

# The Use of Helicopters against Guerrillas

## The Israeli Model

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Since its establishment, the State of Israel has been facing a bloody struggle against terrorism and guerrilla warfare, in addition to four conventional wars.<sup>1</sup> The Israeli war against guerrilla fighters or terrorists began almost immediately after the War of Independence. Palestinian terrorists attempted to infiltrate Israel from the surrounding Arab countries and perform sabotage actions near the border, which were little more than lines drawn on a map and proved wholly inadequate in stopping the infiltrations. After the 1967 war, most terrorists crossed over from Jordan. Following the “Black September” conflict in 1970 and up until 1982 (Operation Peace for Galilee), most terrorists infiltrated through the Lebanese border. In the 1980s and 1990s, Israel fought against the Shiite Amal Movement and Hezbollah organization in Lebanon. Since October 2000, Israel has struggled against widespread military uprisings in the West Bank and the Gaza Strip.

To counter these activities, the Israel Defense Forces (IDF) uses various operational methods. Special Forces have raided known terrorist bases and routine security activities have been conducted along the borders and in the major cities. A third method has been targeting specific terrorist leaders or installations in the Middle East and in Europe. Most operations of the first and third categories are still classified. The IDF has launched a few large attacks targeting terrorist infrastructure—for example Karameh and Litany—with the most extensive one being the Lebanon War (1982), at least initially. In these large-scale operations, Israel has deployed massive infantry, armor, and artillery forces. Infantry and Special Forces stood at the forefront of the war against terrorism.<sup>2</sup> Since the Six-Day War, the IDF has begun to utilize a new instrument—the Israeli Air Force (IAF).

This article will examine the IAF’s use of helicopters in the war against terrorism. The purpose of this article is to demonstrate the specificity of IAF use of attack helicopters (AH) as compared with other armies fighting terror in the world today. The first part of the article will present a theoretical framework to analyze the use of helicopters in low-intensity conflict (LIC). To develop the operational framework for helicopter use in the Israeli army, the second part will analyze of use of helicopters in various other armies.

## **Airpower and the War against Terrorism/Guerrilla— The Theoretical Framework**

The use of airpower in general, and helicopters in particular, may be integral to the attainment of various counter guerrilla objectives.<sup>3</sup> The inclusive aim of the counter guerrilla campaign is to destroy the organization's political and operational infrastructures. This goal can be achieved by deterioration and attrition of the guerrilla forces that enjoy widespread popular support of the local population and are intimately acquainted with the area of operations. The counter guerrilla campaign must then be conducted in two parallel dimensions. The first one is the *civic dimension*, and its goal to isolate the guerrilla warrior from his civilian support or, to paraphrase Mao Zedong, to withhold water from the fish.<sup>4</sup> The civic action must include psychological warfare and a variety of political, economic, and sociological measures intended to improve the living conditions of the civilian population.<sup>5</sup>

The second dimension is the *military dimension*. The primary objective of any army fighting a guerrilla force is to minimize its own casualties as much as possible. The army must therefore bring its technological superiority to the battlefield. In the military actions against guerrilla units, the air force plays an important role. Airpower gives operational flexibility, high mobility, superiority in firepower, better maneuver capability, and real-time combat intelligence. When we say *air force* we mean combat aircraft capable of quick and powerful attacks at (almost) any time, in every terrain and in every weather, including assault helicopters; unmanned air vehicle (UAV) for real-time intelligence; airborne command, control, communications, and intelligence (C3I) systems, and AH.<sup>6</sup>

The major characteristic of counter guerrilla warfare is its asymmetry, because the opponents are unequal in technological means. The IDF's superior technology is best exemplified through the IAF. Regular armies fighting guerrilla units have always held the technological advantage. Though a country must utilize its technological advantage when fighting terrorism, it must seek whenever possible to avoid noncombatant casualties.

The AH has become a major instrument in the struggle against guerrillas. It exhibits a high level of mobility over any kind of terrain, it has a long operating range, and it is able to concentrate a comparatively large and precise volume of fire. As opposed to ground forces, the helicopter need not be exposed to direct or indirect enemy fire. This point is especially important, because history has taught us that the occupation of a territory is often useless when fighting guerrilla warriors. Furthermore, regular units occupying static positions are easy targets for guerrilla fighters and prove to be logistical nightmares. Indeed, most IDF casualties in Lebanon were suffered during non-offensive activity such as road-clearing

and supply operations or base security.<sup>7</sup> When the IDF took the initiative, its operational ability, coupled with its technology superiority, became lethal.

The AH holds another advantage; it can carry long-range precise ammunition. The AH can escort assault helicopters that insert/extract a ground task force and provide close air support (CAS) en route, at the landing zone, and during evacuation. The last advantage is the AH's versatility. Guerrilla warfare is defined as a war without fronts, and guerrilla fighters can attack anywhere and at any time. It is impossible to hold any territory with massive ground forces, especially because it cannot be predictable when and where the guerrilla will attack. The AH can come quickly to the fire zone and provide mass fire support to the ground forces, and assault helicopters can bring to the field more forces to block the or to encircle the guerrilla. This course of action was very common in Vietnam and during the Soviet intervention in Afghanistan.<sup>8</sup> In some way this is the main mission of the AH, i.e., attack the primary infiltration routes of the enemy (in the case of high-intensity conflict—the armor masses) in every place where the defense line can collapse or even where it does not exist.

To the multiple quantity and quality advantages of the AH we need to add another advantage that of inestimable value. As has already been argued, guerrilla warfare is characterized by its asymmetric balance, and the use of airpower presents the technological superiority of the stronger adversary; thus, we get an important basis to psychological warfare. If leaders use airpower precisely and inflict significant damage to the guerrilla infrastructure, airpower becomes an important tool in refuting guerrillas' belief and propaganda asserting that they can win. The ability to launch an unseen surprise and powerful strike and then fall back can also inflict mental damage upon guerrilla fighters. From evidence that has been taken from Palestinians after the IAF's AH attacks in the West Bank and Gaza, respondents mention the fact that they failed to see the helicopters approach the area and that the first missile barrage was sudden, quick, and deadly. Without entering a moral and political argument about such Israeli targeted killings, this demonstrates the tremendous capability of the AH to hit the human and logistics infrastructure of a terrorist organization.

However, the helicopter also has some disadvantages. Of primary concern is the high vulnerability of an expensive and sophisticated platform to cheap and unsophisticated weapons such as anti-aircraft artillery (AAA) or machine guns. The helicopters that fly at low attitudes are more exposed to AAA. Thus, for example, in October 1993, Somali rebels using RPG-7 unguided, shoulder-launched, antitank rocket-propelled grenade launchers shot down two US UH-60 Black Hawks in Mogadishu, Somalia, during Operation Gothic Serpent. Today, we still do not possess the technology that can warn pilots before such simple weapons

are aimed at them. Another disadvantage is the difficulty to operate helicopters in bad weather. Poor visibility (night or fog) also can limit the ability of the helicopter to fly. However, the visibility problems can be solved by unique night vision system—such as the Pilot Night Vision System. Still, despite its vulnerability, the AH can launch its guided missiles from a safe distance that can surprise guerrilla combatants.<sup>9</sup> Until the guerrilla has figured out what happened, the helicopter can be far away outside the danger zone. The launch-and-forget capability of the AH-64 Apache, for example, gives the technological superiority to the military fighting against guerrillas or terrorists. The combination between high mobility and strong firepower make the AH an effective and lethal weapon that is very beneficial in the war against irregular fighters.<sup>10</sup>

### **Helicopters in the IDF: The First Phase (to 1975)**

There are two main phases in the operational use of the helicopters in the IDF. The first period began in May 1951, when the first helicopters arrived to Israel. In this period, the helicopters were used for observing, reconnaissance, intelligence collection, and transporting commanders and units to and from the battle fields. The second phase began after the lessons learned from the Yom Kippur War (October 1973). In this war, the IAF suffered heavy losses from the massive surface-to-air (SAM) formations in both fronts. The IAF failed to block the aggressive Syrian and Egyptian armor incursions, and also the IAF did not successfully provide CAS to the Israeli armor and infantry units. The ground forces, after witnessing one aircraft after another being shot down, avoided calling for CAS. After the war, the IDF decided to bring into service the AH for a better response against armor columns and to overcome the obstacles of Israeli enemies' SAM systems in the future. Since the late 1960s, the United States has been Israel's main weapon supplier, particularly of aircraft;<sup>11</sup> thus, it was natural that Israel would also buy American AH from the United States. In April 1975, the first AH-1Q Cobra<sup>12</sup> arrived in Israel, and shortly thereafter, Israel also bought MD-500 Defenders.<sup>13</sup> During the first half of the 1990s, the IDF procured the AH-64 Apache.<sup>14</sup>

Despite the IAF operating helicopters since the 1950s, the aircraft saw action only after the Six-Day War. After this war, the main operation of the IAF was in the War of Attrition, especially in the southern and the eastern fronts.<sup>15</sup> In the beginning of the War of Attrition (1968), the IAF used fixed-wing aircraft to bomb targets in Egypt, Jordan, and later Syria and Lebanon. At the same time, the IDF operated helicopters to transfer troops for search-and-destroy missions in pursuit of terrorists who tried to cross the Jordan River. Also, the helicopters landed special forces behind enemy lines, mostly in Egypt. This followed the American model, which had been developed during the Vietnam War,<sup>16</sup> and the

Israeli infantry brigades became air assault units. To demonstrate the importance of the helicopters during the Attrition War, I will survey some operations that in which these aircraft played a crucial function in the success of the operation.

During the war, many actions were taken against the Egyptians. In those operations, special operations forces were landed deep within Egyptian territory. The goal of these actions was to show Cairo that no place Egypt was safe and to hurt enemy morale. On 31 October 1968, helicopters landed forces near electricity facilities in Egypt. The Israeli forces succeed in destroying the facilities, seriously damaging electrical power to Cairo. Such operations were operated, from time to time, during the period between 1968 to 1970.<sup>17</sup> One of the most famous operations took place on 27 December 1969. In a very daredevil operation, units inserted via CH-53 helicopters captured a new radar system from Egyptian territory.<sup>18</sup> The Israeli and American air forces, which struggled against Soviet-made SAM missiles in the Middle East and North Vietnam respectively, produced useful intelligence information from the captured radar system.

In addition to the Egyptian front, the War of Attrition also had a Jordanian front. After the Six-Day War, Israel ruled over the entire area west of the Jordan River. The terrorist Palestinian Liberation Organization (PLO) began to establish bases in Jordan, and until September 1970, the groups cadres routinely crossed the river on their way to attack Israeli targets or to join their comrades in the towns, villages, and refugee camps in the West Bank. IDF units tried to frustrate any attempt to ford the Jordan River, and when they discovered footprints, the army began to pursue the terrorists to kill or capture them. In this type of warfare, the helicopter has a very important rule. IDF helicopters had been used to transfer forces to block the terrorist route and to participate in observation missions. The war on the Jordanian front was also against the Jordanian army, which provided a logistics infrastructure and safe haven to Palestinian terrorist groups, including the PLO. Also, almost every day, the Jordanian army bombed Israeli settlements in the northern Jordan Valley. The primary response to the attacks by the Jordanian army was provided by IAF fixed-wing aircraft, which bombed targets in Jordanian territory. But, for time to time, there were ground operations, which relied upon helicopters to insert forces and evacuate the wounded.

The war in the eastern theater ended when Jordan's King Hussein decided to fight against the terrorist groups in his kingdom. In September 1970 (known as "Black September" in the PLO collective memory), Jordanian forces destroyed the PLO's infrastructure, and the PLO was forced to relocate to southern Lebanon. It is worth mentioning that there had been terrorist actions launched from southern Lebanon before 1970, and the IDF had operated along the border and also deep in Lebanon. The helicopters were crucial platforms in this theater too.

On 28 December 1968, special operations forces raided the international airport in Beirut in response to terrorist attacks on El-Al planes. The Israeli forces reached their destination by *Aérospatiale SA-321K Super Frelon* transport helicopters, escorted by Bell-205 multipurpose helicopters that provided CAS. The Israeli forces destroyed 14 airplanes that belonged to Arab countries, declaring that the IDF would reach any place to hit terrorists in response to an attack on Israeli targets or civilians. With the escalation of the war in the north, both against the PLO in Lebanon and the Syrian army, the IDF began to operate a wide range of forces: armor, infantry, artillery, the navy, and the air force. Again, the helicopters played important roles in a variety of missions. In this period, the IAF began to arm the Bell-205 with 7.62-mm light machineguns, 30-mm canons,<sup>19</sup> and rockets. The War of Attrition in the north continued until a month before the Yom Kippur War (6 October 1973). During the Yom Kippur War, the helicopters' missions were similar to their missions before the war—but conducted in more intensity, like the war itself.<sup>20</sup>

Up to this point, there was no difference between the IDF's use of helicopters and that of other countries fighting against terrorists or guerrillas: for example, Britain, France, the United States, and the Soviet Union.<sup>21</sup> In general, it can be said that the helicopters' operations came as a substitute to the combat parachute operations: air assault instead of airborne. Landing elite forces by helicopter behind enemy lines is swifter and more precise and reduces casualty rates when compared to air dropping units, especially in areas where the enemy has strong anti-aircraft defenses.<sup>22</sup> In sum, we can create the following operational task list by development order:

1. Logistics missions;
2. Wounded evacuation from the battle field and search-and-rescue missions;
3. Landing forces;
4. Close air support to convoys and ground forces; and
5. Independent combat missions against guerrilla targets.

### **Helicopters in the IDF: The Second Phase (since 1979)**

After the Yom Kippur War, Israel began to employ the AH-1 Cobra and MD-500 Defender AHs. The reason to deploy AHs in the Israeli army was the lessons from the Yom Kippur War, when the Israeli forces failed in stopping Arab nations' tanks in the Sinai and the Golan Heights.

In the Operation Litani (15–21 March 1978), Israeli forces used the helicopters in logistical missions but not to pursue terrorists, because Israel's Cobras had

been sent to the United States to upgrade their weapon systems. By the end of the 1970s, Israeli AHs began to operate in Lebanon. Their main mission was to bomb terrorist ground targets. In fact, the helicopters demonstrated excellent and precise operational capabilities in missions that were previously exclusively the purview of attack aircraft such as the A-4 Skyhawk and the C-7 Kfir. The first combat mission of the Cobra was in 9 May 1979, when two Cobras bombarded a building near Tyre, where terrorists were hiding.<sup>23</sup> The Defenders began their combat activity, in Lebanon, a year later.

During the Lebanon War (also known as Operation Peace of the Galilee) the AHs had dual missions. Their main mission, in the opening phase of the war (June 1982) was to destroy tanks and other armored vehicles,<sup>24</sup> i.e., conventional tasks. The war in Lebanon also combined elements of guerrilla warfare. The guerrilla nature of the war provided a milieu to demonstrate the operational versatility of the AHs.

The important role of the helicopters in general and the AHs in particular, discovered during the long conflict between Israel and the Shiite terrorist groups Hezbollah and Amal. Following the IDF withdrawal from most Lebanese territory, and its regrouping in the security zone near the international border between Israel and Lebanon (the so-called Purple Line), the IDF combined its airborne platforms very intensively during the war against the terrorist cadres operating in southern Lebanon. The AHs, assault helicopters that brought elite ground forces to the battle field, attack aircraft, and real-time intelligence, airborne systems played significant roles in this stage of the conflict. Since the beginning of the conflict in the West Bank and Gaza Strip (September 2000), the IAF, particularly its helicopter wings, have crucial tasks in the war against terrorism. The operational tasks of the helicopters represent the military and technological superiority of the Israeli forces in this kind of war. Also, the missions of the AHs in CAS operations have dramatically decreased the number of casualties of the ground forces.

Back to Lebanon the variety of missions undertaken by the AHs were, in fact, expressions of the operational capabilities of the helicopters. In Lebanon, the IDF faced two major problems: (1) sudden firefights and ambushes between Israeli forces (mostly infantry units) and Hezbollah irregular forces, and (2) locating and destroying rocket launchers (the Katyusha) that attack, from time to time, the northern Israeli settlements and cities. Similar to the Scud hunting of Desert Storm, the struggle against the launchers was a difficult and frustrating mission. The attempt to locate the launchers combined real-time intelligence with archived data from unmanned aerial vehicles (UAV). In the moment when the launchers been located, aircraft launched to destroy the launcher and to hit the cadres who operated it. In many cases, the launcher was located after the rockets had already

been fired; thus, the purpose of the counterstrike was to destroy the launcher so Hezbollah would be unable to use it again. A second propose was to show that the IDF takes offensive measures.

The introduction of the AH-64 Apache into the IAF in September 1990 greatly improved the IDF's capability to fight terrorism. The new platform became an integral part of defensive and offensive operations in southern Lebanon. During Operation Desert Storm in 1991, the Apache's capabilities were demonstrated on the battle field.<sup>25</sup> Its advanced technology and firepower allowed the IAF to play an integral role in targeted-killing operations. On 16 February 1992, two Apache helicopters destroyed a Hezbollah convoy, killing the organization's chairman, Abbas al-Musawi, and his two bodyguards. The convoy left one of the villages in southern Lebanon at 2130, on its way to Sidon. Once the convoy was under way, the Apaches were scrambled and ordered to a previously arranged point on the convoys' route. The helicopters hovered around a bend in the road. When the convoy approached, the helicopters fired their lethal charge.<sup>26</sup> The missile launch that killed the chairman of the Hezbollah was the last act in a very well-executed operation. It began with intensive intelligence gathering that detailed al-Musawi's life. The real-time intelligence needed on the day of the operation was probably gathered by intelligence officers. Visual confirmation of the convoy was probably done through a small UAV. The shooting proved to be the simplest part of the operation. Over the years, Apache helicopters were again called upon to demonstrate their special abilities. On 31 May 1995 and 25 August 1998, high-level Hezbollah members were eliminated through targeted killing. Though the Apache came to be used in the full range of military operations in southern Lebanon, it was usually chosen to perform night-time operations. During Operations Accountability (July 1993) and Grapes of Wrath (April 1996), Apache helicopters were called upon to perform surgical attacks, often destroying specific apartments without crashing the entire building.

The fighting in Judea, Samaria, and the Gaza Strip that begun in September 2000 once again has proven the superiority of the AH.<sup>27</sup> Targeted-killing operations have been used to a greater extent. Dozens of terrorists were killed at the culmination of complex intelligence operations. Most were high-level members of various terrorist organizations (Hamas, Islamic Jihad, and the Tanzim) responsible for a host of terrorist acts, including the deployment of suicide bombers. Throughout 2001, AHs conducted over 65 combat sorties in all theaters during all hours.<sup>28</sup> F-16 attack airplanes were used to destroy entire buildings belonging to the Palestinian Authority, including command and municipal centers and ammunition dumps. However, whenever the need arose for surgical bombing due to fear of potential civilian casualties, the Apache was deployed. For instance, on 31



July 2001, Apaches fired two Hellfire missiles through the windows of a building. Two high-level members of the Hamas terrorist organization and four of their assistants were killed in the attack.<sup>29</sup>

AHs are mainly called upon to provide air cover and CAS for ground operations. The fighting in the territories is conducted against guerrilla warriors and in densely populated areas. The features of the city inhibit mobility and surveillance. Under these constraints, the Apache offers many advantages. It combines immense firepower, precision, and unique observation capabilities, including a forward-looking infrared (FLIR) system. Combined ground and helicopter operations multiply the force in a given area.<sup>30</sup>

The AHs have received a great share of the limelight in the war against terror. A *BBC* report from 2002 described Israel's war against terrorism, including the killing of a terrorist by a helicopter. The report described the classical infantry ambush and the revolutionary use of attack helicopter in ambush operations. Viewers were shown the actual firing of a missile as seen through the helicopter video recorder.<sup>31</sup>

The actual firing of the missile constitutes the very end of an intelligence operation that may have gone on for a few weeks. To minimize civilian casualties, the IDF maintains an extensive intelligence apparatus. Warfare in the territories mandates a heavy reliance on human intelligence in which Palestinian collaborators play a major role. The level of operational accuracy exhibited by the IDF comes as a result of deep penetration of terrorist organizations.<sup>32</sup> Intelligence gathered from collaborators has proven to be both qualitative and quantitative. Indeed, a great effort is put into capturing live terrorists for the intelligence that can be extracted from them.

Small Searcher 2 UAVs contribute qualitative intelligence in the form of real-time visual surveillance. Often, the intelligence gathered by these UAVs is crucial for the success of an operation. So crucial is their contribution that they are involved in most air and ground operations.<sup>33</sup> First to arrive on the scene, they are tasked with surveillance and real-time intelligence collection. In addition to the UAV squadron, the IDF operates various ground and air intelligence assets.<sup>34</sup>

Though the AHs have certain shortfalls, not least of which are their enormous operational cost, they offer superior attack platforms. These aircraft have drastically improved the IDF's operational capabilities and have lowered the casualty rate as a result of their ability to engage in close quarters combat. The sheer volume of combat sorties conducted by AHs has put guerrilla units under tremendous pressure. Maintaining the offensive obligates the opponent to perform defensive operations. The opponent's capacity to go on the offensive is diminished, and the terrorist organization is less capable of achieving its political goals.

The IAF has revolutionized the use of AHs, which allows the service to go on the offensive in the war against terror. To demonstrate the uniqueness of the Israeli concept, we shall examine the role of AHs in the British and American militaries—both of which are airpower leaders in the war against terrorism today.

From the literature devoted to British and American special forces and counterterrorism units, we learn that the helicopters are used mainly for traditional purposes—transportation and CAS missions. Essentially, the helicopter doctrine developed during 1950s has remained unchanged.<sup>35</sup>

For instance, the British Army has not used helicopters for any form of targeted killing in its war against the Irish Republican Army (IRA). Contrary to popular belief, the war in Ireland has not been confined to the major cities but has also been fought throughout the countryside. The British deployment in Northern Ireland has been extensive and includes regular Army units, police, special forces (such as the 22nd Regiment of the Special Air Service (SAS), and various intelligence organizations.<sup>36</sup>

The following example is illustrative of British conduct. In May 1987, British intelligence got wind of an impending IRA car-bomb attack on a police station. The IRA team was placed under surveillance, and the SAS prepared an ambush for them at the police station. The attack was allowed to begin, and the police station was destroyed. Though there were no British casualties, civilians that had gathered in a nearby church had been in danger.<sup>37</sup>

The IRA terrorists could have been killed en route. The police station, in the town of Loughall, was in a rural area. The intelligence was specific enough to enable a helicopter attack on the terrorists' vehicle. The Aérospatiale SA-341 Gazelle scout helicopter that was scrambled was used only to assist in locating runaway terrorists.

Likewise, US Army Field Manual 7-98 *Operations in a Low-Intensity Conflict* devotes only one paragraph to the use of AHs in small tactics operations.<sup>38</sup> Though the opening words are "AH are a highly mobile and immediate-response maneuver element,"<sup>39</sup> the mission it designates for them are reconnaissance, protection, escort, and CAS operations. The AH is considered a support platform. Chapter 7 of the field manual describes various combat-support forces, such as artillery, anti-aircraft weapons, CAS from fixed-wing aircraft, and fire support from maritime platforms. In relation to US and British low-intensity warfare doctrine, the AH is considered a support weapon and not expected to initiate offensive operations. Nevertheless, in high-intensity conflicts, the attack helicopter is allotted a primary position and as a purely offensive weapon.

## Conclusions

The history of AH operations in Israel's war against terrorism can be divided into two major stages. During the first stage, AHs attacked specific targets, particularly targeted killings of terrorists. The second stage began with Operation Defensive Shield (March 2002), during which AHs mainly preformed CAS operations for the infantry and armored forces that reestablished control over Palestinian cities. We may assert that through the use of AHs, with the close support of the intelligence community, the IDF has been able to successfully initiate offensive operations against terrorists—so much so that the AHs have become an integral part in Israel's war against terrorism. Initiating offensive operations demonstrates to the terrorist organizations and to their supporters (passive and active) that Israel is no longer on the defense. The heavy reliance on intelligence combined with the success rate enjoyed by the IDF proves to the terrorists that they are not safe even among their staunchest supporters. The terrorists are then forced to further compartmentalize their organizations, thereby, severely hinder operational capabilities. The superiority of the AHs in the guerrilla warfare taking place in Judea, Samaria, and in the Gaza Strip (and earlier in southern Lebanon) stems from the aircraft's ability to carry heavy, sophisticated munitions load and their accuracy and maneuverability. Due to AHs' sophisticated weapons systems, these aircraft are regularly able to inflict heavy damage to the target while avoiding collateral damage. The IAF is unique in deploying AHs in this fashion. AHs are able to operate for long stretches of time without fear of attrition. They are able to transfer regularly between theaters of operations and to target specific targets with little fear of collateral damage.

However, the danger of collateral damage still persists even in targeted killing. In future operations, the IDF must always consider the damage to a terrorist organization versus the impact such an attack will have on the image of Israel if noncombatants are hurt.

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## Notes

1. In this article, I do not make a terminological distinction between *terrorism* and *guerrilla*, mostly because no precise definition has yet been found acceptable to most researchers that will distinguish between a terror organization and a guerrilla organization. Eventually, the definition that will differentiate between the two concepts will be individual and subjectively linked with the cultural, political, and social aspects of one state or another. Therefore, the concepts of guerrilla warfare and terrorism will be used concurrently. Alex P. Schmid gives a long list of definitions he has collected from leading studies in the field of terror research. See Alex P. Schmid, *Political Terrorism: A Research Guide to Concepts, Theories, Data Bases and Literature* (Amsterdam: North-Holland, 1987), 5–152. Robert Kennedy, “Is One Person’s Terrorist Another’s Freedom Fighter: Western and Islamic Approaches to ‘Just War’ Compared,” in *Terrorism and Political Violence* 11, no. 1 (1999): 3–4. Jenkins makes a chronological distinction. In his view, guerrilla warfare became terrorism at the end of the 1960s, when the guerrilla organizations despaired of this form of warfare and also understood that they would not succeed in obtaining their aims through conventional warfare. See Brian M. Jenkins, *New Modes of Conflict* (Santa Monica, CA: RAND, 1983), 7–9.

2. Gunther E. Rothenberg, “Israeli Defense Forces and Low Intensity Operations,” in *Armies in Low-Intensity Conflict*, ed. David A. Charters and Maurice Tugwell (London, 1989), 49–72. See also Samuel M. Katz, *Guards without Frontiers – Israel’s War against Terrorism*, (London: Brassey’s Defence Publishers, 1990).

3. For a general survey about the use of airpower in counterguerrilla warfare, see Shmuel Gordon, *The Vulture and the Snake—Counter-guerrilla Air Warfare: The War in Southern Lebanon* (Ramat Gan: Begin-Sadat Center for Strategic Studies, 1998)

4. US Marine Corps, FMFRP 12-18: *Mao Tse-tung on Guerrilla Warfare*, 5 April 1989, 8, <https://www.marines.mil/>.

5. Jay M. Shafritz, Tod J. A. Shafritz, and David B. Robertson, *The Facts on File Dictionary of Military Science* (New York: Facts on File, 1989), 116.

6. Gordon, *Vulture and the Snake*, 38–39.

7. The most extreme and tragic example is the air accident between two CH-53 helicopters on 4 February 1997, the “Helicopters disaster.” The soldiers killed were on their way to replace their comrades in Lebanon. All 73 soldiers and pilots were killed.

8. For the “Helicopter War” in Vietnam, see John J. Tolson, *Airmobility, 1961–1971* (Washington DC: Department of the Army, 1973), 38–39; for Afghanistan see Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War (vol. 3)—The Afghan and Falklands Conflicts* (London: Mansell, 1990), 192–205.

9. The helicopters in the IAF are armed with BGM-71 Tow and AGM-114 Hellfire missiles. The range of the Tow is 4 km, and the Hellfire’s range is twice and more precise.

10. It must be mentioned that despite the massive operational use of helicopters in the current conflict, the IAF did not “forget” the real mission of the AHs: to destroy the enemy’s armor columns in case of attack on Israel. Today, Syria is the major conventional threat to Israel’s national security. See an interview with former IAF’s chief of staff Maj Gen Eitan Ben-Eliahu in: *Jane’s Defense Weekly*, 9 February 2000.

11. In December 1967, the first A-4 Skyhawk arrived in Israel. The F-4E Phantom II became part of IAF in September 1969.

12. Their nickname in the IAF is Viper.

13. Their nickname in the IAF is Juggler.

14. Their nickname in the IAF is Adder.
15. For a general survey about the War of Attrition, particularly on the southern front, see George W. Gawrych, *The Albatross of Decisive Victory: War and Policy between Egypt and Israel in the 1967 and 1973 Arab-Israeli Wars* (Westport, CT: Greenwood, 2000), 127–57. On the IDF's operations, see Eli Landau, *Suez: Fire on the Water* (Tel Aviv: Otpaz, 1970), 189–207.
16. Tolson, *Airmobility, 1961–1971*, 38–39.
17. Landau, *Suez: Fire on the Water*, 121–26.
18. Landau, *Suez: Fire on the Water*, 227–35.
19. The canons originally belonged to the Mirage III.
20. About the helicopters' missions in the Yom Kippur War, see Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War (vol. I): The Arab-Israeli Conflicts, 1973–1989*, (London: Mantell, 1990), 100–01.
21. On the British experience in Malaya (1948–1960), see Robert Jackson, *The Malayan Emergency* (London: Routledge, 1991), 98–103; E. D. Smith, *Malaya and Borneo* (London: I. Allan, 1985), 35. On the French experiences both in Indo-China and Algeria, see V. J. Croizat (tr.), *A Translation from the French Lessons of the War in Indochina*, May 1967 CORDS Information Library, RG 472 (Records of the United States Forces in Southeast Asia, 1950–1975), box 19, file no. 101223, 299–30; Hilaire Bethouart, "Combat Helicopters in Algeria," in *The Guerrilla and How to Fight Him*, ed. T. N. Greene (New York: Praeger, 1966), 260–69. Concerning the helicopters used by the Soviets/Russia in Afghanistan and Chechnya, see Cordesman and Wagner, *Lessons of Modern War (vol. 3)*, 192–205; Timothy L. Thomas, "Air Operations in Low Intensity Conflict: The Case of Chechnya," *Airpower Journal* 11, no. 4 (Winter 1997), 51–59, <https://www.airuniversity.af.edu/>.
22. Robin Neillands, *In the Combat Zone: Special Forces since 1945* (New York: New York University Press, 1998), 54.
23. Eliezer Cohen and Zvi Lavi, *The Sky Is Not the Limit: The Story of the Israeli Air Force* [Hebrew] (Jerusalem: Sifriyat Hapoa'lim, 1990), 625–26.
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