Information & Security

G. Angelov
vol. 51 (2022): 49-55
https://doi.org/10.11610/isij.5104

Published since 1998
ISSN 0861-5160 (print), ISSN 1314-2119 (online)

Research Article

Military Implications of the Nagorno-Karabakh Conflict: Tactics and Technologies

Grudi Angelov

ABSTRACT:

The article sheds light on the hot phase of the military conflict between Armenia and Azerbaijan that erupted at the end of September 2020. The key characteristic of the conflict is the use of the armed forces to defend different views and interests in an attempt to resolve smouldering territorial disputes. This phase will remain in history as the "Second Karabakh War" or "The Six-Week War." From military analysts' point of view, it is of interest with the application of advanced technologies to change the nature of modern warfare. On the one hand, the conflict is marked by a direct clash of different generations' weapon systems, where the new generation's technological weapon systems provide advantages in achieving strategic and tactical superiority. On the other hand, the war showed the implications of the national and military power of both countries in wartime. Improvements in weaponry brought the development of tactics, technics, and procedures in waging contemporary war. The main conclusions from the analysis relate to the mass operational usage of unmanned aerial vehicles and the respective development of ways of fighting at tactical, operational, and strategic levels.

ARTICLE INFO:

RECEIVED: 12 MAY 2022
REVISED: 10 JULY 2022
ONLINE: 29 JULY 2022

KEYWORDS:

Karabakh Conflict, unmanned aerial vehicles, drones, new generation warfare, reconnaissance

Introduction

In accordance with the acknowledged international law, the Nagorno-Karabakh region is recognized as part of Azerbaijan, where the real power was exercised by Armenian separatists (supported by Armenia). In the attempts to forcefully resolve the dispute that had continued since the collapse of the Soviet Union, a large-scale conflict between the two neighbouring countries broke out for the second time in 2020. This conflict will remain in history as "The Six-Week War"

E-mail: grud1213@gmail.com

that characterized the impact of the new technologies on the changing nature of the war and marked the clash of different generations' weapon systems. History provides numerous examples where the opponent with the higher technological level weapon systems gets a strategic and tactical advantage over the adversary due to an overwhelming national and military power.

Capabilities of Azerbaijan and Armenia on the Eve of the second Nagorno-Karabakh war

The military conflict in Nagorno-Karabakh demonstrated the advantage of an army that used advanced technologies against an army using samples "born" in the Soviet era. The world witnessed the capabilities of Azerbaijan in using unmanned air vehicles (UAVs) and tactics, technics, and procedures, as well as the usage of special operation forces.

Studying the utilisation of these advantages requires a brief retrospection of the acquisition of both countries. Table 1 provides brief information about the military power of both countries. Figures are taken from the Global Firepower.[1]

The table shows that Azerbaijan had gained much more national and military power than Armenia, based on the differences in the budgets. Both countries' budgets are about 4.5 % of GDP; thus, Azerbaijan's budget is three times bigger.[1] Taking that into account, it is obvious that the levels of the generated national and military power of Azerbaijan are much higher than that of Armenia. The key characteristic is the difference in perceptions of gaining advantages with the use of Air Force and Special Operation Forces in future wars, which forms significant differences in approaches to the acquisition of related military equipment.

A brief analysis of the approaches of the two countries' Armed Forces development capabilities outlines significant differences. Azerbaijan built capabilities for remote reconnaissance, targeting, and accurate strikes with a group of UAVs (the number of UAVs is not shown in Table 1 due to lack of information and therefore is not taken into consideration), with the possibility to operate in the tactical and operational zone – up to 200 km within enemy territory. Armenia acquired assets with significant combat potential (Iskander-E missile division, 4 SU-30 SM fighters), which increased its combat power but did not provide significant advantages in a limited local conflict. Armenia's UAVs may operate inside the tactical zone of operations with limited reconnaissance capabilities.

The examples of the use of UAVs against Russia's Hmeimim Air Base in Syria, and by ISIS, and Saudi oil facilities by Yemeni Houthis, as well as the cases of the coordinated use of drones in Ukraine, Syria, Libya, and Nagorno-Karabakh, are considered decisive steps in the evolution of the "drone swarm" concept. The synchronized use of a small number of drones allows for gaining highly asymmetric advantages by saturating the combat area with high-tech, affordable, relatively inexpensive weapon systems that operate in synchronization and complicates the troops' air defence. At the same time, the lack of modern Integrated Air Defence systems (IAD) does not allow an effective counteraction to

Table 1. Comparing the military strength of Azerbaijan and Armenia prior to the war.

KEY FACTORS	AZERBAIJAN	WORLD RANK	ARMENIA	WORLD RANK
Total Population	10,282, 283	83	3,011,609	126
Available Manpower	5,038,319	78	1,686,501	121
Active Personnel	65,000	42	45,000	48
Reserve Personnel	300,000	13	210,000	17
Paramilitary Forces	15,000	39	4,300	52
Defence Budget	$ 1,7000 M	71	$ 632,5 M	91
Total Aircrafts	149	55	64	78
Fighter Aircrafts	17	52	4	63
Dedicated Attack	11	29	10	30
Helicopters	87	41	36	66
Tank Strength	510	30	288	50
Armored Vehicles	1,762	45	673	75
Self-Propelled Artillery	167	27	38	56
Towed Artillery	319	35	145	53
Mobile Rockets	291	18	94	39

UAVs, which, based on the example of the Nagorno-Karabakh conflict, proved to be a general strategic problem for one of the opponents. The coordinated use of armed UAVs, the loitering anti-tank munitions, and the Air Defence Systems, integrated via electronic networks, is a prerequisite for achieving high efficiency and creating operational and strategic advantages.

Preparation for the conflict

Key differences might also be revealed in the parties' preparation for the conflict. Before the conflict, Azerbaijan conducted a massive strategic disinformation and disguise campaign, accompanied by information restrictions, misinformation, and censorship operations. A significant preparation element was the joint Azerbaijani-Turkish exercises in July-August 2020. They allowed covert forces deployment and operational and force planning. The border incident of July 12, 2020 in the Tavush Province (North-Eastern Armenia) also can be considered as part of the future operation due to the fact the main direction of the Azerbaijani army's subsequent operation was mainly from the South and not as was expected from the North.

In 2020, Baku bought, in particular, the Bayraktar UAVs, which were effectively used in the war. Before that, Azerbaijan purchased from Israel loitering ammunition (kamikaze drones) and high-precision missile systems, from Russia – heavy flamethrower systems TOS-1A "Solntsepek," BMP-3, a division of self-propelled artillery systems "Msta-S," two divisions of long-range air defense systems S-300, and several air defence systems "Tor-M2E."

On the other hand, Armenia did not pay the required attention to the development of its armed forces despite the purchases made. Since the mid-2010s, Armenia began to spend more money on weapons. According to the Stockholm International Peace Research Institute (SIPRI), the volume of military imports of Armenia from 2014 to 2019 is three and a half times more than from 2009 to 2014, despite the fact that in 2014-2015, according to the institute, the country did not make any serious purchases. In addition, the Smerch multiple launch rocket systems, a large number of anti-tank weapons, portable anti-aircraft missile systems, Tor M2KM anti-aircraft missile systems, and a division of Iskander-E missile systems were acquired.

Some purchases, however, caused bewilderment and even criticism in Armenia. So many consider it pointless to buy four Su-30SMs in 2019. These planes – heavy fighters, faster and more powerful than the Azerbaijani MiG-29s, also turned out to be too expensive, and their combat capability was excessive for the Karabach's theater of operations. In addition, they were configured in a strike mode, and thus less effective for air defence purposes as fighters in a dogfight configuration.

Armenia did not have sufficient reconnaissance capabilities to reveal the purpose of these preparations. Due to Azerbaijan's disinformation campaign, the Armenian military leadership was likely to assume that the main direction would be in the North, where they focused their main engineering and logistics efforts.

New Tactics and Weapons used in the Conflict

The significant advantages of the use of UAV reconnaissance and attack systems allowed the Azerbaijani army to operate in the main strike's direction carefully, cautiously, with detailed reconnaissance. The attack UAVs allow conducting precise air strikes in tactical and operational depth. According to some sources,[2] this tactic was borrowed from a similar operation of the Turkish Armed Forces in 2018 in Syria's Idlib province. This tactic is applicable to the lack of opportunities for forces regrouping from one direction to another and without effective air support. Moreover, the Nagorno-Karabakh military leadership failed to foresee the possibility of an offensive in the southern direction, so this area was not well equipped for defence.

The offensive operation was conducted without the use of artillery, heavy armoured units, and air support. The military output from this conflict reveals the benefits of the large-scale intelligence gathering, early detection of the opponent's defence weaknesses, as well as from an effective and unexpected operation's development to achieve an operational breakthrough.

The Usage of UAVs

One of the most discussed features of the conflict was the use of UAVs by Azerbaijan. Indeed, Baku managed to install an unmanned reconnaissance and strike network in Nagorno-Karabakh, which allowed continuous observation, reconnaissance, and information collection, as well as assessment of fire impact on the enemy. This happened for the first time on the territory of the former USSR, and there are just a few such precedents globally. This is also the result of the long-term preparation of the Azerbaijani leadership, which has been actively developing unmanned aircraft over the past ten years. The main partner in this matter was Israel, which not only provided UAVs of various types and a license for their production (loitering ammunition Orbiter-1K / Zerbe-1K, reconnaissance UAVs Aerostar, Orbiter-2M, and Orbiter-3) but also Elta Systems helped to create an electronic map of Nagorno-Karabakh.

The Azerbaijani Army deployed in the area of operation a number of attack and reconnaissance UAVs to ensure its superiority in surveillance, reconnaissance, and information management, which is considered a precedent in contemporary operations. The operational application of the mentioned above advantages is a result of a long-term military policy aimed at the acquisition and development of UAV capabilities over the past ten years.[3]

The basic idea of Nagorno-Karabakh's defence was focussing the efforts on the defence preparation of the northern area. But the Azerbaijani Armed Forces did not consider achieving operational depth in this area and therefore did not conduct large-scale offensive operations there. The inefficient use of tactical Ballistic Missile (BM), or Battlefield Range Ballistic Missile (BRBM), and multiple launched rocket systems by the Armenian forces was unexpected. Despite the high number of launches, BRDM did not help solve any operational tasks. Due to insufficient air defence coverage of the Armenian forces, Azerbaijani UAVs destroyed one R-17 "Elbrus" launcher.[4]

The operational, tactical, and even strategic advantages achieved as a result of the different preparation approaches should not be overestimated by hasty conclusions about the use of UAVs as a leading or major factor in achieving the final outcome. The mentioned data shows Armenia cannot be considered an equal opponent of Azerbaijan in terms of defence resources and technology. They did not acquire any advanced anti-aircraft systems like the Israeli "Iron Dome," the Russian Panzir, Buk-M2 and Tor-2M, SAM systems or the US DRAKE (Drone Restricted Access Using Known Electromagnetic Warfare) that are capable of combating UAVs. Naturally, any conflict's analysis should take into account the role and continuously growing importance of the UAVs in increasing the troop's maneuverability in modern operations.

The conclusions that can be drawn as military aspects of the results of the 2020 conflict between Azerbaijan and Nagorno Karabakh (a territory supported by Armenia) can be summarized as follows:

- High speed – the conflict ended in 44 days with the destruction of the Armenian forces' military infrastructure;

- A high percentage of losses in manpower and equipment – about 2700 servicemen and over 1500 pieces of military equipment from each side;
- Mass use by one of the sides of advanced military equipment and specially designed tactics for operating it;
- New technic sand tactics used by Azerbaijan to overcome the defence of Armenia as an outcome of a better investment in new weaponry;
- Clearly defined objectives of the war by Azerbaijan;
- Precisely conducted information operations by Azerbaijan prior to and during the war.

Conclusions

The 2020 Nagorno-Karabakh conflict reveals a steady process of alteration warfare towards the emergence of a new generation of wars, a transition from manoeuvre warfare to warfare of the future. The results prove the high efficiency of UAVs' use as a new element of manoeuvre warfare tactics, as well as the possibility of replacing traditional aviation in some operations. Their importance increase for the use in support of land forces operations, although for the time being, the man-machine connection is still not broken. The future use of "drone swarm" tactics might be foreseen as one of the first steps of a "drone revolution" in operational and even strategic warfare. The massive use of UAVs might compromise the efficiency even of modern air defence systems. At the same time, a real change in the nature of modern warfare might be considered after the acquisition of operational capabilities for the widespread usage of autonomous robotic platforms and systems with artificial intelligence.

The impact of the post-conflict measures of the Republic of Azerbaijan, conducted in full compliance with international law, might serve as a good example of considering the importance of preserving both ethnic and religious tolerance and peace and security in the conflict area as well as in the entire region.

References

1. "Comparison of Armenia and Azerbaijan Military Strengths (2022)," Global Firepower Strength, 2022, https://www.globalfirepower.com/countries-comparison-detail.php?country1=armenia&country2=azerbaijan.
2. Pavel Aksenov, "Pochemu Azerbaijan voigral voinu v Karabahe?" Otvechaut voennie eksperti, *BBC*, November 11, 2020, https://www.bbc.com/russian/news-55149056. – in Russian.
3. Aleksandr Atasuntsev and Polina Himshiashvili, "Armenia i Azerbaijan vernulis k 'goryachemu' peredelu teritorii," RBK, 2020, https://www.rbc.ru/politics/15/07/2020/5f0d9a2e9a794710bed2f0c9. – in Russian.
4. J. Boquet, "La doctrine antidrones des armees francaises," *Air&Cosmos* 2718 (2021): 24.
5. "Azerbaijan ocenil poteri Armenii oseniu v Karabakhe," Moskva*, Interfax.ru*, July 14, 2021, https://www.interfax.ru/world/777881. – in Russian.

6. Andrei Frolow and Anastasia Tiniankina, "Some Results of The Armed Conflict in Karabakh in Autumn 2020," *Russia in Global Affairs*, 2020, https://globalaffairs.ru/articles/vojna-novoj-epohi/#. – in Russian.
7. Nokolai Novichkov and Dmitri Fedushko, *Boevoe primeneniebespilotnsh aparatov v Nagorno Karabahe* (Moskva: OOO «Статус», 2021).

About the Author

Major-General (ret.) Grudi Angelov has a long military career, including command and staff positions in the Bulgarian Land Forces and NATO HQs, and culminating as Commandant of "G.S. Rakovski" National Defence College, Sofia, Bulgaria.
https://orcid.org/0000-0002-5431-6073