ship missile launchers.

## **Data from the RF Ministry of Defense as of February 24, 2024**

### **Losses of the Armed Forces of Ukraine:**

Destroyed:

aircraft - 570

helicopters - 266

tanks and armored vehicles - 15,207

artillery systems - 8,041

multiple-launch rocket system - 1,220

air defense systems - 469

UAVs - 12,390

Automotive equipment - 18,655

Personnel losses are more than 400,000 according to Russian data. According to foreign sources, about 100 thousand, of which 35,000 were killed.

On March 2, 2022, the RF Ministry of Defense of the Russian Federation published its version of the data on losses, reporting 498 Russian military men

killed and 1,597 wounded on Ukrainian territory. Since then, the RF Ministry of Defense has not published data on losses.

On March 23, the Press Secretary of the President of Russia, Dmitry Peskov stated that the Ministry of Defense would publish data on losses during the 'special operation' in Ukraine when they deemed it necessary.

Russian military men wounded in Ukraine are passing treatment at medical facilities of the RF Ministry of Defense.

According to the *Krasnaya Zvezda* newspaper, by March 14, 2022, about 1,400 Russian military men have already been discharged from medical facilities and are passing rehabilitation.

On March 20, the *Komsomolskaya Pravda* newspaper posted an article on its website with data on Russian military men killed and wounded in Ukraine. Citing the Ministry of Defense of Russia, the author of the material reported 9,861 military men dead and 16,153 wounded.

Until the evening of March 12, 2022, the Ministry of Defense of the Russian Federation has not reported the number of Ukrainian helicopters shot down. On March 29, they reported 74 shot-down helicopters.

The RF Defense Ministry's data does not separately specify the number of tanks; in daily summaries, some figures one day decrease, and another day sharply increase.

In this war, there are catastrophic losses of armored vehicles on both sides. The key problem with tanks is the location of the tank ammunition, complicating armor protection in side projections, and the lack of an armored partition between the crew and the ammunition. Therefore, most tanks are hit in side projections. This problem was known before, it was encountered in Iraq, Chechnya, Georgia, and Karabakh. The key problem of armored vehicles and personnel carriers is the lack of mine protection.

In the first four months of the war, half of the losses of Russian armored vehicles fell on not shot down or damaged but captured or abandoned ones. Some of the armored vehicles were abandoned because the fuel ran out, and some got stuck in the mud. Also, Russian soldiers had no skills and experience to handle the equipment. Therefore, some of them veered off bridges, and others got into ditches. Soldiers often abandoned the equipment and fled. The Ukrainian authorities were even forced to issue instructions on how and where civilians should hand over abandoned military equipment left by Russian soldiers. The instruction clarified that a military trophy is subject to declaration in the tax return. Leadership of the Armed Forces of Ukraine

**General Valery Zaluzhny.** Commander-in-Chief of the Armed Forces of Ukraine from July 27, 2021, to February 2024, a participant in the Donbas hostilities in 2014. The first Commander-in-Chief who did not serve in the Armed Forces of the USSR.

**Lieutenant General Serhiy Shaptala.** Chief of the General Staff of the Armed Forces of Ukraine from July 28, 2021, to February 2024. A participant in the Donbas hostilities in 2014-2015, a Hero of Ukraine, did not serve in the Armed Forces of the USSR.

**Lieutenant General Eugene Moysyuk.** Deputy Commander-in-Chief of the Armed Forces of Ukraine from July 28, 2021. A participant in the Donbas hostilities in 2014-2015, a Hero of Ukraine, did not serve in the Armed Forces of the USSR.

**Lieutenant General Viktor Boki.** Deputy Chief of the General Staff of the Armed Forces of Ukraine, Chief of the Main Operational Directorate. A participant in the Donbas hostilities in 2014-2015, a Hero of Ukraine, did not serve in the Armed Forces of the USSR.

**Colonel General Oleksandr Syrsky.** Commander of the Ground Forces of the Armed Forces of Ukraine, a participant in the Donbas hostilities in 2014-2015. In 2022, he commanded the defense of Kyiv and the counteroffensive in the Kharkiv region. On February 8, 2024, he was appointed Commander-in-Chief of the Armed Forces of Ukraine, replacing Zaluzhny in this position.

**Major General Igor Tantsyura.** Commander of the Territorial Defense Forces of the Armed Forces of Ukraine since May 15, 2022, a participant in the Donbas hostilities in 2014. In 2022, he was the Chief of Staff - Deputy Commander of the Ground Forces of the Armed Forces of Ukraine.

**Major General Anatoly Bargilevich.** Commander of the Territorial Defense Forces of the Armed Forces of Ukraine since October 9, 2023. In 2020-2022, he was the Deputy Commander of the Ground Forces of the Armed Forces of Ukraine. In 2022, he commanded the defense of the most important sector No. 1 of the defense of Kyiv on the Gostomel direction. On February 8, 2024, he was appointed Chief of the General Staff of the Armed Forces of Ukraine.

**Major General Eduard Moskalev.** First Deputy Commander of the Operational Command East of the Armed Forces of Ukraine, Commander of the Joint Forces Operation (JFO) from March 15, 2022, to February 26, 2023. JFO is a complex of military and special organizational and legal measures of the Ukrainian power structures.

The commanders of the OTGs (operational tactical groups), brigades, battalions, and fighters of the Territorial Defense Forces and the Azov detachment acted skillfully.

Territorial Defense Forces of the Armed Forces of Ukraine is a separate type of troops entrusted with the arrangement, preparation, and fulfillment of territorial defense tasks. The Commander-in-Chief of the Armed Forces of Ukraine exercises direct management of territorial defense through the Commander of the Territorial Defense Forces (TDF), created starting from January 1, 2022. They are composed of 25 brigades (one per region), uniting more than 150 battalions (one per district).

The Azov Special Operations Detachment is a separate detachment within the 3057th Eastern Military Unit. It was formed in 2014 in Mariupol by volunteers.

In 2021, Ukraine had in service:

About 1400 T-64 tanks, over 3,000 armored vehicles, about 250 SPAUs (self-propelled artillery units) of various calibers, 430 MLRS (multiple launch rocket systems) of various calibers, 90 tactical missile systems 9M79 Tochka-U (800 missiles with a range of up to 120 km), more than 150 fighters and bombers, including training-combat ones, 90 Mi helicopters, and 250 S-300 and 72 BUK M1 missile systems.

According to the Russians, Ukraine lost 4 generals, many colonels, lieutenant colonels, and other officers. As of the beginning of 2024, the list of confirmed deaths contains 12 Russian Generals.

According to unconfirmed data, 22 Generals, about 70 Colonels, and about 150 Lieutenant Colonels of the RF Armed Forces were killed.

According to the Ukrainian side, the Commander of the 141st Motorized Regiment of the Chechen Rosguard, Magomed Tushaev, was killed on February 26 during hostilities in the Gostomel area, near Kyiv. Until December 19, 2017, Senior Lieutenant Tushaev was the Deputy Head of the Terek SOBR department. Chechnya has special forces under the personal control of Ramzan Kadyrov. One of such special units is the Chechen Terek Special Rapid Response Unit (SOBR). It was created by the personal order of Ramzan Kadyrov on August 1, 2013. Its key task is to protect the head of the Chechen Republic, and high-ranking Chechens.

The main base is located in Kadyrov's ancestral village of Tsentaroi. The Battalion Commander is Ramzan Kadyrov's best childhood friend and classmate – Colonel Abuzaid Vismuradov, who has been the Deputy Prime Minister of the Chechen Republic since February 20, 2020.

The 141st Special Motorized Regiment of the Rosguard, named after Kadyrov, is the former North Battalion created in Chechnya in 2006 under the leadership of

Ramzan Kadyrov. The battalion's basis was formed by former militants who switched sides to Kadyrov after 2003.

In Chechnya, the Rosguard consists exclusively of fighters recruited from residents.

On May 22, in the Donbass region, Major General Kanamat Botashev was killed. The Air Defense Forces of the Ukrainian Armed Forces shot down a Russian Su-25 Grach attack aircraft with an Iгла man-portable air defense system (MANPADS). Botashev was suspended from flights back in December 2011 for piloting a Su-34 aircraft without the necessary authorization and qualifications. In the summer of 2012, the Commander of the 7000th Airbase, Major General Botashev, violating the flight rules, took the helm of a Su-27UB aircraft, which crashed. The retired General admitted his guilt and promised to compensate for the cost of the crashed aircraft from his pension. He was given a 4-year suspended sentence and a fine of RUB 5 million.

On January 14, 2024, the A-50 aircraft was shot down. Major General Oleg Pchela, Deputy Commander of Long-Range Aviation of the Russian Air Force, was killed.

On January 31, 2024, during Ukrainian strikes on Belbek Airport in Crimea, Lieutenant General Aleksandr Tatarenko, Commander of the 38th Fighter Aviation Regiment, was killed. He was dismissed from military service upon reaching the age limit in 2020. He served as a volunteer.

In battles in the Donetsk region, the Commander of the 503rd Motorized Rifle Regiment, Colonel A.S. Lohov, and the Chief of Staff of the same Regiment, Lieutenant Colonel K.V. Kuznetsov, were killed.

In the winter of 1994-1995, the Regiment participated in the First Chechen War in the storming of Grozny. In 2000, the Regiment participated in the Second Chechen War in battles for the Komsomolskoye village. In August 2008, the Regiment participated in the military conflict in Georgia. During World War II, 13 German Generals were killed within 6 months of 1941. In Afghanistan, in 1979-1989, 5 Soviet Generals were killed. During the First Chechen War (1994-1996) and the Second Chechen War (1999-2001), 12 Russian Generals were killed. In Syria, in 2015-2020, 3 Russian Generals were killed.

In Ukraine, 12 Russian Generals were killed within 113 days.

In late April 2022, the Armed Forces of Ukraine launched powerful strikes in the Iziurm district of the Kharkiv region, targeting the headquarters of the Airborne Force and the advanced command post of the 2nd Combined Arms Army. Major General Andrey Simonov, Chief of Electronic Warfare (EW) Troops of the Western Military District of the RF Armed Forces, was killed. Several other high-

ranking officers were killed or wounded, including the Chief of the General Staff of the RF Armed Forces, Army General Valery Gerasimov. He was wounded in the leg and was transported by helicopter to Belgorod and then by plane to Moscow. Since then, there have been no reports about him. Finally, on June 9, the General's name was mentioned in the news: Chief of the General Staff of the RF Armed Forces Valery Gerasimov held a telephone conversation with Chief of Staff of the French Armed Forces, Army General Thierry Burkhard.

It is appropriate to recall the 1940s again: the death of Army General Nikolai Vatutin, Commander of the 1st Ukrainian Front. According to the Marshal of the Soviet Union Georgy Zhukov, when entering one of the villages, "the cars were fired by the UIA. N.F. Vatutin jumped out of the car and engaged in a gunfight along with the officers, during which he was wounded in the thigh".

The UIA (Ukrainian Insurgent Army) was a Ukrainian partisan military formation during World War II, an armed offshoot of the Organization of Ukrainian Nationalists.

On February 29, 1944, Vatutin was traveling from Rivne to Slavuta - the headquarters of the 60th Army of Lieutenant General I.D. Chernyakhovsky. The motorcade accidentally encountered a hundred nationalists.

Why did Vatutin have a security detail of 10 riflemen? How was the wounded general taken out of the gunfire by his driver? Why was he operated for gangrene only on April 5? Many historians and experts believe that the attack was arranged by not 'Ukrainian nationalists' but the Russians.

A year later, on February 18, 1945, Ivan Chernyakhovsky (already an Army General and Commander of the 3rd Belarussian Front) was killed. While inspecting the combat readiness of the Red Army rear units, he was severely wounded by a fragment of an artillery shell that came from the rear and died the same day.

After Vatutin was severely wounded, Stalin ordered Zhukov to head the 1<sup>st</sup> Ukrainian Front. The troops under the command of Zhukov carried out an offensive operation in March-April 1944 and reached the foothills of the Carpathians. On April 10, 1944, Zhukov was awarded the highest military award - the Order of Victory, the first among the awardees.

On February 18, after the death of Chernyakhovsky, Marshal Vasilevsky headed the 3rd Belorussian Front. Almost two months later, on April 26, 1945, Army General Bagramyan (Zhukov studied with him at the Military Academy and always supported him) replaced Vasilevsky. Vatutin and Chernyakhovsky had to receive the main awards. Zhukov removed many from his path to be the only one to get credit. Thanks to Zhukov, one of the main culprits of the Kyiv catastrophe (July-September 1941, 627,800 irrevocable losses) and the main culprit (according to Stalin) of the Kharkiv catastrophe (March-May 1942, 171,000 irrevocable

losses), mediocre Bagramyan became the Commander-in-Chief of the front, and then a Marshal.

From the end of March, Chief of the General Staff of the RF Armed Forces Gerasimov was in disgrace. Suddenly, at the end of April, he found himself near Iziun. Was it a coincidence? Gerasimov also was not at the Victory Parade on May 9, 2022. There were no official reports of his dismissal. This meant that he was indeed seriously injured. According to media reports, Shoigu and Gerasimov were dismissed from managing the 'special operation' in Ukraine.

The action plan of the Russian troops in Crimea in 2014, the plan of the operation in Syria in 2015, and the plan of the 'special operation' in Ukraine in 2022 were approved by the Supreme Commander-in-Chief but developed by officers and generals of the Main Operations Directorate under the leadership of Hero of Russia Colonel General Sergey Rudskoy.

After February 24, 2022, significant changes occurred in the power structures of the Russian Federation. According to social networks, by the order of RF President Vladimir Putin, the Head of the 5th Service (Operational Information and International Relations Service) of the FSB of Russia, Sergey Beseda, and his Deputy Anatoly Bolyukh have been placed under house arrest. They were arrested on suspicion of embezzling funds allocated for subversive and undercover work in Ukraine, as well as "knowingly false information about the political situation in Ukraine." Beseda was responsible for intelligence in Ukraine and preparation for the meeting of 'liberators,' and Bolyukh – for the arrangement of a disinformation campaign.

Further, according to the media, the Commander of the 6th Combined-arms Army of the Western Military District, Lieutenant General Vladislav Yershov, was dismissed from command, placed under house arrest, and brought to court for significant losses in the army.

On March 17, Deputy Director of Russia's National Guard Lieutenant General Roman Gavrillov was dismissed. Earlier, he served as the Head of the Main Directorate for Internal Security of the Ministry of Internal Affairs of the Russian Federation. According to the media, he was detained for an unknown reason. The 45-year-old Deputy of the National Guard, Lieutenant General Gavrillov, supervising the department's internal security and special forces, handed resignation for length of service. A service investigation had been initiated. Gavrillov was part of the security teams of three Russian presidents - Boris Yeltsin, Vladimir Putin, and Dmitry Medvedev.

On March 25, Commander of the 1st Tank Army of the Western Military District Sergey Kisel was dismissed for the failure of the 'special operation' in Ukraine.

Earlier, Chief of Staff, First Deputy of the 1st Tank Army Lieutenant General Yuri Yarovich was dismissed.

The 1st Tank Army was advancing towards Sumy and Kharkiv. Its tanks got stuck in the swamps of Chernihiv and Sumy regions.

Deputy Chief of Staff of the Central Military District, Major General Nikolai Tereshchenko, was appointed the new Commander of the 1st Tank Army of the Western Military District. ‘Bloody General’ participated in the military operation in Syria.

## **Popular Discontent**

Starting from February 24, 2022, protests against Russian military actions in Ukraine occurred from time to time in Russian cities. Several dozens of thousands of people have been detained. The State Duma immediately reacted. On March 4, a bill was passed, amending the Code of Administrative Offenses and the Criminal Code. Deputies introduced liability for the dissemination of “knowingly false information on the activity of the Armed Forces of the Russian Federation”, which the authorities will consider fake, and “discrediting the use of Russian troops”.

According to the law, such actions imply a fine of up to one and a half million rubles and imprisonment for up to three years. In some cases, Russians may face a fine of up to five million rubles or imprisonment for 5 to 10 years. If the dissemination of ‘fakes’ has severe consequences, then they will face imprisonment for 10 to 15 years.

At the meeting on March 22, the State Duma adopted a bill on the introduction of criminal liability for false information on any state authorities of Russia operating abroad. The liability will be similar to that already existing for the dissemination of fakes about the RF Armed Forces. The law provides for the expansion of the list of authorities, and the dissemination of false information which will be punished. In particular, these are embassies, the Prosecutor’s Office, the National Guard, the Ministry of Emergency Situations of Russia, etc. Changes are being made to recently adopted articles of the Criminal Code of the Russian Federation, providing for the liability of the RF Armed Forces and fakes about them.

The Command of the Russian Black Sea Fleet urgently took measures to replace 130 deserters-contract servicemen of the 810th Naval Infantry Brigade with paratroopers of the 7th Airborne Assault Division. The issue of their further service was considered by the FSB. Their further fate is unknown.

The Chairman of the Skolkovo Foundation, Arkady Dvorkovich, resigned after criticism of the RF ‘special operation’ in Ukraine.

Anatoly Chubais resigned as Special Representative of the President of Russia for Sustainable Development and left the country. His departure was associated with his stance towards Ukraine, although Chubais did not make unequivocal anti-war statements publicly.

According to Bloomberg, the Head of the Central Bank Elvira Nabiullina planned to resign after the start of the special military operation, but the President refused her this. However, the First Deputy Head of the Central Bank Sergey Shvetsov stepped down from office. He was one of the key leaders responsible for the gold and foreign currency reserves, a significant part of which was frozen as part of Western sanctions.

Hundreds of famous Russian musicians, humorists, journalists, writers, scholars, and athletes declaimed against the war. Some Russian celebrities criticized Russia's 'special operation' in Ukraine and were immediately declared enemies of the state.

According to the Press Secretary of the President of the Russian Federation, Dmitry Peskov, 'enemies of the state' still persist among those who oppose the war. "Those who not only failed to understand and were scared but started slagging off the authorities, attacking military heroes are enemies of the state, and we would struggle against them", he said.

### **Support for Ukraine by the International Community**

The 'Foreign Legion' was formed in Ukraine, which included almost 20 thousand volunteers from 52 countries, according to the Minister of Foreign Affairs of Ukraine Dmitry Kuleba. According to media reports, the formation of the first battalions has already been completed, its basis consists of volunteers from North and South America, Europe, and Asia. There is a report that in Mariupol, natives of Croatia fought. As of the beginning of 2024, 10,000 foreigners fought on the Ukrainian side.

The US and European countries have sent Stinger (FIM-92) man-portable air defense systems and Javelin (FGM-148) man-portable anti-tank systems to Ukraine.

Stinger (FIM-92) was designed to defeat low-flying air targets (airplanes, helicopters, UAVs). It has a range of up to 4,500 m, a target height of up to 3,800 m, and a speed of 2,700 km/h. The cost of one complex with 1 rocket is up to \$100 thousand for the USA and its allies and up to \$300 thousand for export. As of the end of January 2022, the Armed Forces of Ukraine had up to 2,000 Stingers. Their number was further increased.

For the first time, Stingers were used by Americans against Russia in 1986 – they started supplying missile systems to Afghan Mujahideen. According to one

version, only thanks to Stingers, the USSR stopped the war in Afghanistan. It was reported that 269 of 340 missiles fired hit targets. The efficiency was almost 80%.

Javelin (FGM-148) is designed to defeat armored vehicles. It has a range of up to 4,500 m, an armor penetration of up to 800 mm, and a speed of 1,000 km/h. The cost of one complex with 6 missiles is \$1 million for the USA and allies and up to \$2 million for export. As of January 25, the Armed Forces of Ukraine had 377 launchers and 1,200 missiles. Supplies continue. During the Iraqi war (2003-2011), 12 American paratroopers destroyed an Iraqi armor company (10 T-55 tanks) thanks to Javelins. The Javelin's operator receives an image on the display from the target-seeking head, identifies and marks the target with a cursor, makes a shot, and changes position to avoid being hit by striking back. The target-seeking head is resistant to smoke, fog, or even electronic warfare devices. It guides the missile to the target by thermal radiation.

The US and European countries have handed over the Osa, S-300, S-300 V, and Strela-3 air defense missile systems of Soviet times to Ukraine. Their range is higher than that of Stingers, which allows them to hit cruise missiles. At the beginning of the Russian aggression, just the S-300 air defense missile systems were needed, which helped to shoot down R-500, Kalibrs, Onyxes, and Daggers.

About 30 S-300 air defense missile systems completed with several hundred missiles were sent to Ukraine. The number of missiles in stock is very important here, rather than the launchers themselves since one Soviet launcher has 4 missile guides, and two missiles are aimed at one target. The probability of hitting is virtually not more than 0.7. Also, the year of manufacture of the missiles is very important, the shelf life of which is less than 10 years.

The USA has provided Ukraine with:

- \* Switchblades 300 (against personnel) and 600 (against armored vehicles) killer drones equipped with cameras, guidance systems, and explosives. They are capable of automatically hitting targets.

- \* M777 howitzers. Their caliber is 155 mm; they have a GPS, a range of up to 24 km for standard shells and up to 40 km for smart ones (the circular probable deviation from the target is 5 meters), and a fire rate of 2 shots per minute. It is the lightest howitzer in the world. Its weight is 4,218 kg, so it is easy to tow.

- \* SAU M109A6 Paladin tracked vehicles. Their caliber is 155 mm; they have a range of up to 30 km and a fire rate of 8 shots per minute. The installation is equipped with secure and digital communication devices and has a single-channel ground and air radio system.

The international community has provided Ukraine with significant support in its struggle against Russian aggression. Here are some of the key contributions from various countries:

The United Kingdom has provided Ukraine with:

- \* Starstreak man-portable air defense systems. These high-speed missiles are designed to target low-flying aircraft and helicopters. They have a range of up to 6,000 m, a height of up to 5000 m, and a speed of 4,195 km/h.
- \* Brimstone high-tech missiles. These advanced air-to-ground radar-guided missiles have a range of 11.2 km, a launch height of 6,000 m, and a speed of 1,700 km/h.
- \* AS-90 self-propelled howitzers. This tracked vehicle has a caliber of 155 mm, a range of up to 30 km, and a fire rate of 2 shots per minute. It features automatic gun laying and projectile feed.

France has provided Ukraine with:

- \* 12 CAESAR self-propelled howitzers. This wheeled vehicle has a caliber of 155 mm, a range of up to 46 km, and a fire rate of 6 shots per minute. It features automatic gun laying and projectile feed.

Poland:

- \* 18 KRAB self-propelled howitzers. This tracked vehicle has a caliber of 155 mm, a range of up to 40 km, and a fire rate of 6 shots per minute. It has South Korean chassis (similar to that of the South Korean K9 Thunder and the Turkish T-155 Firtina self-propelled howitzers), German engine (similar to that of the South Korean K9 Thunder and the Turkish T-155 Firtina self-propelled howitzers and the German PzH 2000), and British gun turrets (similar to those of the English AC-90 self-propelled howitzer).

Germany:

- \* Panzerhaubitze 2000 self-propelled howitzer. This tracked vehicle has a caliber of 155 mm, a range of up to 50 km, and a fire rate of 10 shots per minute, and is considered the world-best one. It features automatic gun laying and projectile feed and a global positioning system (GPS). Shooting record: a range of 56 km and 20 shots per 1 minute 47 seconds.

Netherlands:

- \* Panzerhaubitze 2000 self-propelled howitzer from its arsenal. USA, United Kingdom, and Denmark:
- \* American AGM/RGM/UGM-84 Harpoon antiship cruise missiles. The missile has a subsonic speed (1,000 km/h) and a maximum range of 280 km. Ukraine will

not receive the UGM-type missiles (launched from submarines) since it does not have submarines.

Ukraine also purchased 5,100 Matador handheld antitank grenade launchers from Germany. The first batch of 2,650 units arrived on March 26, 2022. They have a range of up to 500 meters, an armor penetration of up to 500 mm, and a speed of 860 km/h.

Thanks to these supplies, the RF Armed Forces were unable to gain an advantage in the air, and any active use of aircraft and helicopters resulted in significant losses in vehicles and pilots.

Under these conditions, artillerymen conduct fierce counter-battery combat, where the winner is the one who opens fire faster and more accurately from a greater distance.

There is a significant difference between Russian and NATO artillery. Western systems shoot farther. It is extremely important to obtain the coordinates of the enemy and transmit them in real-time mode to the artillerymen, who should strike back as soon as possible.

The most important thing is that Western artillery systems have a digital fire control system. This system also allows for the programming of precise GPS-guided projectiles.

Ukraine appealed to the United States for military assistance in the form of MiG-29 fighter jets, Su-25 attack aircraft, and Mi helicopters of Soviet production. Several dozen pieces of each item were transferred to the Ukrainian military from the arsenal of former socialist countries of Eastern Europe.

Observers note that despite heavy losses, the Ukrainian Armed Forces still have aircraft. The Russian side reported shot-down aircraft, bombings, and missile strikes on Ukrainian airfields daily. By February 24, 2022, Ukraine had 152 fighters and bombers. Of them, 40 were training and combat training.

The West (Eastern European countries) transferred their aircraft to Ukraine (98 units) and spare parts for them. The Lviv Aircraft Repair Plant performed major repairs and modernization of MiG-29 fighters. Training and combat training aircraft were modified into combat ones. The Zaporizhzhia Aircraft Repair Plant performed major repairs and modernization of Su-27 fighters and Su-25 attack aircraft. It was the same aircraft repair plant that sold 12 MiG-29 fighters and 2 training and combat MiG-29UB vehicles to Azerbaijan in 2005-2007. Before the sale, they underwent major repairs and modernization at the Lviv Aircraft Repair Plant.

By February 24, 2022, Ukraine had 88 helicopters in its arsenal. The West also transferred helicopters (107 units). The Konotop Aircraft Repair Plant performed major repairs and modernization of Mi helicopters.

In 2007, the Konotop Aircraft Repair Plant modernized Mi-24 helicopters of the Azerbaijani Air Force to the Mi-24 Super Hind Mk.4 level under a modernization program developed by South African ATE.

Some military airfields in Ukraine were considered abandoned. Ukraine preserved the infrastructure there. There are also airfields and wooded areas for masking aircraft, where fuel can be delivered by refueling machines. Therefore, the Ukrainian Air Force managed to avoid total destruction at the beginning of the Russian aggression. Ukrainian aircraft take off from one airfield and return to another. They fly at extremely low altitudes to avoid detection.

Also, many countries have airfields that can be used as alternative runways. In 2018, the Su-34 fighter bomber and two heavy Su-30M2 and Su-27 fighters of the Russian Aerospace Forces landed on the highway during tactical flight training. Before that, only Su-25 attack aircraft and light Yak-130 fighters performed such an exercise.

Ukraine appealed to the United States for military assistance in the form of Soviet-made tanks. The New York Times reported this.

As known, some former Warsaw Pact countries, which are now NATO members, still have weapons and military equipment of Soviet production in their arsenal. Poland once produced T-72 tanks under license. Currently, the Polish ground forces arsenal has over 500 T-72 tanks. The other former socialist countries had about 200 units. These tanks were transferred to Ukraine. This number is enough for a counteroffensive. The Armed Forces of Ukraine took advantage of this.

On May 21, 2022, Washington and the US Department of Defense agreed to send Patriot air defense missile systems to Ukraine.

The cost of supplying 9 Patriot system batteries (4 launchers per battery) can reach \$9 billion. It comprises 36 Patriot PAC-3 GAMS (guided anti-aircraft missiles), 288 PAC-3 GAMS, 216 GEM-T guidance-enhanced GAMS, 10 phased array radar sets, and 10 target acquisition control stations. Their firing range is up to 100 km. The cost of launching one missile is about \$3 million.

The Patriot air defense missile system is designed to protect large administrative-industrial centers and naval and air force bases from all existing air attack means under conditions of the counterpart's strong electronic countermeasures. It can simultaneously detect and identify more than 100 air targets and continuously track 8 chosen ones. In April 2023, Ukraine received two batteries. A total of 3

Patriot PAC-3 MSE batteries from the United States and Germany and 2 launchers from the Netherlands are to be transferred.

On May 4, 2023, the Ukrainian Air Force announced that Ukrainian air defense systems had first shot down a hypersonic Kh-47 Dagger missile using the Patriot system. According to reports, the missile was launched from a MiG-31K in Russia. The interception of the Dagger missile by the Patriot air defense missile system was also reported by US government sources, as well as military experts and analysts.

On May 21, 2022, President Biden signed a bill that provides Ukraine with \$40.1 billion as additional appropriations for the 2022 fiscal year.

In 2022-2023, US assistance to Ukraine amounted to about \$80 billion, of which \$37 billion was allocated for military purposes. During these two years, the EU provided support for \$90 billion, of which \$27 billion was allocated for military purposes. Also, the US Senate approved a lend-lease bill, significantly simplifying military supplies.

During World War II, the Americans provided weapons and strategic materials to the allies of the anti-Hitler coalition under lend-lease. After the war, Washington offered to return the surviving equipment or compensate for its cost with American loans. Russia finished paying off its debts in 2006.

At the Tehran conference in 1943, Stalin named the pledge at a solemn dinner in honor of Winston Churchill's 69th birthday, in which he called the United States a country of machines and said, "Without these machines, supplied under lend lease, we would have lost this war".

On April 22, 2022, at the Ramstein US Air Force Base in Germany, under the chairmanship of US Secretary of Defense Lloyd Austin, an international Consultative Group on Ukraine Support meeting was held. It was attended by defense ministers from 43 countries, including NATO countries and 14 other states. Ukrainian Defense Minister Oleksii Reznikov read off a list: "We need air defense systems and UAVs, artillery systems, MLRS and tanks, APCs and IFVs, combat aircraft and anti-ship missile". The meeting participants established a special contact group coordinating military assistance.

Despite the difficulties, Ukraine is being rapidly rearmed and re-equipped. On the one hand, Soviet types of weapons are being supplied, which are familiar to Ukrainian military personnel. On the other hand, modern weapons are being supplied from the USA and Europe, for which Ukrainian military personnel are being trained.

The Ukrainian army has been shortly brought up to the level of NATO Armed Forces. Ukrainian military men are training at bases in Germany, the USA, and

Poland to master the skills of using NATO equipment under combat conditions. The Ukrainian Army is already using NATO tactics and strategies. However, it also bears losses. On May 7, 2022, the official representative of the Russian Ministry of Defense, Major General Konashenkov, reported that Russian military personnel had destroyed US and European weapons, supplied to Ukrainian fighters, in the Kharkiv region. According to his report, as a result of the strikes, up to 280 'nationalists' were killed, and 48 units of weapons and military equipment were disabled.

On May 21, Konashenkov reported that a large batch of weapons and military equipment delivered from the United States and European countries had been destroyed in the area of the Malin railway station in the Zhytomyr region by the Kalibr long-range sea-launched precision missiles.

During a war, such cases are frequent. Both sides strike at stations, depots, etc. They often bear losses. This was also the case during World War II. The United States, Great Britain, and allied countries sent aid to the Soviet Union, which was fighting against the German aggressors. In 1942, the Germans declared submarine warfare on the lend-lease armed escorts. Near the coasts of occupied Norway, German submarines lay in wait for the allies. They gathered in groups that tracked and sank the allies' ships. The largest catastrophe in the Arctic was the loss of PQ-17 armed escort in June 1942: more than 400 tanks, 3,000 cars, and 200 aircraft sank to the bottom. During the war, more than 14,000 British, American, and Canadian sailors died on the lend-lease sea routes. Almost a million tons of valuable cargo were lost.

## **Retreat**

In late March, Russian troops started systematically leaving the territories of Ukraine in the Kyiv and Chernihiv regions. Ukrainian media confirmed that Russian troops had left Irpin, Hostomel, and Bucha. They moved in two columns towards the Ukrainian border with the Republic of Belarus. They also retreated in the Borispil and Brovary districts. Re-deployment of up to 20 Russian military aircraft from Belarus to Russia started.

By the evening of April 2, Russian troops had moved away from Kyiv by 80, 70, and 130 km in the western, northern, and eastern directions, respectively. On April 3, Russian troops moved away from Kyiv in the Western and Northern directions. The Ukrainian Army regained control of the city of Prypiat (154 km from Kyiv) in the Kyiv region and reached the section of the border with Belarus.

On April 4, Russian troops left the city of Chernihiv.

On April 4, Russian troops completely left the Sumy region. Units of the Armed Forces of Ukraine reached the border with the Russian Federation in the Sumy region and took it under control.

On April 5, Russian troops completely left the Chernihiv region. Units of the Armed Forces of Ukraine reached the border with Belarus.

Since April 5, the Armed Forces of Ukraine have been engaged in heavy fighting on the approaches to the city of Kherson from the direction of Mykolaiv.

On May 21, 2022, after a successful counterattack, the Armed Forces of Ukraine advanced 25-30 km in the north-eastern and eastern directions from Kharkiv.

There were 5-10 km left to the Ukrainian-Russian border. In some places,

Ukrainian military personnel reached the Ukrainian-Russian border. The siege of the city of Kharkiv was withdrawn. Russian troops left the Kyiv, Chernihiv, and Sumy regions. They are not in the Zhytomyr region as well. As of June 17, 2022, the Russian Armed Forces were located in the territories of the Kharkiv (10%), Luhansk (70%), Donetsk (80%), Kherson (70%), and Zaporizhzhia (70%) regions.

After the retreat of Russian troops from Bucha, numerous evidence of war crimes committed by Russian soldiers – the killing of civilians, torture, rape, and looting – were discovered in the city. Bucha is a city in the Kyiv region of Ukraine and the administrative center of the Bucha district. The distance to Kyiv is about 35 km.

### Sabotage

In response to the harsh measures to suppress manifestations of war dissatisfaction in Russia, the people pay back in kind: in Russia, cases of arson of military enlistment offices have become more frequent. The first incident occurred on February 28, 2022, in the city of Lukhovitsy, Moscow Region. An unknown person smashed two windows of the military enlistment office and threw Molotov cocktails inside. From March 2022 to February 2024, about 160 cases of arson of military enlistment offices were recorded.

On August 3, 1943, during World War II, the ‘rail war’ operation began in Russia, Belarus, and Ukraine against the German invaders in the occupied territories. The parallels are not accidental: since March 2022, a new rail war has been waged in Belarus and Russia.

At the end of February 2022, the media reported the first diversions on Belarusian railways. Since then, diversions have become widespread. From February 26 to October 27, 2022, 57 cases were recorded. From the beginning of June 2022 to February 2024, about 80 diversions were committed on Russian railways, for which the Russian anti-war group Stop the Wagons took responsibility. This Russian anti-war movement undermines Russian railways in various ways to prevent the provision of the Russian Army with equipment, fuel, and ammunition.

These are ordinary people who collect information on the movement of military cargo and blow up small sections of the railway. As a result, the train movement stops for several hours.

Then, explosions arranged, most likely, by the Ukrainian special services, came into play. The first explosion occurred on May 1, 2023. At the 136th kilometer of the Bryansk-Unech section, the locomotive and eight cars carrying fuel and lumber derailed, causing a fire.

The last explosion of the railway branch was recorded on November 30, 2023. In Buryatia, on the Itykit-Okusikan section, an unknown person blew up a freight train consisting of 50 cars (41 tanks with diesel and 3 with aviation fuel). From May 2023 to December 2023, about 10 explosions occurred on Russian railways.

## **Sanctions**

Immediately after the start of the Russian aggression, when the facts of atrocities against the peaceful Ukrainian population were made public, the USA and the EU imposed harsh sanctions against Russia.

Sanctions against Russia are restrictive political and economic measures imposed by states and international organizations against the Russian Federation and some Russian individuals and organizations, involved in recognizing the independence of the DPR and LPR and the invasion of Russian troops into Ukraine in 2022 as part of the Russian-Ukrainian war.

The imposed sanctions comprise massive restrictions on Russia's financial system (including the Central Bank and the largest banks), the activity of some Russian companies and individual economic sectors, as well as the closure of airspace and seaports, personal sanctions against the leadership of Russia, major entrepreneurs, and, in some cases, their family members.

As of March 7, 2022, Russia became the world leader in the scope of imposed sanctions, surpassing Iran. They are followed by Syria, South Korea, Venezuela, Myanmar, and Cuba (208 sanctions). By April 6, the number of Russian individuals and legal entities under sanctions reached 8,257. Iran has 3,616 sanctions. By May 10, the number of sanctions reached 10,218, and by the end of 2023, almost 19 thousand.

China refused to condemn Moscow and criticized sanctions against Russia. However, Americans report they have not found open Chinese military and economic support for Russia, including any assistance in bypassing sanctions.

According to Reuters, China also avoided concluding new contracts between state-owned oil refineries and Russia, despite the sale of oil at a large discount. As far as in March, US President Biden warned Chinese President Xi Jinping that China would face consequences if it offered material support to Russia in Ukraine.

On April 3, 2023, US Secretary of State Antony Blinken reported that sanctions could be lifted depending on negotiations between Russia and Ukraine. The United States has stated that the availability of essential food and agricultural products, access to medicines and medical equipment, as well as telecommunication services to support the information flow and access to the Internet will not be subject to sanctions.

The war and sanctions undermined Russia's economic capabilities for many years. Russia was partially isolated from the global economy and found new economic partners to a limited extent.

However, the revenues of the Russian budget did not suffer from sanctions to a sufficient extent. Exports fell sharply due to sanctions, but despite this, India and Turkey imported, respectively, four and two times more Russian goods. China and Brazil sharply increased the volumes of purchases. Exports to Germany, Belgium, Spain, and the Netherlands also increased significantly.

Russian liquefied natural gas (LNG) is exported to Germany, France, Belgium, and the Netherlands. Over 2022 and 2023, Russia received about \$250 billion in profit from the sale of natural gas.

In 2022 and 2023, Russia's GDP (Gross domestic product) decreased by, respectively, 7.8 and 0.7%. A growth of 3.2% is expected in 2024.

According to US President Joe Biden, the alternative to sanctions would be the Third World War.

The American press increasingly mentions the International Criminal Court investigating war crimes. Accusations against Russia may be transferred to The Hague, but for 'tough actions' against Russian President Vladimir Putin and military leaders, the approval of the UN Security Council will be required, and there it will be blocked by Russia's veto.

### **Russia was not ready**

There was poor coordination between different groups of invading troops in Ukraine. Russia had about 100 battalion tactical groups available for operations. With such tactics, they were held back by a smaller number of Ukrainian units that acted much smarter and suddenly.

For 730 days of the war, Russia lost about 34 percent of its combat aircraft, about 36 percent of helicopters, more than 80 percent of armored vehicles, and more than 80 percent of tanks. If the war continues, then the losses will be greater. Another year of war will leave the Russian Armed Forces virtually without modern aircraft,

helicopters, tanks, and armored vehicles. They will need to use machinery from storage, which is unlikely to be functional.

In late May 2022, de-mothballed T-62 tanks appeared near Melitopol. This Soviet first-generation medium and main tank was created based on the T-55 tank and manufactured in the USSR from 1962 to 1975. As of 2016, there were 2,500 T-62s in storage. Some of them were de-mothballed after Russia invaded Ukraine.

Russia also had more than 2,000 T-64 tanks in storage, which were similar to T-72 ones. These tanks were manufactured by the Malyshev Kharkiv Plant of Transport Engineering. Russia has no way to restore and modernize the T-64 tanks. The T-62 was preferred for modernization for the following reasons:

- it is easy to train mobilized personnel on these tanks;
- it has lower maintenance costs;
- Russia does not have optics, night vision devices, and other equipment required to modernize the T-72 and T-80 tanks;
- several months are needed to restore and modernize the T-72 and T-80 tanks after the mothball.

In total, it was planned to modernize 800 T-62 tanks. The modernization is performed by the 103rd Armored Repair Plant in Atamanovka near Chita. In addition to these old tanks, the Russian military is massively using the old MT-LB (tracked lightly armored transporter, accommodates 11 troops) and BTR-50P (tracked lightly armored transporter, seats 20 troops).

In December 2022, Russian military personnel, deployed in the Luhansk region, received only 50 modernized T-90M tanks. In 2023, the ground forces received about 1,500 new and modernized tanks, of which 200 were T-90Ms.

The T-72B3 and T-90 tanks are third-generation tanks. The Russian Armata, Turkish Altay, and South Korean K2 represent already the fourth generation. The Russian tank and the Turkish Altay are still undergoing testing as prototypes, and the Korean one is serially manufactured.

The American M60A1 tank was an analog of the T-62. Unlike the T-62, the American tank has been modernized many times and is still in service today. For example, currently, the Turkish Army has about 930 M60 tanks. Over the last 10-12 years, Turkey has actively modernized them, changing guns and engines and installing active protection and electronics. M60T and M60TM emerged.

Compared to the Russian T-72B tank, these machines have better body armor and more modern targeting and fire control systems, and the Turkish tank's power is higher. However, the Turkish tank (59 tons) has low mobility characteristics compared to the T-72B (46.5 tons).

Russia is capable of manufacturing 100 aircraft, 180 helicopters, 200 tanks, and 800 armored vehicles annually.

As of November 16, 2021, the RF Armed Forces fleet had:

Fighter aircraft – 534, Bomber aircraft – 435.

The total number was 969, of which about 150 were modernized, and about 100 sent to storage.

The Ukrainian Armed Forces shot down 332 aircraft.

Military losses – about 34%.

Multi-purpose helicopters – more than 600.

Attack helicopters – more than 300.

The total number was about 900.

The Ukrainian Armed Forces shot down 325 helicopters.

Military losses – about 36%.

The total number of tanks was about 12,500.

Of them, 2,800 more modern T-72B3, T-80BV, and T-90M tanks were in service.

The most modern of them is the T-90 (300-500 units). The rest are T-55, T-62, T-72, and T-80 of various modifications. Old tanks from storage went into battle.

The Ukrainian Armed Forces stroke 6,433 units, 80% of the best tanks.

IFVs – 5,160

APCs – 6,100, of which 3,500 were MT-LB (lightly armored, used for transporting artillery pieces, ammunition, and other auxiliary work).

The total number was 12,282.

The Ukrainian Armed Forces stroke 12,043.

Military losses – about 80%.

As for the losses of the Armed Forces of Ukraine, Ukraine lost about 50 percent of heavy weapons. The Commander of the Ground Logistics Forces, Volodymyr Karpenko, and the Deputy Defense Minister for Procurement, Denys Sharapov, reported this on June 17, 2022, in an interview with the National Defense magazine. Karpenko stressed that they are only talking about heavy weapons. “To date, we have about 30 to 40, and sometimes up to 50 percent of equipment losses as a result of active combat operations”, said the Ukrainian General. According to

him, about 1,300 infantry fighting vehicles, 400 tanks, and 700 artillery systems were lost. According to Sharapov, the length of the front line is 2,500 kilometers, and the advanced positions, where active combat operations are taking place, are more than 1,000 kilometers. Karpenko added that one brigade holds about 40 km of the front. This means that to cover the front line, they need 40 brigades, each of which should include 100 IFVs, 30 tanks, and 54 artillery systems.

Press Secretary of the President of the Russian Federation, Dmitry Peskov, called the significant losses among Russian servicemen during the Ukraine operation a huge tragedy. He made the corresponding statement on April 8, 2022, on the British TV channel Sky News.

The Russian side believes that the 'special operation' in Ukraine can end by diplomatic means. The further development of events depends on the Ukrainian position and agreement with the Russian conditions.

The Russian conditions are as follows:

- non-aligned status;
- recognition of the DPR and LPR within the borders of 2014;
- full denazification, removal of restrictions on the use of the Russian language in political life, media, publishing, and culture as a whole, as well as education and social and other areas of life;
- recognition of Crimea as part of Russia;
- limitation of the Armed Forces of Ukraine by types and branches of troops, numerical composition, and weapons according to the real national security needs;
- creating an international group of guarantors to ensure the implementation of the accepted conditions, documenting them by international legal acts, and the security of Ukraine. The United States, Germany, France, Italy, Turkey, Belarus, and other countries can participate;
- the group of international ed on Russia.

### **Russian list of extremist organizations**

The following Ukrainian parties and organizations have been recognized as extremist in the Russiguarantors should ensure the phased cancellation of sanctions and restrictions imposan Federation:

\*The National Corps, founded in 2016 by Andriy Biletsky, who previously founded and headed the Social-National Assembly and Patriot of Ukraine. The party was created by the Azov battalion veterans.

\*The Azov Civil Corps (the abbreviation Azov CC is also used) – a far-right socio-political movement, which was established in the spring of 2015 by pro-Ukrainian activists based on the Azov regiment supporters. The Azov Civil Corps calls the aim of its activity “the fight against internal enemies to clear the way into politics for youth and patriots of Ukraine”.

\*Azov Separate Special Operations Regiment – a detachment within the military unit 3057 Eastern Military Unit of the National Guard of Ukraine. It was formed in May 2014 in Mariupol by volunteers, initially as a battalion of the Special Purpose Militia Patrol Service of the Ministry of Internal Affairs of Ukraine. In September 2014, it was deployed into a regiment, and in November 2014, it was reintegrated into the National Guard of Ukraine.

\*24th Separate Assault Battalion Aidar – a unit of the Ground Forces of the Armed Forces of Ukraine, formerly the 24th Territorial Defense Battalion Aidar of the Luhansk region. Its name originates from the Aidar River. The Commander is Eugene Ptashnik.

\*Freedom All-Ukrainian Union, leader Oleh Tyahnibok and Andriy Ilyenko.

\*Right Sector, leader Andriy Tarasenko.

\*Stepan Bandera All-Ukrainian Organization Tryzub, leader Viktor Serdulyets.

\*Brotherhood All-Ukrainian Political Party, leader Dmytro Korchynsky.

### **The Ukrainian side has its list.**

On April 12, 2022, Viktor Medvedchuk, a Ukrainian public and political figure and a member of the Verkhovna Rada of Ukraine since August 2019, was arrested. Medvedchuk was hiding from law enforcement bodies and even wore a Ukrainian military uniform for camouflage. He was the leader of the Opposition Platform -

For Life party and the Ukrainian Choice public movement. He was often accused of lobbying for Russian interests. His father was in exile for his involvement in Ukrainian nationalist activity. In 2017, Vladimir Putin called Viktor Medvedchuk ‘a Ukrainian nationalist.’ Viktor Medvedchuk had been close to Putin for 20 years. They had joint vacations in the Black Sea and joint business. Vladimir Putin is the godfather of his daughter Daria (born May 20, 2004), i.e., Medvedchuk’s compadre.

Representing Russia’s interests in Ukraine, Medvedchuk’s political party was the largest opposition force with millions of supporters. On February 19, 2021, Ukraine announced the arrest of the Medvedchuk family’s assets. On February 21, the Russian Ministry of Defense announced the transfer of 3,000 paratroopers to the border with Ukraine for exercises. Since May 2021, Medvedchuk has been under house arrest. On the evening of February 21, 2022, the Prosecutor General’s

Office of Ukraine reported that Medvedchuk had escaped from house arrest (his wife had already left the country by that time). On March 16, all his property was arrested, and on March 18, he was arrested in absentia by the court and declared wanted internationally. In April, his yacht for \$180 million was detained in Croatia. Oksana Marchenko, Medvedchuk's wife, owns 61% of NZNP Trade (drilling of oil wells in the Khanty-Mansi Autonomous District). Marchenko also owns a controlling stake in four more companies - Novoshakhtinsk Refinery (processing 5 million tons of oil per year), NZNP Trading House, Yug-Energo (an energy company operating in the Rostov and Volgograd regions), and Rosewood Shipping (owns five units of tanker fleet, port of registration – Taganrog). The controlling stakes belong to Cypriot Ventolor Investment Limited, in which 100% of the shares are owned by Marchenko.

All of Marchenko's companies were engaged in illegal supplies of coal mined in Donbas to Russia and fuel from Russia to the uncontrolled territory.

### **Migration Flow**

After February 24, 2022, hundreds of thousands of Russians moved to Kazakhstan, Georgia, Armenia, Turkey, Azerbaijan, Uzbekistan, Kyrgyzstan, Tajikistan, and other countries. The total number of people leaving the country ranges from 800,000 to 1 million. The number of migrants is classified. The flow of refugees does not run out. Some people are fleeing to the West through legal channels via Turkey, Azerbaijan, Kazakhstan, Kyrgyzstan, and Armenia, and some settle in these countries. Therefore, airfares to these countries have sharply increased. Real estate prices have risen in Baku, Tbilisi, Batumi, and Antalya. There are more and more Russian-speaking people in major cities in Turkey. There are also many Ukrainians.

One can confidently say that Russia is experiencing the largest wave of migration after the October Revolution of 1917. More and more often, you can hear Russian speech in Tbilisi, Batumi, Istanbul, and Antalya. "Scratch any Russian, and you will find a Tatar", Vladimir Putin once said. Some say that this phrase was first uttered by Napoleon Bonaparte. This phrase was also used by Karamzin, Pushkin, Fyodor Dostoevsky, Ivan Bunin, Gogol, Kuprin, and other Russian writers, poets, and philosophers.

This phrase was logical in the XIX century. Then the Jew domination era started, which transformed into the social-democratic revolutionary movement in Europe. Karl Marx was a purebred Jew. Many members of this movement in different countries were also Jews. Who stood at the origins of creating the Soviet country?

These were Jews: Lenin, Trotsky, Stalin, Sverdlov, Kamenev, Zinoviev, Uritsky, Chicherin, Lunacharsky, Volodarsky, etc.

There are also many Jews in Putin's entourage: Prime Minister Mishustin, Chairman of the Federation Council Valentina Matviyenko, a member of the Security Council, former Prime Minister and President Dmitry Medvedev, Moscow Mayor Sobyenin, and many others.

Many have hidden and are hiding their Jewish origin; Zhirinovskiy, singer Kobzon, and humorist Galkin did not hide this. The phrase that appeared on social media, 'Scratch any Russian, and you will find a Jew' is true.

## **Russian Blackmail**

Russia continues brandishing its nuclear weapons against the background of the war in Ukraine. On April 20, 2022, the Russian Ministry of Defense announced the first successful launch of the Sarmat missile. It is allegedly intended to replace the Soviet Voevoda missile, more commonly known as Satan. The missile has a speed of up to 30,000 km/h, a weight of about 200 tons, and a range of up to 18,000 km. It has 10 warheads, 750 kilotons each. The Sarmat is equipped with a separating warhead with individual guidance blocks.

The Russian press immediately began propaganda, claiming that the Sarmat was a 'hint to Biden,' a 'gift to NATO,' etc.

Contrary to the statements by Russian leaders, experts believe that the Sarmat complex will not provide Russia with a successful immediate nuclear counterstrike.

Experts note that the power of the Sarmat warheads is approximately equal to 470 bombs dropped on Hiroshima. The Soviet Satan, for comparison, had a power equal to almost 1000 bombs dropped on Hiroshima.

The Sarmat complex is silo-based. It has long been believed that intercontinental ballistic missiles (ICBMs) located in silos are currently one of the vulnerable elements of strategic nuclear forces – their location is known in advance, and they can be targeted.

Russian ICBMs can reach the west coast of the United States in 30 minutes and the east coast in a few more minutes.

Prospective and tested Russian ICBMs can reach the west coast of the United States in 15 minutes.

American air-based ICBMs can reach Moscow in 4-5 minutes, submarine-based ones in 5-7 minutes, and silo-based ones on the US territory – in 30 minutes.

On April 26, 2022, the Head of the Central Scientific Research Institute of the Aerospace Defense Forces of the Russian Federation, Sergey Yagolnikov, stated

that the US missile defense (ABM) system is capable of shooting down Russian ICBMs on the 150th second of flight.

The First Deputy Chief of the General Staff of the Russian Armed Forces, Lieutenant General Viktor Poznikhir, stated that the deployment of the ABM system in the northeast of the United States would allow the interception of all Russian and Chinese ballistic missiles aimed at the United States. Scholars from the Russian Ministry of Defense established that the American ABM system was targeted specifically at Russia and China.

The war promises to be protracted. The morale of the Russian Army Forces is low, as is the level of communication and coordination. Officers and soldiers do not understand what they are fighting for or why they are bombing cities and towns. The Ukrainian side did not believe in the war until it had begun. They did not know in which directions and with what forces the Russian Army would conduct its offensive. In the first days of the war, Russian troops advanced dozens of kilometers daily in the south of Ukraine and the Kyiv direction, facing no organized resistance. Then, Ukrainian brigades were moved to meet the Russian troops near Mykolaiv, Chernihiv, Kyiv, and Zaporizhzhia, and the pace of the Russian offensive dropped to kilometers per day.

Meeting the defense of infantry, which has powerful anti-tank systems, the attackers are forced to stop and deploy their artillery. Meanwhile, the counterpart identifies the attacker's positions using drones and delivers artillery strikes on them. Both sides use this tactic, which disrupts the counterpart's advance. The battles turned into mutual destruction of objects by artillery strikes without significant progress. The Russian army does not have an advantage in reconnaissance and targeting, especially in unmanned systems, and cannot completely suppress the Ukrainian artillery. The Ukrainian army cannot suppress the Russian one at this point due to the lack of firepower. Snipers are actively shooting from both sides with large-caliber (9-20 mm) sniper rifles.

On July 21, 2022, TASS reported that the Russian SBLK-14S Twilight rifle, the longest-range one in the world, had first been used during a 'special military operation' in Ukraine, in particular, by snipers near Kharkiv and Kyiv. It was reported that "it was quite heavy, comparable in weight to the ASVK (Russian large-caliber army sniper rifle created in 2004, - TASS' note); its cartridges are very expensive, and it is difficult to get them, especially under combat conditions". The value of this rifle is that it is the lightest in its class. The key disadvantage is that it does not have a magazine and is loaded manually.

In 2017, a world record was set - the target was hit at a distance of 4,210 m. The bullet speed of this rifle is 900 m/s. The Twilight cartridges – 408 Cheyenne Tactical are manufactured and sold by American CheyTac Associates producing long-range bullets.

The ASVK Russian large-caliber rifle (as well as OSV-96, Vykhop, 6S) with a 12.7x108 mm cartridge has a weight of about 14 kg and a firing range of 1,500-1,800 m.

Since 2015, the Kyiv Mayak Plant has been manufacturing an SGM-12.7 large-caliber rifle with a 12.7x108 mm cartridge, which has a weight of about 17 kg and a firing range of 1,500 m.

Russia does not manufacture a large-caliber rifle with a 14.5x114 mm cartridge. Sniper rifles of this caliber are manufactured by several countries, including the USA, South Africa, Austria, Ukraine, and Azerbaijan.

The Ukrainian HADO-Holding private company from Kharkiv manufactures the Snipex Alligator large-caliber rifle with a 14.5x114 mm cartridge, which has a weight of about 28 kg, a firing range of 2,000 m, and a maximum range of up to 7,000 m.

The situation may change if the Russian side begins to use aviation more actively. In this case, the Russian side will accelerate the offensive or try to destroy the supplied equipment. It will have to use aviation and missiles in the Ukrainian rear. In such an operational environment, the Ukrainian side needs high-precision and long-range howitzers, reactive multiple rocket launchers, and kamikaze drones. The arrival of modern self-propelled howitzers and multiple rocket launchers will allow the Ukrainian forces to deliver accurate artillery strikes on the positions and advancing units of the enemy.

### **The Role of Artillery**

In the war of Russia against Ukraine, artillery has become a decisive factor affecting the success of military operations. The use of artillery in armed conflicts is of crucial importance, capable of causing up to 70% of all combat losses. It is artillery that delivers the key problems – it is difficult to hide from and suppress. According to experts, “The RF Armed Forces exceed the Ukrainian ones in artillery and ammunition, respectively, twentyfold and fortyfold.” According to Russian analysts, neither the USA nor any other NATO country has even approximately such an amount of artillery that can be opposed to Russia. It has more than a thousand 152 mm Giatsint-B (range up to 33 km) only, and the number of 122 mm D-30 howitzers (range up to 22 km) is more than 10 thousand. Europeans and Americans have gradually begun to supply Ukraine with artillery and appropriate ammunition.

Towed artillery is easy prey for a developed counter-battery system. In the first stage, Ukraine received 20 units of American AN/TPQ-36. This system is designed to detect and determine the coordinates of the firing positions of mortars, artillery guns, and MLRS to ensure counter-battery fire, and is towed by the Humvee.

Also, according to Russian military personnel reports, Ukrainian artillerymen have learned to hit targets accurately since they receive precise reconnaissance data and widely use drone spotters and counter-battery systems. Russian media claim that the Russian Armed Forces in Ukraine are using the full artillery arsenal, among which the Koalitsiya-SV self-propelled howitzer stands out. The declared firing range is specified as either 65, 70, or even 80 km. The fire rate is 16 or even 20 shots per minute. «There are no analogs in the world».

First, the Koalitsiya-SV self-propelled howitzer has been manufactured since 2013 and operated since 2015. 48 pieces were manufactured. Why so few? Why are on average 5-6 units of this weapon virtually manufactured annually? Why is it not exported? Why do the South Koreans manufacture 100 units of K9 Thunder (one of the best in the world) per year and export them but Russia does not?

Second, there is no evidence and confirmation of the declared specifications. According to some sources, the unit has a fire rate of more than 10 shots per minute and a range of 40 km with ordinary shells and 70 km with guided ones. 10-12 shots can be fired in the first, even in the second minute. And how many can be fired in a continuous mode? It has 70 shells. No data.

Currently, the share of towed guns is reducing, giving way to self-propelled artillery. Self-propelled howitzers have high mobility, off-road capability, and sufficient protection, which allows them to provide continuous fire support for moving troops.

For example, the Turkish ground forces have 1,100 self-propelled howitzers of various modifications, of which 300 are Firtına T-155, considered one of the best in the world. Turkish T-155 Firtına self-propelled howitzers (range up to 40 km, 6 shots per minute) were successfully used in Iraq and Syria.

During the Second Karabakh War (September 27 - November 9, 1920), the Azerbaijani Army actively used artillery. A unit of UAVs, self-propelled howitzers, MLRSs, ATGMs, and artillery was arranged. The interaction was ensured by satellite navigation. Correction and targeting were maintained by both satellite navigation and diversion reconnaissance groups (DRG). Also, 36 Czech Dana wheeled self-propelled howitzers with a 152 mm caliber were united into an individual artillery brigade, which showed devastating results, moving from one area of combat operations to another on the southern front.

On June 23, Russian media reported that the Ukrainian military had lost 2 CAESAR self-propelled howitzers. Representatives of Uralvagonzavod wrote: «Please convey our gratitude to President Macron for the donated self-propelled Howitzers». It is not reported where exactly and under what circumstances the French units could have been captured. The General Staff of the French Army stated that this information «is contrary to fact».

Starting from May, Ukraine has been receiving self-propelled howitzers Zuzanna 2 (Dana in Czech) from Slovakia, Krab from Poland, AS-90 from the UK, and CAESAR from France. Since June, Ukraine started receiving the Panzerhaubitze 2000 self-propelled howitzers from Germany.

The German Panzerhaubitze 2000 and the French CAESAR wheeled self-propelled howitzers, the Turkish Bayraktar UAVs, American kamikaze drones, and Ukrainian commandos managed to change the course of the war in Ukraine.

On December 31, 2022, it was officially announced that Kraus-Maffei Wegmann (KMW) has started manufacturing the RCH-155 self-propelled howitzers for Ukraine. The turret of the best German Panzerhaubitze 2000 and the chassis of the popular German Boxer armored personnel carrier will be used. The speed of this automated self-propelled howitzer (crew of 2 people) is 100 km/h on the highway, and the fire rate is 9 shots per minute. It has a firing range of up to 40 km with regular shells and up to 80 km with high-precision Vulcano ones (German-Italian guided shells).

According to Russian experts, the Ukrainian Armed Forces (UAF) use mobile artillery. When Russian artillery strikes in one place, they immediately move. Due to this tactic, it is difficult to determine whether the artillery has been suppressed or not. Therefore, Russian data on the number of destroyed artillery systems do not show the truth and are not reliable.

## **Drone War**

In the war of Russia against Ukraine, the number of drones, shot down from February 24, 2022, to February 24, 2024, – 19,761 draws attention since this is a record for the entire history of their global use. The UAF shot down 7,371 drones, and the RF Armed Forces – 12,390 ones.

Ukraine has activated domestic production. Also, drones were supplied from abroad. Both sides did not specify the types of UAVs. Only Turkish Bayraktar TB2 drones were reported. According to media reports, Ukraine received 40 drones from Turkey. At the end of 2021, Ukraine launched its production of Bayraktar TB2 drones with domestic engines. The efficiency of these drones continues to amaze all experts. On July 19, 2022, the Director General of Baykar Makina, Haluk Bayraktar, stated that the company would not sell its UAVs to Russia.

Back in 2016, the Chernihiv-based Chezara enterprise acquired a license from Poland for the mass production of the Sokil Warmate UAV, which has a total weight of 4 kg, including a 1 kg warhead, and a 10-30 km range.

The Russian side reports that the Ukrainian military very actively uses UAVs but cannot hit intended targets due to the Russian electronic warfare systems. These

include the Krasukha, Borisoglebsk, Repellent, and other electronic warfare systems.

The Borisoglebsk EW is designed to disrupt the work of communication systems and GPS. The Krasukha EW is designed to protect command posts, troop formations, air defense systems, and important objects. The Repellent EW is used to suppress UAV actions at a distance of 30-35 km. They are capable of paralyzing the counterpart's entire communication network. According to the Russian side, the efficiency of using American kamikaze drones or Switchblade loitering munitions has been less than 20% due to Russia's use of EW systems on the battlefield.

The Russian side's statement is not entirely true. Firstly, Switchblade is a short-range drone (15 min flight time, 10 km range). This is enough time for a unit to deploy the drone, call in artillery, and then destroy one of the enemies. After launch, it immediately disappears. This is very useful for special units operating on the front lines or in enemy territory.

Secondly, Russian EW systems, used by Armenian units in Karabakh, demonstrated their inefficiency against UAVs during gunfights with the Azerbaijani Army. The Armenian Army had the Krasukha, Repellent, and the most advanced Leer-3 EW systems, among others.

The Russian side reports that the Pantsir-S air defense missile and gun system and modifications of the Tor air defense missile system have been most successful against UAVs. They shot down 1,218 UAVs. However, most of the 'shot down' UAVs are kamikaze drones and old Soviet Tu-141 and Tu-143 UAVs, which have good capabilities in overcoming their counterpart's air defense due to their speed. However, their instrumentation is outdated - they use photographic film for reconnaissance and must return to the landing point. From 1979 to 1989, the Kharkiv Aviation Plant manufactured a total of 152 Tu-141 UAVs, a significant portion of which remained in Ukraine. 950 Tu-143 UAVs were manufactured. The number of UAVs stored in Ukraine is unknown. After 1991, they were used as targets for air defense training exercises in the Armed Forces of Ukraine. They are now used as targets to distract air defense forces and determine their locations.

In 2014-2015, it was reported that Ukraine planned to upgrade its Tu-141 and Tu-143 UAVs. In March 2022, the Ukrainian modernization project became known. A nonorganic heavy-load warhead is installed on the UAV. Then, the Tu-141 becomes a low-precision guided missile. The weight of the UAV itself is about 1,000 kg, the speed is up to 1,000 km/h, and the range is up to 180 km.

In 2021, Ukrainians developed the UJ-22 Airborne UAV, the main ammunition of which is unguided 82 mm mortars. The flight speed is 160 km/h, the useful load is 20 kg, and the range is up to 800 km.

In 2022, Ukrainians developed the Beaver kamikaze drone. Its length is 2.5 m, the wingspan is 3.5 m, the speed is 150 km/h, the useful load is 5 kg, and the range is up to 1,000 km. The UAV is equipped only with an autopilot, allowing it to fly to a specified point according to a predetermined route. It is navigated using satellite signals.

Starting from May 3, 2023, the Ukrainian side began to strike Moscow, the Moscow Region, and other Russian cities with these UAVs.

The main Russian Orlan-10 UAV is used in Ukraine for reconnaissance, supporting escorts, detecting targets, and correcting fire. The Orlan-10 UAV can also be used as a fire control and real-time artillery correction system for the Msta-S self-propelled howitzers located 20-30 km away from the target. The Russian military also uses UAVs such as Granat, Zastava, and Zala flying at altitudes of 2,000-3,000 m.

The Orlan can reach an altitude of 5,000 m and has a range of 120 km. The Granat has a range of 100 km. The Zala and Zastava have a range of, respectively, 70 and 10 km. These UAVs are not strike-capable; they cannot carry weapons.

Western experts who have examined crashed Russian drones in Syria note that most of them have relatively low quality and no signs of damage from bullets or air defense systems. This meant that they crashed due to mechanical failure, electronic fires, or software malfunctions.

The Russian military also uses Chinese small drones such as DJI Mini 2 and Mavic 3, which can reach altitudes of 500 and 200 m and fly 4 and 2 km, respectively. They are cheap and can be purchased in regular stores.

Other Russian drones such as Forpost and Orion may carry up to 200 kg of ammunition. The Forpost UAV, unlike the Orion, is not a Russian design. It is based on the Israeli Searcher Mk II UAV.

In 2009, Russia purchased two Israeli Searcher Mk II UAVs and a year later, signed a contract with an Israeli company for their assembly. In 2012, the manufacture of the Forpost UAV was launched. The number of UAVs manufactured and whether the Israeli company continues to supply components for them is unknown.

Kronstadt was supposed to supply 7 Inokhodets UAV complexes (also known as Orion) to the Russian Armed Forces in 2021. Each complex included 3 UAVs. However, mass production started only at the end of 2021. The UAV's engine is Austrian, and a Russian equivalent is being developed. Austria does not supply engines due to sanctions.

On July 16, it was reported that Russia used the Lancet kamikaze drone in Ukraine. It has two versions - Lancet-1 and Lancet-3. The first one can stay in the

air for 30 minutes and carry a payload of up to 1 kg, while the second is designed for 40 minutes and a payload of up to 3 kg. They have a range of up to 30 km and can reach an altitude of up to 5 km.

This drone was shown for the first time in April 2021. It was manufactured by Zala Aero Group from the Kalashnikov Group. Russian journalists called Lancet the killer of Bayraktars and a real weapon of the 21st century. On February 18, 2022, RIA Novosti journalists reported the use of the Lancet kamikaze drone in Syria. There is no information on the successful use of these drones in Syria, but the Ukrainians successfully landed the Lancet-3 in the Zaporizhzhia region.

Moreover, the Lancet has imported components purchased during the manufacture of the initial batch. there is almost no chance to start mass production.

In 2021, at a meeting on defense industry issues in Sochi, President Putin stated that the Russian Army had more than two thousand UAVs. It is unknown where he got this number from. It is well known that the Russian Army virtually has no strike UAVs but mainly short-range ones for reconnaissance at the tactical level over the battlefield.

Russia had several prototypes of strike UAVs. But for successful military actions, it needs hundreds.

Today, Israeli and American UAVs are considered the best in the world. Turkey is in the third place. Turkey has launched the Akıncı UAV (1,350 kg combat load) with Ukrainian engines. China has a huge range of UAVs. However, China does not yet have strike drones with a combat load of 1,000 kg or more.

Russia is developing and manufacturing a wide range of UAVs, but it lags far behind other countries in technical terms. Also, Russian UAVs have many imported components. In the near future, the shortage of foreign components will become a great problem for the manufacture of Russian UAVs.

The Azerbaijani Army, for the first time in the history of wars, actively used kamikaze drones and reconnaissance and strike UAVs during the Second Karabakh War and proved their efficiency in practice.

During combat, the distance between motorized units is several kilometers; artillery strikes reach up to 30 km, and with the latest self-propelled howitzers – up to 50 km. Strike UAVs precisely hit counterpart's equipment, command posts, and warehouses deep in the rear. They also have a very strong psychological impact on the enemy.

On July 24, 2022, it was reported that Iran handed over a batch of Mohajer-6 (reconnaissance-strike, up to 100 kg combat load, a copy of the Turkish Bayraktar TB-2) and Shahed-129 (reconnaissance-strike, up to 400 kg combat load, a copy of the Israeli Hermes-450) UAVs to Russia. Russian propaganda immediately started

tooting its horn that Iranian strike UAVs will change the course of war since they have already shown their capabilities in military conflicts in Syria and Iraq and are on armament in Venezuela, Libya, Syria, Sudan, Ethiopia, etc. Iran also hands over UAVs to non-state formations such as HAMAS (Palestinian Islamist movement ruling in the Gaza Strip), Hezbollah (a militarized Lebanese Shia organization and political party), and Ansar Allah (the Houthis – militarized Shia-Zaidi group operating in Yemen). Tajikistan is assembling its Ababil-4 UAV (reconnaissance-strike, up to 40 kg combat load), and Venezuela is launching the production of Mohajer-6 UAVs (reconnaissance-strike, up to 100 kg combat load).

The Iranian aviation industry has long been actively engaged in the development of unmanned aerial vehicles. Hundreds of types of such vehicles with different capabilities and tasks are being developed, produced, and operated. The most common in Iran is the Mohajer UAV family, the most popular of which is the Mohajer-6 (a copy of the Bayraktar TB-2), the mass production of which started in 2021. A guided missile (a copy of the Israeli Spike-ER) has been created for this UAV. It is known that in Ethiopia, this missile successfully destroyed a T-72 tank.

There is almost no information on the real combat characteristics of Iranian UAVs since they have not yet been used in any major and large-scale conflict. Therefore, the real efficiency of the vehicle is unclear. Bayraktar TB-2 has proven itself in Syria, Libya, Karabakh, and Ukraine. Information on Iranian UAVs is scarce. For example, according to experts from Jane's (a British publishing house specializing in military and transportation topics), Iranian UAVs are vulnerable. In 2017, US Air Force F-15 fighters shot down two Shahed-129 UAVs. Israeli aircraft and the Patriot air defense missile system destroyed several unidentified UAVs, presumably assembled in Iran and supplied to Hezbollah.

The total number of UAVs in Iran is also unknown. According to some data, for military needs, Iran has ordered only 40 Shahed-129 drones, which should be supplied by 2024. The drone was commissioned in 2012. By 2021, 30 units had been manufactured, and they are being built at a rate of three vehicles per year.

The drone ammunition is anti-tank guided missiles with thermal imaging guidance, as well as adjustable aviation bombs of Iranian production. It is also unclear how effectively the drone can use them.

The Shahed-129 and Bayraktar TB-2 engines are, respectively, Austrian Rotax 914 and 912 engines with a power of 100 hp. Canadian Bombardier Recreational Products (owner of the Austrian company) no longer sells such engines to Iran due to the embargo. It also refused to supply engines to Turkey due to the use of UAVs in the Second Karabakh War (September 27 - November 9, 2020), and Turkish TEI started their domestic manufacture.

Starting from October 2022, Russia started using the Iranian Shahed-136 kamikaze drone (Geran-2 in Russia), which is inefficient on the front line. Therefore, they are launched at civilian targets in the rear. Only on October 17, 43 were launched to Ukrainian cities, of which 37 were shot down.

On August 25, Norway and England decided to hand over about 230 PD-100 Black Hornet Nano micro UAVs of the helicopter type – the world-smallest military UAV – to Ukraine.

The Black Hornet Nano is equipped with two video surveillance cameras. Data is transmitted to the control station in real-time mode. The length is 100 mm, the width is 25 mm, and the weight is 18 grams. The system weight with the display is 1.3 kg. Its flying speed is 5 m/s at wind speeds of up to 8 m/s. The maximum flight duration is 25 minutes at a range of up to 1 km. The latest version – FLIR Black Hornet 3 has a speed of 6 m/s and a range of 2 km. The cost of the system (UAV + control display) is \$20,000. It has been developed and mass-produced since 2012 by Norwegian Prox Dynamics. In 2016, the company was acquired by American FLIR Systems. This inconspicuous micro-helicopter is used as a close-contact reconnaissance vehicle in the Armed Forces of the USA, France, England, Germany, Austria, Norway, the Netherlands, and Turkey.

The USA has also provided Ukraine with the L3 Harris VAMPIRE portable modular missile system, not depending on transport vehicles with laser-guided ground-to-ground or ground-to-air ammunition. It is designed to be installed in any pickup or car with a plane surface, can be configured with various sensors and weapon packages, and is fully autonomous. The system comprises an electro-optical detection station on a telescopic mast and a four-charge launcher for 70 mm APKWS guided missiles with a semi-active laser-guided system. Thus, ordinary standard unguided 70 mm missiles have been converted into laser-guided ones. The missile weight is 15 kg, the speed is 3,600 km/h, and the range is up to 5 and 11 km from, respectively, the ground and the aircraft. This system has been created and intended primarily to destroy enemy UAVs. It is considered a very effective weapon.

### **Air Force Confrontation**

Aircraft since the beginning of the war, Ukraine has been continuously requesting for F-16. Since the end of 2020, the Ukrainian Air Force has deeply considered the issue of acquiring new military aircraft since Soviet equipment will exhaust its resources in the coming years. At that time, it was proposed to consider the options for purchasing either the Swedish JAS 39 Gripen or the American F-16 Block 70/72. In the meantime, Ukraine announced another upgrade of the MiG-29 fighters. It was reported that the ammunition allowed them to strike at military equipment on the ground.

Finally, on July 15, the US House of Representatives approved the allocation of \$100 million for training Ukrainian military personnel in piloting American F-15 and F-16 aircraft. Earlier, the Russian media reported that training Ukrainian pilots would take at least 9 months, and Ukraine would be able to start operating F-16 fighters in only a year and a half.

According to experts, however, the training will take less than 3 months. According to media reports, 11 pilots of the Ukrainian Air Force started training in the piloting and combat use of NATO fighters at the end of April.

On March 31, 2022, Former Commander of the Ukrainian Air Force, Serhiy Drozdov stated on his Twitter that Ukraine needs at least one squadron (usually 12 aircraft) of these vehicles. He also wrote that considering the skill and combat experience of Ukrainian pilots, training could take 3-4 weeks. "It's a pleasure to pilot such a machine! Absolutely new philosophy of flight, incredible avionics, everything a pilot might need," said one of the 11 Ukrainian pilots who started training on the F-16.

The American F-15 and F-16 shot down the MiG-29 every time they encountered it in battle. Developed and built to combat American fighters, the MiG-29 was technologically and conceptually underdeveloped from the start. Soviet propaganda made so much noise that the West feared the MiG-29, although in reality, it represented only a gradual improvement from earlier Soviet fighters it replaced. German (GDR) pilots said that the MiG-29 looked good at airshows, but they wouldn't want to fight on it.

The USA will also send single-seat A-10 Thunderbolt II attack aircraft to Ukraine, which are analogs of the Su-25 and designed to provide air support to ground forces. Training here will take 2-3 weeks.

According to some experts, the best option for Ukraine is the JAS 39 Gripen. These lightweight fighters were designed to operate from poorly prepared airfields and roads. They have reduced takeoff, are convenient and simple to maintain, and have a high operating time of elements between failures.

The Ukrainian Air Force has made its choice. They will receive American A-10 attack aircraft and F-16 fighters. Ukrainians will not pay and will receive available aircraft. The Americans, on the other hand, are updating their arsenal with more advanced aircraft.

More interestingly, in early August 2022, an American AGM-88 missile was launched from a MiG-29 fighter, specially modified for such launches. This was reported by the Deputy Minister of Defense of the USA. Most likely, the case touched the fighters sent to Ukraine by Eastern European countries, which allowed Ukrainian pilots to launch missiles based on radar signals from air defense systems.

The American AGM-88 is a high-speed medium-range air-to-surface anti-radiation guided missile used to destroy air defense systems. The major task of these missiles is to overcome the basic air defense systems of the former USSR and Russia. The latest modifications are designed to hit radars with a change of operating frequencies. They can hit a radar even if it is turned off. The missile's flight speed is 2,280 km/h. The missile cost is about \$1 million.

Dozens of thousands of AGM-88 missiles have been manufactured. In the Iraq war, about 2,000 such missiles were used. There is a known case of an F-16 pilot attacking a Patriot air defense missile with an AGM-88 missile as part of the coalition forces' invasion of Iraq (2003). The incident was confirmed by the coalition command, but there were no reports of casualties or damage. Herewith, the missile was not intercepted.

### **Active Military Operations**

As of the end of July 2022, active military operations were taking place near Oleksandrovka. The Russian Armed Forces attacked the positions of the Ukrainian Armed Forces to reach the administrative borders of the Kherson region.

A unit of the Ukrainian Armed Forces had been defending the seaside village of Oleksandrovka in the Kherson region for almost a month. The village is located 45 km from Kherson. Since the beginning of May, combat clashes have been taking place in the area of the village of Tomina Balka, located 27 km from Kherson. Russian troops tried to destroy the fortifications of the Ukrainian forces with artillery, MLRS, and tanks.

The Russian plans included the creation of the Kherson People's Republic (KPR), similar to the Luhansk and Donetsk. The Armed Forces of Ukraine were conducting an offensive to liberate the Kherson region.

In the Kharkiv region, after the advance of the Ukrainian Armed Forces, the Russian troops retreated. The Ukrainian forces had 5-10 km left to restore the Ukrainian-Russian border in this region. The city of Iziium in the Kharkiv region was called the key to the Donbas.

*The Donbas includes a significant part of the Donetsk, Luhansk, and Dnipropetrovsk regions of Ukraine, as well as the western part of the Rostov region of Russia. It is a major center of coal mining and black and non-ferrous metallurgy in Ukraine. One of the settlements in this region bears the Turkic toponym Iziium. Indeed, since ancient times, vineyards have been cultivated there. In the municipal arms of Iziium, an 18th-century artist painted red grapes. In the municipal arms of the 1990s, green grapes were depicted. The modern municipal arms of the 2020s and the flag of Iziium depict blue grapes. In the 11th and 12th centuries, battles between ancient Russian princes and Polovtsians (Kipchaks) took place within the borders of the present-day city. During the Second World*

*War, battles took place in the city and the Iziium district between German and Soviet troops. The city was almost completely destroyed. As of May 8, 2022, the city was 80% destroyed.*

The capture of Iziium opened the way to Sloviansk and provided an opportunity to approach the rear of Ukrainian troops in the Donbas. On April 1, 2022, Russian troops captured the city but could not develop an offensive and advance further south of Iziium. On May 14, Ukrainian troops launched an offensive in the northeastern part of the Kharkiv region. A successful offensive by the Ukrainian Armed Forces would lead to the encirclement of Russian troops in the area of Iziium and then, in the area of Liman and Severodonetsk.

Severodonetsk was one of the two last major cities (the second one was Lysychansk) that remained outside the control of the authorities of the 'Luhansk People's Republic'. The fighting for it began in March, but more active military operations started in May.

On June 7, Russian Defense Minister Shoigu announced the capture of residential areas of the city and the military operations in the industrial zone. On June 10, the LPR announced the blockade of Ukrainian troops at the Azot Plant. On July 4, the Ukrainian Armed Forces withdrew from Lysychansk without losses. Zelensky promised to get this city back.

The Severodonetsk Azot Plant is a city-forming enterprise, the third-largest Ukrainian manufacturer of ammonia and one of the largest chemical enterprises in Europe. The plant was launched in 1951 as a mineral fertilizer production complex. Azot occupies almost half of the territory of Severodonetsk (42.1 km). There are specialized bomb shelters on the Plant's territory. Azot is called a 'city within a city.' It accommodated about 2,500 Ukrainian servicemen. Explaining the resistance of the Ukrainian Armed Forces in Severodonetsk as an attempt to gain time, former Minister of Defense of the DNR Igor Strelkov stated: "The Ukrainian Armed Forces continue their previously chosen strategy of exhausting Russian troops and conducting hostilities mainly on the Donbas territory. They buy time to create strategic reserves. Therefore, they often throw unprepared units of territorial defense: battalions and infantry brigades into battle. Herewith, they try to keep on the backburner and introduce only in extreme cases regular parts and form reserves for possible attacks on other fronts."

*Igor Strelkov (Igor Girkin) was born in 1970 in Moscow. On June 15, 1992, he graduated from the Moscow State Historical and Archive Institute, and on June 18, he arrived in Tiraspol and began fighting in Transnistria. From November 1992 to March 1993, he fought as a volunteer in Bosnia on the side of Serbia. He was a participant in the First (1994-1996) and Second (1999-2000) Chechen Wars. He was an employee of the FSB of Russia from 1996 to 2013. In 2013, he resigned from the FSB as Deputy Head of Department and with the rank of Colonel.*

*Strelkov is one of the initiators of the armed conflict in Eastern Ukraine. Strelkov was a too uncompromising and controversial figure for Putin, who could no longer tolerate his power in the Donbas. He was dismissed from the position of Defense Minister of the DNR in August 2014, when Putin's assistant Vladislav Surkov became the 'curator' of the separatist LPR and DPR.*

The Russian Armed Forces are using the tactic of a firewall, which means creating and maintaining a solid wall of fire from the explosions of artillery shells in front of the attacking units' front line, continuously moving forward as the offensive progresses. The firewall is easy to arrange but requires a lot of artillery guns and ammunition. This tactic does not imply a quick victory but minimizes losses in personnel.

The Ukrainian Armed Forces have started receiving Western high-precision and long-range artillery systems, including self-propelled (tracked and wheeled) ones and MLRS. Several hundred such weapons will help Ukraine destroy any firewall of the Russian Armed Forces and liberate its occupied territories.

The main military power is not missiles, bombers, or fighters but the shells that deliver the blow. Today, the ammunition quality is crucial. Even the most primitive aircraft armed with high-precision guided bombs can destroy a modern air defense complex and escape unscathed.

The Ukrainian Army needs guided shells and adjustable and guided rocket projectiles.

For example, during the Second Karabakh War, Azerbaijani aviation used laser-guided bombs for accurate and repeated strikes on enemy positions. Su-25 attack aircraft were used for this purpose. Also, Azerbaijani military personnel used Turkish MLRS to launch the latest high-precision laser-guided TRLG-230 missiles manufactured by Roketsan. Moreover, Azerbaijanis used the chassis of the Russian KAMAZ-63501 as a platform for the combat vehicle.

TRLG-230 is designed to destroy moving and stationary ground targets. The missile caliber is 230 mm. The flight range is 70 km.

Long-range artillery was the main trump card of Armenia in Karabakh. However, the use of high-precision and long-range artillery systems, loitering munitions, and strike UAVs by Azerbaijan led to the destruction of the air defense system, the crushing of the artillery, and a rapid defeat of Armenia in the Karabakh War.

The advantage of Russian cannon launched and MLRS artillery over Ukrainian during the war in Ukraine is explained by several reasons. Firstly, this is the use of a standard caliber, mainly 152 mm.

Secondly, this is the timely supply of ammunition, which allows for keeping a stock of 3-4 sets per gun. All this provides the opportunity for continuous fire. As a result, Russian military personnel slowly but steadily advanced.

American howitzers and self-propelled guns of 155 mm caliber, as well as American MLRS of 227 mm caliber, can oppose the Russian artillery, but to do this, Ukraine should have a sufficient amount of artillery weapons and guided projectiles for them.

At the end of August 2022, the USA decided to provide Ukraine with M982 Excalibur 155-mm guided rocket-assisted projectiles of increased range, launched from the barrel of a howitzer. The projectile with a folded aerodynamic controller has a length of 996 mm and a weight of 48 kg. In the summer of 2013, in the USA, at the Yuma range (Arizona), qualification firing was performed with GPS-guided Excalibur projectiles. Most of the 84 projectiles fired from the Swedish Archer howitzer reached the target with a deviation of no more than two meters. Herewith, they managed to achieve a firing range of 50.7 km. The cost of this projectile is \$50,000.

Answering journalists' questions, the First Deputy Director General – Chief Engineer of the Tula Khokhlov Instrument Design Bureau OJSC said: "Excalibur is, probably, the most advanced projectile."

The Instrument Design Bureau OJSC manufactures the laser-guided 2K25 Krasnopol Soviet projectile of 152/155 mm caliber. The firing range is up to 25 km. The price is \$35,000. In 1999-2002, India purchased 3,000 such projectiles for about \$111 million. However, in December 2006, the Indian Express reported that Russian Krasnopol laser-guided projectiles showed defective characteristics during army test firings at the Mahajan ranges in Indian Rajasthan in 2004 and 2005. In 2018, the Indian Army performed a competitive evaluation of various available guided 155 mm projectiles. Excalibur was chosen for purchase. Krasnopol was left out.

Ukraine has been manufacturing Kvitnik 155-mm guided missiles with a range of up to 20 km since 2012.

On June 13, 2022, Mykhailo Podolyak, advisor to Andriy Yermak (Head of the Office of the President of Ukraine), published a list of weapons required to defeat Russia. He specified that the West should provide the Ukrainian Army with 1,000 155 mm howitzers, 300 multiple-launch rocket systems, 500 tanks, 2,000 armored vehicles, and 1,000 drones.

Ukraine requests the provision of 300 HIMARS MLRS. The USA has more than 400 such systems. Poland ordered 500. The cost of 18 launchers, including 300 missiles, as well as transport and command vehicles, etc., is more than \$410

million. Ordinary 227 mm missiles for them cost \$3 to 5 thousand each, and tactical MGM-140 missiles - about \$600,000 each.

American HIMARS MLRS in conjunction with counterbattery radars is a very formidable weapon. Depending on the types of missiles used, the range can reach up to 500 km. It fires GPS-guided missiles with high precision. Their circular deviation is 7 m. For accurate shooting, target coordinates are required. Therefore, Ukraine will also receive American AN/TPQ-36 radars. This means that as soon as Russian artillery systems fire, the radar will transmit their coordinates to HIMARS operators, and they will be able to respond within 120 seconds. These radars detect missile launches and artillery salvos at distances of up to 24 and 18 km, respectively.

The Russian media actively discussed the issue of transferring American MLRS to Ukraine. On June 4, Russian President Putin said that the United States' decision to supply HIMARS MLRS to Ukraine would not change the balance of power fundamentally, in his opinion, it would replenish the stocks of weapons lost during the hostilities.

In June 2022, the United States started supplying M270 MLRS – an American universal launcher used as an MLRS and a launcher for tactical missiles – to Ukraine. This is a tracked vehicle with a caliber of 227 mm (12 guides), a range of up to 80 km (300 km for tactical missiles), and a fire rate of 12 missiles per minute.

The United States also started providing Ukraine with M142 HIMARS. This is a wheeled version of the M270 MLRS with a caliber of 227 mm (6 guides), a range of up to 70 km (300 km for tactical missiles), and a fire rate of 6 missiles per minute.

Russia opposes this armament with the Uragan (220 mm caliber, 35.8 km range) and Tornado (300 mm caliber, 90 km range) MLRS. They are also available to Ukraine, but Russia additionally has the newer Tornado-S (300 mm caliber, 120 km range).

On May 7, 2020, President Putin awarded the State Prize of the Russian Federation named after Marshal of the Soviet Union G.K. Zhukov to highly qualified top management specialists of the Tula Splyav Scientific and Production Association for their significant contribution to the development of advanced long-range 300-mm guided missiles for the 9K515 Tornado-S MLRS based on guided rocket projectiles of the 9M528/542 family.

The Tornado-S MLRS has been developing since 2012, with a total of 30 MLRS manufactured. As of 2022, there were 20 units in stock in the Russian Armed Forces. Why so few? Moreover, it has a new navigated fire control system and a new ballistic computer. Probably, the project (in-depth modernization of the Tornado MLRS) turned out to be unsuccessful, and the specifications were

overstated. Unlike HIMARS (standing for High Mobility Artillery Rocket System), Tornado-S cannot hit air targets. HIMARS is a universal high-tech system with a lot of electronics, everything in it is automated. Therefore, the Russian expert community reacted so nervously to the information on the beginning of HIMARS supplies to Ukraine.

The MLRS salvo pattern with conventional unguided rocket projectiles is 20-30% of the range. When using GPR-guided rocket projectiles, this figure is 10 times lower. Therefore, Russia began to boast of the 9M528/542 long-range guided rocket 300-mm projectiles. The range was increased by reducing the warhead weight and increasing the length of the rocket part. Thereat, the total length for all projectiles was maintained at 7,600 mm, but the projectile weight was increased by 5-10 kg.

Russian experts claim that the MIM-104F PAC-3MSE missiles of the Patriot complexes remain the “only threat to the 9M542 family GPRs.”

By early July 2022, Ukraine received two batteries of Norwegian NACAMS air defense missile systems, which comprise 18 launchers, carrying 6 guided air defense missiles each. The engagement altitude is 21 km, and the range is 20 to 180 km, depending on the missiles used.

NACAMS can engage targets flying with a speed of up to 3,600 km/h. Virtually, they can intercept all Russian missiles (X-55, X-555, P-500 (Iskander), Kalibr, Oniks), except for X-22 and Dagger, considering their declared flight speed. The X-22 family missiles, including their latest modifications, can no longer be considered modern. They were manufactured 40-50 years ago and are still used by the Russian military space forces. They have outdated self-guided radar heads and low operational suitability. They were fully prepared only during qualification launches, at best, training exercises 1-2 times a year. Only the most prepared crews with similar experience were allowed to shoot. Training usually took one month. During firing at the Chita range in September 2002, due to a guidance failure, a missile fell on Mongolian territory, causing a scandal and demands for million-dollar compensations. There was a case when an X-22 fell near a village in Kazakhstan. They cannot break through a modern, well-equipped air defense system.

Russia's modern air defense means such as the S-300 and S-400 cannot withstand the US-made MLRS.

HIMARS is simple to operate. Training in loading and shooting will take an hour or an hour and a half. One can master the control of the self-propelled unit in a day. Reloading takes only a few minutes.

According to the Chairman of the Joint Chiefs of Staff of the United States, General Mark Milley, as of June 15, 2022, the US provided Ukrainians with the following training:

- \* 420 trainees – M777 howitzers (crew of 7 people);
- \* 300 trainees – self-propelled howitzers (crew of 6 people);
- \* 129 trainees – M113 armored personnel carriers (crew of 2 people);
- \* 100 trainees – drones;
- \* 60 trainees – HIMARS MLRS.

He also announced US military aid to Ukraine, which comprises more than 60,000 Javelins, more than 5,000 Stingers, more than 700 Switchblade drones, 20 Mi-17 helicopters, and hundreds of thousands of small arms ammunition.

In total, according to the American General, Ukraine received 97 thousand anti-tank systems from international partners, which is "more than tanks worldwide."

Mass supplies of anti-tank systems have nullified attempts by Russian troops to conduct maneuver warfare using armored vehicles; tank attacks are no longer possible. Mass supplies of portable air defense missile systems have put strategic constraints on the actions of Russian aviation, which no longer risks operating in the tactical depth and rarely appears on the battlefield.

Supplies of anti-ship missiles have forced the Russian Black Sea Fleet to leave the northwestern Black Sea basin; landing operations in the area of Odesa and Snake Island are no longer possible.

The ongoing flow of UAVs, communication systems, radars, artillery, and reconnaissance data continues.

NATO member states are training Ukrainian military staff, graduating 4,000 UAF experts per month.

American lend-lease has begun to take effect.

All this indicates that the Ukrainian Army will soon start offensive operations along the entire front and liberate the occupied territories.

In his interview with The Wall Street Journal on July 22, 2022, Ukrainian President Volodymyr Zelensky stated that recent weapon supplies from the USA and allies, in particular, HIMARS multiple-launch rocket system and 155 mm howitzers, helped stabilize the situation in the Donbas.

If earlier, the Russians fired 12,000 artillery shells daily against Ukraine's 1,000-2,000 ones, now Ukraine can fire 6,000 shells daily while Russia is starting to feel a shortage of ammunition and troops.

Also, the barrel life of RF AF artillery ranges from 1,000 to 3,000 shots, depending on the gun type. For tanks and self-propelled howitzers, the barrel life is 500 to 1,000 shots. Therefore, the Russian Armed Forces will have to send weapons for major repairs and barrel replacements.

During the Desert Storm (January 17 - February 28, 1991), the USA fired 60,000 artillery shells while the Russian Armed Forces fired 50,000 at the Ukrainian Armed Forces daily.

*The Berlin operation (April 16 - May 2, 1945) is listed in the Guinness Book of Records as the largest battle in history. About 3.5 million people, 52,000 guns and mortars, 7,750 tanks, and 11,000 planes were involved in the battle on both sides. The average daily expenditure of ammunition of all the artillery of the USSR, involved in the operation, was 270,000 shells and mines. At that time, the average weight of a shell was 10.1 kg.*

Currently, the shell weights are as follows:

122 mm projectile – 21.7 kg;

152 mm projectile – 50 kg;

122 mm rocket shell (BM-21 Grad) – 56.4-70 kg (depending on the shell type);

220 mm rocket shell (Hurricane MLRS) – 280 kg;

300 mm rocket shell (Smerch MLRS) – 800 kg.

If Russia is spending 50,000 shells in the Donbas daily, considering the weight and destructive power of the shell, we see that in the Berlin operation, the USSR used almost the same amount. But thereat, it had: more than 2 million servicemen, 6,250 tanks, and 41,600 guns and mortars, including the Katyusha MLRS (BM-21 Grad). Moreover, the Berlin operation lasted 17 days while that in the Donbas has been going on for 150 days already.

According to Ukrainian Defense Minister Oleksii Reznikov, Ukraine used an average of 110,000 155 mm caliber shells monthly while Russia used about 440,000. In early March 2023, Ukraine asked the EU to supply 250,000 artillery shells monthly to speed up the advance of Ukrainian troops.

The average high-explosive projectile of 152 mm caliber costs about \$600-800, like 122 mm rockets of multiple-launch rocket systems (Grad BM-21 type MLRS). The guided 155 mm projectile costs \$20,000 minimum, and the 122 mm rockets with satellite navigation for MLRS - \$12,000 minimum.

As of July 5, 2022, the main military actions were ongoing in Donbas, along the Iziurm-Slovyansk-Kurakhove-Ugledar-Huliaipole line.

As of September 12, 2022, the main military actions were still ongoing in Donbas, along the Krasnyi Lyman-Slovyansk-Kurakhove-Ugledar-Huliaipole line.

On September 23, the Ukrainian Armed Forces encircled the Russian group in the area of Krasnyi Lyman. From the south, they gained control of the Shurove, Staryi Karavan, and Dibrova settlements. The Ukrainian Armed Forces entered Drobysheve from the northwest of the city. To completely encircle and destroy the Russian group, they had to gain control of the Stavki settlement.

On October 1, the Ukrainian Armed Forces took Lyman, and on October 2, they entered the territory of the Luhansk region and approached the cities of Kremennoe, Lysychansk, and Severodonetsk. On October 2, UAF units were located 20-30 km from the cities of Kremennoe and Lysychansk. Ukrainian advanced units have entered the territory of the Luhansk region.

When the Ukrainian Armed Forces left Lysychansk on July 3, 2022, Ukrainian President Zelensky in his video address stated that the UAF did that to save the lives of soldiers. Herewith, he promised that Ukrainian forces would take the city back.

On October 3, the Ukrainian Armed Forces began an offensive on the cities of Svatovo, Krasnorechenskoye, Kremennoe, and Lysychansk in the Luhansk region.

On October 3, the Ukrainian Armed Forces took the Dudchany village in the Kherson region.

On October 4, the Ukrainian Armed Forces began an offensive on Berislav along the Dnieper River to create a semi-encirclement of the RF Armed Forces in the Kherson region, which could retreat across the Dnieper, abandoning heavy weapons.

On October 3, Lieutenant General Roman Berdnikov was appointed Commander of the Western Military District of the RF Armed Forces, replacing Lieutenant General Aleksandr Zhuravlev, who had been the Commander of the Russian Armed Forces group in the Syrian Arab Republic since October 2021.

Aleksandr Zhuravlev also commanded the Russian group in Syria from July to December 2016 and from November 2017 to September 2018.

Ukraine continued offensive operations in the Kherson and Kharkiv regions. The capture of Krasnyi Lyman opened up the opportunity for the Ukrainian Armed Forces for further advancement and the transfer of hostilities to the Luhansk region's territory.

### **Fratricidal War**

Ukrainians, Russians, and Belarusians are East Slavic peoples.

According to one version, the name of the state of Ukraine originates from the Old Russian 'okraina' – 'borderland,' which originally referred to various borderlands of Rus and the Old Russian principalities. According to another version, the name Ukraine originates from 'krai,' 'kraina,' i.e., simply 'a country,' 'a land populated by its people.'

Rus is a vast ethno-cultural region in Eastern Europe, the historical name of the East Slavic lands. The state of Kievan Rus (end of the 9th century), which arose on these lands, became the basis for the formation of a unified Old Russian nation, language, and culture. In 988, Rus was baptized. The Rus name originated from the Rus tribe or tribal union. According to a widespread version, it originally meant Scandinavians (Varangians) and came into Old Russian from an Old Norse term meaning 'rower.' However, according to some data, Turkic tribes settled on these lands before the Varangians, back in the second half of the 4th century, in the Huns era. Then, Turkic states were formed: the Avar (not related to the Avar of Dagestan) (562-823) and the Khazar (650-969) Khaganates. After the collapse of the Avar state, one part of the East Slavic tribes was vassalage to the Varangians, and the other part to the Khazars. Approximately in 862, the Varangians, headed by Rurik, entered the Slavic lands and created the Kievan Rus state (862-1240). The feudal fragmentation of Rus into separate principalities, accompanied by internecine wars, and then the Tatar-Mongol invasion, determined the development of different cultural, linguistic, and partly, religious traditions.

In the middle of the 11th century, the Kingdom of Poland was created, in the 13th century, the Grand Duchy of Lithuania was formed, and at the end of the 15th century, an independent unified Russian state was founded in Northeastern Rus. For centuries, the Russian state waged a struggle with the Grand Duchy of Lithuania and the Kingdom of Poland for the gathering of the Old Russian lands. In 1569, the Grand Duchy of Lithuania and the Kingdom of Poland created a union called the Polish-Lithuanian Commonwealth, which was liquidated in 1795, being divided between the Russian Empire, Prussia, and Austria. Western Ukraine went to Austria, and Eastern Ukraine to Russia.

At the end of 1917, after the Bolshevik revolution in Russia, a movement for independence started in Ukraine, which was suppressed by the Bolsheviks by the end of 1920, and the Ukrainian Soviet Socialist Republic was formed as part of the USSR.

Since 1991, Ukraine has been an independent state. Russia continued to pursue the policy of gathering the Old Russian or rather the East Slavic lands. Belarus remains under the influence of Russia while Ukraine has gone a different path, towards the West. This caused the First Russian aggression (April 7, 2014 - February 12, 2015). And on February 24, 2022, the Second Russian aggression took place, which continues to date.

On June 17, 2022, Ukrainian Defense Minister Oleksii Reznikov announced three stages of the “war with Russia as part of the liberation of the country.” According to him, in the first stage, the Ukrainian Armed Forces have to “stop the Russian invasion.” To do this, operational reinforcement is required – tanks, artillery, air defense systems, and armored vehicles.

The second stage is to push back Russian units to the demarcation line as of February 24, 2022, when the Russian aggression began.

The third stage is the de-occupation of Donbas and Crimea.

By the end of July, the tactics of the Ukrainian Army has changed. It shifted from defense to small counterattacks. The Ukrainian Armed Forces systematically struck at the enemy concentration areas, warehouses with ammunition and fuel, and command posts to make it difficult for the counterpart to regroup and, as much as possible, limit the options for the enemy's retreat by striking at critical infrastructure objects across the entire depth of the front line. Russian sources confirmed the attempts of ‘unsuccessful counterattacks’ in the southern direction. The Ukrainian side announced the liberation of several villages to the north of Kherson.

According to experts, if the Ukrainian Army launches a large-scale counter-offensive, the exhausted Russian troops will be forced to leave Kherson. Therefore, the Russian Army should prepare for an offensive on the eastern front or strengthen defense on the southern front.

At the end of August, Ukrainian forces started local counter-offensives. The Ukrainian army damaged two bridges leading to Kherson, which were controlled by the Russian Armed Forces. Also, Ukrainian partisans blew up the railway near Novobogdanovka, 30 kilometers north of the occupied Melitopol.

Although a railway bridge passes through Novaya Kakhovka, it can only bear a load of 19 tons. The Antonov Bridge could withstand a load of 60 tons, but this bridge was damaged. Russian tanks weigh 47 tons, the Msta-S self-propelled howitzers – 42 tons, and other self-propelled howitzers, IFVs, and APCs – 13-17 tons. In fact, the Russian military lost the opportunity to withdraw their armored vehicles. Russian forces repaired the destroyed sections of the bridges and installed pontoon bridges. By October 22, Russian troops had completed the construction of a barge bridge near the Antonov Bridge. This was logical since the Antonov Bridge supports could be used as anchor points. The total length of the Antonov Bridge is 1,366 m. The length of non-self-propelled barges is 70-115 m. To build a barge bridge in Kherson, 15-20 barges were enough, and Russia had many such barges. But Ukrainian forces damaged or destroyed them.

On November 9, Russian Defense Minister Sergey Shoigu announced the withdrawal of Russian forces from Kherson to the left bank of the Dnieper. Otherwise, about 40,000 servicemen would have been surrounded.

On November 11, 2022, Ukrainian forces liberated Kherson.

During World War II in the summer of 1941, the Soviet Army managed to defend Kherson for 4 days. People who survived the occupation, lasted until March 1944, called this period the 'black days of Kherson.' However, some now-living representatives of the older generation said that it was better under the Germans. After the capture of the city on September 30, 1941, the Gebietskommissar (official who exercised administrative functions in occupied territorial entities) of Kherson issued an order. It introduced mandatory registration of all unemployed men and women at the Labor Exchange. According to the civil status department of the police, there were 35,735 women and 25,391 men in the city. They provided people with work. The Soviet military liberated Kherson virtually within 4 days as well (March 10-13, 1944). The offensive was then performed in the directions of Fedorovka, Kiselevka, and Beloozersk.

In September 2022, the Ukrainian Armed Forces conducted a counter-offensive in these same directions, but in reverse, as well as from the north – Davydiv Brid and Visokopillya.

During the liberation of Kherson in 1944, the Commander of the Division Vasily Margelov distinguished himself and became a Hero of the Soviet Union. In 1954, he was appointed Commander of the Airborne Forces and turned them into the elite of the Soviet and then the Russian army. Ironically, in September 2022, the Russian Airborne Forces held the defense in Kherson.

On August 9, at the Novofedorovka airbase in Crimea, where the 43rd Separate Naval Assault Aviation Regiment of the Russian Aerospace Forces was stationed, a series of powerful explosions occurred, destroying and damaging an ammunition depot and about 20 aircraft.

On August 16, a strike was made on an ammunition depot near the Mayske and Azovske villages in the Dzhankoy district of Crimea. There, not far away, the 39th Helicopter Regiment of the Russian Aerospace Forces is located. On the same day, a strike was made on the Gvardiyske settlement, 13 km north of Simferopol, where the 37th Composite Aviation Regiment airbase was located.

Over 9 days, 11 Russian military infrastructure objects were attacked. Two facts confirm this:

- the Ukrainian Armed Forces have the technical means (UAVs and missiles) to perform operations deep in the rear of Russian troops;
- Russia cannot ensure the security of military infrastructure in Crimea.

At one time, the Neptune Ukrainian subsonic cruise missile was developed for the tactical bomber Su-24M (before the war, Ukraine had 80 such aircraft) to make supersonic low-altitude breakthroughs in the area of enemy air defense and fighter aircraft. Ukrainian UAVs also often appeared in the skies over Crimea, detecting and determining the location of military facilities and the degree of their protection.

The RS-20 missile system (R-36M, SS-18 Satan NATO classification), developed in the 1980s at the Dnipro Southern Design Bureau and manufactured by Dnipro Yuzhmash, is of Ukrainian origin.

The targeting system for another strategic missile complex – Topol-M – was developed at the Kyiv Arsenal Plant. There is no information on the replacement.

The replacement for the products of the Mykolaiv Zorya-Mashproect Gas Turbine Research and Production Complex (one of the three world leaders in the production of ship gas turbine engines for patrol ships, frigates, and destroyers) was planned to be manufactured by the Saturn United Engine Corporation Scientific and Production Association (Rybinsk, Yaroslavl region) and Klimov OJSC (St. Petersburg). However, there is no talk of specific dates for bringing new destroyers into operational service.

As of 2022, 3 of the 6 heavy strategic missile submarines of Project 941 Akula, built during the USSR, have been disposed of, 2 ships have been withdrawn from the fleet in 2004-2006, and the TK-208 Dmitry Donskoy lead ship has been withdrawn from the fleet in July 2022. The heaviest in the world ships with a displacement of 48 thousand tons are subject to disposal.

The disposal of nuclear-powered submarines is a costly and difficult task that can take many years.

The key reason for writing off these submarines is the lack of R-39 solid-fueled ballistic missiles for them. Their production remained in Ukraine after the collapse of the USSR, and there was nothing to replace them. The A.M. Makarov Southern Machine-Building Plant State Enterprise Production Association in Dnipro suspended the manufacture of R-39 ballistic missiles in 2014.

Russia has problems with the manufacture of Su-30 and Su-35 multi-purpose fighters, the T-90 tanks, Pantsir-1C air defense missile and gun systems, unmanned aerial vehicles, Iskander and Dagger missiles, etc.

On September 6, 2022, Ukrainian troops went on the offensive in the Kharkiv direction. Already on September 10, over five days, they advanced from 50 to 70 km, took Balakliya and then, Kupiansk and Iziium, and liberated about 8,000 square kilometers of territory. In this direction, the Russian Army was factually cut

to pieces. On October 1, the Ukrainian Armed Forces liberated Krasnyi Lyman and entered the territory of the Luhansk region.

On September 21, 2022, Vladimir Putin signed a decree on partial mobilization. According to Defense Minister Sergey Shoigu, it was needed to control the contact line of one thousand kilometers and liberated territories. During the mobilization, a total of 300 thousand reservists were called up, which is slightly more than 1% of the total mobilization resource of the Russian Federation.

The following social support measures were provided to servicemen called up by the military commissariat of Moscow:

- \*monthly payment – RUB 50 thousand;
- \*severe injury, concussion, or disability – RUB 1 million;
- \*minor wound – RUB 500 thousand;
- \*death – RUB 3 million.

The Federal Budget provided:

- \*credit holidays and restructuring;
- \*monthly payments on mortgages and car loans.

After the announcement of partial mobilization, anti-war protests intensified. Actions took place in many cities of Russia. 1,350 people were detained. In four days after Vladimir Putin's televised address, 261 thousand men left the country.

Over just one day, on September 22, customers of Russian banks withdrew RUB 132.1 billion from their accounts and cards – a record amount since the first days of the war against Ukraine.

After the mobilization was announced in Russia, air tickets began to disappear from sale, and prices for them rocketed tenfold. First, the nearest visa-free destinations became more expensive: the United Arab Emirates, Turkey, Georgia, Azerbaijan, Armenia, Uzbekistan, and Kazakhstan. There were also queues at land border crossings.

For comparison, according to the Decree of the Presidium of the Supreme Soviet of the USSR of June 22, 1941, 24 to 37-year-old conscripts were mobilized. In total, over 20 million people were called up to the army during the war years, and the flow of volunteers never exhausted. It was then the Great Patriotic War, and now it is aggression against another country. Mobilization is a way of defending one's homeland. Mobilization for aggression cannot be legitimate.

On September 24, 2022, Russian President Vladimir Putin approved amendments to the Criminal Code of the Russian Federation, according to which mobilization

and martial law periods are recognized as aggravating circumstances in the commission of crimes. According to the amendments, imprisonment was introduced for refusal of military personnel to participate in hostilities, up to 10 years of imprisonment for voluntary surrender of servicemen to captivity, and up to 15 years of imprisonment for desertion during mobilization or wartime. However, harsh measures could stop neither desertion nor evasion. According to unofficial data, about a million Russians evaded mobilization. Some of them fled abroad, some hid wherever they could. According to the Ministry of Defense of Great Britain, the Kremlin dismissed several generals, including the Commander of the Russian contingent in Ukraine, General Dvornikov, the Commander-in-Chief of the Airborne Forces, General Andrey Serdyukov, and some other generals.

On April 8, 2022, Army General Dvornikov was appointed the Commander of the forces conducting hostilities in Ukraine. Before Dvornikov's appointment, there was no unified commander of the Russian forces, and the troops advancing from the north, east, and south of Ukraine acted separately. By the end of May 2022, he was dismissed, and Colonel General Gennady Zhidko was appointed in his place. On October 8, 2022, Army General Sergey Surovikin was appointed the Commander of the Joint Group of Russian Forces in Ukraine.

On January 11, 2023, the Chief of the General Staff, Army General Valery Gerasimov, became the new Commander-in-Chief. The Commander of the Aerospace Forces, Army General Sergey Surovikin, the Commander of the Ground Forces, Army General Oleg Salyukov, and the Deputy Chief of the General Staff, Colonel General Aleksey Kim, were appointed his deputies.

But how one can stop this fratricidal war? Ukraine was left with one choice – fight to the end. Russia has alternatives:

- \*stop the war and start negotiations;
- \*continue the war until the surrender of Ukraine.

Both options lead Russia into the abyss. The Russian Federation has become a pariah state, an aggressor country that will never be trusted. Even allies are turning away from it.

### **Sanctions in Action**

Starting a war in Ukraine, Russia contributed to the expansion of NATO to the East. Currently, there is a rapid increase in aviation, armored vehicles, air defense systems, and military manpower in Estonia, Poland, Slovakia, Hungary, Romania, and Bulgaria. The West continues to impose new sanctions. The worst and most irrecoverable thing that could happen to the Russian economy and population has already happened. The basis of the economy – the extraction and sale of energy resources and other raw materials – is slowly but noticeably reducing.

Development has already been stopped. The technology of deepwater well drilling on the shelf cannot be purchased even through companies in China or Kazakhstan. Russia's prospects for import substitution are negligible since there is no material, technological, and intellectual base. Paradoxically, there was no domestic manufacture of even nails in the country. It is hard to believe, but it is a fact! Nails are not a problem; their manufacture can be arranged within a few days or weeks. The bitter truth is revealed, but there is not a single stimulating solution that would help to increase volumes and introduce new capacities in the most crucial areas.

Any manufacturer of finished products has suppliers of components and raw materials. Since the collapse of the USSR (December 26, 1991) until this day, Russia's industry has become increasingly unsuitable to meet the requirements of the Russian Defense Ministry year by year. Suppliers of many components and materials remained in other countries. The manufacture of some components was set up in Russia. Some components were imported by not choice but necessity.

As early as 2016, it was reported that the production of 800 types of weapons depended on components from NATO and EU countries. In 2017, data was published on the low import substitution rates; Russian manufacturers were supposed to replace 127 positions, but actually managed to replace only 7. Information on the further implementation of this program was not disclosed.

Electronics is one of the most critical components of the development of modern weapons systems. It largely determines the tactical and technical characteristics of modern weapons systems, as well as communication, data transmission, observation, and control systems and means.

As early as the end of March 2018, a meeting on the prospects for the development of microelectronics was held in the Kremlin under the leadership of the head of state, where the President stressed that domestic developments and mass production of radio-electronic products would become the key to Russia's technological and technical independence. Information on the implementation of import substitution plans was not disclosed. Apparently, the implemented portion was very little and not enough.

The economy does not collapse immediately. It will slowly collapse, and people will live worse and worse, accumulating dissatisfaction.

Currently, the real sector of the economy is degrading. According to official Rosstat data (Federal State Statistics Service), since 2017, the number of industrial enterprises has only been declining. Today, less than 300,000 of 6 million SMBs (small and medium businesses), i.e., 5% are operating. The rest is trade and services. In Germany, this figure is 23%, in China - over 40%. Previously, the share of inefficient loss-making companies on the verge of bankruptcy in the industry was 10-15%; today it reaches 25%.

Oil production is falling sharply. Problems arose with the sale of crude oil and petroleum products, which paralyzed the work of Russian refineries. Many of these refineries have lost their markets. Significant volumes of oil are not sold but continue to be accumulated on oil tankers.

The key question is how and when the basis of the Russian economy, markets, sustainable relations, and business models will be restored. This will take years, if not decades.

Russian society is becoming increasingly disillusioned with the results of the Russian 'special operation.'

Meanwhile, the Ukrainian Armed Forces are slowly advancing in the Luhansk region (towards Svatove and Lysychansk).

On December 3, 2022, the Ukrainian Armed Forces reached the Svatove-Kremenivka-Lysychansk-Severodonetsk-Luhansk highway near the Chervonopopivka settlement. On December 20, the Ukrainian Armed Forces approached the city of Kremenivka, the territory of which was heavily mined. Kremenivka is located on the Krasna River near its confluence with the Seversky Donets River. There are many lakes around Kremenivka, and floodplain forests that are seasonally or irregularly flooded due to changes in the river level. In winter and spring, they are virtually impassable for armored vehicles. Therefore, for more than a year, the Ukrainians have been constantly storming the city, and battles are taking place 6-7 km from it. Since January 28, 2023, the front line has been within the Kremenivka city limits.

*History remembers the Battle of Huertgen Forest (September 14, 1944 - February 10, 1945) between American and German forces during World War II. The Huertgen Forest is an area of 130 square kilometers, east of the German-Belgian border. This battle became the longest one on German soil during World War II. The battle also became the longest one in which the US Army ever participated. As a result of the battle, the Americans lost 33,000 killed and wounded while the Germans lost 28,000. The Allies called the battle a 'defeat of the first magnitude.'*

On January 21, 2023, fighting was taking place near Svatove (10-15 km), Kremenivka (7-10 km), and Lysychansk (10-15 km). The Ukrainian Armed Forces are slowly but surely encircling these settlements. Taking these cities back will allow the encirclement of Donetsk from the north and open the road to Luhansk and Starobilsk (an important transport hub).

*Starobilsk is the prototype of Stargorod in The Twelve Chairs novel by Ilf and Petrov, which has been filmed several times. On this occasion, a monument to Ostap Bender was installed in the Student Square of the Luhansk National University, and a monument to Kisa Vorobyandinov was erected in the city center.*

*In 1976, the Soviet and Russian Director Mark Zakharov filmed The Twelve Chairs serial – this film became the fifteenth adaptation of the famous novel.*

Starting from February 24, 2022, the Russian Forces have been unable to capture Avdiivka (part of the Donetsk agglomeration, 21 km from Donetsk).

On August 23, 2022, the Russian Ministry of Defense reported that “most of the Maryinka city (part of the Donetsk agglomeration, 30 km from Donetsk) is already under the control of allied forces, and the encirclement of the nationalist group in Avdiivka is underway.” However, on November 21, 2022, the Russian Ministry of Defense reported that in Maryinka, the District Administration, the House of Culture, and the Church of the Kazan Icon of the Mother of God are controlled by neither side, and there are clashes near this group of buildings.

*At the beginning of the Great Patriotic War (1941-1945), the capture of the Donbas became one of the priority tasks for the German troops since this region had a large industrial potential. Only in Stalino (Donetsk), there were 220 enterprises. The eastern part of the Donbas was liberated in February 1943, and then the offensive stopped. In 6 months, on August 13, 1943, a new offensive of Soviet troops began, and only on September 5, they entered Artemivsk (Bakhmut). In January 1942, more than three thousand civilians (mostly Jews) were gathered in the NKVD building (People's Commissariat of Internal Affairs). They were held there for three days without water or food. Then they were sent to the Alabaster Plant. After the liberation of the city from the fascists, the entrance was opened, and the bodies of the dead were extracted. The Wall of Tears memorial was opened underground in the place of their death. It is known that water constantly seeps from this wall, but they say, “This is not water but tears for the innocently killed.” After the war, in 1950, a decision was made and approved to create a gypsum mining enterprise and a factory for the manufacture of classic sparkling wine in the gypsum mines of Artemivsk. The entire production cycle of the enterprise is located underground, at a depth of over 72 m.*

For more than 10 months, Russian forces could not take Bakhmut (formerly Artemivsk). They needed it to capture large cities of the Donetsk region such as Kramatorsk and Sloviansk, and the entire Donetsk region.

Russian troops virtually destroyed the city. We have yet to see what other memorials will be opened.

*Bakhmut was founded in 1571 as a border ‘Bakhmutovskaya outpost.’ At that time, the Russian state created 7 border outposts along the Aidar and Seversky Donets rivers. In 1701, by order of Peter I, a fortified fortress was built in Bakhmut. During the reign (1547-1584) of Ivan the Terrible, borderlines were arranged. The Russians gradually occupied the southern steppes, thus preparing the ground for the capture of the Crimean Khanate, to which they paid tribute. Earlier, they first*

*captured the Kazan Khanate in 1552, and then, the Astrakhan Khanate in 1556. Therefore, the Crimean Khan Devlet-Girey made a campaign against Rus at the end of May 1571. Ultimately, the Tatars reached Moscow, and as a result of the battles, a fire broke out. Due to the strong wind and heat, the capital, except for the Kremlin, burned down almost completely. Ivan the Terrible fled from Moscow.*

The Head of the Office of the President of Ukraine Andriy Yermak compared the situation in Bakhmut and Soledar with the Battle of Verdun in 1916. The Battle of Verdun was a series of military operations between German and French troops during World War I, conducted from February 21 to December 18, 1916. It was one of the longest and bloodiest battles of World War I, which entered history as a war of exsanguination. The French troops managed to repel the large-scale German offensive. The battle brought no tactical results. By December 1916, the front line was back where it was on February 21, 1916.

The main attack is expected in the direction of Tokmak-Melitopol. Forces and means are accumulating in that direction, and small clashes have been observed along the contact line. On December 13, 2022, the command staff of the 58th Russian Combined Arms Army was killed in Melitopol.

Back in August 2008, a staff column of 30 armored vehicles led by the Commander of the 58th Combined Arms Army, Lieutenant General Anatoly Khrulev, was destroyed near Tskhinvali by Georgian Special Forces. Then, 5 cars managed to get out of the trap.

According to the report of the special correspondent of Komsomolskaya Pravda, Aleksandr Kots, who was also in the column, everyone started running back towards Tskhinvali, and ahead of the fleeing military was the Commander, who received shrapnel wounds. There are many such generals in the Russian Army.

Russian troops have created the first line of defense along the left bank of the Dnieper from the Black Sea 12-15 km from the water's edge. The left bank is low enough and will be easily shelled by the Ukrainians.

Russian Forces blew up several spans of automobile and railway bridges, as well as a bridge leading to the dam of the Kakhovka Hydro Power Plant to prevent the further development of the Ukrainian Forces' offensive in this area.

On August 30, 1941, German advanced units decided to cross the Dnieper in the Berislav-Kakhovka area. They were transported across the bridge created by German engineers and ferries. They were covered by air defense units. The artillery worked effectively. German bombers were virtually not used. German fighters together with air defense units shot down Soviet bombers, which tried to interfere with the crossing. Having captured and expanded the bridgehead in the Kakhovka area by September 10, the Germans reached Chaplinka, about 60 km from Kakhovka.

On December 3, advanced units of the Ukrainian Armed Forces raised the flag of Ukraine in the area of the Baydarky Kherson sports complex near the small town of Oleshky. The terrain here is marshy, harsh, and unexpected for an offensive. But to do this, it is necessary to cross the Konkra River, the depth of which is 6-7 m. On December 18, Russian troops started withdrawing their forces in the Kherson region from Kakhovka to 70 km to the Nyzhni Sirohozy settlement.

On April 26, 2023, official Russian media confirmed that for already several days, the major events were taking place on the Velykyi Potomkin Island, south of Kherson, and to the east near Kindiyka. The coastal zones of Dachi, Kindiyka, and Oleshky are already on the left bank of the Dnieper. The territorial defense brigades of the Ukrainian Armed Forces are shelling the positions of the RF Armed Forces from the Tyahinka-Berislav-Zmiivka line (right bank of the Dnieper) to create a bridgehead for a major offensive.

Russian troops have created a second line of defense in the area of the city of Armyansk and the Novotroitske village – not far from the city of Henichesk.

The resort city of Henichesk has been the ‘capital of the Russian Administration of the Kherson region’ since November 12, 2022.

Armyansk is a city in the north of Crimea. It is located on the Perekop Isthmus (‘Or boynu’ in Tatar) connecting Crimea with the mainland and separating the Azov and Black Seas. The Isthmus’ length and width are, respectively, 30 and 7-9 km.

*The Chumaks' Way passed here – a carrier's trade route, along which Chumaks transported salt and fish from the Black Sea coast of Crimea and Azov from the 16th to the 19th century. On their way back, they brought grain and other agricultural products to the central regions of Ukraine. Carters and wine and salt traders were called Chumaks. They lived in the territory of Ukraine and the south of Russia.*

*In 1730, several Armenian families from the Ottoman Empire moved here. They arranged fairs and were engaged in trade, buying goods from Chumaks. The Tatars called this place Ermeni Bazar (Armenian Market). In 1921, it was renamed Armyansk, and in 1993, it received the status of a city. In 2014, more than 20,000 people lived in the city, of whom 69 were Armenians.*

Russian troops have created another line of defense in the area of Yalta in the north of Crimea.

The Chairman of the US Joint Chiefs of Staff, General Mark Milley, said the following at a press conference with Defense Minister Lloyd Austin on November 16, “The Russians have failed every single time. They’ve lost strategically, they’ve lost operationally and, I repeat, they lost tactically. What they’ve tried to do, they

failed at. The strategic reframing of their objectives, their illegal invasion have all failed, every single one of them.”

In the area of Soledar, Russian artillery and tanks virtually did not act, the Russians fought with infantry alone. The city was littered with the bodies of Russians who suffered colossal losses but continued to attack persistently. Although the capture of Soledar and Bakhmut had no strategic significance.

During World War II, Soviet generals filled trenches with the bodies of their soldiers. For example, as a result of hostilities from October 1941 to March 1943, Rzhev (Tver region, Russia) and neighboring settlements were almost completely destroyed. Official Soviet media blamed the German troops, but it is now believed that Rzhev was largely destroyed by Soviet artillery and aviation during their persistent months-long attempts to recapture the city. According to some estimates, about 2.5 million Soviet servicemen were killed in the battle near Rzhev. This was the bloodiest battle of World War II 1939-1945.

In December 2022, the Commander-in-Chief of the Armed Forces of Ukraine Zaluzhny said that to reach the Crimea border, the Ukrainian Armed Forces need to cover 84 km to Melitopol. “I know I can defeat this enemy. But I need reserves. I need 300 tanks, 600-700 IFVs, 500 howitzers. Then, I guess, it is quite real to reach the February 23 line,” he said.

As of January 22, 2023, it became clear that Ukraine will receive from the USA and European countries more than 1,000 armored vehicles, over 160 tanks, 50 artillery guns, 22 M142 HIMARS MLRS, and 11 M270 MLRS in 2023. The number of tanks and artillery guns will increase.

To defeat Russian troops, modern tanks Abrams M1A2 (USA), Leopard 2A7 (Germany), Challenger 3 (England), AMX-56 Leclerc (France) are required, which are the best in the world, along with the Israeli Merkava MK.4 and South Korean K2 Black Panther. All these tanks withstand the fire of Russian 125 mm tank shells at a range of 2,000 meters. Also, the Abrams M1A2 tank (USA) is very complex to handle, which creates difficulties in training Ukrainian tankers. The Abrams M1A2 tank is equipped with a gas turbine engine AGT1500 by American Honeywell and a 120 mm smooth-bore tank gun Rh120 by German Rheinmetall (American licensed production). The engine can operate with various types of fuel, including jet fuel, gasoline, diesel, and marine diesel. This weapon fires various shells and is capable of destroying any Russian tank with one shot in any position, while the frontal armor of the Abrams M1A2 cannot be pierced by any Russian anti-tank guns.

The only right way is an immediate cessation of the war, the withdrawal of troops from the territory of Ukraine, and the start of negotiations on lifting sanctions. Then the West will stop imposing new sanctions against Russia.

Economic and political reforms will be required for foreign businesses to want to work with it.

It is appropriate to draw historical parallels here.

In particular, historians do not often mention the Pruth Campaign (1711) against the Ottoman Empire since it became one of the main military failures of Peter the Great. However, the Pruth Campaign demonstrated the possibility of diplomatic negotiations with the Turks, also used by the Russians later on

Russia's defeat in the Crimean War (1853-1856) against a coalition of England, France, the Ottoman Empire, and the Kingdom of Sardinia (Italy) became the impetus for economic reforms and further abolition of serfdom in Russia.

Russia's defeat in the war with Japan (1904-1905) prepared the ground for the Russian revolutions (1905-1907 and 1917) and led to the formation of the first parliament (1906).

On December 7, at a meeting with members of the Human Rights Council under the President of the Russian Federation, Vladimir Putin said that the special operation in Ukraine is a long process, but the emergence of new territories in the composition of the Russian Federation is a significant result, and the Sea of Azov has become the internal sea of Russia.

Peter the Great also fought to reach the Sea of Azov.

His first Azov Campaign in 1695 failed. During the second campaign in 1696, he captured the Azov fortress and reached the Sea of Azov, creating a fleet there. After the Pruth Campaign in 1711, he lost the Sea of Azov. The campaigns showed that Peter the Great could not draw any conclusions from failures. Today history repeats itself. Vladimir Putin also cannot draw any conclusions from failures and continues a senseless fratricidal aggression against Ukraine.

In 2022, Russia celebrated the 350th anniversary of the birth of Peter I (May 30, 1672 - January 28, 1725), who was the last Tsar of All Russia (from 1682) and the first Emperor of All Russia (from 1721), and belonged to the Romanov family.

According to the family legend, the ancestors of the Romanovs left Prussia for Rus' at the beginning of the 14th century. M.V. Lomonosov claimed that the Varangians-Rus "originated from the same generation as the ancient Prussians." The name 'Prussians' possibly originates from German 'horse,' 'rider,' as the Slavs called the Western Balts. This culture was borrowed by the Balts from the nomadic tribes of Central Europe, the Avar Turks. After the collapse of the Avar Khaganate in the early 9th century, the Turkic rulers retained power in Prussia. The Prussians were a group of tribes that inhabited the southern coast of the Baltic (Varangian) Sea in the 8th-13th centuries, now the Kaliningrad region of Russia and part of Lithuania and Poland.

In the 13th century, under the pretext of the Christianization of the Prussians, the Teutonic Order conquered their lands. At the same time, the ancestors of the Romanovs rose against the Germans, were defeated, and went to Rus'. Thanks to the marriage of Ivan IV the Terrible to Anastasia Romanovna Zakharina, the Zakharin-Yuriev family (branch of the Rurik dynasty) became close to the royal court in the 16th century, and later claimed the throne. The Polish-Russian War was going on from 1605 to 1618. There was civic upheaval, and in 1613, Mikhail Fedorovich from the Romanov dynasty was elected Tsar.

Prussia was Christianized in the 13th century; some of the population joined the German ethnic group, and some went to Rus to Alexander Nevsky – Prince of Novgorod. The remaining Prussians became Lithuanians and Latvians. The descendants of the Duchy of Prussia (1525-1701) and the Kingdom of Prussia (1701-1918) were German.

Commenting on the speech of the President of the Russian Federation Vladimir Putin on Twitter, Advisor to the Head of the Office of the President of Ukraine, Mykhailo Podolyak wrote, “The masks are off. Forget about ‘NATO provocations,’ ‘denazification,’ and other forgotten pretexts for war. Putin has confirmed what was obvious to the entire world: Russia is waging an aggressive genocidal war to conquer new territories as Peter I bequeathed. Does anyone else want a reconciliation?”

On December 9, 2022, in Bishkek, at a press conference following the meeting of the Supreme Eurasian Economic Council, a journalist said that the flow of appeals from Russian servicemen is not drying out. Appeals are received by war correspondents and volunteers. Soldiers complain about the lack of uniforms and consumables. “Whom should we trust? Reports by the Ministry of Defense or fighters from the front line?” – she asked.

In response, Putin said: “You can't trust anyone, only me.” According to him, there have been problems and, perhaps, still are, although he is assured that they are reducing. In the Seventeen Moments of Spring film, SS Gruppenführer Müller tells the Soviet intelligence officer Stirlitz, “You can't trust anyone in our time. Sometimes even yourself. Only me.” The President of the Russian Federation spoke the words of a Nazi.

On January 23, 2023, Russian troops started storming the city of Vuhledar in the Donetsk region. The 155th and 40th Naval Infantry Brigades of the Pacific Fleet of the Armed Forces of the Russian Federation were involved in the assault. On March 27, 2022, according to Ukrainian intelligence, three servicemen from the 155th Brigade were directly involved in the murders of civilians in Bucha, Irpin, and Hostomel of the Kyiv region. On March 28, 2022, by the decree of the President of Russia, the brigade was awarded the honorary title of Guard “For mass heroism and bravery, fortitude and courage shown by the brigade personnel

in combat operations to protect the Fatherland and state interests under conditions of armed conflicts.”

The 155th Brigade was created relatively recently, in 1968. The 40th Brigade was created on September 22, 1918, by Vasily Chapayev (one of the legendary figures during the Civil War in Russia in 1918-1920) based on partisan detachments of the Samara Governorate.

The assault on Vuhledar ended in complete failure. Russian troops suffered significant losses with more than 500 killed, more than 1,500 wounded, and more than 100 armored vehicles knocked out. Vladimir Putin, meanwhile, praised the effective work of the Russian Marine Corps. “The Marine Corps is working... right now. The infantry of both Pacific and Northern Fleets is fighting bravely,” - said the President after the meeting of the Supervisory Board of the Agency for Strategic Initiatives on February 9.

On February 24, 2023, the anniversary of Russian aggression against Ukraine, various statements were made from different sides.

President of Ukraine Volodymyr Zelensky stated, “We are strong. We are ready for anything. We will defeat everyone. Because we are Ukraine! I said this a year ago, in my first statement since the full-scale war began. We didn't know what tomorrow would bring. But we understood that we must fight for every tomorrow! We have withstood for a year to the day.”

National Security Advisor to US President, Jake Sullivan, in a special CNN broadcast dedicated to the anniversary of the full-scale Russian invasion of Ukraine, said that Russia “has already lost this war.” “Russia's goals in this war were to erase Ukraine from the world map, capture its capital, destroy Ukraine, and absorb it. They failed and would never be able to do so,” he stressed.

Herewith, the High Representative of the EU for Foreign Affairs and Security Policy, Josep Borrell, assured that the European Union does not wish the ‘destruction’ of Russia.

On the anniversary of Russia's invasion of Ukraine, the Chinese Foreign Ministry proposed a Peace Plan to end hostilities between Russia and Ukraine.

US Secretary of State Antony Blinken and UN Secretary-General Antonio Guterres met in New York to discuss issues of ensuring a fair and stable peace in Ukraine and stressed “the importance of continuing to defend the UN Charter and provide humanitarian support for Ukraine and the region.”

According to Ukrainian President Volodymyr Zelensky, by February 24, 2023, Russia had occupied 1,877 Ukrainian cities and villages. The total number of inhabited localities in Ukraine is 29,742.

Since the start of the war in Ukraine, Russia has changed its objectives three times. In the first phase, Russia sought to denazify and demilitarize Ukraine, and in the second phase – annex four Ukrainian regions – Luhansk, Dnipropetrovsk, Kherson, and Zaporizhzhia. On April 6, 2023, Putin set a new task – to push the Ukrainian Armed Forces back to a distance from which they would not be able to inflict damage.

Since the beginning of May 2023, Russia has begun evacuating residents of 18 settlements in the Zaporizhzhia region, some of which are far from the front line, 40 km from Melitopol and the Kherson-Berdyansk highway.

By May 16, 2023, within several days, the Ukrainian Armed Forces liberated about 20 square kilometers in the northern and southern suburbs of Bakhmut in the Donetsk region from Russian troops. A counteroffensive of Ukrainian Forces started with the aim of fully liberating the Luhansk, Donetsk, Zaporizhzhia, and Kherson regions.

Ukrainian Forces launched a large-scale offensive on five fronts:

- \*to the east of Kherson towards Kalanchak and Chaplynka, and further Crimea;
- \*from Zaporizhzhia to Tokmak-Melitopol-Berdyansk, and further Crimea;
- \*from Kreminna and Svatove towards Severodonetsk-Lysychansk-Luhansk;
- \*from Bakhmut towards Horlivka, and from the north towards Donetsk;
- \*from Vuhledar towards Volnovakha-Mariupol, and from the south towards Donetsk.

At the end of May 2023, Ukrainian troops accelerated efforts on these fronts. On all fronts, except Kherson, Ukrainian troops started advancing slowly. Fierce battles took place near Svatove, Kreminna, Bakhmut, and Donetsk. On June 8, Ukrainian forces approached the Rabotyno settlement in the direction of Tokmak.

On June 6, the ‘Head’ of the occupied Crimea Sergey Aksenov reported that a Ukrainian drone was ‘blacked out and landed’ in the eastern part of the peninsula by radio-electronic warfare (EW) means. Later, it turned out that the crashed drone was an Iranian Mohajer-6 UAV, shot down by Russian anti-aircraft gunners in the sky. Perhaps they wanted to report an attack on Crimea by Ukraine with drones.

Also, on May 3, 2023, “the burst of two drones over the dome of the Senate Palace in the Kremlin” was reported.

On May 30, 2023, the Russian Ministry of Defense announced 8 drones launched over Moscow, 3 of which had been intercepted by EW means and crashed. The remaining five were shot down by Pantsir-S air defense systems. No data on these drones were provided. How could they fly such a distance? The distance from the

village of Hremiach in the Chernihiv region (one of the first settlements occupied by Russian troops in the war with Ukraine) to Moscow is about 500 km. How could they be missed by Russian air defense? How have they not been detected during at least 3-4 hours of flight? If not, how were they transported to the Russian territory disassembled to be assembled and launched in Moscow? Moscow accuses Ukraine of 'terrorist actions' and 'intimidating Russian citizens,' trying to justify its endless missile and drone strikes on cities and populated areas of Ukraine.

On June 9, a drone crashed into a residential building in Voronezh. It was blacked out using EW means, and as a result, crashed. Three people received minor injuries from glass fragments. The distance from Kharkiv to Voronezh is about 300 km. Where was the Russian air defense?

Between May 28 and June 5, part of the road and the sluice gates over the dam of the Kakhovka Hydraulic Power Plant were damaged. On June 6, Russian troops utterly blew up the dam. 80 settlements were flooded. The Plant was built in the 1950s, and it is almost impossible to restore it. A new dam and plant will have to be built.

From a military standpoint, capturing the Kakhovka dam would have allowed the Ukrainian Armed Forces to create a bridgehead on the left bank of the Dnieper, arrange the ammunition logistics, and threaten the entire southern group of Russian troops. Another crossing is the famous Antonivsky Bridge. It would allow Russian troops to delay the counteroffensive of the Ukrainian Armed Forces in this direction.

According to the Russian side, "As a result of the shelling from the Vilka MLRS by the Ukrainian Armed Forces, the upper part of the Kakhovka HPP was destroyed, and then, under the water pressure, three station spans collapsed. As a result, the first line of defense was flooded, and the Russian troops moved artillery and equipment to the second line."

Fierce battles raged around Avdiivka and Marinka. The Chechen Akhmat Unit was advancing in the area of Marinka. On June 6, Ukrainian forces struck at the Akhmat camp. According to Ukrainian data, 56 fighters were killed.

Starting from June 6, Ukrainian forces have significantly increased pressure in the Zaporizhzhia region towards the settlement of Tokmak and around Donetsk. Here the Ukrainian Armed Forces intend to break through the Russian defense. The Ukrainian Armed Forces are trying to hit the vehicles moving along the ammunition supply routes and the artillery units. Attacks are virtually occurring along the entire contact line.

Russian media continuously stated that the Ukrainian counteroffensive was halted, and many pieces of armored equipment were destroyed. According to observers, on June 10, Ukrainian forces conducted a counteroffensive on four fronts. Under

Bakhmut and in the western part of the Zaporizhzhia region, the Ukrainian Armed Forces achieved local success. The first Russian line of defense was breached in several places. The following settlements were liberated: Neskuchne, Storozheve, Blahodatne, and Makarivka in the Donetsk region, and Novodarivka in the Zaporizhzhia region.

The Ukrainian Armed Forces are advancing towards Svatove, Kreminna, Bakhmut, Mariinka, Volnovakha, and Tokmak. The depth of the advance (Pyatykhatka - Svatove) is about 400 km. Such a counteroffensive scale requires very thorough preparation, a large amount of equipment and manpower, as well as timely procurement.

History knows many large-scale offensive operations. For example, from December 1941 to April 1942, Soviet troops advanced on a 300-400 km front line under Moscow with a depth of 120-150 km. The Bagration Operation (June 23 – August 29, 1944) lasted 68 days. The depth of the front line was 1,100 km, and the advance depth was 500-600 km.

On June 11, Russian media reported, “The counterpart broke through the Neskuchne-Blahodatne-Urozhaine line.” Further advancement of the Ukrainian Armed Forces in this direction will open the way to Volnovakha and Mariupol, which are about 100 km away. On June 12, Ukrainian forces advanced, respectively 1.5 and 3.5 km on the left and right flanks in the Bakhmut direction and liberated more than 16 square kilometers of territory.

On June 14, significant reserves of the Russian Army came up and stabilized the situation on the Urozhaine-Novodonetsk-Novomayorsk line. Russia is reinforcing other sections as well. A break of this line would be a disaster for Russia. The distance from Novomayorsk to Volnovakha and Mariupol is about 40 and 100 km, respectively. There are no other lines of defense in this direction.

In light of the failures on the front, on June 13-14, Russia struck various Ukrainian cities. Strikes on Dnipropetrovsk and Kirovohrad regions, as well as the cities of Odesa, Kramatorsk, and Kryvyi Rih, were made with missiles and kamikaze drones, most of which were shot down. One missile hit a shopping center in Odesa. Another hit infrastructure in Svitlovodsk. On June 13, a missile hit a five-story building in Kryvyi Rih. 12 people were killed and 36 were injured.

On June 14, 2023, the RF State Duma deputy since 2007, ‘future successor of Kadyrov,’ ‘the most dangerous Russian deputy,’ Hero of Russia for participating in the Russian invasion of Ukraine Adam Delimkhanov was fatally wounded in an artillery strike by the Ukrainian Armed Forces on a column of Kadyrov's gunmen.

On June 15, near Kreminna, soldiers of the 20th Combined Arms Army of the Western Military District gathered to listen to a speech by Russian General Sukhrab Akhmedov on the occasion of Russia Day. The soldiers waited for the

General for two hours. Instead of the General, HIMARS missiles arrived. About 100 servicemen were killed, and 100 were injured. Since 2022, Sukhrab Akhmedov has been participating in the war in Ukraine. On December 20, 2022, he was appointed Commander of the 20th Combined Arms Army of the Western Military District. By the Decree of February 17 of the President of the Russian Federation, he was awarded the rank of Major General, and Rustam Muradov was awarded the rank of Lieutenant General.

In mid-February 2023, the 155th and 40th Naval Infantry Brigades suffered huge losses in the Vuhledar direction. This operation was led by Muradov and Akhmedov, who were awarded the title of Hero of Russia. These incompetent commanders sent servicemen to minefields as ‘cannon fodder.’ The incompetence of some Russian military leaders is impossible to hide anymore. On June 13, during a meeting with military correspondents, Vladimir Putin noted that thanks to a special military operation, many ineffective ‘carpet knights’ were identified.

The slow pace of the Ukrainian Armed Forces' advance is because the Ukrainian command is trying to avoid large losses. The Ukrainian Armed Forces continued to attack the rear of the Russian army and destroy headquarters, weapon and fuel depots, and ammunition logistics routes. Ukrainians seek to break through the defense with small combat groups, quickly concentrating forces and striking targeted blows at the weakest positions.

On June 18, Ukrainian forces liberated Pyatykhatka and advanced towards Vasylivka-Tokmak-Berdyansk.

By the end of 2022, Russian forces have built the most powerful line of defense since the end of World War II. According to them, “it surpasses both the famous French Maginot Line and the Finnish Mannerheim Line in efficiency.”

*The Maginot Line (400 km width, 14-22 km depth) was built by the French from 1928 to 1936 to deter the Germans and was named after French military figure André Maginot. On June 14, 1940, the line was breached by German infantry within a few hours without tank support. The German infantry advanced with powerful aviation and artillery support, widely using smoke shells.*

*The Mannerheim Line (135 km width, 14-22 km depth) was built by the Finns from the 1920s to the 1930s to deter the Soviet Union and was named after the Commander-in-Chief – Marshal Mannerheim. Soviet troops broke through the defense line within 30 days. Soviet infantry advanced with powerful aviation and artillery support, widely using explosives to destroy bunkers.*

Before the Second Karabakh War, Armenians boasted about the Ohanyan Defense Line (200 km width, 10 km depth). Armenians built it from 1993 to 2020 and claimed it was impregnable. This was a system of deeply layered defense and was named after the Armenian Minister of Defense, Seyran Ohanyan. Within the

first 7 days, the Azerbaijani Army advanced 7-8 km, and then broke through the Ohanyan line within another week. The Azerbaijani Army advanced with powerful layered rocket and artillery support, widely using precision ammunition.

Now Russians are praising the Surovkin Line (the then Commander-in-Chief of the military operation in Ukraine). Russian troops have built dozens of kilometers of trenches, laid endless minefields, and arranged many concrete barriers and ditches. This was done to limit the movement of attacking units and destroy them with artillery fire from defiladed positions.

According to open sources, about 60 km of defense line has been built from Svatove to the Russian border. About 120 km wide and 60 km deep defensive line has been built to protect the occupied parts of the Kherson and Zaporizhzhya regions, as well as Crimea.

On June 19, the Ukrainian Armed Forces liberated the Pyatykhatka village in the Zaporizhzhya region. This is one of the support villages of the first line of defense. By liberating this village, the Ukrainian Armed Forces penetrated the first line of defense of Russian troops in the Zaporizhzhya region.

Herewith, Russian forces continued to strike Ukrainian cities with missiles and Iranian Shahed drones.

On June 20, 2023, the Russian Ministry of Defense announced the awarding of the wounded common soldier Andrey Kravtsov. He was awarded a RUB one million (USD 12,000) certificate for allegedly destroying a Leopard tank. Kravtsov stated that he fired at Ukrainian armored vehicles, but learned about the destroyed Leopard tank only in the hospital.

Kravtsov fought on June 5-6, received severe injuries, and had his arm amputated. On June 7, Vladimir Putin called the Commander of the platoon where Kavtsov served, Junior Lieutenant Yuri Zhulanov, who extracted the platoon from its encirclement. The President of Russia promised to promote him in rank. According to independent sources, the first Leopard in Ukraine was destroyed on June 8. Moreover, on June 12, Putin personally awarded him the Order of Courage in the hospital, but no one talked about the tank he had destroyed at that time.

Kravtsov and his commander Zhulanov served in the 37th Separate Guards Motorized Rifle Brigade, dislocated in Kyakhta, Buryatia. This Brigade comprises a high percentage of servicemen from Buryatia and representatives of other ethnic minorities. In 2021, this was the only Russian military unit where a Buddhist Lama served as a military chaplain. Residents called the Brigade the 'death range.' Several soldiers of the Brigade were involved in torturing and killing residents of the Motyzhyn village (Bucha district, the Kyiv region). On March 25, 2022, the Commander of the Brigade, Colonel Yuri Medvedev, was run over by tank by his

soldiers dissatisfied with the scale of losses (up to 50% of personnel) suffered by the Brigade during the battle for Makariv in the Kyiv region.

On June 15, famous singers Nikolai Baskov and Grigory Leps announced that they would pay RUB 1 million for each destroyed Leopard tank. They were joined by singer Yuri Antonov. The Ukrainian Armed Forces lost the first Leopard 1A5 tank on November 28. Leopard 1A5 is an old German tank with a 105 mm gun and weak armor protection. The last tanks of this type were decommissioned in Germany in 2010. As of the end of January 2024, 26 of 100 Leopard tanks transferred to Ukraine were destroyed.

On March 26, 2023, Hero of Russia (2015), Lieutenant Colonel Dmitry Lisitsky shot himself dead in Stavropol. This was on the same day when Putin awarded Lieutenant General Arkady Marzoev (an Ossetian by ethnicity) the Order of Alexander Nevsky.

Officers of the 22nd Army Corps in Crimea complained that the Commander of the Corps, General Arkady Marzoev, sent soldiers into battle in the Kherson direction without prior reconnaissance with UAVs and air defense cover for many months.

Dmitry Lisitsky tried to convey to Putin and Shoigu information on who was to blame for the defeat of the 247th regiment, sending reports. Two former subordinates of Lisitsky confirmed that the regiment suffered critical losses. Lisitsky managed to extract his battalion from its encirclement at the Mykolaiv airport without losses and arranged a defense along the Inhulets River, held by Russian troops until Surovikin decided to leave Kherson and the entire right bank of the Dnieper.

Lisitsky was promised a second Star of the Hero, but instead of this, after a conflict with Marzoev, he was sent on leave and for treatment in his native Stavropol with both legs injured.

### **Coup Attempt**

On the night of June 24, 2023, the Wagner PMC (Private Military Company) captured the headquarters of the Southern Military District in Rostov-on-Don. Since the end of 2022, Prigozhin has accused the Chief of the General Staff Gerasimov and the Minister of Defense Shoigu of corruption, theft, incompetent military leadership, the death of thousands of Russian soldiers, and other severe crimes. On the morning of June 24, Yevgeny Prigozhin announced that his fighters had also taken control over military facilities in Voronezh. He met with the Deputy Minister of Defense, Colonel General, and former President of Ingushetia, Yunus-Bek Yevkurov. He requested Gerasimov and Shoigu to come to negotiate with him. The Wagner PMC had 25,000 fighters under arms. By the evening of June 24, the Wagner PMC detachments entered Lipetsk and Barabanovo.

On June 24, Russian President Vladimir Putin called the mutiny arranged by Yevgeny Prigozhin in the RF a 'stab in the back,' "This is a stab in the back to our country and people. A similar stab was struck in 1917... Russians killed Russians, brothers killed brothers, and foreign forces benefited."

Meanwhile, on June 26, the Ukrainian Armed Forces liberated the Rovnopil village in the Donetsk region and buckled in the first line of defense of Russian troops from the side of Vuhledar. Russian troops retreated to the Staromayorske and Staromlynivka villages. The Ukrainian Armed Forces buckled in the second line of defense. The last line of defense is the areas around the city of Tokmak in the Zaporizhzhya region and the city of Bilmak in the South Donetsk direction.

On June 29, in an interview with the Corriere Della Sera newspaper, the Advisor to the Head of the Presidential Office of Ukraine, Mykhailo Podolyak, said, "We have a shortage of large-caliber shells and missiles and limited aviation capabilities, and we cannot hit the Russian Army's augmentation channels. The front line extends for 1,800 kilometers, and the area of mined fields exceeds 20 thousand square kilometers. The Russians have set up three lines of defense: they have dug trenches, built bunkers, deployed artillery, launched missiles, and they have thousands of tanks in fortified positions. They have about 360 thousand soldiers."

According to The Wall Street Journal, after the mutiny of the Heads of the Wagner Private Military Company, about 15 Russian officers were dismissed, and another 13 were detained for interrogations. Among them:

\*Sergey Surovikin - Deputy Commander of the United Group of Russian Forces in Ukraine, Army Marshal;

\*Andrey Yudin - Commander of the Air Force, Deputy Commander of the Air and Space Forces of Russia, Colonel General;

\*Mikhail Mizintsev - Deputy Minister of Defense of Russia for Procurement (September 24, 2022 - April 27, 2023), Deputy Commander of the Wagner PMC (since May 2023), Colonel General;

\*Yunus Bek Yevkurov - Deputy Minister of Defense of Russia, Colonel General;

\*Vladimir Alekseev - First Deputy Chief of the Main Intelligence Directorate of the General Staff of the Armed Forces of the Russian Federation, Lieutenant General.

Back in the autumn of 2022, the news was spread about recruiting prisoners in Russia. The Ministry of Defense performed recruiting in colonies, where former employees of law enforcement agencies were serving sentences, to form a special Storm unit from people with certain skills and experience to break through the most difficult sections of the Ukrainian Armed Forces' defense-in-depth. In early

2023, assault detachments were formed at the battalion level according to the Wagner group model.

The existence of Storm penal military units became known on April 6, 2023, when Ukrainian forces captured documents with a detailed description of their recruitment and formation. The Storm units are led by the Head of the Main Organizational and Mobilization Directorate of the General Staff, Colonel General Yevgeny Burdinsky.

*On July 25, 1942, the first penal company was formed. Throughout the Second World War, 427,910 people passed through penal units, of whom about 70% were killed.*

As of February 2023, 1,500 prisoners were fighting in the ranks of the Wagner PMC. As of February 2024, the number of prisoners in the ranks of Russian troops had reached 30,000.

In the article for the June issue of the Military Commissariats of Russia Journal of the RF Ministry of Defense, Yevgeny Burdinsky announced that two armies would be formed in the Russian Armed Forces in 2023: general and air.

He also announced that there would be two military districts - Moscow and Leningrad. He also noted that no mobilization measures of this scale had been taken in the country since the Great Patriotic War of 1941-1945.

Earlier, Sergey Shoigu called for increasing the staff of armed forces to 1.5 million servicemen, including up to 695 thousand contractors, "to assuredly solve the problems of ensuring the military security of Russia." President Putin supported this idea.

Ukrainian forces broke through the first line of defense of Russian forces on the southern front and consolidated in the intermediate strip between the enemy's first and second lines of defense.

Since August 8, 2023, fierce fighting has been underway near the Robotine village in the Zaporizhzhia region and Urozhayne in the Donetsk region. The distance from Robotine to Tokmak is 29 km. The distance from Urozhayne to Bilmak is about 60 km, and to Volnovakha - 70 km.

The main Russian fortified areas are located around the cities of Tokmak and Bilmak. By taking these cities, the Ukrainian Armed Forces will liberate almost the entire south up to Crimea and the Sea of Azov.

From August 15, Ukrainian forces are assaulting the second line of defense of Russian forces, Removka - Staromlynivka - Oktyabrskoye. Then, there is the fortified Surovikin line, Novozlatopil - Orlinskoye - Heorhievka - Novopetrivka.

The distance from Staromlynivka to this line is 8-10 km. Beyond this line, the road to Mariupol opens up.

Russia has suffered heavy losses in armored vehicles, especially tanks. There are a lot of destroyed tanks with their turrets torn off. Western tanks are designed according to a different technology. Their ammunition is not detonated after a direct hit on the turret.

### **Mutual Retaliatory Strikes**

Russia is also losing heavily to Ukraine in counter-battery activities. Ukrainian air defense intercepts most of the Russian Air Force's unguided missiles and bombs. The same goes for unmanned aerial vehicles.

On the night of August 30, for the first time since the beginning of the war, several Russian regions (Pskov, Bryansk, Kaluga, Ryazan, and Moscow Regions and Crimea) were subjected to a mass attack by Ukrainian drones. As a result of the attack on the Pskov airport, two Il-76 military transport aircraft were destroyed, and four were damaged. Pskov Airport is both a civilian airfield and a military air base. The 334th Military Transport Aviation Regiment is based here. 119 Il-76 aircraft are in service with the military transport aviation of Russia. The straight distance from Pskov to the border with Ukraine (via Belarus) is about 700 km. According to Russian media reports, most of the drones were either shot down or hit by electronic warfare means. Each shot-down drone provides information on the location of air defense and electronic warfare facilities.

Russian sources also reported that Turkish Bayraktars are low effective. However, there is documentary evidence that as of early September 2023, 99 units of Russian military equipment, including 15 ground-to-air reactive systems, 10 helicopters, and 7 ships, were destroyed by Bayraktars.

On September 14, 2023, the Ukrainian Armed Forces destroyed the Russian S-300/400 Triumph air defense system in Crimea with Neptune missiles.

After the destruction of the air defense system in Crimea, on September 22, the Ukrainian Armed Forces carried out a strike with Storm Shadow missiles against the RF Black Sea Fleet in Sevastopol. As a result of the attack, the Fleet Commander, Vice Admiral Viktor Sokolov, was killed.

In the first days of October 2023, the main ships of the Black Sea Fleet were redeployed from Sevastopol to Novorossiysk, and several more ships to Feodosia. As a result of continuous attacks by Ukrainian forces, from January to the end of September 2023, Russia relocated its fleet from Crimea to the Krasnodar Territory.

From October 10 to October 19, RF Armed Forces conducted assault operations in the area of Avdiivka. The results were terrifying for the Russian side. They have lost:

\*more than 150 tanks

\*more than 300 armored vehicles

\*about 100 artillery pieces

No such amount of military equipment is available to the land forces of Armenia, Georgia, Moldova, Tajikistan, Kyrgyzstan, Slovakia, Hungary, and many other countries.

On October 17, 2023, the units of the Ukrainian Armed Forces occupied the Poyma and Pishchanivka villages on the left bank of the Dnieper, and on October 22, 2023, the Krynky village. Earlier, in the island zone of the Dnieper, the Ukrainians created a bridgehead on Kozatsky, Oleshki, and Melky islands. At a distance of about 65 km along the left bank of the Dnieper, several bridgeheads have been created to arrange a major offensive.

Ukraine is divided into left-bank (eastern) and right-bank (western) according to the location of these territories relative to the Dnieper River. Dnieper flows from north to south.

By November 18, the Ukrainian Armed Forces managed to push Russian troops three to eight kilometers back on the left bank of the Dnieper. Russian artillery no longer covers the right bank of the river, where the Kherson is located, and the Ukrainian Army is consolidating its positions and transferring additional forces to the left bank.

By November 28, the units of the Ukrainian Armed Forces entered the Kinburn Spit - the northwest part of the Kinburn Peninsula between the Dnieper-Bug Estuary and the Black Sea. The Turkic name of the 40 km long Spit is Kyl Buruni (hairy cape). In the 15th century, the Turks built the Kinburn Fortress here.

Russia has a land border and direct air, sea, railway, and road communications with North Korea. North Korea provides Russia with 122 and 152 mm artillery shells, 122 mm unguided rockets, Grad-type MLRS, missiles, etc.

Russia also has direct air and sea communications with Iran. In May 2023, Russia allocated a \$1.3 billion loan to Iran for the construction of a 162 km Resht-Astara railway line on the border with Azerbaijan, which would allow for direct rail communication along the western branch of the North-South corridor.

Iran provides Russia with drones, 122 mm artillery shells, 122 mm unguided rockets, barrels for T-72 tanks and howitzers, helmets, body armor, etc.

In early November, the United States provided the Ukrainian Armed Forces with 6 units of 72-ton M1150 protected tracked assault vehicles for mine clearance and overcoming the Russian barrier lines. Most likely, this number will be increased.

The US and Australian Armies have, respectively, 239 and 29 such engineering vehicles, successfully used by the Americans in Afghanistan in 2009-2010.

From December 14 to 17, 2023, the 155th Separate Naval Infantry Brigade of the Pacific Fleet suffered heavy losses in personnel and armored vehicles (more than 100 units) near Vuhledar. Earlier, the Russian elite brigade had suffered severe losses in November 2022 in battles near Pavlovka in the so-called Donetsk People's Republic, and in February 2023, again near Vuhledar.

On the night of December 26, the Ukrainian Armed Forces performed a missile strike at the port of Feodosia in Crimea, where the large landing Novocherkassk ship (capable of carrying up to 10 tanks or 45 APCs and 200 paratroopers, 87 people crew) partially sank, which was armed with two 20 mm artillery installations, 122 mm Grad MLRS, and Strela-2 MANPADS. The UTS-150 training ship also partially sank. It was a former T-43 minesweeper designed for the removal or detonation of sea mines. In response, on December 29, Russia launched a missile strike across Ukraine. Almost all types of missiles from the Russian arsenal were used. 158 missiles were launched, of which 114 were shot down. 29 people were killed, and about 156 were injured.

At noon on December 30, the Ukrainian Armed Forces launched a missile strike on the Russian city of Belgorod. According to the Russian Ministry of Emergency Situations, 14 people were killed, and 108 were injured. The Russian Ministry of Defense stated that the strike was carried out by the Vilkha missiles (a Ukrainian copy of the Russian Smerch, 300 mm caliber, 130 km range) and the Vampire MLRS (a copy of the Soviet BM-21 Grad, 122 mm caliber, 36 km range).

On the night of December 31, Russia struck Kharkiv again with Iskander missiles and Shahed drones, resulting in 28 casualties. Mutual retaliatory strikes between the parties began. Russia retaliated for the attack on Feodosia, and Ukraine for the attack on Kharkiv and other Ukrainian cities.

*During the Finnish Campaign (1939), there was a similar incident. On December 6, 1917, the Finnish Senate declared independence, and on December 18, communist Russia recognized it. But immediately after that, the Finnish Civil War began, where the Soviet Union supported Finnish communists. In 1918-1920, the first Finnish-Soviet War occurred. The idea of Sovietization continued, which led to the second Finnish-Soviet War in 1939-1940. During the Finnish Campaign in 1939, a Finnish sabotage group performed a raid on a rear military hospital, killing about 40 wounded Soviet soldiers and nurses. Two weeks later, a retaliatory raid was performed on a Finnish mobile medical unit. Wounded Finnish soldiers and medical personnel were killed. The Soviet detachment was led by the Commander of a Separate Ski Reconnaissance Battalion, Vasily Margelov, the 'father' of the Soviet airborne forces.*

On January 1 and 2, 2024, Russia continued shelling Ukraine with missiles and drones. Four people were killed and 92 were injured.

Ukrainian Air Defense units shot down all 35 Shahed drones launched, all 10 Dagger air-launched cruise ballistic missiles, all 3 Kalibr sea-launched cruise missiles, and 59 of 70 Kh-101/Kh-555/Kh-55 air-launched cruise missiles. One Kh-101 cruise missile launched from the Caspian Sea fell in the village of Petropavlovka in the Voronezh region.

“Kh-101 is an air-launched cruise missile. It has a range of up to 5,500 km, a flight speed of 900 km/h, a 400 kg warhead, and up to 10 m accuracy.”

According to Russian sources, Kh-101 is a strategic air-to-ground missile, based on new technology, which has exclusively Russian components and has no analogs in the world. It also shoots down infrared traps on the last section of the trajectory, first in the world practice. However, one such ‘unique missile’ destroyed half of the street in a Russian village, located 150 km from the border with the Ukrainian Kharkiv region.

Russia uses a combined strike tactic. First, drones create work for air defense systems, and then missiles come in waves. Drone strikes are carried out daily. Their assembly from Iranian and Chinese components has been arranged. In October, November, and December of 2023, 285, 369, and 625 drones were launched, respectively. Russia accumulates missiles and then strikes. It cannot arrange stable production due to problems with the supply of foreign components.

On January 23, 2024, Russian troops launched another combined strike on Ukraine, using cruise, ballistic, air-launched, and guided air defense missiles. Ukrainian Air Defense forces shot down 21 of 41 targets. Not all missiles reached their targets. 13 people were killed, and 130 were injured.

On February 7, 2024, Russian troops launched another massive strike on Ukraine, the third one since the beginning of 2024. 44 Kh-101/Kh-555/Kh-55 cruise missiles were launched from Tu-95MS and Tu-22M3 aircraft, including Kalibr, Iskander-M ballistic, and S-300 air defense missiles, as well as 20 Shaheed drones. Ukrainian air defense forces shot down 44 of them. 19 civilians were injured.

Ukrainian specialists have mastered the American Patriot air-defense missile system (by the end of 2023, 5 batteries with 4 launchers each, 4 missiles per launcher) and the French-Italian SAMP/T air-defense missile system (by the end of 2023, 5 batteries with 4 launchers each, 8 missiles per launcher). Resistance to Russian drones and missiles is increasing every month. The hit rate is very high. Time is working for Kyiv. By mid-2024, attacks on Ukraine will not have an effect. Russia will lose billions.

On January 4, 2024, the Ukrainian Armed Forces targeted military facilities in Crimea with 10 missiles, of which 3 were not intercepted. Military facilities in the Saki district and near Sevastopol were affected. 23 soldiers were killed, including 5 high-ranking officers. On January 6, 2024, the Ukrainian Armed Forces struck the Saki aerodrome again and hit the command post.

Ukraine experiences difficulties in defending its territory with air defense forces, but it is even more difficult for Russia. Russia launches thousands of missiles and drones at Ukraine's infrastructure. In turn, Ukraine strikes back at Russian oil and gas complex facilities. These include:

- \*The Rosneft oil depot in the city of Klinty, Bryansk region;
- \*The Rosneft oil terminal in the village of Zhecha, Bryansk region;
- \*The Novatek chemical terminal in the Ust-Luga port, Leningrad region;
- \*The Rosneft oil refinery in the city of Tuapse, Krasnodar region;
- \*The Lukoil oil refinery in Volgograd;
- \*The Ilsk and Afipsk refineries in the Krasnodar region.

As of the beginning of 2024, the numerical force of the Russian army reached 500,000. The Ukrainian Armed Forces have the same numerical force.

During the Iran-Iraq War of 1980-1988 (the longest war of the 20th century), about 2 million people from each side passed through that war. The number of killed was about 750,000. The war in Ukraine has already claimed many lives. In terms of the amount of lost military equipment, the sides have far exceeded the Iran-Iraq losses and are second only to those of World War II.

On the evening of January 14, 2024, Ukrainian forces shot down a Russian A-50 airborne early warning and control aircraft (based on the Il-76 transport aircraft) and an Il-22 bomber over the Azov Sea. The A-50 aircraft crashed into the sea, and the damaged Il-22 managed to reach Anapa airport, which was a joint base for both civilian and military aviation. Russia had several very expensive A-50 aircraft, the production of which ceased in 1991. It is a heavy loss for Russia. The Il-22 aircraft were returned to service in 2013, after 23 years of preservation. They are used as command posts since they have a long flight duration and the ability to operate with a large onboard staff.

In January 2024, protests of an allegedly environmental nature occurred in Bashkortostan (an autonomous republic within the Russian Federation), but in fact, these were political protests. The Bashkirs were dissatisfied with the 2018 State Duma decision to cancel the mandatory study of national languages. With the start of Russian aggression, Bashkortostan began to receive cargo 200 in large

quantities. During the protests, Bashkir soldiers were called to return from Ukraine, where they were fighting for foreign territory.

*Turkic Bashkirs live in the southern Urals. Their first mention dates back to the 7th century. The Bashkirs occupied a vast territory to the Volga River. Their neighbors were the Turks-Bulgars to the west, the Pechenegs to the southeast, and the Oghuz to the south.*

*The Grand Duchy of Vladimir (1125-1389) was the core of the modern Russian state. Before the arrival of the Chinggis Khan Turks, Russian principalities, the number of which was about 50, were constantly at war with each other, the Kipchaks, and the Pechenegs. They occupied territories of Premissel (city of Przemyśl, Poland) to the west, Nizhny Novgorod (Russia) to the east, Kyiv (Ukraine) to the south, and Vladimir (Russia) to the north. The rest of the territory of present-day Russia and Ukraine was part of the Deshti-Kypchak, the Volga Bulgaria, and the Bashkir Khanates. On March 4, 1238, the Chingizids defeated the united Russian Army on the Sit River (Yaroslavl region, Russia). Prince Yuri Vsevolodovich, who built the city of Nizhny Novgorod in 1221 as a border fortress, was killed in the battle.*

By the end of 2023, the situation along the contact line had stabilized, with both sides engaging in almost daily offensive and counteroffensive operations. On some fronts, there were minor advances. Fierce battles were waged around the city of Avdiivka in the Donetsk region. From the beginning of October 2023 to the end of February 2024, Russian forces advanced by 3-4 km. In the northern part of the city, the battles took place in the area of a coke chemical plant, and in the south, in the area of Chernyshevsky and Sportyvna streets. In the battles for Avdiivka, during five months, the Russian side lost about 200 tanks and more than 400 armored vehicles. Ukraine lost about 50 vehicles.

Everyone is waiting for the arrival of the multirole F-16 aircraft, which can bring significant changes. They can serve as fighters, bombers, and interceptors, and can suppress Russian aviation without entering the Russian air defense zone. According to Chinese analysts, in actual military operations in various parts of the world, 65 Soviet and Russian MiG-23, MiG-29, and Su-27 aircraft were shot down, but F-16s were not.

F-16s are required to achieve air superiority (destroy enemy aircraft in the air and at their bases), support the troops, and cover them and facilities. According to experts, Ukraine needs 50-60 F-16s (4 squadrons of 12-16 aircraft each). In December 2023, Ukraine received 1 squadron (12 combat and 3 training aircraft). The Minister of Defense of Ukraine requested 120.

Before the start of the Russian aggression, Russia had \$643 billion in gold and foreign exchange reserves, which allowed for long-term planning of the state

budget. By the end of 2023, Russia's funds had almost reached \$599 billion but reduced by 50%. \$300 billion was frozen due to sanctions. In 2023, Russia's oil and gas proceeds amounted to \$260 billion. Russia's expenditures on the war in Ukraine amount to about \$150 billion per year. The continuation of the war or a drop in oil prices (to 50 dollars per barrel) will rapidly deplete reserves, and the Russian budget will not be able to bear such a burden.

### **Dissatisfied Neighbors**

Although the EU and NATO are providing various forms of support to Ukraine, countries like Hungary and Slovakia have taken an anti-Ukrainian stance. Polish-Ukrainian relations are also deteriorating.

“Hungarians are Huns, Kipchaks, and Hungary is a Christian Turkic country.” These words belong to Viktor Orbán, Prime Minister of Hungary since 2010. The ethnogenesis of Hungarians has been discussed since the mid-19th century. There are two camps – supporters of Finno-Ugric and Turkic origins. More and more modern archaeologists and anthropologists are adhering to the second opinion. This became especially noticeable after the fall of the socialist regime and the transition to democracy in 1989.

The deterioration of relations began in 2015, when Ukraine canceled a law guaranteeing the preservation of the Hungarian minority as a national community. Hungarian Prime Minister Viktor Orbán calls for the protection of ethnic Hungarians living in other countries. There are about 160,000 ethnic Hungarians living in Ukraine. The border between Hungary and Ukraine is 137 km.

There are about 6,000 ethnic Slovaks living in Ukraine. The border between Slovakia and Ukraine is 98 km.

The refusal of Slovak Prime Minister Robert Fico to provide military support to Ukraine is related to a personal humiliation from Yulia Tymoshenko in 2009, when she was the head of the Ukrainian government. In January 2009, the dispute between Russia and Ukraine on the transit of Russian gas led to the cessation of gas supplies to Slovakia. A few days later, a Slovak delegation led by Fico arrived in Kyiv. They had to wait for three hours, and then invited to a meeting with the media representatives, where Tymoshenko spoke to journalists, criticizing Fico for “taking Moscow's side in the gas dispute.” The Slovak delegation was shocked.

During the parliamentary pre-election campaign (the election was held on September 30, 2023), Fico has not hidden his position, “In the event of our victory, we will not send a single cartridge to Ukraine.” He also said that Ukraine would have to give up part of its territory since Russia is unlikely to leave Crimea, Donbas, and Luhansk. Fico was re-elected Prime Minister. Slovakia actively provided military assistance to Ukraine. Now the situation will change. On January

24, 2024, Slovak Prime Minister Robert Fico and Ukrainian Prime Minister Denys Shmyhal met in Uzhhorod, 2 km from the Slovak border.

On June 30, 2023, Poland temporarily banned the import of Ukrainian grain, fruits, vegetables, meat, wine, and other goods. In September, at the UN General Assembly, President Duda refused to meet with Zelensky. Then there were scandalous statements by Polish politicians.

The Ukrainian side accuses Poland of capturing Lviv and Volhynia during the Polish-Ukrainian War (November 1, 1918 – February 5, 1919). Herewith, in 1921, Polish authorities sent Ukrainian nationalists, who fought on the side of Poland during the Soviet-Polish War in 1919-1921, to concentration camps. Poland, in turn, accused Ukrainian nationalists of massacring Poles in the Volhynia region of Ukraine and eastern Poland. As a result of the ethnic clashes in 1943-1945, up to 40,000 Poles and about 20,000 Ukrainians were killed.

According to Polish sociologists' research as of the middle of 2023, the share of Polish citizens supporting refugees from Ukraine has fallen from 62 to 42%. Then Duda compared Ukraine to a drowned. Poland also announced that in 2024, it would cut support for Ukrainian refugees. Relations between Warsaw and Kyiv may lead to polarization and unpredictable consequences.

### **On the Verge of World War III**

Right now, like never before, there are serious signs of the start of the third world war. Russia demands changing borders. Russia wants blood. The Russians believe that Ukraine is part of Russian lands.

Sanctions against Russia do not have a significant effect. The United States is suppressing the evasion of sanctions imposed in response to Russia's military operation in Ukraine.

18 countries (China, Turkey, Serbia, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, India, Israel, Brazil, Mexico, Nicaragua, UAE, South Africa, Singapore, and Taiwan) are on the list of states that allegedly bypass US sanctions. These countries are called 'frequently used transit points.' Allegedly, they were noted for the transportation of export-limited or controlled goods, which were then sent to Russia or Belarus.

Despite this, in 2023, compared to 2021, exports to Russia from Armenia grew almost fourfold, from Serbia twofold, from Turkey by 1.8 times, from Uzbekistan by 60%, and from Kazakhstan by 30-35%.

This growth is determined by the transit trade of European goods through these countries since European countries and companies have stopped supplying sanction-listed goods.

In 2023, Russia exported 234 million tons of oil, 80% of which was bought by China and India. Turkey, Italy, the Netherlands, and Germany are also major buyers. In 2023, the export of Russian natural gas and liquefied natural gas (LNG) amounted to 97 and 46 billion cubic meters, respectively. The main buyers are China, Turkey, Germany, and Italy.

Russia's aggression against Ukraine has split the world countries into two camps, which is the main sign of the beginning of a world war.

The Western coalition includes the US, Germany, England, France, and Poland. They are joined by the Netherlands, Denmark, Estonia, Canada, Australia, Italy, Spain, Sweden, Norway, Finland, Czech Republic, Slovakia, and Slovenia.

In 2024, the USA will provide support for \$60 billion. The EU will allocate financial aid to Ukraine for EUR 50 billion (only Estonia allocated EUR 1.2 billion).

The Eastern coalition includes Russia and Belarus. They are joined by the Democratic People's Republic of Korea and the Islamic Republic of Iran. These countries provide military assistance to Moscow. Syria, Serbia, Venezuela, Myanmar, Brazil, Cuba, Nicaragua, CAR, Sudan, Tajikistan, Kyrgyzstan, China, and India also provide financial and trade support to Russia.

Russia and Iran are also active players in Middle Eastern geopolitics. Russia supports Bashar al-Assad's regime in Syria and provides direct or indirect aid to the Kurds of the region. Iran supports the Houthis (a Shiite militarized group) in Yemen, Hezbollah (a Shiite Islamic party and militarized organization) in Lebanon, Hamas (a Sunni Islamic party and militarized organization) in Palestine, and the Badr organization (a Shiite Islamic party and militarized organization) in Iraq.

The actions of Russia and Iran are contrary to the interests of the West. Only Turkey's intervention in Middle Eastern affairs contributes to the preservation of relative stability.

Another sign of the start of the third world war is the increasing tension in the Far East. China threatens Taiwan with war and occupation. North Korea threatens South Korea. Russia is on the side of China and North Korea. The USA, South Korea, Japan, and Australia are on the opposite side.

On January 28, three American servicemen were killed and 34 wounded in a drone strike on a US military base in Jordan. In general, since the beginning of October 2023, Iran-supported groups have carried out 160 attacks on American bases in the region. All previous strikes either did not reach their target or were destroyed by air defense systems. The USA, on the other hand, has retaliated against the enemy's military infrastructure. Now the USA is preparing to demonstrate its

strength, which could be the beginning of a new major war. The whole world is waiting.

When will the war in Ukraine end? Everyone asks this question.

First, if Putin decides that he needs to stop. Then Russia will agree, subject to the transfer of Crimea, Odessa and Lugansk regions to it. This is something Ukraine is unlikely to agree to.

Second, if Putin is removed from power democratically or by force. The first option is unlikely, since today Russian society is strongly dominated by nationalism, militarism and radicalism. In addition, Russian society is a sick society, where about 70-80% of people support the war against Ukraine, and where they believe that there is no such nation and such a country.

Prigozhin rebelled against the authorities, took Rostov and Voronezh, 140 km remained to Moscow. But suddenly he stopped, turned back, agreeing to the “proposals” of the President of Belarus, and then was liquidated. New attempts can be made by Defense Minister Sergei Shoigu, Chief of the General Staff Valery Gerasimov, Secretary of the Security Council Nikolai Patrushev, Director of the FSB (Federal Security Service). The last two, as well as Putin, began working in state security agencies in 1975. Putin could be overthrown by disgruntled Armenians, Bashkirs or Chechens. There may be several options: assassination attempt, poisoning, sudden illness or accident.

Russia declares that it is ready for negotiations taking into account new realities (seized territories and “new Russian regions”).

Ukraine says peace can only be established after the country returns to its 1991 borders.