

## THE HUMAN LOSSES IN THE CONFLICT IN UKRAINE. LESSONS IDENTIFIED IN THE CONDUCT OF THE CONFLICT

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***Abstract:** The human losses in the conflict in Ukraine can and should be carefully analysed in order to understand how this war, which risks spreading to the eastern border of NATO member countries, will continue. The authors studied publications (books, articles, studies) published, in the view of some authors, abroad and in the country, analysing the human losses suffered by the two belligerents, by stages of the armed conflict.*

*By studying and analysing how the losses occurred and comparing them according to the tactics and operational strategy used by the two belligerents, the authors have put forward considerations and conclusions regarding the possibility of each of them to continue fighting, knowing that human losses in war significantly influence the achievement of victory.*

***Keywords:** armed conflict, tactics and strategies, human casualties, continuation of war, human losses.*

### **1. Introduction**

Although, at first glance, it seems hard to believe, war and homicide are among the favorite and priority activities of human society since ancient times, but we don't like to admit it. But History, even the prehistory of man, demonstrates the continuity of this antisocial activity, the aura of heroism and the material and territorial benefits obtained by the victors. Basically, the history of mankind is, mainly, a long story about wars, losers and winners, about the appearance and disappearance of territorial and state entities that were believed to be eternal.

If we read history with a critical spirit, follow the media news and look carefully at the maps, such an overall picture of the political-military reality is integrated by itself, beyond the words that circulate. But we have to look and think beyond the quotes already published in the press for the general public, which obviously present the situation unilaterally, so incompatible with a military analysis of the situation, so we will try to use quotes as little as possible.

If we refer to human losses, man being the most precious capital, as it is rightly said, the prophylaxis of the epidemic of polytraumas that we

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face in any war, is done primarily with non-medical means, and only later does the health service intervene for to repair what can be done. Almost everything depends on the art, science and experience of commanders at all levels to avoid unnecessary overmortality.

But sometimes commanders don't care about people, neither their own nor the enemy's or neutrals, and not even civilians who are by definition not belligerents. Civilians can be, and often are, collateral damage, and Military Justice, so severe and uncompromising as it is, rarely intervenes in such situations.

## **2. Brief history of the war**

Although in all historical eras good people have preached peace and good understanding, beyond beliefs and affiliations, or economic interests, there have always been leaders, social strata or even whole populations, who wanted war with others, for various reasons or pretexts. Paradoxically, contrary to their precepts, religions also get involved, the Mohammedan jihadists with their Koran, the Christian crusaders with their Bible, the Mosaic extremists with their Torah, or the animists and others who raise their believers to battle against the unbelievers. Whoever is not with us is against us, a principle affirmed in high-level politics in the 20th century (apud I.V.Stalin) and reaffirmed in the 21st century (apud G.W.Bush jr).

Peace was always talked about, laws and customs were established, but the tendency was always to disobey them. Thus, in the 20th century the most was spoken, written and legislated about peace and international collaboration, but in reality it was the bloodiest century in all history, even in all human existence, and the Great Powers fought for supremacy . The two World Wars and the many other local or regional wars that preceded or followed them, caused more deaths, wounded, injured, sick, prisoners and refugees than ever. In theory it was the century of peace, the Ministries of War were renamed the Ministries of Defence, but in practice it was the century of mass murder, in combat or out of combat. And now the war is being waged, once again, inside Europe.

The temptation to kill more effectively has materialized through the technical-scientific and industrial effort to produce and use more powerful weapons, including chemical, biological, radiological, nuclear and high explosive weapons of mass destruction (CBRNE) and ultimately , to attack using the entire environment, through joint and multi-domain operations for total war.

The conduct of the war followed a progressive evolution (with the mention that progress does not necessarily mean better for people), in accordance with the historical development of science, technology and

concepts, some authors classifying wars by generations<sup>1</sup>. The idea seems correct, but the division is not in accordance with the history of the society, so we are in favor of a somewhat more thorough classification, according to the historical eras, which we try to systematize didactically, with a few examples.

**The prehistory of wars**, from the Primitive Commune, inherited by man from the aggressive behavior of animal ancestors, consisted of spontaneous or semi-organized fights with other fellows, from the same species or from others. In chance encounters or ambushes, they killed to capture goods, food, women or labor, with bands that used weapons for hunting or tools, not yet having specific weapons of war. The victims were sporadic and their relatives took care of them. And today there are fights between mafias, gangs, clans or minorities, etc. almost in all countries.

**The ancient wars**, known from the History of Antiquity, were fought with armies organized permanently and/or as needed, bands organized by localities, tribes or later by units and large military units. They used white offensive and defensive weapons, weaponry for distance, artillery (but not fire!) and fortifications, they were partially mobile with cavalry and battle chariots or with ships, etc. The victims were in large numbers and some armies had doctors and military paramedics (Greeks, Macedonians, Romanians). And today there are tribal, religious, ethnic struggles, especially in the Third World.

**The medieval wars**, known from the history of the Middle Ages, were fought with professional troops, to which the armed people were added when necessary (as in the Romanian Countries). In addition to offensive and defensive white weapons, individual firearms, collective heavy weapons (fire and fireless artillery), explosives (mines, bombs, rockets), incendiary weapons, poisons, etc. were also used. The victims were numerous and there were military doctors and local hospitals in monasteries and hospitals. And today there are still many ethnic and/or religious struggles of this kind, for example separatists in the United Kingdom of Great Britain, Spain, Russia, Afghanistan, Iraq, Syria, Libya, India, Israel, etc.).

**Paramodern wars**, known from the history of the Modern Era (from the Napoleonic wars onwards), use national and allied units and large units, armed with sophisticated firearms and in large numbers, movement on roads and railways, naval and aerial means (observation), with land or naval operations. The victims are in very large numbers, exceeding the care capacity of the Military Health Service, so the International Red Cross

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<sup>1</sup> Catrinel Popescu, „Observații despre războiul de a cincea generație și cel de-al doilea război din Nagorno-Karabakh”, „Carol I” National Defence University Bulletin, december 2021, pp 39-45.

Society (CR) is established with its branches according to religions. It seems that among the last would have been the Second Balkan War.

**The pre-modern wars**, which we know from recent history, were the First World War (RM I) and those that followed until the Second World War (RM II). Mass armies, armed with powerful firearms, automatic weapons, precision artillery, telecommunications, mechanized transport, naval and submarine combat assets, air (aircraft, missiles), armored, mobile artillery, telecommunications, WMD CB, with land operations, naval and air including air bombardment on civilians (as Bucharest also suffered). The military and civilian victims are in overwhelming numbers for the forces and the medical means. The Red Cross and the volunteers were trying to help the military health service, however, 20 million deaths are recorded on the fronts of RM I and twice as many soldiers and civilians died due to epidemics (especially influenza) caused by poor living conditions and indifference the authorities.

**The modern wars** were those started with RM II, with mass armies, high-efficiency weaponry, political-military propaganda, with CBRN WMD, with combined land, air and naval operations, with the use of all types of modern weapons that caused a number record number of victims. The aftermath led to fewer military casualties and much more civilian casualties, with the bombing of civilians becoming the norm (not even Bucharest was exempted from bombings). Through the politicization of the conflict, one gradually moves to total war, a situation that continued in the local and regional wars that followed, but their victims are no longer dealt with only by the Military Health Service. The terrible bombings on the English, Germans and Japanese, later on the Koreans, Vietnamese or Arabs, were devastating. As a result, for humanitarian reasons, the use of Napalm was prohibited (and the term was removed from military regulations, being replaced by petroleum jelly), as well as white phosphorus incendiary bombs (which were reclassified as means of illumination, even though they are used during the day), and some suffocating gases have been reclassified as irritants, etc. and are used on the enemy or own population, as can be seen on TV news broadcasts.

The later resulting conception, of the air-ground battle 2000, was applied in all the wars that followed, sometimes without care to limit the number of military and civilian victims or collateral losses, resulting in millions more victims from declared or undeclared wars. The lessons learned from the World Wars have been successfully applied to the many local wars on almost every continent, forming the trove of military knowledge that we all know and apply, each in our own military specialty.

**The postmodern wars**, the ones that are going on now and the ones that we are preparing to fight in the near or distant future, and we already know them from the news, will be wars of the fifth generation, the first being considered the

Second War of Nagorno-Karabakh<sup>2</sup> with kinetic and non-kinetic actions. Or multi-domain operations, as the current Russian-Ukrainian war tends to be, with a complex of ground, aerial, naval, cosmic, cybernetic, electromagnetic, informational actions, in which the main striking role belongs to air and naval missiles and drones. Or others that we still do not know (being secret) or have not yet been established but can be assumed to be in the field of Science Fiction.

Here we have now, in the same war of the present, and even in Eastern Europe and the Middle East (the cradle of human civilization), characteristic elements from all generations of wars in human history. These create a complex of risk factors that can lead to amplification until the course of events gets out of control gradually evolving towards the Third World War (RM III), possibly nuclear.

### **3. Observations regarding the use of forces and means in the current Russian-Ukrainian war**

Since the war began as a special operation, the two armies, considered to be the largest in Europe, had not triggered the general mobilization, so they had to use the existing forces and means as economically as possible. But gradually it was seen that, many times, the great military commanders have no respect for the health and life of the soldiers, not even for their own. We know from history that the Georgian teacher, who became the supreme commander of the Russian forces, and the Austrian painter, who became the commander of the German forces, mercilessly massacred both the military and the civilians of their adopted countries, in order to fulfill their personal and camaraderie ambitions, as and enemies. And our military history knows such situations, at different levels and in different eras.

Similar situations can also be observed in the Russian-Ukrainian war, in which some high-ranking commanders have no respect for the lives of subordinate soldiers, ordering risky actions, without a strategic or operational benefit. Thus, Russia also sent to the frontline soldiers, therefore briefly trained, Chechen paramilitary forces, criminal convicts, Russian and foreign volunteers, etc. which were cannon fodder<sup>3</sup>.

Ukraine being inferior in all aspects, including demographically (Russia has a reserve of human resources 3-4 times higher), it had to manage its troops, through defensive actions and active harassment of the invaders. However, it chose to defend every meter of the threatened border,

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<sup>2</sup> *Ibidem.*

<sup>3</sup> Bechet-Golovko Karine, „Pertes sur le front ukrainien: la guerre des chiffres”, *Mondialisation.ca*, 08 avril 2024; Almeida LL. „De la chair a canon. Lourdes pertes sur les lignes de front. Les Ukrainiens refusent de se battre. Des adolescents sur le champ de bataille”, *Mondialisation.ca*, 12 avril 2024.

of almost 1500 km, every centimeter of territory, as stated politically and not militarily, although it has sufficient strategic depth, unlike Romania.

In fact, Ukraine's strategic interest was to defend and not allow the separation of the Russophile regions in the east, i.e. Kharkiv, Donbas, the coast of the Sea of Azov, Crimea and Odessa. And NATO's interest would have been only in the Kharkiv region (as a possible multiple base for nuclear missiles aimed at Moscow) and Crimea (as a base for the assembled forces to ensure control of the Black Sea and its extended area), resulting in a kind of inverted re-editing of the 1962 Cuban Missile Crisis.

The massive concentration of forces and means in areas of no strategic interest (Bahmut, Mariupol, Avdiivka, etc.) chopped forces and ammunition, exposed the population to excessive risks and lowered the morale of combatants and non-combatants. Apart from human losses (total and health), there were also many millions of refugees, in the country or abroad, both to the east and to the west. Instead of saving manpower and consuming it sparingly, it was wasted, contrary to an old proverb that says that "in battle, a living recruit is more valuable than a dead hero"<sup>4</sup>. Thus, the military strategy of Ukraine favored the conditions for a possible military defeat by exhausting the manpower, contrary to the optimistic political rhetoric. Estimates were made of the need to supplement the total military forces from approx. 1 million existing at the beginning of the war, up to 3 million, or at least 500-700 thousand new recruits, men and women, which is almost impossible to achieve now<sup>5</sup>.

The strategic advice of the informal allies, the USA, Great Britain, the European Union, as well as the peace initiatives of the UN, the Chinese Republic, Turkey, Iran, etc., were ignored. The commander of the Ukrainian army, (General Zalujnii) who was leading a relatively cautious war to minimize human and material losses, was replaced by another commander, (General Budanov) with less experience but more aggressive, who would lead a new summer offensive in 2024, after the failed summer offensive of 2023 and the failed counter-offensive of 2022, and the new commander of the Ground Forces (General Pavliuk) sends recruits to the front with only one month of military training and postpones demobilization<sup>6</sup>. In our opinion, we believe that the purpose is not so much military as political, to

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<sup>4</sup> Alexandra Manafu, 160 de citate inspiraționale despre viață și luptă, available at <https://www.postmodern.ro/articol/citate-despre-viata/>, accessed on 30.04.2024

<sup>5</sup> Isabelle Kurshudyan, Paul Sonne, Karen DeYoung. „Ukraine short of skilled troops and munitions as losses, pessimism grow” *The Washington Post*, 13 march2023, available at <https://www.washingtonpost.com/world/2023/03/13/ukraine-casualties-pessimism-ammunition-shortage/>, accessed on 30.04.2024

<sup>6</sup> Lucas Leiroz de Almeida, „De la chair a canon. Lourdes pertes sur les lignes de front. Les Ukrainiens refusent de se battre. Des adolescents sur le champ de bataille”, *Mondialisation.ca*, 12 april 2024.

show what hard battles are being fought for defense and how necessary foreign aid is.

The millions of Ukrainians who have left the country, temporarily or permanently, since 2014, and especially since 2022, show that not all the population supports the country's defense war, for various reasons. Overall, the quantity and quality of manpower is insufficient for the war effort and this is evident from the course of events, contrary to official statements<sup>7</sup>.

The Ukrainian leadership probably counted on a possible technical and informative superiority, with Western support (NATO, EU, Israel, etc.), being technically inferior to Russia, both quantitatively and qualitatively. But it seems that NATO is not prepared for a war of attrition, on positions, but for an expeditionary type war, with strong peace making forces followed by occupation with other peace keeping forces, in which allies with less combat power also participate, so as we have also participated in different situations.

It is obvious that a new paradigm shift in military strategy and operations is already starting, that in addition to the current combat regulations in force, new regulations will be introduced, for classic war and multi-domain operations, for arctic operations<sup>8</sup>, for medical support, artificial intelligence (AI), etc., but the cost of war is continuously increasing<sup>9</sup>.

The European Union, complicated by its warlike past, although its countries had not been more warlike than other great powers, is no longer prepared for war, neither humanly nor materially, and, despite some sometimes exaggerated declarations, it does not do much in practice. Despite his good intentions, he no longer has the strength, the means or the will to wage a classic war of position and attrition, but only military expeditions to the Third World, with or without success, and young Europeans are no longer attracted to military career and, in our opinion, a possible crisis of the fighting forces is emerging.

Israel may have helped Ukraine, and especially its current political leadership (many of whom are of Jewish origin), but the Palestinian attack on October 7, 2023, triggered a bitter war on its territory, which (coincidence or not) prevents it from it gets involved in other military actions, and the US had to choose between supporting Ukraine or Israel, and, diplomatically, it helps Ukraine, Israel and Taiwan a little. Moreover,

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<sup>7</sup> Baud Jaques, *Ukraine entre Guerre et Paix*. Paris, Max Milo. ed. Max Milo, Paris, 2023, p. 278.

<sup>8</sup> Lucas Leiroz de Almeida, *Art. cit., Mondialisation.ca*, 12 april 2024.

<sup>9</sup> Dinucci Manlio, „Le cout de la guerre”, *Mondialisation. ca*, byoblu.com, april 12 2024, available at <https://www.byoblu.com/category/grandangolo-pangea/>, accessed on 30.04.2024

Iran has triggered a new conflict in the Middle East, which is blocking part of the American and British forces.

In this situation, the USA no longer directly supports the war in Ukraine, considered to be an unprofitable investment, so only part of the billions of dollars are allocated strictly for the purchase of weapons, the rest are for replenishing American stocks from American manufacturers, and let the EU manage as and as much as it can. The Republican Party (the one that had obtained independence from the kingdom of Great Britain) does not even want to be involved in foreign wars, but "Let's make America great again!", unlike the Democratic Party, of big businessmen, supported by non-European whites and on the part of the black population, it wants the supremacy of the USA to be in all areas and on all continents. It was only in April 2024 that the financial aid for Ukraine, amounting to USD 61 billion, was unlocked, followed by another USD 6 billion, less than a quarter of which was for arming Ukraine, through the provision of military equipment (including tactical missiles with long range), weaponry, ammunition and military personnel for support<sup>10</sup>.

Due to insufficient forces and means to continue the war, Ukraine has reoriented to subversive actions, attacking and destroying important Russian targets, such as the port of Sevastopol, the Kerch bridge, the Nord Stream gas pipelines, airports, weapons factories, marine fodder platforms or bombing Russian towns, as well as the attempted assassination of the Russian President at the Russian Navy Day Parade<sup>11</sup>.

It seems that in Ukraine President Zelensky lost popularity, a new attack (planned by two colonels from the Ukrainian Security Service SBU) would have been foiled<sup>12</sup>.

In August 2024, the Ukrainian army launched a surprise attack, invading regions of Southwestern Russia and occupying almost all of Kursk

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<sup>10</sup> Bhadrakumar M. K., „Ukraine: US doubles down, Russia is cool”, *Indian Punchline*, april 22 2024, available at <https://www.indianpunchline.com/ukraine-us-doubles-down-russia-is-cool/>, accessed on 30.04.2024

<sup>11</sup> George Titus Albulescu, „Un general american, uluit de ce a văzut în regiunea rusă Kursk: Chinul lui Putin, dezvăluit”, available at [https://ziare.com/razboi-ucraina/general-pat-ryder-pentagon-uluit-raspuns-lent-putin-armata-regiunea-kursk-trupe-mutate-rusia-1889285?utm\\_source](https://ziare.com/razboi-ucraina/general-pat-ryder-pentagon-uluit-raspuns-lent-putin-armata-regiunea-kursk-trupe-mutate-rusia-1889285?utm_source), accessed on 23.08. 2024.

<sup>12</sup> George-Andrei CRISTESCU „Complot de asasinat asupra lui Zelenski, cu implicarea a doi colonei, dejuat de serviciile de securitate ucrainiene. Care ar fi fost planul FSB”, available at <https://adevarul.ro/stiri-externe/europa/complot-de-asasinat-asupra-lui-zelenski-cu-2359520.html>; Dora Vulcan, „Complot rusesc de asasinare a lui Zelenski, dejuat de serviciul ucrainean de securitate”, *Europa Libera România*, available at <https://romania.europalibera.org/a/razboi-ucraina-complot-rusesc-asasinare-zelenski/32936778.html>, accessed on 07.05. 2024.



Oblast and part of Belgorod, probably with the intention of having a better position in future negotiations for a ceasefire or peace<sup>13</sup>.

#### **4. Observations on the efficiency and effectiveness of modern weaponry**

In parallel with the progressive wear and tear of human resources, the wear and tear of technical means is also observed.

Weapons, ammunition, combat vehicles and any other military or dual-use equipment are obviously in less quantity than necessary. Ukraine has relied on a more efficient use of them through a more efficient, Western-style military organization/reorganization, real-time information and operative management of military actions. But the mixture of old concepts, inherited from the USSR, with the new ones from NATO did not have the expected results, and the human and material losses of both belligerents were huge, so they learned many useful lessons from each other.

The Ukrainians relied on Western technical aid, with modern, high-performance weapons and the respective ammunition, but the aid came late and insufficient, staggered and sometimes expensive, and never with ultramodern weapons. So far modern weaponry has not reached a critical concentration to be effective in tilting the balance of victory significantly. The Ukrainians hope that after receiving the new modern weapons, they will take the initiative on the front and achieve victory.

Propaganda tried to induce in the public the idea that Ukraine is victorious, the support of the allies being effective, and on the other hand that it would be much less affected by the war than Russia. So for the international community, Russia was losing its superpower status, becoming only a great power that can be defeated by another military power. A plastic comparison even circulated, considering Russia as a large gas station defended with nuclear weapons, and some commentators (see also Contributors Romania) supported the need to break up the Russian Federation into several republics, even the disappearance of the Russian people and/or its leader. So the press also suggested much harsher measures than had been applied to Nazi Germany after the capitulation. To make up for the ineffectiveness of the forces at the front, the Ukrainians resorted to asymmetric actions by sabotaging critical infrastructures of Russia.

The strategic goal of the military, economic and financial weakening of Russia seems to be the neutralization of its main ally, China, which rivals the US economically. Moreover, the two allies in the axis of evil are trying to establish an even new world order (which one?), which will replace the

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<sup>13</sup> Janina Semenova, Juri Rescheto, „Are succes avansul ucrainean în direcția Kursk?“, available at <https://www.dw.com/ro/ucraina-lupt%C4%83-pe-teritoriul-rusiei/a-69901433>, accessed on 22.08.2024.

current unipolar order (the American Century), the successor to the bipolar order created after the Second World War, with a new multipolar order. So from a political point of view, they are diametrically opposed to modern Western civilization, of which we are a part.

It is possible that the current relative military disengagement in Ukraine is neither the merit of the belligerents, who want peace only on their restrictive terms, nor of the allies who hope to profit from this war, nor of Turkey, which had offered to facilitate peace negotiations, but paradoxically of Iran. Studying the evolution of the current war in the Levant (Near East), already internationalized, it could be assumed that the unexpected attack by the Palestinians would have been ordered by Iran to create a new outbreak of war, which, like the retaliatory bombing of Israel, would deviate attention and help for Ukraine. But the military inefficiency of the EU, which failed to even organize a European army (many politicians, including Romanians, being against it), stimulated the US to resume aid to Ukraine.

The political and economic struggle to maintain unipolarity proves to be difficult and sometimes unpredictable. If we want the EU and NATO to continue to function, sustained and creative efforts must be made, the provisions of International Law must be applied and respected, and especially a good understanding between the states of the world, for the promotion of international peace and cooperation. Otherwise, as we have seen recently, a world war with or without nuclear weapons may be possible at any moment, which could lead to the demise of human civilization as we know it.

Now that the war in Ukraine is in full swing, a rough stage total of human casualties can be made with the information so far. Almost half a million military, Russian and Ukrainian, and if we also add Ukrainian and Russian civilians, there will be over half a million victims, to which are added over five million victims and refugees inside Ukraine and over eight million in neighboring countries (Russia, Poland, Slovakia, Hungary, Romania, Moldova, Belarus), many emigrating further to the West. All of these mean human losses for the armed forces and for the economy of Ukraine, which affects the country in the long term, already immersed in chaos, playing the game of Russia, which we also support technically and financially, helping refugees according to EU legislation, which would have been benefit to their country, both militarily and economically.

As a conclusion of this conflict, Le Monde (France) headlines "*Behind the secrecy of military losses in Ukraine, a large-scale massacre*", and explains: "*Kiev and Moscow minimize or keep silent about the number of soldiers killed and wounded. The losses of the two sides are comparable*

to those of the First World War"<sup>14</sup>. And they are certainly the biggest losses of these two armies since the Second World War. The data presented by Le Monde confirm those already discussed above, so the information seems true. This being the situation of the war at the end of 2023 and 2024, any evolution in the year 2025 is not excluded: "every war is known how it starts, but it is not known how it ends".

From the data already known or estimated up to now (according to OSINT information), it can be appreciated that the effectiveness of modern weaponry used on manpower is surprisingly low. Thus, for over a thousand rockets of various types launched by both belligerents, about a thousand deaths are recorded, similar to the effect of the German bombings with V1 and V2 rockets on the allies, but with a lot of material damage. The thousands of aerial drones used did not even cause that many human losses. Heavy artillery bombardment, including rockets, averages over 50,000 hits per day, less than a thousand killed and wounded taken out of combat daily, and personnel killed or wounded by light infantry weapons, although large in number, is insignificant in proportion. It turns out that for one soldier killed in battle, on average, either a missile, or a few drones, or 50 large-caliber projectiles, or many thousands of bullets are consumed<sup>15</sup>. And some of the casualties are even caused by aircraft shot down by the AA defense. Moreover, drones that seemed to revolutionize tactics and strategy, are proving vulnerable to electronic countermeasures and anti-aircraft. This calculation shows that modern weaponry, which is very effective in theory and under test conditions in the range, in actual combat conditions the effectiveness is low. This confirms that in combat every action also involves appropriate protective reactions, but also the fact that advertising, which is the soul of commerce, fetishizes the role of technique in combat, to increase sales.

In terms of costs, the state defense industry offers similar weaponry at an order of magnitude lower than the private one. Modern weaponry would only be effective if fighting against a weak army, as is the case in the Israel-Palestine war, but not between strong modern armies. The prohibitive costs of fighting would make it impossible for one or both belligerents to continue fighting, as ammunition and finances for resupply run out.

As a result, the hypothesis of the direct participation in the battles of some military units of supporters of Ukraine (not having official allies, in

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<sup>14</sup> Vincent Faustine, „Derrière le secret des pertes militaires en Ukraine, un massacre à grande échelle, *Le Monde*, Publié le 24 août 2023, available at [https://www.lemonde.fr/international/article/2023/08/24/derriere-le-secret-des-pertes-militaires-en-ukraine-un-massacre-a-grande-echelle\\_6186445\\_3210.html](https://www.lemonde.fr/international/article/2023/08/24/derriere-le-secret-des-pertes-militaires-en-ukraine-un-massacre-a-grande-echelle_6186445_3210.html), accessed on 30.04.2024

<sup>15</sup> Baud Jaques, *Op. cit.*, p. 281.

the legal sense) in addition to professional foreign volunteers and military and civilian specialists already on Ukrainian territory<sup>16</sup>.

### **Comment**

Human losses are inherent in any war: dead, wounded, shipwrecked, missing, prisoners, etc. as well as refugees. They can influence the fighting capacity of the army and the resilience of the population, so they try to keep the real data secret. But for military planners, the real data must be known, for "lessons learned" that can change the military art at tactical, operative and strategic level.

For orientation in this field, the OSINT documents available up to now have been studied and we have tried to present a realistic synthesis. It turned out that human losses in modern warfare are very high, comparable to those in the World Wars, but not higher, as we would have expected because of modern weaponry, with greater accuracy, hit and explosive power, so in theory more effective, but which in practice is not more effective.

It seems that infantry is still the queen of battle, but it is quantity, quality and will to fight that matter. And it also has the highest human losses, dead and wounded in combat and outside of combat. Modern weaponry is a necessary but not sufficient condition for victory. Air superiority is still important for the freedom of movement and maneuver of land forces and must be maintained. With the receipt of F-16s (the first 10 of the requested 72), Ukraine will be able to fight against the planes, drones and missiles with which the Russians attack Ukrainian territory<sup>17</sup>.

### **Conclusions**

Mortality in battle must be drastically limited, and unnecessary excess mortality avoided entirely, through the very design and conduct of offensive and defensive military actions. From this point of view, current wars are no different from those of the past, so commanders at all levels still have a lot to learn.

The sanitary system (not only the medical one) must be sufficient in terms of forces, means and procedures. It is also noted that the proportion of seriously and medium wounded is preserved (the slightly wounded, who are the most, are not included in the statistics), but the proportion of those who died in battle is lower than the number of wounded according to the *severity pyramid*. The explanation is that the military health service is more efficient,

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<sup>16</sup> Laurențiu Pleșca „Cum ar arăta intervenția Franței în războiul din Ucraina? Patru scenarii. Moldova este vizată”, *Contributors.ro*, disponibil la <https://www.hotnews.ro/stiri-opinii-27043229-cum-ar-ata-interventia-frantei-razboiul-din-ucraina-patru-scenarii-moldova-este-vizata.htm>, 10 aprilie 2024, accesat la 03.05. 2024.

<sup>17</sup> S.I. Catalin, F-16, în rol de sistem de apărare. Ucraina intercepțează cu F-16 rachete de croazieră mai bine decât ar face-o cu sisteme antiaeriene de la sol, disponibil la 31.08. 2024, accesat la 01.09. 2024.

having adequate forces, means and procedures for the care of the wounded, so mortality can be significantly reduced.

After the official end of this war, the lessons learned will be systematized and will probably be applied to the next wars, which will be, but it is not known when. Anyway, the Great Powers declare that they are preparing for war, and let's think, if not, we will have a final war in which human civilization will disappear from the Blue Planet.



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