

Multi-dimensional assessment of the Second Nagorno-Karabakh War

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Abstract

This article contains an assessment of the last war in the Southern Caucasus, referring to it as the second Nagorno–Karabakh war. The assessment is concentrated on the military capabilities built up prior to the major escalation of this war and operational features identified during the battles. The assessment uses analytic categories of processed information and initiatives that sovereign actors took during decision cycles and the conduct of military campaigns. Those analytic categories are named dimensions, with the strategic and military dimensions being the most important for this analysis. The key findings of this article suggest that additional dimensions could be used in researching the complex conditions of the war, which might have a continuous impact even outside the Southern Caucasus. The review of initiatives at the strategic dimension suggested that the built-up of two competing security policy fractions in the South Caucasus was an influential factor. The assessment of the military dimension of that war provided insights regarding the tactical choices of both adversaries. That assessment revealed some significant differences in how the campaign was conducted on both sides. Further complex tensions in the region are expected as national political decisions will drive strategic choices and drive the development of military capabilities. Given the fact that both countries were short of a consensus-based peace deal and Russia sent in peacekeeping forces, further developments in the political and strategic dimensions of this war saga should be expected.

Keywords:

contemporary warfare, military innovation, Nagorno–Karabakh, qualitative research, technology

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Introduction

The conflict between Azerbaijan and Armenia has deep historical roots that have been the cause of continuous disturbances in the South Caucasus. The recent war between the two countries over Nagorno–Karabakh lasted for 6 weeks, from late September 2020 to November 2020. Clashes at the border area almost a year after the conflict suggest that tensions there remain high. The end of the war resulted in political disturbances in Armenia. Meanwhile, Azerbaijan ended the war on a victorious note after retaking territory and receiving assurances on transition conditions. The political consequences of this war have already been explored in multiple research papers revealing silent geopolitical influence from Ankara and Moscow that have gained momentum in the Southern Caucasus.

This article contains an assessment of the last war in the Southern Caucasus, referring to it as the second Nagorno–Karabakh war. The assessment looks at the military capabilities built-up prior to the escalation of fighting and operational features identified during the battles. Evaluation of conditions and operational characteristics are conducted by using definitive analytical categories of strategic and military dimensions. Herein, the usage of dimensions is defined as analytic categories that contain a certain scope of processed information and conducted initiatives that any sovereign actor utilises during the decision cycle and conduct of a military campaign. Varying dimensions refer to different categories of processed information and conducted initiatives, which helps to extend the scope of how the act of war is analysed.

Given the theoretical definition of a dimension, this article refers to the strategic dimension as the analytic category of assessing security assurance measures and coalition building decisions with regional partners. On the other hand, research in these pages suggests that the military dimension contains the scope of military operational decisions and achieved effects on the battlefield. In the case of the second Nagorno–Karabakh war, the two named dimensions are utilised as the instrument to assess the conditions before the escalation and the achievements of military operations.

The structure of the article is based on two parts. In the first part, the regional situation and choices for security enablement are assessed through the analytic category of strategic dimension. That dimension allows an enquiry into security interests and regional cooperation, two important factors forming a wider empirical context of the conflict. All the findings there are taken from open-source analysis and provide an unbiased, timely assessment of the initial escalation of fighting.

Following a two-dimensional analytical approach, the second part of the article shifts attention to an assessment of military operations during the second Nagorno–Karabakh war. This part of the article is based on open-source analysis and supplemented by some initial intelligence assessments. The dimension-based analysis suggests that the second Nagorno–Karabakh war has revealed some important lessons in tactical and technological solutions for contemporary warfare.

The concluding part of the article is a summary of the key findings and suggests that additional dimensions may be used in researching the complex conditions of the war, which might have continuous impact even outside the Southern Caucasus. The second Nagorno–Karabakh war should be considered worthy of note as a recent precedent for conflict in Europe's strategic neighbourhood and has provided some meaningful information to policy practitioners, military personnel, and defence technology developers.

Strategic Dimension: Assessment of War Pre-conditions

“War is a continuation of politics by other means”—this is the most famous saying of [Carl von Clausewitz \(1918, p. 87\)](#). The world has seen a practical reveal of this notion multiple times. This has been evident in multiple frontiers across Eastern Europe and Asia. Even the recent Afghanistan endgame could be evaluated as a prolonged continuation of political manoeuvres that fits well into the classical notion of the Prussian war thinker.

Nevertheless, the Southern Caucasus has been one of the most active geopolitical areas where execution of regional political tensions has been shifted to military actions. The stalemate between Armenia and Azerbaijan over Nagorno–Karabakh region has deep roots of distrust, anger, and diversification along ethnic, nationalist, and religious lines ([Waal, 2013](#), pp. 12–18). These tensions have found their way into regional security policy that both countries were building on the same foundation of distrust, diversification and adversity.

Previous insights about regional tensions in the Southern Caucasus have revealed multiple sides of confrontation. Scholars from the Geneva Centre for Security Sector Governance highlighted the implications of prolonged tensions between Armenia and Azerbaijan for internal policies, military development decisions and regional coalition building efforts ([Fluri and Bucur-Marcu, 2007](#), pp. 11–13). Some analysts from Carnegie, another security policy think-tank, stressed a decisive role for closest patrons to the adversity of Armenia and Azerbaijan ([Markedonov, 2020](#); [Waal, 2020](#)). The development of regional coalitions and military enabling efforts are therefore worth paying attention to as outcomes of the second Nagorno–Karabakh war have attracted increasing analytical attention ([Broers, 2020](#)).

The immediate pre-war period suggests a confrontational trend of regional security policy and builds a basis for a strategic dimension of the war. Further examination of the strategic dimension of the second Nagorno–Karabakh war provides a set of two important lessons. The first lesson is drawn from the extensive background developments of that conflict. It suggests that regional rivals have chosen different patrons to base their security guarantees on. Those are long-rooted choices that have been imposed by historical ties, ethnical affiliations, and nationalistic agendas.

Armenia has gradually slipped into the field of influence of the Russian Federation ever since the collapse of the Soviet Union. Meanwhile, Azerbaijan has followed a closely tied cooperation and security assistance from Turkey. As a country rich in natural resources and building its revenue, Azerbaijan’s armed forces were boosted by contemporary technological solutions that took a significant part of 5.4 per cent of GDP in 2020, which was worth about USD 2.2 billion ([Wezeman, Kuimova and Smith, 2021](#)). Additionally, when comparing funding and the quantity of initiatives, Azerbaijan has also gained a more rapid military development in cooperation with the United States ([Office of Defense Cooperation, US Embassy in Azerbaijan, 2020](#)).¹

Meanwhile, Armenia has maintained a legacy of post-Soviet weapon systems that have been utilised as a cost-efficient retain and adapt solution ([Radin *et. al.*, 2019](#), pp. 45–60) fostering a cooperation reliant on Russian capabilities. Between 2011 and 2020, Russian technology accounted for nearly 94 per cent of Armenia’s military imports ([Wezeman, Kuimova and Smith, 2021](#)). Despite a heavy dependence on Russian exports, the cost of

¹More current information regarding cooperation and development initiatives is provided by the Office of Defense Cooperation, US Embassy in Azerbaijan.

the growth of the Armenian armed forces over the same period was 8.2 times lower than that of its eastern neighbour ([Stockholm International Peace Research Institute, 2021a](#)).

Furthermore, the comparison of military expenditures of GDP per capita during the period 2011–2020 suggest that Armenia has statistically increased its military spending in terms of GDP per capita by 57 per cent. Azerbaijan has followed a different trend over the same period with decreased military spending per capita by 34.5 per cent ([Stockholm International Peace Research Institute, 2021b](#)). Given the longer term of military investment and a high comparison value in 2011, Azerbaijan has accumulated more significant resources as Armenia was following behind, and only during 2016–2018 were both countries catching up with military spending in terms of GDP per capita. This trend suggests that the Armenian armed forces were concentrating fewer resources on defensive initiatives as the security dilemma of the Nagorno–Karabakh remained the high-stake issue. The underinvestment, given the stark circumstances, was based on asserted guarantees through the initiative of military cooperation with Russia. According to diplomatic accounts ([Broers, 2021](#)), that tool of cooperation has proven Russian influence in the Southern Caucasus.

Therefore, the regional security built-up just prior to the second Nagorno–Karabakh war was based on two competing courses with extensive arms accumulation efforts. This trend of regional development suggests that the strategic dimension of the conflict could be characterised by favourable conditions for both adversaries to pursue more dynamic and aggressive security policy initiatives. This became clear when there was a sudden eruption of war over Nagorno–Karabakh. Both competing governments were heavily counting on their strategic stances in the regional geopolitics. In the matter of their national strategic perspectives, a second lesson from this war's strategic dimension should be drawn.

The second lesson drawn from the strategic dimension of the war suggests that different choices of development and application of military capabilities were made by both countries. Regional affiliations based on different partnering for security and defence built-up caused two different approaches to how military capabilities should have been developed. In practical terms, those were choices that brought strategic implications for Azerbaijan and Armenia. The data related to import quantities of military equipment suggests that Azerbaijan opted for a diverse net of suppliers of arms ([Wezeman, Kuimova and Smith, 2021](#)). Turkey was identified as a supporter of armed unmanned aerial platforms and some other weapon systems just prior to the Nagorno–Karabakh war ([Bekdil, 2020](#)). Turkey had also been on a war campaign over its southern borders and some regions in Syria for an extended period ([The New York Times, 2020a](#), p. 12). Turkey's campaign there proved to be a testing ground for technological application and operational solutions. In these circumstances, Azerbaijan became an immediate beneficiary of Turkey's military modernisation, as Baku pursued intensive development of its national military capabilities. These initiatives are an example of coordinated built-up conducted between allies on the strategic level of security policy ([Natiqqizi, 2021](#)).

On the other hand, Armenia remained in a more stagnated mode prior to the latest Nagorno–Karabakh war. The stagnation was evident in the field of military reforms. Being a member of the Collective Security Treaty Organisation ([CSTO, 2019](#)), Armenia maintained close ties with Russia that declaratively ensured arms supply, the presence of Russian forces and continuous combined exercises. Russia has been exploiting Armenian frontier as the key area to maintain multiple impacts in the Southern Caucasus since the early 1990s. This mode of cooperation has not evolved into a significantly expanding military build-up in the case of Armenia. In the longer term, Armenian armed forces experienced organisational culture that was fundamentally built on reliance of Russian

security guaranties. More than that, such a patron-ensured security built-up orientation in Yerevan provided a political distraction from military modernisation and fitted well into adjusting to the pragmatism of diplomatic-military initiatives by Russia (Trenin, 2020). What is more, Armenians had been nominating themselves as the winning party from the previous war over Nagorno–Karabakh in the 1990s. That belief implied quite a strong self-assurance based on being able to dominate important high ground around Nagorno–Karabakh (Cornell, 2017, pp. 195–208).

Lessons drawn from the strategic dimension of the war highlight the composition of two competing security and defence affiliations that were built-up before the latest escalation. The competing security policy affiliation was the driving force of regional security initiatives. Prior to the 6-week war, the region was defined as accumulated with weapons despite the formal efforts of the UN and the Organisation of Security Cooperation in Europe to ban such a trend (Wezeman, Kuimova and Smith, 2021). Additionally, cooperation on two competing frontiers was based on different levels of security interests. Azerbaijan and Turkey formed a more comprehensive cooperation based on ethnic relations and expanded technology trade. While Russian–Armenian cooperation was formed in a pragmatic manner that led to vassal-driven cooperation. Such a pragmatic option was illustrated by Russia’s refusal to make any commitments under the CSTO (Welt and Bowen, 2021, p. 13) to the geographical domain of Nagorno–Karabakh and it refused to supply arms to Armenia during the recent war (Waal, 2021).

To sum up, the identified military cooperation courses before the second Nagorno–Karabakh war were different in terms of quality of assurance measures. In practical terms, different strategic interaction with allies in Baku and Yerevan led to distinct war fighting initiatives being applied by both adversary sides. The latest military clash over Nagorno–Karabakh was fought via varying strategic choices that led to different military choices on the ground. Due to the development of distinct war fighting capabilities, the interaction of strategic and military dimensions of that war is further discussed in the next chapter.

Military Dimension: Decisive Role of Modernity

Further analysis requires a shifting of attention from strategic implications that gradually led to the escalation of the war to practical implications of military measures. The later sphere of activities is what forms the military dimension of the war. That dimension is subsequent to the strategic level circumstances highlighted previously. The interface of strategic and military dimensions of war would suggest a theoretical notion that the contemporary military campaign is a complex act performed by a sovereign country or a group of sovereigns. Thus, in the case of the second Nagorno–Karabakh war, the two competing factions of regional military cooperation should not be underestimated when their fighting capabilities during the war are considered.

The military dimension of the second Nagorno–Karabakh war is discussed by highlighting the following qualities of the campaign: command and control, essences of manoeuvre warfare, flexibility of tactics, and the joint capabilities of the armed forces. All the mentioned qualities of a military campaign are further exemplified in this paragraph based on open-source research. After that, key lessons identified are listed at the end of the paragraph.

The condition of the command and control is one of those issues that might disrupt or enhance operational tempo in contemporary warfare. The western mindset of warfare implemented this idea in the following decades after World War II. Practical implications

and theoretical works of the US Air Force colonel John Boyd laid a solid background for this understanding (Osinga, 2015, pp. 48–54). Additionally, the rapid growth of technological solutions since the 1980s has had immense implications for new command and control (C2) capabilities. These capabilities are advocated by the US Department of Defence, and are followed up by multiple coalition partners working on updated radio nets, satellite communications and seeking progress on advanced data sharing solutions beyond the line-of-sight.

The second Nagorno–Karabakh war highlighted the two most important competing factors of C2 capabilities: reliability of secure communications and integrated sensors into data sharing. Both these aspects of reliable C2 require available technological solutions and personnel capable of operating this kind of technology. In both cases, the leading role was taken by the Azerbaijani side. Communications technology was not excluded from its constant upgrade of its armed forces. During the war, Azerbaijani armed forces demonstrated an ability to synchronise and conduct a flanking manoeuvre through southern and northern ground towards Nagorno–Karabakh (Lithuanian Land Force Command Staff, 2020, p. 6). Given the steep elevation and reduced line of sight of the area, this tactical initiative suggested an adopted C2 capability on their side.

Furthermore, the integration of surveillance and reconnaissance sensor data into the tactical decision cycle was also the strength of advancing Azerbaijani forces. In this matter, some research suggested (Shaikh and Rumbaugh, 2020) that technology supplied by Turkey and Israel played the fundamental role during the tactical campaign. The integration of sensors supported enhanced situational awareness of Azerbaijani forces and facilitated tactical decisions at various tactical levels (Mirza, 2021). Although the effectiveness and rapidness of these decision cycles was questioned (Anglim, 2021, p. 14) and still needs to be assessed.

Armenian forces were eager to fight on the defensive with an objective to hold planned elevated areas (Lithuanian Land Force Command Staff, 2020, p. 4). This operational choice led to the preparation of deliberate defensive positions with a more static landline and short distance communication capacity. Therefore, disrupted defensive lines and the switch to mobile defence during the last phase of the war suggested a possible mishandling of rapid C2 enablement as Armenian units were forced to adjust to manoeuvre warfare.

It is worth mentioning that manoeuvre warfare was another quality of warfare that implied tactical differences during the second Nagorno–Karabakh war. In this case, the Armenian side utilised a static deliberate defence as Azerbaijani forces relied on the offensive manoeuvre. Manoeuvre in this steep terrain required a rapid dispositioning and continuous support of integrated direct and indirect fire systems. This was a much more tactically demanding task given the restricted avenues of approach in Nagorno–Karabakh. A limited space for manoeuvre of weapon systems and the increased need to overwhelm the adversary with fire support distance was the essential part of the breakthrough advantage. In this war, tanks and armoured infantry-fighting vehicles became valuable targets. Neutralising these targets significantly downgraded manoeuvre capabilities. Fire outreach on this type of target was more successful on the Azerbaijani side (Lithuanian Land Force Command Staff, 2020, p. 12–15). Thus, the second Nagorno–Karabakh war demonstrated that tanks might turn from agile hunters into easily identified targets (Reynolds and Watling, 2020).

Military practice from that war suggested that the success in manoeuvre warfare would be highly dependent on integrated combat support capabilities. This is a classic notion of manoeuvre warfare that has proved itself on multiple occasions in contemporary military

campaigns (Rayburn and Sobchak, 2019, p. 288). The case of Nagorno–Karabakh demonstrated that the advantage of manoeuvre was not based solely on skilful tactics and exploitation of surrounding terrain. Although that could have been the operation planning estimate on the Armenian side (Remler, 2020). Furthermore, this war demonstrated the success of manoeuvre based on technological enhancements. This finding is supported by outstanding examples in the dominance of unmanned aerial vehicles (UAV) as an integrated weapon system. Previous observations of war fighting in Nagorno–Karabakh highlighted the improved application of unmanned aerial platforms and their effectiveness against armoured targets (Watling, 2020). But that is only one side of the coin.

The second side of the coin of manoeuvre warfare needs to be indicated. Elements of the Azerbaijani offensive operation suggested that their manoeuvre was intentionally covered by outreaching UAV capability and target data transmission. These technologically enabling elements of offensive manoeuvre required extended situational awareness and rapid target elimination with all available weapon systems. That is the quality of the offensive manoeuvre that needs to be assessed and adopted further beyond the case of the second Nagorno–Karabakh war.

To say more, a rapid manoeuvre enabled by enhanced situation awareness and backed by integrated fire support has a broader implication for the changing understanding of warfare. The high ground of Nagorno–Karabakh was a battlefield where deliberate defence on dominant terrain supported by massive artillery was met with rapid manoeuvre supported by increased situational awareness and precise strike capabilities. The effective set-up of war fighting capabilities needs a thorough examination by multiple countries concerned about contemporary defence.

Initial outcomes of the war suggested a more devastating fire and manoeuvre applied by Azerbaijani forces. Initial battle damage assessments suggested that Armenia lost about six times more tanks and about 16 times more artillery pieces, not to mention the destruction of air defence positions by integrated surveillance and strike capabilities of Azerbaijani forces (Lithuanian Land Force Command Staff, 2020, p. 16). Identified advantages in the military dimension of the war suggest that advanced manoeuvre supported by technological capabilities spared some additional troops for Azerbaijani forces to implement an additional offensive in the north and conduct an astounding light force manoeuvre to retake the highland of Shusha town (*The New York Times*, 2020b, p. 10). In practical terms, all this suggests that technologically advanced military forces have more flexibility of where and for what to task infantry. As the war over Nagorno–Karabakh has shown, the pure role of the infantry is still essential for consolidation of the gains.

This overview of the military dimension implied by strategic settings of this conflict suggests some key lessons from Nagorno–Karabakh that need to be learned. Firstly, there is an increased need to have a reliable and adaptive decision cycle in a contemporary war campaign. This decision cycle needs to be agile and resilient despite the environment, operational changes, and adversary effects.

Another lesson suggests that armoured formations need to be protected and exploited more thoroughly. Danger to armoured manoeuvre is concentrated not only in terrain obstacles, but in mine fields and the concentrated fire power of adversary. Another significant source of hazard is the increased lethality of unmanned aerial vehicles. As Gen. James C. McConville (2021), Chief of Staff of the US Army, has recently suggested, unmanned aerial vehicles should be estimated as a new improvised explosive device type of threat for the next 10 years. The development of armed UAV strike capability indicates a two-fold solution for protective armoured manoeuvre. A dispersed, fast, and coordinated

manoeuvre forms one way for a solution, as technological innovation for early detection and neutralisation of selective types of aerial platforms leads to an important supplementary role.

The third lesson indicates the importance of the joint approach to the application of military forces. During the second Nagorno–Karabakh war, two different war fighting capabilities collided. The outcome of this war reassures that there is no second place in the contemporary war. Furthermore, this war indicates that the joint force employment based on speed, range and convergence provide an increased possibility of victorious achievements. Contemporary warfare becomes a competition based on joint capabilities of irregular warfare elements, regular forces, and combat support empowered by educated, well trained specialists, and operators. All necessary elements must be addressed seriously in order to proceed in this long-term competition.

Conclusions: Expanding Dimensions of War

This article provided an assessment of the second Nagorno–Karabakh war that was based on two dimensions of an act of war. Those dimensions served as analytical categories that included security policy choices, military capabilities built-up initiatives and operational choices on the battlefield. The two-dimensional assessment enabled processes that parties at war have gone through to be categorised. The choice of overview in strategic and military dimensions of the war was explained by the aim to assess the imminent act of war and explain military built-up preconditions that led to it.

The review of initiatives in the strategic dimension suggested that the built-up of two competing security policy fractions in the South Caucasus was an influential factor. During the period of 2011–2020, political and financial indications in the strategic dimension revealed that Armenia and Azerbaijan were seeking continuous development of their military capabilities through the establishment of broader regional security cooperation. In this matter, both countries chose to expand military capacities in preparation for another campaign over the disputed Nagorno–Karabakh and adjacent territories.

The way both belligerents were building military capacity was different. The explanatory factor of a distinct path of military innovation and changes lies in between the alliance choices and military doctrine employment. In terms of the neoclassical realism, two intervening variables of civil-military relations and organisational culture had impacted security policy decisions in both countries. This definition suggests that the built-up of military capacity could be researched by employing an additional political–bureaucratic dimension.

The assessment of the military dimension of that war provided insights regarding tactical choices of both adversaries. The assessment revealed some significant differences in how the campaign was conducted on both sides. The build-up of capabilities in the strategic dimension had a direct impact on what tactical and technological solutions were used during the campaign. This overview might suggest that there is a strong top-down relation from strategic dimension decisions to military activities on the battleground. This interaction is identified from the narrow perspective of the 6-week war campaign. A much broader perspective might offer a different insight.

Further developments after the seizure of military operations suggested a continuous impact on political developments and strategic choices that would affect further advancement of this conflict. Azerbaijan gained ground control in this war and suppressed

Armenian forces significantly. That achievement brought a strong bargaining role for Baku in negotiating a truce. On the other hand, military defeat and surrender on the Armenian side gave rise to civil disturbances and increased pressure on the government in Yerevan. Thus, the immediate outcomes of this war suggest that the attainments of the military campaign had a direct impact on further political developments in both countries. As tactical activities were reduced, political elites in those countries were faced with future orientated choices and the need for reconciliation.

Further complex tensions in the region are also expected as national political decisions will drive strategic choices and form the path to further military capabilities. Reconsideration of military capabilities was evident outside of the region as well. For example, Ukraine, Poland, and some other European countries stepped in to obtain the battle-tested Turkish unmanned aerial technology and Israeli loitering munition solutions. More technological reconsiderations should follow as North Atlantic Treaty Organisation (NATO) allies examine enhanced protection of armoured units and future solutions to counter unmanned aerial platforms. Those re-examinations indicate that the second Nagorno–Karabakh war has kicked off multiple decisions in another important dimension of the contemporary warfare, the technological one.

Continuous developments in this region suggest that in war the results are not final. This is another classical Clausewitzian notion that has garnered empirical evidence in the Southern Caucasus. It took a generation between the first and the second Nagorno–Karabakh wars to turn over disputed territory and proceed with further integration. Given the fact that both countries were short of a consensus-based peace deal and Russia stepped in with peacekeeping forces, further developments in the political and strategic dimension of this war saga should be expected.

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