

# The 44-Day War in Nagorno-Karabakh

## Turkish Drone Success or Operational Art?

Lt. Col. Edward J. Erickson, PhD, U.S. Army, Retired

**H**ow do we explain Azerbaijan's stunning strategic victory in the fall of 2020 in what has come to be called the 44-Day War, or the Second Nagorno-Karabakh War? Some regional specialists simply observed, "The bigger and better equipped Azerbaijani army, backed by Turkey, overwhelmed the smaller and obsolescent Armenian force."<sup>1</sup> Another view is that Turkey "sent experienced military advisors to ... direct Baku's War Machine."<sup>2</sup> However, the most pervasive and widely held explanation today asserts that the use of Turkish and Israeli drones was such a tactical game changer that an Azerbaijani victory was preordained.<sup>3</sup>

In 2020, the Azerbaijani armed forces successfully conducted a joint operation to seize geographically and politically important parts of the Karabakh region from the Armenian army. The Azerbaijani strategic objective to recover large portions of Armenian-occupied territory proved achievable. Moreover, the unfolding Azerbaijani campaign design clearly demonstrated the hallmarks of operational art by effectively balancing ends, ways, and means. Operationally, the Azerbaijani armed forces' joint planning, preparation, and combat effectiveness proved decisive compared to that of its Armenian opponent. Azerbaijani success was achieved through an extended period of Turkish military assistance that was a critically important combat multiplier for the Azerbaijanis, but it was also

enabled by the acquisition of selected capabilities and capacities chosen by Azerbaijan. Ultimately, the success of Azerbaijan's 2020 campaign in Karabakh was the result of a sustained period of professionalization in its military institutions and complementary acquisition decisions.

### Background

The fractious history between Armenia and Azerbaijan dates back to the dissolution of the Russian Empire in 1917. However, by 1920, both republics were absorbed into the Soviet Union. Fighting between Soviet Armenians and Soviet Azerbaijanis began in the 1980s, and when both republics regained independence in 1991, problems immediately ignited over ownership of the Karabakh and Nakhchivan regions, both of which were an internationally recognized part of Azerbaijan.

The First Karabakh War was fought from 1992 to 1994 and resulted in the



**Previous page:** A man walks by a damaged house 29 September 2020 in the Tartar District of Azerbaijan. The damage occurred during clashes between Armenian and Azerbaijani forces over the disputed Nagorno-Karabakh region, with both countries trading accusations over which side escalated the conflict and shelled civilians. (Photo by Tofik Babayev, Xinhua/Alamy Live News)

loss of the mountainous Karabakh region to Armenia. Since that time, tensions remain high along the line of contact (LoC) that separated the combatants, and violations of the cease-fire have broken out episodically along the LoC.

On 2 April 2016, taking advantage of a minor provocation, Azerbaijani Special Forces (SF) attacked across the LoC to seize two villages, Talish and Madagis, three kilometers beyond the LoC.<sup>4</sup> They were successful in seizing eight square kilometers of territory, including Talish, but took heavy casualties including the SF brigade commander. Although Azerbaijani losses were severe, the operation provided proof that the army could operate its weapons systems and manage a modern close battle. A small and costly victory, perhaps, but one that clearly indicated that Azerbaijan was on the right track to modernize its armed forces.

## Military Cooperation and Modernization

Turkey and the newly independent Republic of Azerbaijan established a formal agreement for mutual military cooperation in 1992.<sup>5</sup> Further agreements in 1996 and 1999 extended financial aid to Azerbaijan and brought Azerbaijani soldiers to Kosovo under Turkish command. In 2000, Turkey began to export modern weapons to Azerbaijan. This was followed by a major effort of the Azerbaijani Ministry of Defense to modernize and reform its armed forces, a belated recognition that the Armenian armed forces maintained a qualitative edge over Azerbaijani forces.<sup>6</sup> The priority of this effort was to recast the military from a Soviet-style force to a NATO-style force, including embracing NATO-compatible doctrine and acquiring modern equipment. Oil and gas revenues subsidized these efforts.

In 2010, Turkey and Azerbaijan signed the Agreement on Strategic Partnership and Mutual Support (ASPMS).<sup>7</sup> Under this agreement, the Turks provided more robust professional military education and training opportunities for the Azerbaijani armed

forces, including joint training exercises. In 2018, there were seven joint exercises and in 2019, thirteen more joint exercises.<sup>8</sup> The joint maneuvers in late July and early August 2020 involved up to eleven thousand Turkish personnel and tested the combat readiness of Azerbaijani forces, fire support coordination, and military staff proficiency in planning and operations.<sup>9</sup> These annual exercises took place in Azerbaijan's Nakhchivan Autonomous Republic, which is adjacent to Turkey but disconnected from Azerbaijan itself.<sup>10</sup> In fact, the Turkish armed forces in 2020 maintained numerous active military training cooperation activities including sending training teams to partner nations and training military personnel from sixty-one countries in Turkish military institutions.<sup>11</sup>

According to retired Turkish army colonel Dr. Mesut Uyar, "Hundreds of Azerbaijani officers graduated from the Turkish military academies. The Azerbaijani Military Academy and General Staff College were founded by the Turkish military and for a period of time most of the lecturers and trainers were Turkish officers."<sup>12</sup> The success of this endeavor owes much to the fact that Turks and Azerbaijanis share a common Turkic language and have close cultural and historic ties.

In addition to Turkey, Azerbaijan receives significant military assistance from Israel, which established diplomatic relations with Azerbaijan in 1992. Today, Azerbaijan is a major energy supplier to Israel, and the relationship has matured into a full-scale military cooperation and modernization program.<sup>13</sup> In 2012, Azerbaijan purchased \$1.6 billion worth of weapons from Israel Aerospace Industries.<sup>14</sup> The Azerbaijanis followed up in 2016 with an additional \$5 billion and in 2017 with another \$127 million; most of this went to purchase unmanned aircraft (UAs) and satellite technology.<sup>15</sup> Moreover, the Israelis have helped equip Azerbaijan's Special Forces, installed

**Lt. Col. Edward J. Erickson, PhD, U.S. Army, retired,** is a professor of international relations at Antalya Bilim University in Antalya, Turkey. He retired as professor of military history at the Command and Staff College, Marine Corps University, in Quantico, Virginia, in 2017. During his career in the U.S. Army, he served in field artillery and foreign area officer assignments in the United States, Europe, and the Middle East.



An Azerbaijani soldier looks at a building 14 December 2020 in the town of Agdam, Azerbaijan, which was destroyed by Armenian forces during the First Nagorno-Karabakh War (1992–1994). The town and its surrounding district were returned to Azerbaijani control as part of an agreement that ended the Second Nagorno-Karabakh War. (Photo by Eddie Gerald, Alamy)

security systems in Azerbaijani airports, and upgraded tanks and armored vehicles.

Even for energy-rich Azerbaijan, the partnership is expensive, but it resulted in the acquisition of very modern military capabilities. The United States has also maintained a durable security assistance program with Azerbaijan that brought considerable numbers of Azerbaijani officers and NCOs to the United States for training, while their Armenian counterparts were trained in Russia. In 2019, U.S. security assistance funding to Azerbaijan amounted to over \$100 million, while Armenia received around \$4.2 million.<sup>16</sup> The “value-added” of western Turkish, Israeli, and American military assistance in comparison with Russian military assistance cannot be understated.

## Azerbaijani Military Capabilities and Capacity

By the fall of 2020, Azerbaijan had well-developed capabilities matched by significant capacity relative to Armenian forces. By that time, most of the army’s conventional military equipment inventory was composed of upgraded Soviet or more modern Russian systems,

including T-90 and upgraded T-72 tanks, BMP and BTR armored personnel carriers, and self-propelled and towed artillery. However, the priority of their acquisition program in the previous ten years had focused more narrowly on UA systems, ballistic missiles, and air defense systems. Tactically, Azerbaijan acquired a precision strike capability that allowed its soldiers to pinpoint and destroy almost anything within range of its UAs.

Equally as important, Azerbaijan purchased a large number of advanced ballistic missiles that complemented its longer-ranging UAs, effectively giving it operational-level reach. This enabled Azerbaijan’s military to conduct what is called the *deep battle* (operations beyond the immediate tactical battlefield into the enemy’s rear areas).<sup>17</sup>

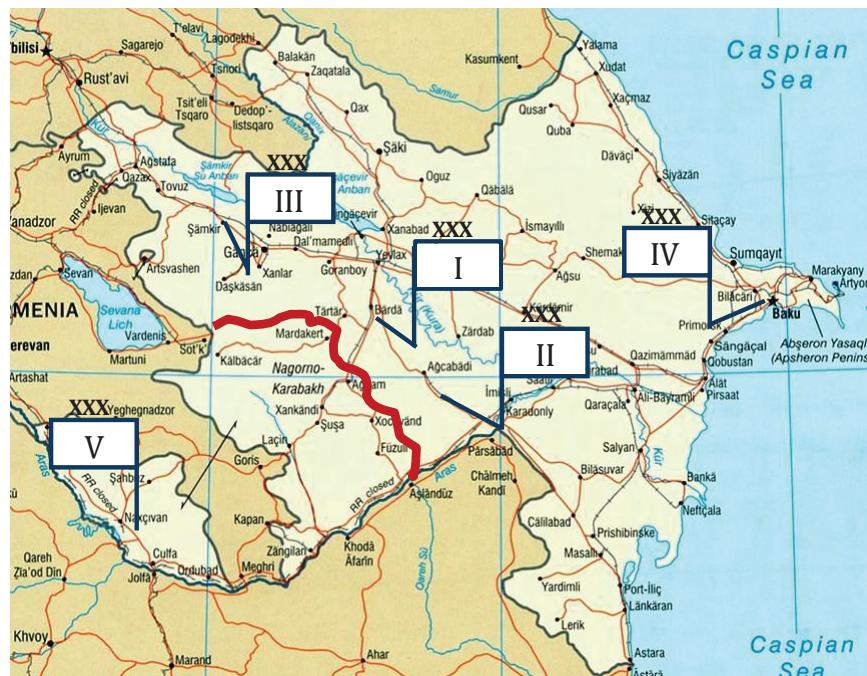
It is important to consider that capability acquisition and capacity development involves resource allocation decisions, particularly funding, time, and by assigning the most qualified personnel to the effort. While it is certain that Azerbaijan increased selected precision-strike capabilities, the recent war clearly demonstrated that the armed forces were unable to

develop corresponding capabilities in conventional units. This is evident from watching videos of Azerbaijani infantry and armored units being destroyed through their own inept tactics and incompetence.<sup>18</sup> We may infer from this evidence that Azerbaijan's choice of capability investment was asymmetric and weighted toward precision-strike systems that would be useful only in certain situations.

Defense analysts also point to the critical capability of Azerbaijani UAs and satellites as battlefield sensors that enabled the precision targeting of enemy positions and assets.<sup>19</sup> These sensors multiplied the effectiveness of Azerbaijan's UAs, ballistic missiles, and older guided missile systems, giving Azerbaijan close-range tactical strike capabilities matched by long-range operational-level strike capabilities. These complementary precision strike capabilities proved to be a game changer tactically, which enabled the Azerbaijanis to overcome well-prepared Armenian defenses on the high ground, and at a higher level of war, an operational game changer that enabled them to isolate the battlespace.

In terms of capacity, the Azerbaijani air force had a large and robust UA fleet including thirty-six Turkish Bayraktar TB2 UAs (armed with Roketsan MAM-L laser-guided munitions), forty-eight Israeli Harop loitering munitions, and a large number of Israeli Orbiter 1K loitering munitions, Elbit Hermes 450/900, SkyStriker, and Aerostar UAs.<sup>20</sup> Additionally, Azerbaijan locally manufactured Israeli UAs under license as well. The Azerbaijani air force missile inventory included the modern Israeli LORA ballistic missile (four launchers and fifty missiles), old Soviet SS-11s, and the Israeli EXTRA guided missile system (six launchers and fifty missiles).<sup>21</sup>

Complementing its UA and ballistic missile capability, Azerbaijan also invested in building a significant special operations force (SOF) capability that extended battlefield operations deep into the enemy's rear areas



(Map courtesy of Congressional Research Service)

**Figure 1. Azerbaijani Army Corps Headquarters**

to target and destroy command and control networks, critical infrastructure, and air defense systems. Turkish military assistance has been instrumental in developing the Azerbaijani SOF capability. The Azerbaijani special operations capability is now composed of a SOF command with four SOF commando units and a special naval warfare SOF unit.

Joint exercises in 2018 stressed joint interoperability and trained Azerbaijani personnel in the operation of Turkish weapons, while a 2018 "Command-Staff War Game" training exercise replicated SOF operations in mountainous terrain integrated with electronic warfare and precision munitions.<sup>22</sup> Over the course of 2019, Azerbaijan forces conducted thirteen joint SOF exercises with Turkish and Georgian SOF forces.<sup>23</sup>

Unlike the United States that has a chairman/joint staff system, Azerbaijan employs a classic general staff following the Turkish and German models.<sup>24</sup> The chief of the Azerbaijani General Staff leads a joint staff composed of staff officers from the army, the air force, and the navy, as well as officers specializing in SOF, personnel, and logistics.<sup>25</sup> The commanders of the army and the air force report to the chief and serve

as his principal deputies. A professional war college supports the education and training of the officers of the general staff.

Importantly, over the past thirty years, the Azerbaijani General Staff has been transformed from a Soviet-style general staff to a more western NATO-style general staff.<sup>26</sup> This transformation is largely due to the influence of the Turkish military through cooperation that implemented officer exchanges, provided training teams, and educated Azerbaijani officers in Turkish professional military educational institutions. As the reader will come to understand, the Azerbaijani military staffs planned and executed a remarkably successful operational-level campaign, which may be seen as the latest form of operational art that recovered much of Armenian-occupied Karabakh.

## The Military Balance

At the strategic level, the Republic of Azerbaijan clearly is more powerful in every meaningful measurement than the Republic of Armenia. In 2019, Azerbaijan had 10.3 million citizens, a median age of 32.6 years, a youth unemployment rate of 13.4 percent, a population below the poverty line of 4.9 percent, a real GDP of \$145.2 billion, and an industrialized economic sector of 53.5 percent.<sup>27</sup> Azerbaijan exported around 720,000 barrels of crude oil a day as well as produced large amounts of natural gas. According to the CIA, in 2019, Azerbaijan spent 4 percent of its GDP on defense, which provided approximately 67,000 total active military personnel: 56,000 army, 2,500 navy, and 8,500 air force.<sup>28</sup>

By contrast, in 2019, Armenia had three million citizens, a median age of 36.6 years, a youth unemployment rate of 36.3 percent, a population below the poverty line of 32 percent, a real GDP of \$40.4 billion, and an industrialized economic sector of 28.2 percent.<sup>29</sup> According to the CIA, in 2019, Armenia spent 4 percent of its GDP on defense, which provided approximately 45,000 active military personnel: 42,000 army and 3,000 air force/air defense.<sup>30</sup>

The demographic, economic, resource, and military advantages enjoyed by Azerbaijan are immediately evident. In terms of the operational military balance, the force disparity was equally lopsided. Azerbaijan outspent Armenia by a factor of three to one, resulting in a proportional overmatch of conventional military systems.<sup>31</sup>

**Employment of forces.** The Azerbaijani army uses a corps-and-brigade organizational structure rather than a NATO corps-and-division structure, and there are five army corps in its army.<sup>32</sup> The army corps headquarters are located as follows: I Corps in Barda, II Corps in Beylagan, III Corps in Shamkir, IV Corps in Baku, and V Corps (Separate) in Nakhchivan (see figure 1, page 4). In the summer of 2020, each army corps was composed of five brigades of mixed types. The army had three organized general support artillery brigades (long-range cannon and rocket artillery), of which two were assigned to II Corps and one was located with V Corps (Separate). Importantly, the assignment of two of the Azerbaijani army's three artillery brigades to II Corps indicated a priority of effort.

Unlike Azerbaijan, which modernized its forces for precision strike-based offensive operations, Armenia put the bulk of its available defense funds into defensive forces. In the twenty-first century, the Armenian air force purchased and deployed S-300 SAMs, Buk-M1-2 SAMs, and Tor-M2KM SAMs, giving them a robust and integrated air defense system.<sup>33</sup> Armenia augmented these by purchasing large quantities of shoulder-launched man-portable SAMs as well.

Armenia also purchased a few Russian ground attack aircraft to replace aging Soviet-era aircraft. However, the Armenian ground forces spent its available funds upgrading old Soviet tanks and artillery, improving communications equipment, and enhancing antitank systems. In terms of new capability, the Armenian Army purchased a small number of modern Russian Iskander-E (SS-26) surface-to-surface short-range ballistic missile systems to complement their aging fleet of Scud-Bs (SS-1C) and Scarab (SS-21) surface-to-surface ballistic missiles.

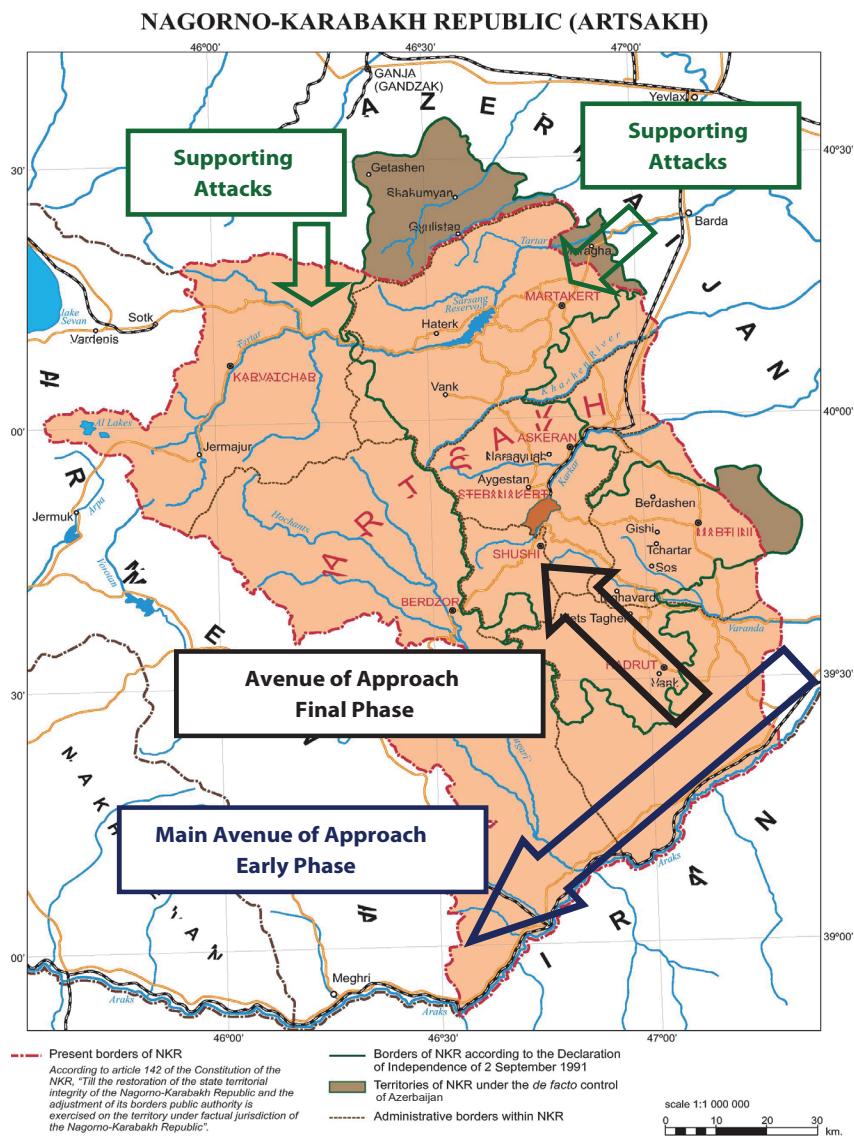
Four of Armenia's five army corps were deployed along the border with Azerbaijan. However, two faced east along the LoC and two more faced southwest against Nakhchivan (in opposite directions). The fifth army corps faced Turkey. This placed the Armenian army at great disadvantage because it could not concentrate the bulk of its forces against its principal enemy, the Azerbaijani army.

Separately, at the tactical level in Armenian-occupied Karabakh (known to the Armenians as the Republic of Artsakh), the Armenian army maintained an independent division-size force called the Artsakh Defense Army. (Armenian names for

geographic locations will hereinafter follow Azerbaijan names in parentheses.) The headquarters of this force is in the Artsakh capital, Stepanakert (Xankändi), and the force was composed of three motorized rifle brigades, a tank regiment, and supporting elements.<sup>34</sup> The Artsakh Defense Army reportedly received priority with light arms, heavy artillery, tanks, and armored vehicles from its parent Armenian army.

Over the past thirty years, the Armenian army in Karabakh invested heavily in fortifications such as bunkers, strongpoints, entrenchments, and protected positions for armored vehicles and artillery. This seemed to be a good investment because the fortifications significantly enhanced the defensibility of the naturally rugged mountainous terrain in eastern Karabakh. In fact, the difficulties that the Azerbaijani army encountered in the April 2016 clash seemed to validate the expenditure and effort.

**Momentum toward conflict.** As 2020 approached, what could be said about the condition and deployment of the Armenian army? First, only a small portion of its strength was available to defend against an attack on Karabakh. Second, it was equipped with weapons that proved of little use in combating the Azerbaijani army, particularly with regard to its networked and expensive air defense system that was useless when confronted with small UAs and ballistic missiles. Third, the Armenians failed to recognize the progress toward professionalization and modernization that the Azerbaijani forces had made, which led to Armenian overconfidence and perhaps even complacency. Fourth, the inherent defensive mindset and weapons inventories of the Armenian army left it unable to conduct successful offensive counterattacks to regain lost ground immediately. Cumulatively, these factors doomed Armenia to defeat in detail. On the “other



(Map courtesy of CIA Fact Book, "Azerbaijan")

**Figure 2. Operational Avenues of Approach**

side of the hill,” as we will see, the Azerbaijani military deployed a more NATO-like army capable of modern doctrinal campaign design and planning aligned with ultramodern UA tactics and technology.<sup>35</sup>

### Azerbaijani Campaign Planning

At present, Azerbaijan’s military forces have not revealed the specific ends of their grand strategy or their operational campaign plan. However, there is a wealth of open-source information about the tactical situation as it progressed for forty-four days during the conflict. From

this, it is possible to reconstruct the basic outline of their campaign design and overall plan. It is important to keep in mind that a campaign is a deliberate series of battles and encounters designed to achieve a strategic outcome. It appears that the latest campaign was designed to achieve the strategic outcome of liberating a substantial part of Armenian-occupied Karabakh.

The geography of Karabakh is critical to understanding the parameters of the Azerbaijani campaign plan (see figure 1). The Aras (Araxe) River originates in Turkey and flows east to the Caspian Sea. As the river leaves the mountainous region along the Iranian border, it forms a wide and flat valley in southern Karabakh. Even though the LoC and villages behind it were heavily fortified by the Artsakh Defense Army, the Aras Valley is an operational-level avenue of approach. Large-scale forces can mass and maneuver through the open terrain. To the north, and centered on the capital city of Stepanakert, the remainder of Karabakh is composed of high, rugged mountains that are unsuitable for large-scale conventional military operations.

While the rugged terrain favored the Armenians, it also imposed a significant strategic and operational liability on the Artsakh defenders in the form of the Lachin (Laçın) corridor. The corridor contains a single, all-weather, southwest-to-northeast road that runs from the town of Lachin bordering Armenia to Stepanakert; it is the *only major road* between Armenia and Karabakh. Assuming that one controls the Aras Valley, possession of the Lachin corridor (or the ability to interdict the corridor) effectively blocks the entry of goods into Artsakh itself. It is essential at this point to understand that the town of Shushi (Suşa/Shusha) sits on high ground adjacent to, and dominating, the Lachin-Stepanakert road.<sup>36</sup> Therefore Shushi became a key geographic feature that could be controlled in order to assure operational success.

Any planner designing a campaign would immediately select the Lachin corridor as the operational objective of the campaign to isolate the central mass of Artsakh by seizing or interdicting the only major road to Stepanakert. Achieving that objective isolates Artsakh and would immediately put Azerbaijani negotiators in a position to dictate the terms of a settlement or cease fire. Planners would also consider that winter weather would degrade significantly Azerbaijan's fleet of UAs and therefore impose constraints on the

operation. Campaign termination as winter weather developed would also limit Armenia's ability to conduct a counteroffensive and, moreover, prevent external Russian forces from timely intervention. Therefore, it is likely that timing the campaign to end in late November was a factor in planning.

The Azerbaijani campaign was composed of two phases with the main effort in the south (see figure 2, page 6). In the first phase, the main effort likely envisioned the seizure of the Aras Valley to establish a base for further operations. In this phase, smaller supporting attacks in north and east Artsakh would serve to fix Armenian forces in place and prevent the Artsakh Defense Army's ability to shift reserves against the Azerbaijani main effort. The second phase would then have been envisioned as pushing north into the rough mountainous terrain to cut the Lachin corridor. Possession of the corridor represented the military end state, placing Azerbaijan in a position to demand a cease fire or settlement on Azerbaijani terms. Failing that, the Azerbaijani army would be in an operationally favorable position to complete the conquest of Artsakh in the spring of 2021.

A key signature of the Azerbaijani campaign was the army's ability to plan and to conduct limited deep battle operations. As will be described, the targeting of the Armenian lines of communication indicates that Azerbaijani planners intended to isolate the Artsakh Defense Army tactically and operationally by conducting interdiction operations using ballistic missiles, SOF, and long-range UAs. In the fall of 2020, Azerbaijan did not just get lucky and overwhelm the Artsakh Defense Army with drones. Over the prior ten-year period, the Azerbaijanis deliberately procured particular types of weapons, trained selected units of their forces for particular types of operations, designed a joint campaign plan to isolate the battle space, and waited for the opportunity to put all of these endeavors together.

## The Road to War, July-September 2020

Between 2016 and 2020, tensions along the LoC remained high, and clashes between the opposing forces broke out frequently, characterized particularly by artillery barrages on the opposing side's bunkers and positions. In July 2020, a more substantial skirmish erupted when the Armenians undertook to restore a



This Armenian military truck was destroyed by Azerbaijani combat drone 7 November 2020 near the village of Khachen, Nagorno-Karabakh. (Photo by Eddie Gerald, Alamy)

disused border checkpoint near Movses in the Tavush District. The two-day clash began on 12 July 2020 and involved artillery and UA strikes.<sup>37</sup> Casualties were limited to about twenty on each side, but Azerbaijan lost a major general. Armenia claimed that it shot down thirteen Azerbaijani UAs, including Orbiter 2 and 3, and Harop systems.<sup>38</sup> It is unknown whether these reports were correct, but Maj. Gen. Daniel Balayan, head of Armenia's Military Aviation University, asserted the fighting had proven the Azerbaijani UAs to be "almost powerless in the face of the skillful air defense ... of the Armenian Army."<sup>39</sup> Consequently, at the time, British defense analysts reasoned that the Armenian forces felt sufficiently prepared to defeat Azerbaijani UAs. Nothing could have been further from the truth.

It is obvious that Azerbaijan drew different conclusions from these actions, and the government prepared for war. In a speech on 16 September, Azerbaijani minister of defense Col. Gen. Zakir Hasanov announced

that his forces stood ready to liberate the Armenian-occupied territories and had achieved a high state of readiness.<sup>40</sup> Azerbaijani media and news sources increased their coverage of reported Armenian provocations along the LoC. On 19 September, Hasanov met with his staff and ordered his forces to prepare for winter operations and to prepare logistically for combat operations, including instructions for COVID-19 precautions for military personnel.<sup>41</sup> Ministry of Defense officials inspected military border detachments the next day, and the Turkish Foreign Ministry announced that Turkey would back Azerbaijan if Armenia violated its territory. Azerbaijan called up reservists for active duty on 21 September and announced that serious provocations were increasing by the day.<sup>42</sup> The Azerbaijani army held tactical exercises two days later that included tanks and artillery units conducting live-fire training. On 26 September, the Ministry of Defense reported that Armenian forces had violated

the cease-fire forty-eight times within the previous twenty-four hours.<sup>43</sup> The accuracy of these reports is contested and may have been part of an Azerbaijani information campaign to rally public support. In any case, the next day, Hasanov reported that Armenia had attacked Azerbaijan and that fighting erupted along the entire LoC. President Ilham Aliyev declared a state of martial law in western Azerbaijan and announced that seven villages had already been liberated.

Full-scale hostilities began on 27 September 2020 in what is called the 44-Day War. The Azerbaijani Ministry of Defense announced that it was conducting a major counteroffensive in reaction to Armenian incursions and provocations, but this is obviously false. It is evident that Azerbaijan made deliberate preparations for offensive warfare and mobilized in the early summer. It is equally evident that the Azerbaijanis increased reporting on Armenian provocations along the LoC, but whether these were real or constructed as a *casus belli* is unclear today. What is clear is the well-prepared Azerbaijani military had concentrated its forces in advance and in preparation for the execution of its offensive campaign plan.

## The Early Phase of the Campaign

In late December 2020, after the end of hostilities, Aliyev announced that the Azerbaijani offensive had carried the name “Iron Fist.”<sup>44</sup> It is uncertain whether this was the actual name used by the army’s planners to identify the campaign plan or whether Iron Fist is simply a media byline. In any case, by following the daily progress of the army’s offensive through Azerbaijani Ministry of Defense news releases, the opening of the campaign reveals itself. II Corps, under the command of Maj. Gen. Mais Barkhudarov, conducted the army’s main effort, attacking southwest into the lower Aras Valley. The main effort tracks with the assignments and location of the army’s general support artillery and rocket brigades, which were needed to weight offensive operations.

Additional supporting attacks were conducted by Lt. Gen. Rovshan Akbarov’s III Corps and Maj. Gen. Hikmet Hasanov’s I Corps against Armenian fortifications in the Republic of Artsakh’s mountainous north and northeast respectively. The army’s SOF units, under the command of Lt. Gen. Hikmat Mirzayev, appear to have deployed mostly in the II

Corps zone of operations.<sup>45</sup> The offensive operations of II Corps seemed designed to seize control of the Aras Valley floor, while the supporting attacks of the I Corps and III Corps seemed designed to tie down Armenian army units from deploying south to reinforce the ongoing battles in the Aras Valley. These forces were under the overall command of Col. Gen. Karam Mustafayev, who is listed on the Azerbaijani Ministry of Defense webpage as the commander of the Combined Arms Army.<sup>46</sup> Lt. Gen. Ramiz Tahirov served as Mustafayev’s counterpart commander of the Azerbaijani air force.

At higher organizational levels, the Azerbaijani chief of the General Staff, Col. Gen. Najmeddin Sadikov, was relieved on his responsibilities two days after the outbreak of hostilities on 29 September 2020 for reasons that are unverified. The most popular opinion asserts that Sadikov was too close to the Russians, and the Russians were sympathetic to the Armenians.<sup>47</sup> Moreover, it has been suggested that Sadikov’s close associates were also relieved and that they were all interned for the duration of the war.<sup>48</sup> Publically, Sadikov’s biography was removed from the Azerbaijani Ministry of Defense’s webpage on 1 October 2020, and Azerbaijan announced on 28 January 2021 that Sadikov had retired from the army.

Russian newspapers reported that he had undergone open-heart surgery in Moscow.<sup>49</sup> Did Turkish generals supersede Sadikov to run Azerbaijan’s war? The Russian and Armenian press reported that three high-ranking Turkish generals participated in the conduct of planning and executing the campaign from the Baku headquarters, but this is unproven.<sup>50</sup> It is known that Turkish Lt. Gen. Şeref Öngay, Maj. Gen. Bahtiyar Ersay, and Maj. Gen. Göksel Kahya spent some time during September and October in Baku in a senior-level advisory capacity.<sup>51</sup> However, it is important to consider that Azerbaijan initiated the purge of Soviet/Russian-trained officers with the retirement of Col. Gen. Safar Abiyev in 2013.<sup>52</sup> Effectively, Turkish educated Azerbaijani officers had already achieved dominance by the middle of the decade. The author’s opinion is that it is very likely that the Azerbaijani general staff received advice in real time from the Turks, but it is unlikely that Turkish generals were actually in command of the campaign. It may be true that Azerbaijan hired Bayraktar company’s civilian UA pilots and also



**Figure 3. Armenian-Azerbaijani Agreement of 9 November 2020**

Bayraktar's experts to lead the UA effort; but again, this is unclear.

On the first day of the Azerbaijani offensive (27 September 2020) army artillery and air force UAs targeted the Armenian Osa (SA-8) and Strela-10 (SA-13) mobile short-range air defense systems and subsequently targeted S-300 launchers, 2K12 SAM batteries, and long-range air defense radars.<sup>53</sup> Like coalition campaigns in Iraq in 1991 and 2003, this gave the Azerbaijanis free rein to employ their large fleet of UAs to the fullest extent. On the ground, the Azerbaijani combined arms units (infantry, tanks, artillery, and combat engineers) made contact with the

defenders along the contested parts of the LoC and attacked the Armenian fortified positions. This was very costly, and early reports indicated that the Azerbaijanis suffered heavy casualties in both personnel and equipment (tanks and armored vehicles). The Armenians struck back by shelling and rocketing Azerbaijani cities and towns; Barda, Shamkir, Sabirkend, and Horadiz were all hit hard. Azerbaijan reciprocated by shelling Stepanakert, Shushi, Jabrayil (Cäbryil), and Zangilan (Zängilan) with artillery and rockets. The Azerbaijani cities of Ganja and Terter (Tärtär) as well as the contested town of Ağdam (Aghdam) would be shelled repeatedly during the next two weeks.

The destruction of Armenian equipment, especially tanks and armored vehicles, from precision strikes by the Turkish drones and the loitering munitions, was covered by the international media. In return, the Armenian antitank missile systems and artillery inflicted much damage and many casualties on the advancing Azerbaijani army. However, at the time, other than watching video clips of precision strikes, the outside world was unable to determine the course of the battles.

For the first three days, the opposing armies hammered away at each other, with the Azerbaijanis bearing the brunt of the losses during attacks on heavily fortified Armenian positions. However, while the frontline soldiers were engaged in a deadly close-in fight, the Azerbaijanis were also waging a longer-range deep battle to isolate the battlefield. For this fight, the Azerbaijanis used their Israeli ballistic missiles and their Turkish Bayraktar TB2 UAs, which gave them the ability to strike into Armenia itself. Open source media reported that Azerbaijani ballistic missiles struck the town of Martakert on 30 September and the Armenian city of Gavar in the Gegharkunik Province from 30 September to 1 October.<sup>54</sup>

Gegharkunik lies deep in Armenia, and Martakert lies on the road from Stepanakert to the northeastern front. It was also reported that the Azerbaijanis employed Israeli Lora short-range ballistic missiles to destroy bridges on the main road connecting Armenia with Artsakh.<sup>55</sup> Within Artsakh, Azerbaijan launched

paralyzing interdiction attacks along the Armenian tactical (or battlefield) lines of communications. Cumulatively, the behind-the-lines destruction of logistical nodes, supplies, and munitions rapidly affected the frontline Armenian combat troops as they began to run out of these vital commodities with which to fight and sustain themselves.<sup>56</sup>

It appears that the culmination point of the early parts of the campaign was reached on 3 October, by which date the Armenians had lost hundreds of tanks, artillery pieces and multiple launch rocket systems, and unarmored trucks and vehicles. Moreover, they had lost a large number of ammunition depots, a dozen command posts, and large amounts of munitions and food supplies in truck convoys destroyed along the lines of communications. On 3 October 2020, Aliyev's office made a public announcement noting that villages near Talish, Fizuli (Füzuli), and Jabrayil had been liberated. Aliyev also announced that Armenian riflemen were abandoning their positions under heavy Azerbaijani fire in Agdere (Ağdärä). Importantly, Aliyev congratulated I Army Corps commander Hikmet Hasanov on the liberation of Madagiz (Mataghis). Two days later the government announced the liberation of three more villages in Jabrayil. It is evident from the content and tone of these announcements that the war had already shifted in favor of Azerbaijan.

By 7 October, the Azerbaijani Ministry of Defense reported that Armenian regiments in the Aras Valley were suffering serious shortages of food, fuel, and ammunition, causing widespread desertion.<sup>57</sup> Over the next two days, the ministry reported more villages liberated, and that Armenian units attempting to withdraw or move during the daytime were invariably attacked from the air and destroyed. Throughout this period and in the following weeks, the Armenians continued to pound Azerbaijani towns and cities with ballistic missiles and rockets. The Armenian Army launched counterattacks to regain territory that failed badly. The Azerbaijani armed forces clearly had the operational and tactical initiative at this point in the campaign. By 10 October, Azerbaijan had liberated Jabrayil and many of the surrounding villages, in effect penetrating the Armenian's main line of defense. Azerbaijani media reported that after abandoning qualities of armored vehicles and equipment, defeated Armenian regiments withdrew northward toward the

town of Hadrut. Advances were also announced in the Khojavand and Fuzuli districts and, in the Aras Valley, II Corps pushed toward Zangilan.<sup>58</sup>

The Azerbaijani army closely pursued the retreating Armenians toward Hadrut and, by 13 October, had seized the heights overlooking the town. The details of the battle are not clear, but within two days, the Azerbaijanis controlled the town and the surrounding high ground. This victory put Azerbaijan in a tactical position to advance on the Lachin corridor. However, the army had to finish clearing the Aras Valley in order to assure the advance could be safely supported logistically. Conventional assaults cleared Khojavand (Martuni) and Fuzuli. A brief Russian-brokered humanitarian cease-fire on 18 October did not materially slow the Azerbaijani advances. By 20 October, II Corps had liberated Zangilan and its hinterlands and, on 23 October, Aliyev announced that the Angband (Aghband/Ağbänd) Settlement had been liberated, assuring that one hundred percent of the Iranian border was secured by the army.<sup>59</sup> We can infer from these announcements that II Corps had achieved control of the upper and lower Aras Valley. An American-brokered humanitarian cease-fire on 26 October broke down almost immediately. Thus, near the end of October 2020, the Azerbaijani armed forces successfully completed, but at great cost in soldiers and equipment, the first phase of the campaign.

## The Final Phase of the Campaign

The actual architecture of command in use by the Azerbaijani army during the 44-Day War remains unclear. However, it is known that Azerbaijan formed a "Joint Corps" under the command of SF Lt. Gen. Mirzayev for the final phase of the campaign.<sup>60</sup> The Joint Corps was composed predominantly of Mirzayev's SF units and would be termed by NATO planners as a special purpose task force. In any case, Azerbaijani SF pushed north from Hadrut taking the village of Chanakhchi (Avetaranots) on 29 October, putting them within twenty kilometers of Shushi and the Lachin corridor. However, the existing road network did not connect Hadrut with the corridor directly, forcing the lightly equipped SF to attack west across rugged mountains. Azerbaijani attacks to seize Lachin itself failed in the face of determined Armenian resistance.<sup>61</sup> Nevertheless, by 4 November, the Azerbaijanis

had cut the Lachin-Stepanakert road three kilometers south of Shushi. Azerbaijani artillery and rockets had pounded the Armenian defenders in Shushi intermittently for weeks before the final assault, but it intensified now for the final assault.

The final assault began on 4 November and, according to the media, it was very bloody. Supported by conventional army artillery and air force precision strikes, Azerbaijani SF scaled the high ground to the west of the town the next day and entered the town of Shushi itself on 6 November.<sup>62</sup> Two days later, Aliyev announced the victory while Mirzayev's SF soldiers pushed their perimeter several more kilometers north of Shushi and attacked east to seize the town of Suşakand. Azerbaijan's armed forces' victory at Shushi signaled the completion of the campaign and led to the termination of the war on terms dictated by Azerbaijan.

On 9 November 2020, Aliyev, Armenian Prime Minister Nikol Pashinyan, and Russian President Vladimir Putin signed an agreement ending hostilities.<sup>63</sup> They announced that the Russian-brokered agreement would go into effect the next day with Russian peace-keepers deploying to secure the Lachin corridor. Much to the surprise of many, the agreement went far beyond a simple cease-fire; it effectively amounted to an instrument of unconditional surrender with Armenia ceding large areas of Artsakh to Azerbaijan (see figure 3, page 10). Under the terms of the agreement, the areas already liberated by Azerbaijan would remain under its control. Armenia further pledged to withdraw from the Ağdam District by 20 November, the Kalbajar District by 25 November, and the Lachin District by 1 December. There were other clauses as well, with the most important for Azerbaijan being the creation of a guaranteed overland transit link with Nakhchivan and, for Armenia, a Russian-patrolled and guaranteed corridor from Lachin to Stepanakert.<sup>64</sup> This was a stunning and utterly unpredicted outcome that reduced the land area of the Republic of Artsakh by two-thirds and left it isolated and dependent on an easily interdictable corridor. The agreement left the Pashinyan administration significantly weakened politically and in danger of total collapse.

## Campaign Analysis

Much has been published already about the tactical lessons of the 44-Day War, including predictions about the supposedly diminishing future value of

armored vehicles, the value-added of relatively inexpensive UAs and loitering munitions, and the high number of equipment losses incurred when precision strike UA systems and munitions are employed.<sup>65</sup> However, we might keep in mind that many similar predictions were made after the Arab-Israeli War of 1973, suggesting that armor and ground attack aircraft were no longer as survivable on the modern battlefield as in previous wars.<sup>66</sup> I will leave predictions to other authors. Rather, then, what can we say about the Azerbaijani campaign?

First, the effect of the Turkish military cooperation effort over a sustained period has been very successful. While the performance of the Azerbaijani conventional forces appears less than stellar, especially at battalion level and below, it reflects the military priorities of the Azerbaijani armed forces. By deliberate choice, Azerbaijan selected certain capabilities over others. The Azerbaijani air force invested heavily in UAs and ballistic missiles, while the Azerbaijani army invested heavily in SF and command and staff training and education (at the expense of its conventional maneuver forces). Although some of this success can be attributed to the Israelis, most can be credited to the Turks.

Second, the apparent design of the campaign effectively balanced ends, ways, and means. The army concentrated its main conventional maneuver forces, reinforced by SOF and UAs, in the Aras Valley avenue of approach, where it fought a deliberate series of battles to secure a base from which to advance north. The selection of the Lachin corridor as the obvious operational objective of the campaign put the entire Armenian army remaining in Artsakh in an untenable position of extreme danger. The seizure of Shushi led to an immediate cessation of hostilities on terms dictated by Aliyev. In military terms, the Azerbaijani campaign's objective was geographically oriented rather than force oriented and led directly to the successful conclusion of the war.

Third, the Azerbaijanis leveraged their UA capability tactically, but they also leveraged their UA and ballistic missile capabilities at the operational level of war. Reading Azerbaijani day-by-day news releases from the Ministry of Defense, it is clear that the Armenian forces in Artsakh were weakened seriously through the Azerbaijani interdiction of their operational and tactical lines of communications. It is beyond doubt

that many of the Armenian forces in Artsakh ran out of ammunition, food, fuel, and other military supplies at critical moments. This is not a new approach to war, having been used from Normandy in 1944 to Kuwait in 1991. But it is somewhat surprising that the Azerbaijanis even attempted to conduct a deep battle operation. It is probable that the Azerbaijanis did not achieve all that they wanted to do in this regard, but their success was, to a certain extent, evident on the battlefield.

Fourth, the most decisive strategic outcomes result from campaign plans that put the enemy in an operational position from which it cannot recover. The seizure of Shushi achieved that because the shattered Armenian Army did not have the strength to recover the town. Holding Shushi ensured the interdiction of the Lachin corridor, making it only a matter of time before the surviving Armenian forces in Artsakh would have had to surrender unconditionally. The agreement signed by Pashinyan definitively proves this point.

Fifth, in terms of “jointness,” the Azerbaijani air force, army, and navy appear to have fought well together. The full extent of their joint coordination is unknown, but it is evident, for example, that air force UAs directly and successfully supported army units in contact. It is clear, for example, that a Joint Corps (a special joint task force) was activated under the command of Mirzayev for the advance and seizure of Shushi. Mirzayev’s Joint Corps combined forces and assets from several services successfully during the final battles of the war.

Lastly, combat is the province of the unknown and of uncertainty, and there is no “sure thing” in war. Carl von Clausewitz’s *On War* is all about this phenomenon. An Azerbaijani victory was never a

sure thing. The Azerbaijani main effort concentrated a relatively small number of modern precision strike and sensor assets on critical Armenian combat assets and capabilities to achieve decisive superiorities. It is appropriate to call this the application of operational art. Within several days of the advent of hostilities, the Azerbaijanis achieved mastery of the battlespace, which gave them freedom of action and the initiative. In layman’s terminology, Azerbaijan owned the battlefield. This is no small accomplishment for any armed force and is, of itself, noteworthy. This is not to say that the Azerbaijani armed forces performed flawlessly; they did not. But what they did right exceeded the sum of their mistakes.

## Conclusion

It is beyond doubt that the Azerbaijani armed forces’ successful 2020 campaign to recover important parts of Armenian-occupied Karabakh from the Armenian army was a resounding success. The campaign owed much more to the careful balancing of operational-level ends, ways, and means to achieve strategic goals than to UAs and drones. Moreover, Azerbaijani joint planning, preparation, and combat effectiveness proved decisively superior to that of its Armenian opponent. It may also be said that Turkish military assistance and deliberate choices in capability and capacity development enabled Azerbaijan to demonstrate a renewal of operational art in the twenty-first century. Ultimately, the success of Azerbaijan’s 2020 campaign in Karabakh was the result of a sustained period of professionalization of its military institutions and complementary acquisition decisions. ■

---

## Notes

1. Michael A. Reynolds, “Confidence and Catastrophe: Armenia and the Second Karabakh War,” *War on the Rocks*, 11 January 2021, accessed 22 June 2021, <https://warontherocks.com/2021/01/confidence-and-catastrophe-armenia-and-the-second-nagorno-karabakh-war/>.

2. Simon Ostrovsky, “How Azerbaijan Won the Karabakh War,” *NewsOnLine Magazine*, 6 January 2021, accessed 3 July 2021, <https://pulitzercenter.org/stories/how-azerbaijan-won-karabakh-war/>.

3. James Marston and Brett Forrest, “Armed Low Cost Drones, Made by Turkey, Reshape Battlefields and Geopolitics,” *Wall Street Journal*, 3 June 2021, 1.

4. “Azerbaijan, Army,” *Janes Country Intelligence*, 14 December 2020, 6, accessed 21 January 2021, <https://www.janes.com/country-risk-intelligence>.

5. Mehmet Fatih Öztarsu, “Military Relations of Turkey and Azerbaijan,” *Strategic Outlook* 1, no. 2 (July 2011): 2.

6. James Bosbotinis, “Assessing the Modernization of Azerbaijan’s Armed Forces and Its Implications for Regional Security,” *RUSI Newsbrief* 27, no. 11, 6 November 2007.

7. Vasif Huseynov, “Azerbaijan, Turkey Hold Large-Scale Military Drills Amidst Escalation of Tensions with Armenia,” *Eurasia Daily Monitor* 17, no. 121, 14 August 2020, accessed 22 June 2021, <https://jamestown.org/program/azerbaijan-turkey-hold-large-scale-military-drills-amidst-escalation-of-tensions-with-armenia/>.

8. Ibid.
9. Ibid.
10. "Nakhchivan Autonomous Republic," Azerbaijani Presidential Library, accessed 6 July 2021, [https://nakhchivan.preslib.az/en\\_b1.html](https://nakhchivan.preslib.az/en_b1.html).
11. "TAF Military Training Cooperation Activities," Republic of Turkey, Ministry of National Defence, General Staff, accessed 22 June 2021, <https://www.tsk.tr/Sayfalar?viewName=TafMilitaryTrainingAndCooperation>.
12. Mesut Uyar, email message to author, 31 January 2021.
13. Taras Kuzio, "The Role of Israel in Azerbaijan's Victory in Nagorno-Karabakh," RUSI Newsbrief 41, no. 5, 4 June 2021.
14. Emil Avdaliani, "Defying Geography: The Israel-Azerbaijan Partnership," The Begin-Sadat Center for Strategic Studies, 31 August 2020, accessed 1 July 2021, <https://besacenter.org/israel-azerbaijan-partnership/>.
15. For an excellent explanation of Turkey's drone industry, see Harun Karčić, "Turkey, Rising Drone Power," RUSI Newsbrief 41, no. 1, 29 January 2021.
16. "US Allocated \$100 Million in Security Aid to Azerbaijan in 2018-2019," USC Dornsife Institute of Armenian Studies, 17 July 2019, accessed 22 June 2021, <https://armenian.usc.edu/us-allocates-100-million-in-security-aid-to-azerbaijan/>.
17. Jack Watling and Sidharth Kaushal, "The Democratization of Precision Strike in the Nagorno Karabakh Conflict," RUSI, 22 October 2020, accessed 22 June 2021, <https://rusi.org/explore-our-research/publications/commentary/the-democratization-of-precision-strike-in-the-nagorno-karabakh-conflict>; Gary M. Brito and Keith T. Boring, "Disrupted, Degraded, Denied, but Dominant: The Future Multi-Domain Operational Environment," in *Deep Maneuver: Historical Case Studies of Maneuver in Large-Scale Combat Operations*, ed. Jack D. Kem (Fort Leavenworth, KS: Army University Press, 2018), 233–38.
18. *Nagorno-Karabakh Conflict: Dozens Killed as Armenia-Azerbaijan Fighting Enters Second Day*, YouTube video, posted by "France 24," 28 September 2020, accessed 7 July 2021, <https://www.youtube.com/watch?v=5UEtfdG2Tks>; *Nagorno-Karabakh: Heavy Clashes between Armenian & Azerbaijani Forces as Both Declare State Of War*, YouTube video, posted by "WarLeaks," 28 September 2020, accessed 7 July 2021, <https://www.youtube.com/watch?v=vcyvV4lsy9Y>.
19. Watling and Kaushal, "The Democratization of Precision Strike"; Brito and Boring, "Disrupted, Degraded, Denied, but Dominant."
20. "Azerbaijan, Air Force," in *Jane's World Air Forces* (Coulsdon, UK: Janes, 10 December 2020), 11–12.
21. Shaan Shiakh and Wes Rumbaugh, "The Air and Missile War in Karabakh: Lessons for the Future of Strike and Defense," Center for Strategic and International Studies, 8 December 2020, accessed 22 June 2021, <https://www.csis.org/analysis/air-and-missile-war-karabakh-lessons-future-strike-and-defense>.
22. "Azerbaijan, Special Operations Forces," in *Jane's Amphibious and Special Forces* (Coulsdon, UK: Janes, 6 October 2020), 2.
23. Ibid.
24. For a brief but though narrative of the origins of the Prussian and German general staff system, see Daniel J. Hughes and Richard L. DiNardo, *Imperial Germany and War, 1871-1918* (Lawrence, KS: University Press of Kansas, 2018), 6–9.
25. "First Deputy Minister of Defence—Chief of Staff of the Armed Forces," Ministry of Defence of the Republic of Azerbaijan, accessed 24 June 2021, <https://mod.gov.az/en/>
26. Ibid.
27. "Azerbaijan," The World Factbook, last updated 8 June 2021, accessed 24 June 2021, <https://www.cia.gov/the-world-factbook/countries/azerbaijan/>.
28. Ibid.
29. "Armenia," The World Factbook, last updated 8 June 2021, accessed 24 June 2021, <https://www.cia.gov/the-world-factbook/countries/armenia/>.
30. Ibid.
31. Michael Kofman, "Unmanned Strategy: The Fight for Karabakh," *Janes Defense Weekly*, 12 January 2021, 5.
32. "Azerbaijan, Army," 7–10.
33. "Armenia, Air Force," in *Jane's Sentinel Security Assessment: Russia and the CIS* (Coulsdon, UK: Janes, 10 December 2020), 3.
34. "Armenia, Army," in *Jane's Sentinel Security Assessment* (Coulsdon, UK: Janes, 10 December 2020), 13.
35. Fuad Shahbazov, "Tactical Reasons behind Military Breakthrough in Karabakh Conflict," *Eurasia Daily Monitor* 17, no. 155 (3 November 2020).
36. Nur Özkan Erbay, "Erdoğan Visits Azerbaijan's Liberated Shusha," *Daily Sabah* (website), 15 June 2021, accessed 1 July 2021, <https://www.dailysabah.com/politics/diplomacy/erdogan-visits-azerbaijans-liberated-shusha>. The writer provides a vivid description of the tactical importance of the town.
37. Vasif Huseynov, *The July 2020 Clashes on the Armenia – Azerbaijan Border and Implications for the Old Conflict* (Vienna: Center of Analysis of International, 2020), 8–9.
38. Tim Ripley and Samuel Cranny-Evans, "Unmanned Strategy: The Fight for Karabakh," *Janes Defence Weekly*, 12 January 2021, 4.
39. Ibid.
40. Akbar Mammadov, "Defense Minister: Azerbaijani Army Ready to Liberate Occupied Territories," *Azernews* (website), 17 September 2020, accessed 1 July 2021, <https://www.azernews.az/nation/169034.html>.
41. Trend, "Defense Minister: Azerbaijani Army Ready to Suppress, Retaliate for Any Provocation of Armenia," *Azernews* (website), 19 September 2020, accessed 1 July 2021, [https://www.azernews.az/news.php?news\\_id=169125&cat=nation](https://www.azernews.az/news.php?news_id=169125&cat=nation).
42. Akbar Mammadov, "Reservists in Azerbaijan Are Called for Military Training," *Azernews* (website), 21 September 2020, accessed 1 July 2021, [https://www.azernews.az/news.php?news\\_id=169138&cat=nation](https://www.azernews.az/news.php?news_id=169138&cat=nation).
43. Trend, "Armenia Violates Ceasefire with Azerbaijan 48 Times," *Azernews* (website), 26 September 2020, accessed 1 July 2021, <https://www.azernews.az/aggression/169367.html>.
44. "'Iron Fist' Operation Being Studied by Leading Military Centers, Specialists—President Aliyev," Trend, 29 December 2020, accessed 1 July 2021, <https://en.trend.az/azerbaijan/politics/3357365.html>.
45. *Azernews*, 27–30 September 2020, *passim*.
46. "Deputy Minister of Defence—Commander of the Combined Arms Army," Ministry of Defence of the Republic of Azerbaijan, accessed 24 June 2021, <https://mod.gov.az/en/deputy-minister-of-defence-commander-of-the-combined-arms-army-620/>.
47. Professor Cemil Hasanlı, email message to author, 30 January 2020.
48. Andrey Veselov, "Who Were the Turkish Generals That Led the [Azeri] Attack on Nagorno-Karabakh?," Vz.ru, 12 November 2020, cited by MEMRI, accessed 28 June 2021, <https://www.merri.org>.

[memri.org/reports/russian-media-outlet-vzru-azerbaijani-army-being-purged-officers-and-generals-who-started#\\_edn1](http://memri.org/reports/russian-media-outlet-vzru-azerbaijani-army-being-purged-officers-and-generals-who-started#_edn1).

49. "Azerbaijani MoD: Najmeddin Sadikov Is Not Currently in Military Service," APA News Agency (Moscow), 28 January 2021, accessed 28 June 2021, <https://apa.az/en/xeber/azerbaijan-army-azerbaijani-armed-forces/Azerbaijani-MoD-Najmeddin-Sadikov-is-not-currently-in-military-service-coloredEXCLUSIVEcolor-341330>.

50. Harut Sassounian, "Turkish Generals Led War on Artsakh. This Was a Turkish, Not Azerbaijani, Victory," *The Armenian Weekly*, 28 December 2020; see also Veselov, "Who Were the Turkish Generals?"

51. Ibid.

52. Mesut Uyar, email message to author, 31 January 2021.

53. Sébastien Roblin, "What Open Source Evidence Tells Us about the Karabakh War," *Forbes* (website), 23 October 2020, accessed 28 June 2021, <https://www.forbes.com/sites/sebastien-roblin/2020/10/23/what-open-source-evidence-tells-us-about-the-nagorno-karabakh-war/?sh=648f269b6f4b>.

54. "Three Civilians Killed in Martakert Following an Azerbaijani Air Strike. Human Rights Defender," Aravot (Yerevan), 30 September 2020, accessed 6 July 2021, <https://www.aravot-en.am/2020/09/30/265667/>; "On Fact – Finding Activities in Villages of Gegharkunik Province of Armenia Damaged by Azerbaijani Military Attacks 30 September – 1 October," Aravot (Yerevan), 3 October 2020, accessed 6 July 2021, <https://www.aravot-en.am/2020/10/03/266119/>.

55. Joseph Trevithick, "Video Points to Azerbaijan's First Use of Israeli-Made Ballistic Missile against Armenia," *The War Zone*, 2 October 2020, accessed 29 June 2021, <https://www.thedrive.com/the-war-zone/36877/video-points-to-azerbaijans-first-use-of-israeli-made-ballistic-missile-against-armenia>; Shahbazov, "Tactical Reasons behind Military Breakthrough."

56. "Azerbaijan's Aggression Threatens the World," Aravot, 28 September 2020; "We Are Going to Shoot at Them until They Wake Up," Aravot, 29 September 2020; "Suffering Heavy Losses," Azernews, 30 September 2020.

57. "Armenian Servicemen Flee," Azernews, 7 October 2020.

58. "Armenian Armed Forces Attempt to Regain Lost Positions," Azernews, 10 October 2020.

59. "Azerbaijan Liberates 13 More Villages," Azernews, 19 October 2020; "Head of State Noted Liberations," Azernews, 20 October 2020.

60. "Victorious Commander-in-Chief, President Azerbaijan Ilham Aliyev Calls Commander of the Joint Corps, Lieutenant General Hikmat Mirzayev," MENAFN, 8 November 2020, accessed 29 June 2021, <https://menafn.com/1101090956/Victorious-Commander-in-Chief-President-Azerbaijan-Ilham-Aliyev-calls-Commander-of-the-Joint-Corps-Lieutenant-General-Hikmat-Mirzayev&source=30>.

61. *Azerbaijan and Armenia: The Nagorno Karabakh Conflict*, Congressional Research Service (CRS) Report R46651 (Washington, DC: CRS, 7 January 2021), 9–10.

62. Ibid., 11.

63. Ibid., 13.

64. Ibid., 14–15.

65. Michael Kofman, "A Look at the Military Lessons of the Nagorno-Karabakh Conflict," *Moscow Times* (website), 21 December 2020, accessed 1 July 2021, <https://www.themoscowtimes.com/2020/12/21/a-look-at-the-military-lessons-of-the-nagorno-karabakh-conflict-a72424>.

66. See, for example, Field Manual 100-5, *Operations* (Washington, DC: U.S. Government Printing Office, 1 July 1976 [obsolete]), 2-1-2-22; Chaim Herzog, *The War of Atonement October, 1973* (Boston: Little, Brown, 1975), 270–76.