

RETROSPECTIVE ANALYSIS OF HUMAN AND MATERIAL LOSSES IN ROMANIA, UNDER AERIAL BOMBARDMENTS, DURING THE WORLD WARS

*Colonel (ret.) Professor Viorel ORDEANU, Ph.D**

*Colonel (ret.) Professor Benoni ANDRONIC, Ph.D***

*(Academy of Romanian Scientists, 3 Ilfov, 050044, Bucharest, Romania,
email: secretariat@aosr.ro)*

***Abstract:** By researching the existing literature, from the country and abroad, related to aerial bombardments, at the tactical and strategic level, the authors reveal the evolution of the air offensive theory, as well as aerial operations and their effects on Romania, from the World War I (WW1) and the World War 2 (WW2).*

The authors highlight some aspects of the conduct of German, Soviet, American, Anglo-American air operations on the population, economy, territorial infrastructure and military potential in Romania, which raised, and still raises, debates on the appropriateness and manner of their implementation, as well as on their effects on Romanian society.

Hindsight from relatively recent military history allows lessons learned to be appropriated for similar situations in the future, which we know are likely to be but do not know when exactly will happen.

***Keywords:** air operations, anti-aircraft defense, WWI, WW2, air offensive, air bombing operations, casualties, material losses, war crimes.*

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Introduction

In the world wars, in which Romania also participated, not only the fighting forces, but also the civilian population was subjected to bombings that caused human losses (dead and wounded) and significant material losses. Under International Law and the Customs of War, civilians are not legitimate targets and therefore these attacks are considered war crimes. But when they are carried out by the armed forces of some Great Powers, there are no authorities to hold accountable the perpetrators, nor those who plan, order or execute the attacks. Most of the time these criminal soldiers willingly or unwillingly become heroes, and their actions are considered to be initiated for the “liberation” of the attacked countries, even if those were not previously conquered by someone else.

* Professor within “Titu Maiorescu” University, Bucharest, Romania, email: ordeanu_viorel@yahoo.com.

** Corresponding member of the Academy of Romanian Scientists, Bucharest, Romania, email: benoneandronic@yahoo.com

Military aviation operated from the beginning in the World Wars (WW), either relatively independently, as air battles or aerial warfare (e.g. the Battle of Britain, 1940), or in direct support of ground or naval battles. Considering the particular effectiveness of air bombardment in land and naval battles, at the tactical, operative and strategic level, there are specific specialized aircraft (planes, helicopters, missiles, drones, balloons). In general, fighter planes, assault aircrafts and light bombers act *tactically*, against frontline forces or ships, or *operatively* on reserves, troop concentrations, logistic warehouses, enemy airfields or communication routes. They can use explosive, incendiary, chemical, biological, radiological bombs and missiles or torpedoes, sea mines or anti-submarine bombs etc. Modern multi-role aircraft, some invisible to radar, can use air-to-ground missiles, including nuclear ones, such as the F117, F16, F35, Su57, Su75, etc., so they can act both *operatively* and *strategically*. Heavy bombers are intended exclusively for *strategic bombing*, with conventional or nuclear bombs, such as the “flying super fortresses” Boeing, Tupolev and others.

Their goal is to terrorize the population by creating massive destruction, which defeats the will to fight and the ability to support the fighting forces, as were the bombings of London, Berlin, Dresden, Hiroshima, Nagasaki and many others in WW2¹.

The entire concept of *missile-nuclear war* is based on this mass murder, for the annihilation of the adversary. The nuclear strategies of the Great Powers provide capabilities for deterrence (not using nuclear weapons), pre-emptive strikes (not using nuclear weapons first), retaliation (not using nuclear weapons first), mutual destruction (total war), or for limited nuclear war, with tactical nuclear weapons of low power (but comparable to the bombs already launched at Hiroshima and Nagasaki), or with super bombs that would destroy a country or a continent.

In all this criminal madness reached to paroxysm and applied in WW2 and later perfected in the Cold War, Romania, although it did not actively participate in this kind of controversial combat actions, was successively the target of the bombings of the enemy Great Powers. We mention that the Romanian Air Force did not have, does not have, and probably will not have strategic bombing planes or strategic missiles, because their targets are usually illegitimate, namely the enemy’s large urban agglomerations, i.e. civilians.

1. Romania under German aerial bombardment (1916-1917) in WW1

¹ Sălăvăstru A., Crimă de război sau necesitate pe timp de război? Drama oraşului Dresda în cel de-al Doilea Război Mondial, available at <https://evenimentulistoric.ro/dresda-al-doilea-razboi-mondial-crima.html>, accessed on 30 september 2024.

Romania entered the war on the side of the Entente and declared war to Germany and Austria-Hungary on August 27, 1916. The following night, on August 28/29, 1916, the German command ordered the bombing of Bucharest. The Luftwaffe Zeppelin LZ 101 airship from the Iambol base (in the east of Bulgaria) flies to the north and bombs the military and railway installations in the northwest of Bucharest, with 1,800 kg of bombs, from an altitude of 3,500 m, simultaneously with the Austrian river monitors that were bombing at Giurgiu. This first aerial bombardment did not cause significant damage, but it scared the inhabitants, who watched the attack as a spectacle². Until August 1917, when the German military aviation was disbanded, it bombed Bucharest three times, but also Ciulnița, Fetești, Galati, Iasi, as well as other objectives. In the seven bombing raids, day and night, a total of 11,934 kg of bombs were launched in Romania. Another Zeppelin, LZ86, which also carried out seven bombing missions, crashed in Timisoara in September 1916. Although when Romania entered the war on the side of the Entente, German diplomacy had stated that “the Romanians will have no part in the aerial war”³.

As Romanian anti-aircraft artillery was in its infancy and not sufficient, Colonel Negrei mounted 57 mm light guns and French 76 mm field guns (considered the best artillery piece of WW1) on inclined wooden scaffolding to fire at aircrafts, but the results were below expectations, although the artillery fire was also directed by anti-aircraft searchlights. In Bucharest, The North Station, the Malmaison barracks and houses that did not respect the camouflage of lights at night were bombed⁴. A dramatic period of over 100 days followed, with combined bombings, *airships* and *airplanes*, day and night, which caused 1,700 casualties, mostly civilians (dead and seriously injured) and the demoralization of the population, and after the bombings, two years of German occupation.

2. Romania under Soviet aerial bombardment (1941) in WW2

In the period 1941-1944, all important military aviation contributed to the aerial bombardment of Romania, and especially Bucharest and the oil zone⁵.

The Soviet aviation launched the first air attacks on the territory of Romania immediately after Romania declared war and entered the USSR with troops, namely the next day, on June 23, 1941. In principle, the enemy bombers tried to destroy strategic communications, oil refineries, and the bridges over the Danube and Constanța Port, but their strength and precision

² Idem.

³ Samba D., *Atacurile zepelinelor germane asupra Bucureștiului*, Historia, 2021, no. 238.

⁴ Idem.

⁵ Arma A., „Bucureștiul sub bombardamente 1941-1944”, Militară Publishing House, Bucharest, 2015.

were limited. There were also naval artillery bombardments in Constanța, repulsed by the Coastal Artillery and the Romanian military ships. In particular, three areas in Romania were targeted: *Carpatii de Curbură* (Focșanilor Gate), Prahova Valley (oil area) and Dobrogea (perhaps for a possible maritime landing or to avoid using it as an attack base).

In Bucharest, the first air alert was given on June 23, 1941, marking the beginning of the first Soviet bombing campaign in Romania. Those who had been through the bombings in WW1 knew what to do and were guiding the others as well. The capital's population was calm and disciplined, and the conclusion was that "this is the advantage of civilization: the immediate and total bearing of any risk"⁶. The anti-aircraft defense of Bucharest was reinforced with fighter aircraft, the 6th Fighter Group (with IAR 80 planes) and a German squadron (with Messerschmitt planes), which immediately rose in the air on the alarm, ready for battle⁷.

In the morning of June 26, 1941, at 05:30 the alarm was raised and the ***first Soviet bombardment of Bucharest*** began, between 05:35 and 05:50. Three Soviet bombers coming from the northeast at an altitude of 6,000 m dropped 8 large bombs, but only 5 exploded, inflicting casualties and damage: a factory and three houses were destroyed, other houses were damaged, as well as a drinking water pipe, etc.⁸ A second attack was immediately after the first, between 07:00 and 07:15, three other planes launched 6 bombs, 5 of which exploded, causing deaths and injuries, destroying a block of flats and several houses. The official balance of these bombings was of 14 bombs that caused 4 deaths, 12 injuries, 6 buildings destroyed and 3 others damaged. Two bombers were shot down by fighter jets, one falling near the 'Malaxa' Factory and the other outside the city. The injured were admitted to 'Brâncovenesc' Hospital and were visited by the authorities, and the unexploded bombs were defused by the engineers and exposed in the center of the city. At night, between 23.55 and 0.55, other 4 planes, coming from the south towards Bucharest, because of the camouflage, bombed Draganesti-Vidra, without causing casualties, like the next attempt that night.

On June 29, 1941, at 11:00 a.m., a formation of 6 bombers coming towards Bucharest were attacked by fighter aircraft and fled, launching the bombs at Dridu, where they hit a house and a road. In the evening of July 1, a formation of bombers tried to attack the capital city, but they were prevented by the anti-aircraft artillery fire (which also used tracers) and launched 9 bombs on a brick factory near Bucharest, of which only one hit

⁶ Gheorghe V., *Duel pe cerul României*, Dosarele Istoriei, 2001, pp. 35-41.

⁷ Avram V., Gheorghe V., *Bombardamentele aeriene sovietice asupra României (iunie-iulie 1941)*, Document Magazine, no. 2, 2013.

⁸ Kiriteșcu C., „România în Al Doilea Război Mondial”, Univers Enciclopedic Publishing House, Bucharest, 1995.

exploded, but without causing damage. In total, in this first bombing campaign, 23 large bombs were launched in Bucharest, of which 11 exploded causing damage, and 12 did not explode, so about 50% success rate. It can be speculated that the manufacturing technology was not appropriate, that the workers were sabotaging the production, or that the intention was not to destroy but only to terrorize the population.

The second bombing campaign on Bucharest began on the night of July 14/15, 1941, when a wave of Soviet planes passed the anti-aircraft defenses and launched numerous small *incendiary bombs*, which caused many fires in the Dealul Spirii neighborhood. They were extinguished by the residents and the police with sand (prepared ahead of time) and the firemen. One dead and one injured were recorded. A plane was shot down and the crew was taken prisoner. Fire prevention and extinguishing measures were strengthened. Other attempts followed, but the planes were shot down or did not reach the capital. The press of the time wrote that: "Let's admit, moreover, that our enemy today does not put us to too hard tests. The bombings on the capital and other cities prove the essential weakness of the Bolshevik aviation..."⁹. After Crimea was conquered, the Soviet air attacks stopped completely, so after about a month of terror.

3. Romania under American aerial bombardment (1942 - 1943) in WW2

After a relative break in 1942, when the Romanian Armed Forces seemed victorious on the eastern front, and the Victory Parade is organized in Bucharest, on November 8, 1942, with the troops returned from the front, Romania again enters the allies' crosshairs and it is decided to bomb it, to weaken the German offensive and take Romania out of the fight. Almost no one in the country believed that our friends, the English and Americans, could bomb us, even though the government had officially declared war on them. But Americans answer us and declare war on Romania on June 6, 1942, and on June 12, 1942, a formation of 13 heavy bombers takes off from Egypt to attack the Ploiesti oil zone. The bombs do not hit the refineries, but they show the vulnerability of the country, so the anti-aircraft defense of the area is strengthened with cannons, searchlights, radars, captive balloons, day and night fighter aircraft, in cooperation with the German Armed Forces.

On August 1, 1943, the Americans launched a major attack, from the airfields in Libya, Operation Tidal Wave (Destroying Wave) to bombard the refineries in Ploiești, Cămpina and Brazi, with 178 B-24 Liberator quadrotor heavy bombers. After an 8-hour flight, 162 aircrafts arrived over Romania and descended to 100 m altitude to destroy the assigned objectives on sight.

⁹ *Populația civilă și bombele sovietice "duel pe cerul Romaniei"*, Dosarele Istoriei, 2001, pp. 35-41.

Anti-aircraft defenses, warned by air observers in the territory, replied with artillery and fighter aircraft and shot down 35 bombers in Romania, another 45 badly damaged fell on the way back outside Romanian territory, and only 88 (that is less than half) returned at the bases in Libya, more or less damaged, and some American pilots were decorated postmortem¹⁰. So the air operation was devastating, but for the attackers. It can be considered to be *the greatest victory of the Romanian Air Force* and at the same time the greatest defeat for a strategic bombing operation, which lost over 50% of the aircraft.

But on the front, the situation was no longer favorable for the Germans or the Romanians, and anti-aircraft defense measures were strengthened in the country: “In the organization of passive defense, the following order of importance will be taken into account: the capital, the oil region, the rest of the country”¹¹.

4. Romania under Anglo-American aerial bombardment (spring 1944) in WW2

After the victory of the Allies in North Africa, the Anglo-American strategic aviation organized new air bases in the Mediterranean Sea and on November 1, 1943, a new Strategic Air Command was organized, with the US 15th Air Force and the British 275th Bombardment Group, based at Foggia (Italy). These totaled over 2,000 heavy bombers and 1,000 escort fighters, plus the more sophisticated British bombers for night missions. Their mission was to support the ground operations of the European front (southern and eastern), to destroy industrial centers and communication routes, especially in southeastern Europe, including the oil zone in Romania¹².

The British, who as Romania’s old allies had not given aid when it needed it in 1940, now insisted on “bombing the satellites to get them out of the war or at least to force the Germans to occupy them”¹³. Romanian politicians had not taken into account the warning of the 19th century British Prime Minister, Lord Palmerston: “England has no permanent friends or allies, only permanent interests!”¹⁴.

The 15th Air Force bombed the capitals of the Balkans, especially Bucharest and Sofia, although some American airmen did not want to attack

¹⁰ Avram V., Arma A., „Infern deasupra Ploieștiului. Bombardamentul de la 1 August 1943”, Militară Publishing House, Bucharest, 2012.

¹¹ Florea G., „Creanga-Stoilești, Istoria apărării civile”, Porto Franco Publishing House, Galați, 1993.

¹² Arma A., Turturică S., „Misiuni de sacrificiu. Grupul 1 Vânătoare în apărarea teritoriului național (aprilie-iunie 1944)”, Militară Publishing House, Bucharest, 2021.

¹³ Preda E., „Miza petrolului în valtoarea războiului”, Militară Publishing House, Bucharest, 1983.

¹⁴ Oxford Essential Quotations, available at <https://www.oxfordreference.com/-display/10.1093/acref/9780191826719.001.0001/q-oro-ed4-00008130>, accessed on 14 december 2024.

the civilian population, but “orders are orders”¹⁵. As early as October 1, 1943, Romanian intelligence had learned of the intention of Anglo-American aviation to bomb Romania, targeting the oil area (Ploiesti), the capital and the port cities Constanța, Brăila, Galati and Giurgiu. As a result, the anti-aircraft (AA) defense was additionally strengthened compared to the existing one with modern German weaponry, in the first phase with 420 AA guns of 88 mm (considered the best gun in WW2), 72 guns of 75 mm, 612 automatic guns of 20 mm and 9 projectors, which were distributed in the main vulnerable strategic points, others to be received later¹⁶, so Ploiești had the strongest AA defense outside of Germany.

On March 22, 1944, British General Henry Maitland Wilson, commander of the allied forces in the Eastern Mediterranean, sent an ultimatum to Marshal Ion Antonescu. Romania is trying in vain to get out of the war, but things are rushing. On April 4, 1944, at 10:30 a.m., the air alert was sounded in Bucharest: 350 American heavy bombers (B-24 and B-17) took off from Italy, targeting the North Station, the CFR Grivița Workshops and the Chitila triage. Due to atmospheric conditions, only 170 B-24 Liberator bombers enter the Romanian airspace at 1:10 p.m., in 4 waves at an altitude of 4,000 m and attack Bucharest from the northwest and southwest. The American bombers, relieved by the weight of the bombs, rose to 8,000 m and left. The AA artillery of the capital fired a total of 5,139 projectiles, shot down 2 planes, damaged 5, but lost 10 dead and 28 wounded gunners. In total, ten American bombers were shot down and 45 airmen were taken prisoners¹⁷.

The military reports record that the North and Basarab railway stations, The Triage, Ateliers Grivița, Calea Griviței, the CFR Hospital, the Romanian Athenaeum, the University, the bridge and the Cotroceni road and many others were also bombed, with a 1,500 m wide *carpet of bombs*, as well as isolated bombs, which randomly hit other civilian targets: the Cantacuzino Institute, the Grozăvesti Electric Plant, the Water Plant, several blocks and hundreds of houses. The Americans estimated 12,000 dead, but officially there were 2,942 dead and 2,416 seriously injured people, the City Hall of the capital had to build a new cemetery on Calea Giulești, which it named “April 4”. This was the worst bombing in the history of Bucharest and the country¹⁸.

Next comes the most miserable phase of the campaign against the Christian-Orthodox countries of the Balkans, the Anglo-American bombings

¹⁵ Tillman B., „Forgotten Fifteenth: The Daring Airmen Who Crippled Hitler’s Oil Supply”, Regnery History, 2014.

¹⁶ Romanian Military Archives, file 435, p. 7.

¹⁷ Tudor R., „Aprilie 1944. Bombardamentele anglo-americe asupra Bucureștiului”, in the Operations log of the 1st Anti-Aircraft Artillery Regiment, 2010, pp. 12-13.

¹⁸ Arma A., „Bucureștiul sub bombardamente 1941-1944”, Militară Publishing House, Bucharest, 2015, p. 78.

in the Orthodox Easter days. 11 days after the Great Bombardment, on April 15, on Orthodox Easter Saturday, just after midnight, 205 RAF Group sent British reconnaissance planes to southern Romania, then 11 B-24 bombers mined the Danube, and two launched manifests in Bucharest, Ploiesti and Craiova. Two bombers crashed for technical reasons. During the day, on Easter Eve, 406 American B-24 bombers hit the North Railway Station in Bucharest, and 188 B-17s, escorted by 48 fighter planes, bombed the oil installations in Ploiesti. The Americans lost 10 planes in the battle, including 6 bombers, and 28 airmen were captured. General Sănătescu, Marshal of the Palace, noted: "At 11.30 the alarm goes off. Anglo-American aviation makes its appearance in 20 minutes and bombards the center of the city terribly, hitting the buildings around the Royal Palace and the Telephone Palace. Big fires at the University (the History Library also burned) and the (Publishing House) Romanian House"¹⁹. They were hit, among many others: the University, the Central Military Hospital, the Electric Plant, the Water Plant, the public transport network, etc. Officially, there were 236 dead and 159 seriously injured. Public opinion was outraged that the Allied bombs had severely hit many non-strategic civilian targets.

But *on Easter Night*, April 15/16, British aviation bombed Turnu Severin, hitting the Shipyards, the Railway Station, the Military Hospital and the Civil Hospital, and the entire Carol Boulevard with the city's emblematic buildings. On Easter Sunday, on April 16, American bombers attack Turnu Severin again (killing at least 250 people) and bomb Braşov, hitting the IAR Factories, the Railway Station and many other targets, resulting in the complete halt of Romanian aircraft production.

On April 21, 1944, the 15th Air Force received the mission to bomb again Bucharest (the railway stations and the triage) and the Ploiesti oil area (the refineries and the triage), already badly hit, but the Operations Order specified: "the cities of Bucharest and Ploiesti are key points of all the main lines to the front, and the simultaneous attack of these centers will cause the greatest disruption of supply lines, already much overloaded. On the other hand, the success of hitting these objectives would also affect the political situation in Romania"²⁰. Turnu Severin (triage) was established as a reserve objective.

The visibility was very low, therefore some squadrons were ordered to return, others continued the mission and bombed guided by the bombing radar, but they did not reach the set targets and the bombs fell in the city over a very large area. Today we would say *collateral victims* (if it is the opponent's population) or *innocent civilian victims* (if it is the own population), but for the aviators they are just faceless enemies. Out of 645

¹⁹ General Sănătescu Constantin Personal Journal.

²⁰ Rust Kenn C., „Fifteenth Air Force Story”, Sunshine House inc., 1989.

bombs launched by the first wave in Bucharest, only 36 fell in the city. In total, 125 houses were destroyed and 111 were damaged, 87 people died, 129 were seriously injured. A bomb fell on a military shelter, killing 6 gendarmes and injuring 16. The scattering of bombs was so great that several hundred fell in the surrounding villages, causing many dead, injured and a lot of material damage. On the way back, the remaining bombs were thrown at Turnu Severin, 50 of them fell in the city, causing a lot of damage, causing more than 100 deaths and many wounded²¹. This complex Anglo-American bombing mission was a strategic failure, as it did not destroy any of the objectives but **only affected the civilian population**. American losses were 3.9% for bombers and 5.3% for escorting fighter planes, while the Romanian aviation, inferior in quality and quantity, had significant losses. But in general, the consequences of the **Great Bombing** of April 21 were not as serious as the bombings of April 4 and 15, and the authorities intervened quickly to liquidate the consequences.

The mission was resumed on April 24, 1944, with 500 American bombers and many fighter planes for escort. Between 11.10 and 11.55, 5 waves of planes entered the Romanian space. The anti-aircraft defense acted with 120 fighter planes, which engaged the battle at the altitude of 7,000 m, several American, Romanian and German planes being shot down. The bombs hit all the targets set in the previous mission, plus hospitals, the gas, electricity and urban transport networks. 405 buildings were destroyed and 204 were damaged. The human losses were significant: 292 dead, 368 seriously injured and 483 displaced persons. The press of the time reported: "the Anglo-American air force bombarded the capital and the city of Ploiesti, causing damage and casualties among the population ... numerous enemy planes were shot down"²².

As a summary of this tragic spring, the Military Commander of the Capital, General Iosif Teodorescu, published an official statement in the press: "Most of the bombs fell in residential areas; University buildings, cultural institutions, churches and the cemetery of St. Friday" and the destruction totaled 3,378 dead, 2,979 seriously injured, 1,892 destroyed houses, 1,489 damaged houses and 102 fires. Many Bucharest citizens had already left the city, moving to the province, and among those who remained, the hope was that it would be cloudy (so that the bombers would not have visibility) or that they would head towards the oil zone "Send them, Lord, to Ploiesti!"²³.

The break did not last long. On the night of May 3/4, 1944, Bucharest was bombed by the British aviation with 62 night bombers, from the west,

²¹ Romanian Military Archives, file 1029, p. 8.

²² „Timpul” newspaper, no. 1944, april 1944.

²³ „Timpul” newspaper, no. 2506, may 1944.

southwest and south. Luminous parachutes, bombs and manifestos were thrown in Bucharest and in the neighboring counties. Stations, airfields, the barracks of the 1st AA Regiment were bombed, 18 houses destroyed, 3 others damaged, etc. They caused 24 deaths and 17 serious injured people. 23 unexploded bombs were found. Demonstrations hostile to the Germans were reported for the first time. The American captive airmen looked at the British bombers and thought they were the recipients of their own bombs²⁴.

On May 7, the American bombers return and attack Bucharest with 500 bombers escorted by 200 fighter planes, with the mission of completely destroying the railway installations in the north of the capital. AA artillery, 75 Romanian and 64 German fighter planes tried to defend Bucharest, but shot down only 4 planes, while the enemy shot down 18. This bombardment, *the heaviest since April 4*, affected the north and center of Bucharest, causing the death of 411 inhabitants, 920 serious injuries and 32,162 casualties. More than 1,500 buildings were destroyed or damaged, including railway stations, schools, hospitals, churches, factories, houses, electricity, telephone, water, canal, public transport networks. The destruction was so great that support forces were brought in from all the nearby towns. On the night of May 7/8, the British night aviation, with 45 bombers carrying 52.3 tons of explosive and incendiary bombs, hit the capital again. Barracks, factories, 60 buildings were hit and an attempt was made to maintain the fires with other incendiary bombs in the neighborhoods already on fire.

All these bombings prepared the future bombing campaign in the summer of 1944 which facilitated the offensive of the 2nd Ukrainian Front to cross the Dniester and occupy Bessarabia and Bukovina. In the spring of 1944, the Anglo-American aerial bombardments, of a strategic level, carried out, especially at night, will be devastating and, expanding, will target; the destruction of the Romanian oil zone, the country's capital, the country's cities, in particular, the ports on the Danube and the Black Sea, industrial centers and communication routes.

The carpet bombs dropped over Bucharest in the months of April - May 1944, and on other cities, will have devastating effects, the human and material losses being significant. The Anglo-American aerial bombardments executed during the day and night on the cities without industrial and military objectives, targeting the electricity, gas and water networks became terrorist bombings, strongly influencing the morale of the population.

5. Anglo-American aerial bombardment in the summer of 1944 in WW2

²⁴ Fili J., „Passage to Valhalla: The Human Side of Aerial Combat Over Nāzi Occupied Europe”, Filicon Publishers, 1993.

After the intense strategic bombing campaign to which Romania had been subjected in the spring of 1944, starting with the Great American bombing of April 4 and culminating with the wave of Anglo-American bombing during the Orthodox Easter period, the Romanian population was martyred.

The arrival of summer did not stop the bombings, on the contrary, on June 6, 1944, the day of the Normandy landings, the US 15th Air Force attacked Romania again, coming from Italy and bombing Ploiesti, Făgăraș, Brașov, Craiova, Pitesti, Râmnicu Vâlcea, and from Ukraine the Soviets and the Americans bombed Galati, but also Oradea and Cluj, which were then in Hungary.

On June 10, the Americans executed a surprise raid, at low altitude, with fighter-bomber planes, for the dive bombing of the Romanian-American refinery. One of the squadrons dive-attacked the Popești-Leordeni airfield to destroy Romanian planes on the ground, but they were already up, attacking the attackers and shooting them down. Other enemy aircraft strafed civilians and civilian targets²⁵. Out of the 100 enemy planes, 48 were shot down in cooperation by AA artillery and fighter aircraft, being another Romanian victory in the aerial battle. As a result, such experimental attacks at low altitude were not repeated by the Allies. And this in the conditions where the basic plane of the Romanian aviation, the IAR-80, which was the fastest fighter plane before the start of the Second World War and is not in fifth place among the combat aviation manufacturers, was in that moment completely technically outdated and could no longer cope with aerial duels with modern planes.

On June 11, 1944, American bombers (*B-17 Flying Fortress* and *B-24 Liberator*) attack again from high altitude, at Focșani, Constanta and Giurgiu, coming from Ukraine, with 126 heavy bombers and 60 fighter planes as escort, bombing airfields, railway stations and barracks. From southern Italy came 157 bombers and 46 fighter planes that attacked Constanța, but missed all targets and 4 planes were shot down. The next day, 400 American bombers, protected by 150 fighter planes, attacked Bucharest with explosive and incendiary bombs, destroying many industrial facilities and homes. Simultaneously, the cities of Giurgiu, Timișoara and Arad were also attacked, as well as the bridges over the Olt. At Giurgiu they attacked the oil terminal in the port with 268 bombers and 46 fighters from Italy, 4 planes being shot down. Cars, carts and passers-by were machine-gunned in the Bucharest area²⁶. On the night of June 11/12, some American

²⁵ Avram V., „Ploaie de foc peste aripile americane”, 2001, p. 45.

²⁶ Sebastian M., „Jurnal 1935-1944”, Humanitas Publishing House, Bucharest, 1996, p. 548.

bombers hit communes in the south of Oltenia, and the Soviets bombed the city of Roman²⁷.

On June 26, 1944, the "Timpul" newspaper published the article *Save the children!*, in which was written: "the government is making huge efforts to shelter this precious Romanian treasure - the children of the country - who are subjected to all the atrocities and savagery of attacks directed against the civilian population".

A Secret Note of the Capital Police indicated: „... there was a general disillusionment with the belief accredited in almost all circles that, following interventions and tacit agreements, the Anglo-American aviation had received precise instructions not to bomb for any reason non-military objectives. Thus, in addition to the material effect of the bombing, a moral effect of particular importance was registered”²⁸. The press published the official press release of the Army Chief's Command, dated June 28, 1944, "... formations of North American bombers, accompanied by fighter planes, executed a terror attack on the Capital and dropped bombs over the entire city, causing damage in residential areas and casualties among the civilian population. Public facilities and private homes were hit and children, women and the elderly were killed"). As a result, the Patriarch wrote to the Archbishop of Canterbury requesting that the Allies spare the cultural institutions, the churches and the civilian population, but as will be seen, without success. As the newspaper "Timpul" stated „... the Anglo-Americans also continue to say that they are fighting for the freedom of Europe and the whole world and for the establishment of another morality in the life of humanity". On the night of June 28/29, British bombers attacked the city and the port of Giurgiu.

On the night of July 2/3, 40 British night bombers (*Wellington* and *Liberator*) launched light parachutes and bombarded the capital, hitting the North Station area, the refineries in Bucharest, Chitila as well as the neighborhoods of Grozăvești, Saint Elefterie, Rahova and "Chibrit" Market. The Romanian aviators shot down 15 bombers, but they were in a critical situation: of the 115 fighter planes, 50 were still available with 33 pilots²⁹.

On July 4, American bombers attacked Brașov and Pitești, and fighter jets *hunted freely* in the area of Ploiești and Bucharest, attacking everything in their path (*terrorist attack*). Thus, the Bucharest-Timișoara personal train was machine-gunned repeatedly by 6 planes, resulting in a carnage with 300 dead and wounded. As a result, an official Protest was sent to the Red Cross and it was ordered to arm the passenger trains with AA artillery³⁰. The next day, the authorities published a statement in the press:

²⁷ „Timpul” newspaper, no. 2547, june 1944.

²⁸ Consiliul Național pentru Studierea Arhivelor Securității, file 12732, vol. 4, 1944.

²⁹ Romanian Military Archives, file 860, 1944.

³⁰ Romanian Military Archives, file 238, 1944.

“Enemy planes descend at low altitude and machine-gun children, train passengers and peasants working in the fields. This defiance of the most basic laws of war and especially the total lack of humanity of the pilots of these planes towards defenseless people and towards a nation fighting for its life can have no excuse nor can I honor such great nations and civilized like the English and American ones”.

On July 5, the German Air Command, anticipating the events, proposed to Marshal Antonescu the evacuation of the population from Ploiești and the oil zone. But action was taken only by building new AA shelters and strengthening the AA defense³¹. Indeed, the US 15th Air Force had mobilized all bombers for the *Oil Campaign*, the operation to completely destroy Germany’s oil reserves. Of the more than 6 million tons of fuel used by the Wehrmacht, more than 40% were supplied by Romania, so this became the priority target.

On the night of July 23/24, 1944, 76 British bombers were sent over Bucharest, hitting institutions, including hospitals and houses. On this occasion, it was found that the radio warning chain was malfunctioning, although many exercises had been carried out. Unexploded bombs were brought to the training field in Vitan to be destroyed³². In the evening, other British night bombers attacked the Ploiesti refineries.

On the night of July 27/28, almost 100 British bombers attack the refineries in Bucharest and the city, with explosive bombs, including 4,000 pounds (almost 2 tons) and incendiary bombs. There were over 100 dead and injured, about 300 houses destroyed or damaged, plus hospitals and factories. The fires were extinguished by the military and civilian firemen, and the streets were unblocked by the Passive Defense through the rubble companies of the Jewish detachment³³. The Command of the Bucharest Passive Defense Zone reported: “... this attack had the character of a terror attack without precise objectives, no military objective being targeted, and incendiary bombs combined with explosive ones being used”³⁴. In the morning of July 28, American bombers attack the refineries in Ploiești, and on July 31 they bomb the cities of Bucharest, Ploiesti and Târgoviște.

In the first days of August 1944, the Allied bombers deployed in Italy were busy with missions in the south of France, where the Allies were preparing *Dragoon Operation*, the landing in the Mediterranean. But, on August 4, American fighter planes, which were heading towards Chisinau and Cahul (occupied by the Red Army), machine-gunned the Buzau and Zilistea airfields, as well as passenger trains in the Buzau area and some villages. On their return from the USSR, on August 6, they attacked trains,

³¹ Romanian Military Archives, file 464, p. 417.

³² „Timpul” newspaper, no. 2590, July 1944.

³³ National Central Historical Archives, file 92/1944.

³⁴ Idem.

stations and towns in Oltenia³⁵. The capital had the appearance of an abandoned city, and political circles were preparing the removal of the government and the exit from the war.

On the night of August 9/10, British bombers attacked the Ploiesti refineries and the city. Of the 60 bombers, 10 were shot down. One of the bombers arrived in Bucharest and launched three bombs in the center, of which only two exploded, being the last British bombs in Bucharest, in the series that had begun on the night of May 3/4, 1944. On August 10, the Americans bombed the refineries from Ploiesti and Câmpina, with almost 1,000 planes and it was believed that 75% of Ploiesti had been destroyed, and the smoke of the fires could also be seen from Bucharest³⁶.

On August 10, 1944, the city of Bucharest was cited by the Order of the Day for the nation for the heavy trials it endured during the 5 months of bombings: "... the people of Bucharest endured the air raids with great courage, with perfect calmness, with an exemplary discipline, asserting itself through a spirit of sacrifice and a power of self-denial above all praise"³⁷. Truly, the capital had suffered the most powerful bombings, the consequences being greater than all the other cities and objectives in Romania put together: almost 10,000 explosive and incendiary bombs, causing 5,224 deaths, 5,482 serious injuries, 4,585 victims, hitting 800 streets and 950 buildings, the railway and urban transport system, utility networks (electricity, telephone, gas, water, canal), factories, warehouses, but also numerous civil objectives; public buildings, schools, hospitals, churches, theaters, hotels, museums, prisons, etc. The main goal was to weaken the German-Romanian front and support the Soviet front. Meanwhile, on August 15, 1944, the landing of the Allies in the south of France begins and their aviation has other priorities.

On August 19, the US 15th Air Force carried out the last raid on the Ploiesti oil zone, attacking the refineries that were already destroyed and dropping the last bombs on the city of Ploiesti, and there was a last false alarm in Bucharest.

6. German aerial bombings in August 1944

On August 20, 1944, the Soviet offensive was launched on the Bessarabia and Moldova front. The next day, the front was breached in Iași, and the units of the 2nd Ukrainian Front were heading towards Bucharest. On August 23, 1944, King Mihai arrested Marshal Antonescu (who did not accept Romania's exit from the war) and declared the cessation of hostilities

³⁵ Vasile T., „Războiul aerian în România 1941-1944”, Tiparg Publishing House, Pitești, 2006.

³⁶ Vasile L., „Orașul sacrificat, Al Doilea Război Mondial la Ploiești”, Militară Publishing House, Bucharest, 2014, p. 251.

³⁷ Pelin M., „Raidul escadrei trădate”, Elion Publishing House, Bucharest, 2005, p. 212.

against the USSR. At 21:00, the German ambassador in Bucharest, von Killinger, is asked by the King to make the German government “withdraw the German troops from Romania without delay”. The Minister of Foreign Affairs announces the interruption of diplomatic relations with the Third Reich and that the Romanian Government ensures the Wehrmacht units free passage to the west on the condition that the German troops refrain from any hostile manifestations³⁸. At 10 p.m., the king’s proclamation is broadcast on the radio, informing the army and the population of the new situation. For fear of German reprisals, as had recently happened in Italy, the king takes refuge in Oltenia. The night of August 23/24 was the first without camouflage since the beginning of the war, many believed (again, after the Victory Parade in Bucharest on November 8, 1942) that the war was over. But the German ambassador and Lieutenant General Alfred Gerstenberg, head of the German Aeronautical Military Mission in Romania, informs Germany and proposes the suppression of the coup by the intervention of German troops in the Bucharest and Ploiesti areas and the bombing of the political and military centers in the capital of Romania³⁹. The German authorities, based on erroneous information ordered the land and air attack on the capital, at dawn on August 24, 1944. The German attack transformed Romania from a country that wanted to be neutral into an enemy of Germany, as in WW1, when the German attack with biological weapons in the Romanian ports turned the neutral country into an enemy country. This misjudgment of public opinion could be considered a trap into which even German propaganda fell (like others, later), making wrong strategic decisions.

The first German bombs were launched on the Pipera airfield, and the Baneasa airport was attacked and occupied by the Germans. At 9 o’clock, German planes bomb the Royal Palace, the Telephone Palace and the center of the capital. The government, led by General C. Sanătescu (in place of Marshal Antonescu) had taken refuge in the basement of the Palace, then at the special shelter at the National Bank and finally at the Bolintin Transmission Regiment where they could communicate well. German attacks continued all day. The Operations Journal of the Romanian Anti-Aircraft Artillery Command recorded attacks in waves with 8-14 He-111 bombers, Junkers 87 Stuka dive bombers, twin-engine Me-110 and Me-109 fighter jets. They caused 89 deaths and 90 injuries (mostly women and children), destroyed over 200 buildings, including hospitals, the Romanian Athenaeum, the Opera House and other non-military objectives. One of the priority objectives was the “Queen Elizabeth” Military Hospital, where many of the American and English prisoner aviators were housed. AA

³⁸ Schonherr K., „Luptele Wehrmachtului în România, 1944”, Militară Publishing House, Bucharest, 2015, p. 181.

³⁹ *Ibidem*, p. 182.

defense fired more than 19,000 projectiles, shooting down many German planes as well as a Romanian Me-109. A difficult situation had been created in airports and airfields, many being used jointly by Romanian and German aviators.

During the night of August 24/25, the German air force continued its attacks at intervals of 30 - 40 minutes, causing other deaths, injuries and destruction. Later, on August 25, German planes repeatedly attack the capital, dropping 280 explosive and 114 incendiary bombs, causing further deaths, injuries and destruction. The bombing of the "Salvarea" Emergency Hospital, with bombs launched from a low height, was also a war crime, although the protective signs of the Red Cross were visible on the roof. On August 26, "Timpul" newspaper wrote: "There were many wounded in the hospital, women, children, men. None escaped with their lives. Also, the doctors and nurses who were at the posts found their death under the ruins". Anyway, since the World War 2, the sign of the Red Cross is no longer protective in reality, but only indicative, and even in recent wars, as we learn from the press, it seems to attract the bombings.

In the morning of August 26, 1944, the American bombers reappeared, this time coming to support the Romanian troops who were told not to open fire against them. It was the first time that the Americans came again as friends to Romania. A first wave, 114 B-24 Liberator heavy bombers, attacked the Baneasa airfield and the German troops from the forest with 258 tons of bombs, and the second, with 114 B-17 Flying Fortress bombers, attacked the Otopeni airfield and the German forces in the Otopeni forest, with 205 tons of bombs. The Germans were forced to withdraw to the north, to Săftica, and the Romanians recaptured the Băneasa and Pipera airports. Unfortunately, some bombs also hit soldiers from the Romanian units who were in contact with the enemy in the forest (*friendly fire* as we would say today).

Also on August 26, Lieutenant General Reiner Stahel, who had repressed the insurrection in Poland, landed in Otopeni, to coordinate the action of the Germans, in cooperation with the 45 existing Luftwaffe planes. But in Bucharest the Germans were dealing with a national army, not with a civil insurrection as in Warsaw. In the afternoon, the German air force attacks Bucharest, for the last time, with explosive and incendiary bombs, the center became a sea of flames, *Calea Victoriei*, the National Theatre, the Telephone Palace, theaters, shops, apartment blocks, etc. were hit, and obviously other human victims, in the city and in the neighboring communes were numbered. The systematic German bombardment kept the population of Bucharest in shelters for 60 hours!⁴⁰

⁴⁰ Sebastian M., „Jurnal 1935-1944”, Humanitas Publishing House, Bucharest, 1996, p. 562.

On the night of August 27/28, 1944, under the continuous pressure of the Romanian troops, the German troops abandon the objective of occupying Bucharest and withdraw towards Ploiesti to make the junction with the German units in the oil area, but units of the 4th Romanian Army, withdrawn from the Moldovan front, attacks and captures them in the middle of the distance, in Gherghița, on August 28⁴¹. Thus, the Battle for Bucharest ended victoriously and definitively, two days before the first Soviet units arrived in the capital. Further on, we will have the continuation of the anti-German war, until May 9, 1945, but which will no longer know aviation bombings of Bucharest or other Romanian cities. It would be good that these tragic events never repeat themselves, but as history shows us, we must be prepared for any situation, at least on a conceptual level. History, and especially military history, helps us in this, through “lessons learned”.

Commentary

In the two World Wars, located on the fault line between Western and Eastern Europe, Romania, although initially wanted to remain neutral, was drawn into the conflicting parties, so this may happen again in the future. Although it was not well prepared for the war, it participated each time with all its military and economic potential, being in the 5th place in terms of military participation within the Alliance, each time with 500,000 fighters. The national strategic role was to complete and reunify the Romanian territory, and within the Grand Strategy it had a decisive role, sometimes standing alone on the eastern front in WW1 and shortening WW2 by at least 6 months, so the sacrifices of the Romanians facilitated the victory of the Allies. As evidence, the enemy, indifferent who was at the time, resorted to military, diplomatic intimidation and strategic bombing in order to defeat the fighting will of the Romanians people and to reduce country's fighting capacity and economic potential. For this, the capital, which always represented over a tenth of the population and the economy, was bombed systematically, sometimes savagely, more than half of the attacks and more than half of the human and material losses being concentrated here. Next in importance and gravity were the attacks on the Ploiesti oil zone, the big cities, which are also economic and administrative centers, the ports, the airports, but also many other objectives, without any military or economic value, considered as terrorist attacks.

If the German bombings, from 1916-1917, and the Soviet bombings, from 1941, were more demonstrative and implicitly prepared the population and the army for the big bombings that followed, the American and British strategic bombings, from 1944, had catastrophic effects. Thus, in the

⁴¹ Bătălia de la București (24 – 27 august 1944), available at [http://-enciclopediaromaniei.ro/wiki/B%C4%83t%C4%83lia_de_la_Bucure%C5%9Fti_\(24_%E2%80%93_27_august_1944\)](http://-enciclopediaromaniei.ro/wiki/B%C4%83t%C4%83lia_de_la_Bucure%C5%9Fti_(24_%E2%80%93_27_august_1944)), accessed on 10.01.2025.

summer of 1941, Soviet planes, departing from Ukraine or Crimea, carried out bombings in Romania, causing destruction (housing, refineries, the port of Constanța, etc.) but not so many civilian casualties, the American strategic bombing in 1944 inspired by the *Protestant work ethic* with maximum efficiency, disregarded the laws and customs of war producing so much more casualties. From this relatively recent military history, the survivors of which are still among us, many lessons can be learned for the present and the future.

Conclusions

Aerial bombardments have been used in modern wars for tactical, operational and/or strategic purposes, and it is obvious that they will be used in the future, as they are now being used by the Russian military in the war in Ukraine.

Although strategic bombing of large urban agglomerations is rightly regarded as a war crime, with the victims being mainly civilians, including women, children, the elderly and non-combatant civilians, it is likely to be used in the future, as shows the conduct of current wars and how they predict the Nuclear Doctrines of the Great Powers.

Romania's experience shows that the effects can be devastating and long-lasting, and preparations for defense and liquidation of the effects must be made in time, with sufficient forces and with appropriate means.

Historically, the most destructive bombings in Romania were on the capital, more than half of the total. In order of severity were the American ones from 1944, followed by the British and German ones from 1944, then the Soviet ones from 1941 and the German ones from 1916-1917.

There can be many lessons learned for Air Defense from Romanian Ministry of Defence (fighter aviation, AA missiles and artillery, radar, etc.), Civil Defense (Emergency Situations Inspectorate) of the MAI, for the Ministry of Health, Local Authorities, Non-Governmental Organizations (such as the Red Cross), but also for the population, at the level individual, family and group or organization.

It is also true that a missile-nuclear war would change the facts of the problem, and the consequences could be so serious that it would endanger not only the life and property of the population, but even the existence of the current civilization or even life on Earth, but the present synthesis offers a reference point for analyzing a possible conventional situation.



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