

Helicopters against Guerrilla and Terrorism: The Uniqueness of the Israeli Model

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This essay discusses the role of the IDF's fighter helicopters in Israel's ongoing war against non-state actors. The essay first discusses the theoretical aspect of deploying aerial forces in a war against non-state actors and the advantages inherent in attack helicopters. The second part of the essay analyses the use of helicopters in armies around the world in this type of warfare, highlighting the IDF's unique modus operandi, which is discussed in the third part of the essay. The essay's conclusion is that the IDF does not view attack helicopters as a stand-alone weapons system but rather as another means by which it achieves its operational objective. Many operations undertaken by helicopters can be effected by other forces, but the use of helicopters attains a similar effect at lower risk. Furthermore, helicopters showcase Israel's technological and operational superiority, which may also result in an effect on public opinion, an aspect of great importance in warfare against non-state actors.

Keywords: attack helicopters, terrorism, guerrilla, non-state actors, the Israeli air force, IDF

Introduction

Israel has endured blood-soaked battles against non-state actors, starting almost immediately after the War of Independence in 1948. The IDF has used – and continues to use – a range of methods to provide maximum security for the citizens of the state. Among these actions, one may point to special operations and elite unit missions against terrorists' basecamps,

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routine security activity along the borders, and targeted assassinations of terrorist leaders and dispatchers deep in the heart of the enemy's nations and even on European soil.

Occasionally, the IDF carries out extensive operations in an attempt to damage terrorist infrastructures (Operation Qarame, purging "Fatahland," Operations Litani, Grapes of Wrath, Protective Shield, Cast Lead, and Protective Edge, among many others). One could say that in its first months, Operation Peace for Galilee (1982) was the largest purging operation the IDF has ever undertaken. While the IDF's ground forces usually lead the war on terrorism and guerrilla forces,¹ since the Six-Day War the IDF has been increasingly relying on the Air Force to supplement its ground operations.

This essay discusses the function of the IDF's attack helicopter array in the ongoing war against non-state actors. It comprises a description of Israel's counter-terrorism and counter-guerrilla efforts with the use of attack helicopters as a test case. The essay has two further subsections: the first examines the theory of deploying helicopters against non-state actors, while the second briefly examines the use of helicopters by other armies in their respective counter-guerrilla warfare. The purpose of the latter section is to construct the historical operational framework that highlights the uniqueness of the IDF's use of attack helicopters. The essay's general aim is to highlight the unique use made of attack helicopters by the IDF, as the use of attack helicopters since the outbreak of the Second Intifada at the end of 2000 was not self-evident; as commander of the Apache helicopter fleet stated in a 2002 interview: "Two years ago [September 2000] nobody thought attack helicopters would be used in this type of warfare."²

Air Force and Warfare against Non-State Actors: Theoretical Framework

In every military confrontation – including against non-state actors – there is tactical and strategic tension between defense and offense and between standoff fire and the ground maneuver.³ The IDF's principles of warfare stress offense as "the most effective way of seizing the initiative" and "whoever seizes the initiative dictates the fighting and imposes his will on the enemy."⁴ Compared to combat against regular forces, achieving victory in warfare against non-state actors is much more complex because it cannot be attained by a one-time action; furthermore, political constraints impede decision-making processes while in regular warfare, there is exclusive importance to the military efforts and the combat moves of the

various army units (although the distinction is growing fainter), in warfare against non-state actors, the patterns of activity are different. Non-state actors usually enjoy widespread support among the local population as well as excellent knowledge of the geographical conditions in which they operate. It is therefore necessary to create the right mixture of political, economic and social action to improve the standard of living of the civilian population, thus undermining the popular support that is so important to guerrilla fighters.

While military activity should not be over-emphasized, it remains a critical component of warfare. The military modus operandi is to eliminate belligerent non-state actors through exhaustion, attrition, and weakening of guerrilla forces, with the main objective being to prevent losses and minimize attrition on their side. Furthermore, the regular army must bring its technological superiority to bear on the fighting. The essay asserts that, from the military aspect, the attack helicopter is the ideal platform for fighting guerrilla. The deployment of the air force in general, and attack helicopters in particular, serves several goals representing the theoretical military foundation for warfare against non-state actors.⁵

One of the prominent features of fighting guerrilla forces is the inherent asymmetry, i.e., the imbalance and inequality between the sides. The IDF has clear and absolute technological superiority, manifested in the use of an air force and other army branches. This technological superiority also helped other nations fighting guerrilla forces (discussed below). A nation fighting guerrilla forces and/or terrorists is not required to justify the leveraging of its technological superiority, though it is critical to avoid harming civilian non-combatants. Aerial forces provide a regular army with flexibility, mobility, firepower, maneuvering and real time combat intelligence. In Israel, such aerial forces consist of Sa'ar helicopters to transport special forces, fighter jets for forceful attacks on any given location at any given time, UAVs to gather intelligence, airborne communications systems (currently also equipped with weapons), and, of course, attack helicopters.⁶

Attack helicopters have several prominent advantages. First, their mobility is not affected by terrain, and they have the capacity to operate in long ranges compared to ground forces. The second advantage is the ability to deploy force at short notice. An attack helicopter task force can be placed in relatively well protected bases, unlike ground-based task forces. In many battles against guerrilla forces, the conquest of territory

is pointless. Moreover, territory that is captured and held by infantry and armored forces has always been the preferred target for attack by guerrilla fighters, and they also result in operational and logistical difficulties for a regular army. For example, most of the IDF's losses throughout its presence in Lebanon (1985-2000) occurred not as a result of proactive operations but as a result of logistics: opening routes, moving supply convoys, and securing the outposts.⁷ When the IDF seized the initiative, its high operational capabilities in tandem with technological and firepower superiority were manifest. A significant portion of proactive operations was carried out by attack helicopters.

Another advantage inherent in attack helicopters is the range of precision arms they can carry as well as their firepower at extended ranges, i.e., mobility combined with firepower. Attack helicopters can accompany helicopters ferrying ground-based task forces to special operations while providing nearby air support and cover for landing and evacuation from the area of action. The final advantage is the attack helicopters' versatility. Guerrilla warfare is characterized by non-frontal fighting, and guerrilla forces can attack anywhere at any time. It is impossible to maintain masses of ground forces everywhere at all times, because it is very difficult to predict where and when the guerrilla forces might attack. By contrast, attack helicopters can quickly reach any arena of activity and provide the required firepower. If a shooting incident lasts a long time, Sa'ar helicopters can ferry infantry troops to the scene of fighting. This is in fact the primary function of the attack helicopter; attacking the enemy's infiltration attempts in those locations where the defensive systems are liable to collapse or where they don't exist in the first place.

To the gamut of these qualitative and quantitative advantages we should add an advantage that is difficult to quantify. As aforementioned, guerrilla warfare is characterized by its asymmetry. The use of aerial forces presents the qualitative and technological advantage of the "strong," thereby forming a kind of basis for psychological warfare. If the use of aerial forces is precise and causes serious damage to the human and logistical infrastructures of the side employing guerrilla tactics, the aerial forces serve as an important method of negating the guerrillas' belief that they can win.⁸ The ability to strike from a distance with the element of surprise and retreat unharmed also contributes to the physical and psychological undermining of guerrilla forces. Based on testimony gathered by the human rights organization B'tselem, it appears that many eyewitnesses specified the fact that they

were unable to pinpoint where the fire had originated and that the initial burst of fire had been sudden, quick, and fatal.⁹ These points (without entering a moral debate about Israel's modus operandi) demonstrate the attack helicopters' advantages in harming the human infrastructures of terrorist organizations. One should note that, based on foreign sources, some of the more recent targeted assassinations have been carried out by unmanned aerial vehicles.

At the same time, helicopters have several drawbacks. The main disadvantage lies in the fact that this very sophisticated and expensive platform is vulnerable to attack by simple, cheap arms. A helicopter flying at low height is exposed to anti-aircraft fire, such as cannons, machine guns, and shoulder mounted rocket launchers. Thus, for example, two U.S. Special Forces Black Hawk helicopters (of the UH-60 model) were downed by an RPG-7 in Mogadishu, Somalia, on October 3, 1993. The vulnerability of attack helicopters was also evident during U.S. operations in Afghanistan and Iraq. Another drawback is the difficulty of operating attack helicopters in tough weather conditions. Visibility (nighttime, fog, etc.) limits their use as well, though this factor is gradually being mitigated by advanced night vision systems.

Despite their vulnerability, the nature of a helicopter's warfare system allows it to launch guided missiles from long distances, thereby surprising guerrilla forces. By the time they manage to regroup, the helicopter can be long gone from the fire zone. The Apache's "fire-and-forget" ability is an excellent example of a regular army's ability to use its technological superiority against guerrilla forces. The combination of great mobility, short response times and the concentration of heavy firepower makes attack helicopters an effective, lethal weapon system in confronting guerrilla forces and/or terrorists.¹⁰ In addition, the helicopters' effectiveness comes to the fore due to the fact numerous confrontations in the last few decades have taken place in densely populated urban settings, requiring the ability to cause pinpoint damage so as to minimize casualties among non-combatant civilians. Attack helicopters as a weapons system thus incorporate technologies supporting operational needs as well as the desire to reduce the number of casualties to the civilian population.¹¹

Similar advantages may be found in the increased use of unmanned aerial vehicles in the day-to-day fight against non-state actors. In November 2001, a U.S. report noted that a UAV had carried out an attack in Afghanistan, the first documented use of a UAV carrying out an attack and going beyond

the traditional missions of patrol, observation, intelligence gathering, and marking targets. While many foreign sources identify Israel as being the first to use UAVs in military operations, the first reliable report of UAVs deployed in an attack mission appeared in the press only on October 24, 2004, when an eyewitness reported an attack in Khan Younis. Reports on attacks by “Israeli aerial vehicles” continued to appear in subsequent years. In fact, Israel is identified as one of only three nations – in addition to the United States and Great Britain – using UAVs in attack missions against various targets. However, because Israel has never officially declared that it uses UAVs in attacks in Gaza, southern Lebanon, and other locations, the United States is considered the first to do so.¹² This essay therefore focuses on the unique use Israel makes in proactive attacks on non-state actors, a uniqueness resulting in two processes, the first being the fact that the Israeli method – using attack helicopters as a weapons system in fighting non-state actors – has been adopted by other nations, and the second being the addition of combat missions to UAVs aside from their traditional use as a platform for patrolling and intelligence gathering. To examine the IDF’s unique use of helicopters in general and attack helicopters in particular (more on this below), it is first necessary to examine the use made of helicopters by other armies that have confronted non-state actors.

Historical Experience: Helicopters Used against Non-State Actors in Armies around the World

France: Indochina and Algeria

In the aftermath of World War II, France tried to reconstruct its empire through two long and difficult campaigns; Indochina in 1946-1954 and Algeria in 1954-1962. In Indochina, the French army used helicopters mostly in rescue and evacuation operations.¹³ The use of helicopters began in 1950, and French helicopters were used much like U.S. helicopters were used in the Korean War. France had plans to transport infantry using helicopters but these were never put into effect because of the defeat suffered at Dien Bien Phu, which ended the war.

During the Algerian campaign, helicopters began playing a more significant role.¹⁴ The new missions included transporting troops to the battlefields based on operational needs and achieving a quantitative and qualitative advantage at any given place and time. Algeria’s enormous size, consisting mostly of desert terrain, posed strategic, operational,

tactical, and logistical problems for the French, while the topography greatly helped the Algerian guerrilla fighters. The operational solution was massive use of helicopters. When a guerrilla unit was identified, elite French troops were quickly brought in to engage in pursuit, while other units established roadblocks and prepared ambushes along the guerrillas' path. If the pursuit lasted for many hours, helicopters were used to bring in supplies, ammunition, and new manpower.¹⁵

Great Britain: Malaya

Great Britain confronted a long series of guerrilla wars following World War II as well. The longest and most intensive campaign was in Malaya in 1948-1960. The primary British innovation lay in the manner in which it handled landing and collecting troops for patrol missions and, later on, in areas where guerrilla units were expected to operate. The first mission was carried out in February 1952 and consisted of evacuating infantry troops cut off because of flooding.¹⁶ Later on in the war, helicopters continued to transport and evacuate troops, sparing forces the need to advance through Malaya's difficult terrain of mountainous jungles.¹⁷ In addition, helicopters have served in their classical roles of evacuating the wounded and bringing supplies to isolated outposts.

The United States: Vietnam – the Helicopter War¹⁸

The primary feature of the Vietnam War was the United States' massive use of helicopters, to the extent that they became, with good reason, one of the war's most widely recognized emblems. The second innovation was turning helicopters into platforms carrying various types of arms for use in close aerial assistance tasks. The transport of large numbers of troops across long distances in a short amount of time was not the result of a new anti-guerrilla doctrine of warfare, but was rather a notion that had been developed prior to the U.S. involvement in Vietnam for a scenario involving a limited nuclear war in Europe.¹⁹ It gradually emerged that the high mobility afforded by helicopters could provide an effective response to the mobility of the guerrillas and the challenges posed by Vietnam's topography and climate.

The first U.S. helicopters arrived in Vietnam in late 1961 and began flying combat missions as part of the South Vietnamese Army, though very quickly they were flown by U.S. pilots who shared their experience to draw lessons for future operations. The main lesson learned was that every

helicopter transporting troops should be accompanied by 5-7 gunships, i.e. helicopters armed with machine guns, grenade and rocket launchers in order to protect the troops in the “slick” upon deployment on ground. To complete the combat structure, helicopters would be included for rapid evacuation of the wounded and there would be a command and control helicopter to coordinate the whole landing operation. The doctrine of deploying such formations earned the name Eagle Flight.²⁰

As the U.S. involvement in the ground fighting in Vietnam expanded during 1965, the U.S. Army began deploying paratroopers and infantry forces via helicopters. These divisions, like the 101st Airborne and the 1st Cavalry, were merged with helicopter squadrons similar to artillery and engineering troops. Gradually, helicopters were incorporated into all Army and Marines combat units operating in Vietnam. The numbers speak for themselves: during the war, up to the final evacuation of U.S. troops from South Vietnam in the first half of 1973, U.S. helicopters carried out some 36,125,000 missions. Of these, some 3,932,000 were attack missions; 7,547,000 were for inserting troops; 3,548,000 were logistical in nature; and more than 21,000,000 missions were designated for patrols, evacuating wounded, extracting pilots, and other tasks. The United States lost 2,066 helicopters to enemy fire and 2,566 under other circumstances.²¹

The doctrine of warfare developed during the 1960s included the massive use of helicopters to locate the enemy, insert troops to eliminate guerrilla insurgents, provide ground forces with close aerial support, or move artillery to new positions. On the logistics level, helicopters served as platforms for command and control, communications, transporting supplies to the fighting troops, and evacuating the wounded. Massive use of helicopters and the existence of helicopter units as organic components of the divisions and independent brigades resulted in the U.S. Army being capable of transferring units quickly over great distances, and bringing them a steady flow of supplies as well as providing combat support.

During the Vietnam War, specially designated attack helicopters of the AH-1G Cobra model were introduced into operational combat use.²² The Cobras were quicker and better able to maneuver than previous models. Towards the end of the war, armed helicopters of the Bell UH-1 model were still in use to provide proximate air cover to infantry fighting on the ground. During the war and thereafter, the United States continued to upgrade its helicopters’ combat capabilities. This process peaked with the 1984 introduction of the AH-64 Apache into active service. While this

helicopter was developed on the basis of the lessons learned in Vietnam, its main objective quickly turned into a platform to help block masses of Warsaw Pact armored vehicles as part of the Air-Land Battle doctrine developed in the 1980s. In other words, the new attack helicopter was defined as having functions in regular wars as part of the United States' new conceptual framework that formed the basis of its army's European warfighting doctrine in the post-Vietnam era.

At present, helicopters of various types are an inseparable part of the U.S. Army's formations in every possible outline. In the 40 years since the end of the Vietnam War, helicopters have had an important – sometimes decisive – role in the various military activities. In addition to moving an entire brigade from the 101st Airborne during the ground invasion in the Gulf War²³ deep into the heart of the Iraqi army, helicopters played an important role in military interventions in low intensity confrontations such as Granada (1983), Panama (1989), Somalia (1983), Afghanistan, and Iraq. In the Second Iraq War the use of attack helicopters was problematic and exposed the helicopters' weaknesses in environments where there is no clear demarcation between friendly and enemy troops.

The USSR/Russia: Afghanistan and Chechnya

The USSR's most important official experience in fighting against guerrilla forces across its own borders was in Afghanistan. The use of Soviet helicopters during many types of operations did not represent any tactical or operational innovation, especially after Vietnam. Nonetheless, when reading the literature about the use of helicopters in Afghanistan, it seems that the U.S. experience was ignored by the Soviets who stumbled from one approach to another in an attempt to find the right tactic for helicopter deployment. As the war dragged on, the Soviets engaged in increasingly daring operations until the summer of 1986, when the Western-sourced Blowpipe and Stingray anti-aircraft missiles came on the scene. Unlike the United States, the Soviet Union reduced the scope of helicopter activity once this threat emerged. While the extent to which the Mujahidin were able to operate the anti-aircraft weapons is unclear, the USSR was not prepared to suffer the casualties caused by advanced missiles. Western assessments determined that most of the Soviet helicopters downed in Afghanistan were actually hit by sub-machinegun fire and RPG rockets. The Somali militias who downed the U.S. helicopters in Mogadishu, for example, were trained by such fighters.²⁴ Still, it should be noted that the

reduction in the use of helicopters by the Russians also stemmed from a political decision to scale back the Soviet presence in Afghanistan.

The first helicopters in Afghanistan were apparently deployed in the last third of 1980. In September and November of that year, the USSR carried out two large operations to clear out the Mujahidin from the Panjshir Valley. Troops were brought in by helicopter to land in position of controlling terrain in tandem with the advance of ground forces. The goal was to block the Mujahidin's retreat routes from the valley to the mountains and engage them in battle in conditions that were advantageous to the Soviet forces. From the second half of 1981, the insertion of troops into strategic areas along the axes of the advancing ground troops became an integral part of Soviet tactics. The use of helicoptered troops became more aggressive and incorporated proactive steps, such as going out on missions to discover the guerrillas' hiding spots.

During 1982, the Soviets adopted the search-and-destroy tactic used by the United States in Vietnam. The introduction of the Mi-24 Hind and Mi-28 Havoc models into action allowed operations outside the fire-scope of the Soviet artillery. Proximate aerial support from attack helicopters became a key component in the Soviet forces' overall firepower. Gradually, the ratio between the mechanized forces and the helicopters changed in favor of the latter.²⁵ In tandem with the combat duties of landing fighters, providing proximate air support, and serving as "flying artillery," the helicopters were also deployed to provide armed escort to supply convoys and bring supplies to positions that were either very distant or whose ground access was deemed dangerous.

In December 1994, Russia began its large-scale involvement in Chechnya. There, as in Afghanistan, the Russians fought guerrilla units enjoying the advantages of mountainous topography. One may have expected that the lessons learned a decade earlier would have been turned into an orderly military doctrine. But the weakness of the Russian economy affected the army's fitness and capabilities. The main tasks of the helicopters in Chechnya were logistical: bringing supplies to the fighting units and evacuating the wounded (44 percent of all missions). The combat missions mostly involved escorting convoys and landing troops.²⁶ Still, some combat missions were carried out in which the attack helicopters' firepower was demonstrated.

Summary of Other Armies' Operational Experience with Helicopters

Generally speaking, one can summarize the operational experience of other armies by saying that the use of helicopters replaced operational paratroopers. Inserting troops via helicopter is faster and more precise: as techniques for landing troops developed, the number of losses dropped in comparison with operational parachute jumps, especially in areas where one could expect the enemy to effectively fire surface-to-air weapons at the paratroopers.²⁷ The following is a list of functions in their order of development:

1. Logistical tasks, including evacuation of wounded and retrieval of pilots.
2. Observation, intelligence gathering, and command and control tasks.
3. Troop insertion.
4. Proximate air support for convoys and ground troops.
5. Independent combat missions against guerrilla targets.

The Use of Combat Helicopters in the IDF (from 1979)

The creation of the IDF's helicopter structure can be divided into two major stages. The first stage began when helicopters were first integrated into the Air Force in May 1951 and lasted until 1975. At that time, the helicopters' main function was to undertake observations, gather intelligence, fly in commanders, and bring forces to and from the battlefield. In other words, the IDF deployed its helicopters similarly to the way other armies around the world did.²⁸

The second stage began after the lessons of the Yom Kippur War had been studied. The Israeli air force suffered terrible losses because of the dense, aggressive anti-aircraft fire directed at it, so that it was unable to stop the masses of Syrian and Egyptian armored corps or help Israel's infantry and armored units. After the war, the IDF decided to acquire attack helicopters to be better equipped in the future to handle masses of armored vehicles attacking in an area saturated with anti-aircraft systems. But such missions were never carried out; in fact, one may say that after the Yom Kippur War and the continued fighting against Syria in the following months, the IDF did not confront regular Arab forces again. The exceptions to this were the battles against the Syrian army during the First Lebanon War. Given that the United States had been Israel's major arms provider, including fighter planes, since the late 1960s it was only natural that Israel's future helicopter acquisitions would be from the United States. The introduction

of the Cobra AH-1Q helicopter into service in April 1975 and the completion of the attack helicopter structure with the Defender MD-500 model mark the second stage of the creation of the IDF helicopter formation. During the 1990s, the advanced Apache attack helicopters were added.

In Operation Litani (March 15-21, 1976), the helicopters were not yet used to attack, the main reason being that the Cobras were having their weapons systems upgraded. It was only at the end of the 1970s that the IDF's attack helicopters began operating in Lebanon. Their main function was to fire missiles and other munitions at the various terrorist organizations' ground targets. In practice, these helicopters demonstrated excellent, accurate operational ability in attacking ground targets. The use of attack helicopters significantly reduced harm to civilian targets, which had been difficult to prevent when fighter planes were used.

The Cobra helicopters' first operational activity took place on May 9, 1979, when two helicopters attacked a building near Tyre where terrorists were hiding.²⁹ Defender helicopters began their operational activity in Lebanon about a year later. Combat helicopters operated during the initial stages of Operation Peace for Galilee against regular Syrian army forces, damaging their tanks and other armored vehicles.³⁰ The Lebanon War incorporated elements of conventional warfare with anti-guerrilla fighting, thus manifesting the operational flexibility provided by attack helicopters. But to this point the IDF's use of helicopters entailed no real innovation.

The importance of the attack helicopter was discovered during the prolonged war against Hizbollah. The IDF incorporated the airborne structure in southern Lebanon, with one of the main tools being the attack helicopter. In addition, upon eruption of the Second Intifada in the West Bank and Gaza Strip (September 2000), attack helicopters played an important role in the Israeli response. The attack helicopters' operations and missions in the West Bank and Gaza Strip were similar to those carried out in southern Lebanon. There is no doubt that the use of attack helicopters highlighted the IDF's military and technological might in the anti-terror campaign. In addition, attack helicopters, when used to provide proximate aerial support, reduced the number of infantry casualties.

The scope of missions carried out by attack helicopters in Lebanon were a manifestation of their inherent operational capabilities. In Lebanon, the IDF encountered two major problems: the first, infantry and armored units were caught in Hizbollah ambushes; the second was the IDF's attempt to identify and destroy the Katyusha launchers that were shelling northern

Israel, a difficult and frustrating task. The attempt to identify the launchers required real-time intelligence, attained by UAVs and other intelligence tools. The moment a Katyusha launcher was identified attack helicopters (or the artillery) were called in to strike at the launcher and its operators. Sometimes the launcher would be identified only after rockets had already been fired, at which point the objective was to disarm and prevent further use.

The arrival of the Apache helicopter enhanced operational capabilities. The Apaches were delivered to the air force in September 1990 and shortly thereafter became part of the operational routine in Lebanon. The Apaches, with their advanced technological and armaments capabilities compared to other attack helicopters in the air force, generated the development of the method of targeted assassinations of senior members of terrorist organizations. These missions are discussed in this essay based on their operational use and merit, not their moral stature. On February 15, 1992, two Apache helicopters attacked a convoy transporting Hizbollah Secretary General Abbas Mussawi; on May 31, 1995, and on August 25, 1998, senior Hizbollah members were the focus of a targeted assassination. In general, one may say that Apache helicopters were deployed in every single scenario of routine operational activity in Lebanon, but especially in precision operations that required nighttime activity. The Apaches' high level of operational ability was again proven in Operation Accountability (July 1993) and Operation Grapes of Wrath (April 1996). The helicopters were deployed mostly in order to cause precision damage to terrorist targets.

Starting in September 2000, the Second Intifada in the West Bank and Gaza Strip proved the high operational capabilities of attack helicopters.³¹ Use of the targeted assassination method intensified and dozens of terrorists were eliminated by attack helicopters at the end of complex intelligence gathering operations. Most of the terrorists killed were senior members of various terrorist organizations (Hamas, Islamic Jihad, and the Tanzim) who were responsible for many terrorist operations, including the dispatch of suicide bombers into Israeli cities. During 2001, attack helicopters carried out more than 65 attacks in all arenas and at all hours of the day and night.³² Although fighter planes were also used, most of their missions involved the destruction of targets belonging to the Palestinian Authority and other organizations, such as command centers, munitions storage, and government structures. Upon introduction of pinpoint activities or when targets were located deep in the heart of civilian areas and there was concern that innocent civilians would be harmed, attack helicopters

became the tool of choice. Thus, for example, on July 31, 2001, Apache helicopters killed two senior Hamas commanders and four of their men.³³ It has often been claimed that these precision operations were carried out with close integration of helicopters and UAVs.

The attack helicopters' mission is to provide an aerial umbrella and proximate airborne assistance to ground forces as they engage in operational activities. The operations during the Second Intifada entailed difficult battles against guerrilla forces in densely populated urban centers. The urban terrain limits the infantry forces' mobility and observational capabilities.³⁴ To this extent, Apaches have many advantages: firepower of great intensity, concentration and precision, and observation capabilities, including thermal night visions systems (e.g., FLIR, the Forward Looking Infra-Red system). Connecting helicopters' operational components with the ground forces resulted in doubling the power of any unit operating in any delimited location.³⁵

In the difficult, complex warfare against terrorists, attack helicopters earn maximal media exposure. In April 2002, a BBC report presented Israel's war on terrorism, including the targeted assassinations of terrorists by attack helicopters. The report implied that one of the ways to eliminate a wanted terrorist is by ambush. The report showed the classical method, i.e., ambush by infantry, as well as the innovation used by the IDF is the elimination of wanted terrorists by ambush by attack helicopter.³⁶

Despite the drawbacks of using attack helicopters, especially their high cost, they do represent an offensive platform. Attack helicopters improved the IDF's offensive capabilities in guerrilla warfare and reduced the number of potential casualties in urban areas. The helicopters' daily activities resulted in constant pressure on the guerrilla units. Generally and historically speaking, one may say that the more the side confronting guerrilla warfare and/or terrorism engages in offensive strikes, the more the guerrillas are forced into defensive positions, thus resulting in a decrease of their attack capabilities.³⁷ It may be that a drop in operational capabilities will, to one extent or another, damage the guerrilla forces' ability to achieve their political ends.³⁸

The uniqueness of the IDF's deployment of attack helicopters, as discussed herein, lies in using them in designated offensive missions while seizing the initiative in fighting against guerrillas and/or terrorists. In order to further highlight the Israeli uniqueness it is necessary to examine the

attack helicopter's function in the United States and Great Britain's fight against guerrillas and/or terrorists until 2001.

The literature dealing with Great Britain and the United States' Special Forces and counterterrorism units shows that the helicopters' primary function is to land masses of troops and provide proximate airborne support, i.e., the traditional roles of helicopters as developed in the 1950s. Other than some technological innovation (the introduction of more modern helicopter models), there has been no operational innovation in the deployment of attack helicopters in Western nations.³⁹

There is no evidence that the British used attack helicopters against high-quality human targets of the Irish Republican Army. Unlike what is commonly thought, the war against the IRA took place not only in the large cities of Northern Ireland but also in rural settings. The war against the Irish underground saw the participation of the army, police and the 22nd Regiment of the Special Air Service.⁴⁰ Thus, for example, in May 1987, British intelligence learned of the IRA's intention to detonate a Royal Ulster Constabulary base using a car bomb. Although IRA members were under close surveillance, the British waited for the terrorists to come to the base, whereupon they were eliminated in an ambush set by the SAS team. The base was destroyed in the explosion; civilians who were in the church next-door were exposed to real danger.⁴¹ It is not at all clear why the IRA operatives were not eliminated on their way to the Royal Ulster Constabulary base located in the village of Loughgall, deep in the heart of farm country. Because the intelligence was reliable and precise, it would have been possible to destroy the vehicle driven by the terrorists by attack helicopter. It is worth noting that when the attack on the base began, an SA-341 Gazelle helicopter was called in to patrol the area to identify further suspects and steer the army forces towards them, but this was a patrol and observation mission rather than a combat mission.

Similarly, the "FM 7-98: Operations in a Low Intensity Conflict," a U.S. Army field guide, devotes only a single, brief paragraph to the deployment of attack helicopters in operations involving low intensity warfare. Although the paragraph begins by saying "attack helicopters are a highly mobile and immediate-response maneuver element,"⁴² afterward it mostly refers to operational activity involving missions such as security, supply convoy escort, patrol and proximate airborne assistance to ground forces. In other words, the attack helicopter is treated primarily as a platform for providing assistance. The main point of the guide's seventh chapter is

combat assistance, such as artillery of various kinds, anti-tank fire, tactical air support (fixed-wing planes), and fire assistance from naval platforms. In the U.S. doctrine, the attack helicopter in the context of low intensity warfare is viewed as an auxiliary weapon, without being defined as a weapons system seizing the offensive initiative.

Conclusion

Israel's war against non-state actors is a daily, ongoing affair. The essay attempted to point to the unique offensive activities that the IDF has made and continues to make with the help of attack helicopters, an operational model that has been adopted by other nations, especially the United States as it became entangled in fighting against non-state actors in Afghanistan and Iraq. The IDF never viewed the deployment of the helicopter as a stand-alone method, but always as an additional tool to attain an operational result. Many actions carried out by helicopter can be handled by other forces, but its use achieves a similar effect at lower risk. Furthermore, helicopters symbolize Israel's technological and operational superiority, so it is also possible they have a psychological impact, an important aspect in fighting against non-state actors. It should be said that the Israeli air force is aware of the fact that the organizations it fights arm themselves with advanced anti-aircraft weapons so that the helicopter is now more vulnerable than it was in the past. This may increase the use of UAVs, also because the unmanned platforms can remain in the air longer than helicopters can.

Nonetheless, it is too early to eulogize the helicopter as an effective combat platform. The U.S. experience shows that despite the helicopter's vulnerability the platform can continue to operate. This is also true of Israel. The attack helicopter plays an important part in the IDF's offenses against irregular troops. Operation Protective Edge in the summer of 2014 demonstrated that, despite the increasing use of UAVs (based on foreign reports, attack helicopters continue to fulfill a significant function when fighting non-state actors. Such activity is characterized by the seizing of initiative and serves several goals: first, foiling terrorist attacks both by eliminating the terrorists on their way to the target and by assassinating the organizations' leaders; second, taking out leaders as an independent goal so as to disrupt the organizations' functioning. Here it is important to note that an exact, high-quality strike based on intelligence requires the organization to close ranks and examine how the information leaked out. The success of a targeted assassination makes organization leaders

conclude that they are not safe even among their own supporters, causing rigid compartmentalization, which damages the operational effectiveness of a terrorist organization, in addition to the hit taken by the planners. It is possible to disrupt the operational and organizational routines by attacking organizations in areas they consider safe; third, deterrence stemming from the striking capabilities shown in previous operations and also as an announcement that harm to civilians in the state will result in a response; this leads to the fourth goal: morale. This aspect has several dimensions, though the most important would be damaging the morale of the enemy organization and its supporters and raising the morale of the citizens of the state.

The attack helicopter structure and its supporting structures, especially intelligence, facilitate the IDF's success in taking proactive offensive measures critical in wars against guerrillas and/or terrorists. The nature of attack helicopters has made them into a highly important warfare platform. Offensive proactivity shows terrorist organizations and their supporters, both passive and active, that the party fighting them is not defending itself and cowering while waiting for the next terrorist attack, but is taking practical steps and forcing the other side to seek cover.

The uniqueness of the use of the attack helicopter in fighting non-state actors in the West Bank and Gaza Strip (and earlier also in Lebanon) stems from its advantages, which include flexibility of operation, high firepower and precision strikes. In many cases, the weapons systems and munitions they carry allow attack helicopters to cause great damage to the specific target without harming the civilian surroundings. Such deployment was unique to the Israeli air force and until 2001 was not to be found in other nations fighting against irregular troops. Attack helicopters can maintain a sequence of activities without suffering attrition, can rapidly reroute the effort from one sector to another, and can execute precision strikes of selected targets. Nonetheless, every future action must take moral elements into account. To the extent that ground conditions allow it, one must always strive to avoid harming civilians. It is also necessary to weigh the damage wrought to any given terrorist organization against the damage to Israel's image should innocent civilians suffer harm.

Notes

- 1 Gunther E. Rothenberg, "Israeli Defense Forces and Low Intensity Operations," in *Armies in Low-Intensity Conflict*, D. A. Chaters and M. Tugwell, eds. (London: Brassey's Defense Publishers, 1989), pp. 49-72.
- 2 Israel Defense Forces, *The Air Force Bulletin*, August 2002, p. 6.
- 3 Christopher Bellamy, *The Evolution of Modern Land Warfare: Theory and Practice* (London: Routledge, 1990), pp. 15-17.
- 4 IDF General Staff-3-Sub-02, Operations Division, Doctrine and Training Section, *The Principles of Warfare*, 21 (2007).
- 5 For a general overview of the use of aerial forces against guerrilla forces see: Shmuel Gordon, *The Last Order of Knights: Modern Aerial Strategy* (Tel Aviv: Ramot, 1998), pp. 316-34; Ilan Hershkovitz, "The Aerial Component in Low Intensity Fighting," *Ma'arakhot* No. 380-381 (2001): 68-71. Both studies include a general discussion of the use of aerial forces in fighting against guerrillas; the ideas on the use of helicopters are derived from the studies without specific discussion of them. Nonetheless, Hershkovitz's study discusses different aspects of using aerial forces in the current confrontation with the Palestinians. Also see: Zaki Shalom and Yoaz Hendel, *Let the IDF Win: The Self-Fulfilling Slogan* (Tel Aviv: Yediot Aharonot Press, 2010), pp. 63-67.
- 6 Shmuel Gordon, *The Vulture and the Snake: Counter-Guerrilla Air Warfare: The War in Southern Lebanon* (Ramat Gan: Begin-Sadat Center for Strategic Studies, Bar-Ilan University, 1998), pp. 38-39.
- 7 The most extreme and tragic example is the infamous helicopter disaster of February 4, 1997, when two Yasur helicopters carrying soldiers to Lebanon collided mid-air. The soldiers killed were not on their way to engage in combat but merely sent to replace their comrades. All 73 men aboard the helicopters – soldiers and pilots – were killed.
- 8 Hershkovitz, "The Aerial Component in Low Intensity Fighting," p. 69.
- 9 B'tselem, *Position Paper: Israel's Assassination Policy: Execution without Trial* (January 2001): 3-4. I would like to stress that this study is in no way interested in discussing any political or ethical aspect of any war or confrontation.
- 10 Despite its intensive use in the West Bank, the Israeli air force has not forgotten the attack helicopter's basic function: attacking and eliminating armored vehicles in case of attack on Israel.
- 11 In this context, see: Isaac Ben-Israel, "The Use of Weapons in Densely Populated Areas," *Military and Strategic Affairs* No. 5, special issue (2014): 15-18.
- 12 It should be noted that the first U.S. attacks using UAVs were carried out by the CIA rather than the military. See: Thomas G. Mahnken, *Technology and the American Way of War since 1945* (New York: Columbia UP, 2008), pp. 201-202.

- 13 Bernard B. Fall, *Street Without Joy* (London: Stackpole Military History Series, 1961), p. 265; 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, pp. 299-305.
- 14 Robert B. Asprey, *War in the Shadows: The Guerrilla in History* (New York: Doubleday, 1994), p. 676.
- 15 Hilaire Bethouart, "Combat Helicopters in Algeria," in *The Guerrilla and How to Fight Him*, T. N. Greene, ed. (New York: Praeger, 1966), pp. 260-69.
- 16 Robert Jackson, *The Malayan Emergency* (London: Routledge, 1991), pp. 98-102.
- 17 E.D. Smith, *Malaya and Borneo* (London: Allan, 1985), p. 35; Jackson, *The Malayan Emergency*, pp. 97-98.
- 18 The most comprehensive overview of the use of helicopters during the Vietnam War may be found in a study published by the Army Department as part of the series *Vietnam Studies*, published starting in 1973. See: J. Tolson, *Airmobility, 1961-1971* (Washington D.C., 1989).
- 19 Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore: JHU Press, 1986), p. 112.
- 20 *Ibid.*, pp. 38-39.
- 21 Spencer. C. Tucker, *Vietnam* (Lexington: University of Kentucky Press, 1999), p. 122.
- 22 Tolson, *Airmobility*, pp. 144-46.
- 23 Harry G. Summers, *Persian Gulf Almanac* (New York: Facts on File, 1995), p. 208.
- 24 Mark Bowden, *Black Hawk Down: A Story of Modern War* (New York: Grove Press, 2000), p. 133.
- 25 Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War (vol. 3): The Afghan and Falklands Conflicts* (London: Westview Press, 1990), pp. 192-205.
- 26 Timothy L. Thomas, "Air Operations in Low Intensity Conflict: The Case of Chechnya," in *Airpower Journal* (Winter 1997).
- 27 Robin Neillands, *In the Combat Zone: Special Forces since 1945* (New York: Questia, 1998), p. 54.
- 28 For a general overview of the use of helicopters during the War of Attrition, see: Haim Nadel, "Between the Two Wars 1967-1973," *Ma'arakhot* (2006), pp. 230-33. For more on the function of helicopters during the Yom Kippur War, see: Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War (vol. 1): The Arab-Israeli Conflicts, 1973-1989* (London, Mansell Publishing, 1990), pp. 100-101.
- 29 Eliezer Cohen and Zvi Lavi, *The Sky's Not the Limit: The Story of the Israeli Air Force* (Tel Aviv: Ramot, 1990), pp. 625-26.
- 30 Cordesman and Wagner, *The Lessons of Modern War (vol. 1)*, pp. 210-13.

- 31 In the first two years of the Second Intifada, the Apache helicopters carried out some 1,500 missions in the West Bank and Gaza Strip. *The Air Force Bulletin* (August, 2002): 6.
- 32 Israel Defense Forces, *The Air Force Bulletin* (December, 2001): 6.
- 33 Israel Defense Forces, *The Air Force Bulletin* (August, 2001): 7.
- 34 See Gal Hirsch's comparison of a fighting force in an urban setting to a ball moving in all dimensions, including underground. Gal Hirsch, "Fighting in the Urban Sphere," *Military and Strategic Affairs* No. 5, special issue (2014): 19. It is, of course, necessary to remember that such operational problems are not unique to the contemporary urban setting but have already been a feature of complex fighting in constructed areas. The complexity lies in the fact that the urban environment contains non-combatants and international law does not tolerate harm befalling them.
- 35 Israel Defense Forces, *The Air Force Bulletin* (April 2002): 38.
- 36 *Jane's Defence Weekly*, January 9, 2001.
- 37 The tension between routine security entailing many casualties and offensive initiative comes to the fore in Moshe Tamir's book about the years Israel maintained a presence in southern Lebanon. See: Moshe Tamir, *War Without a Sign* (Tel Aviv: Ramot, 2006). Thus, for example, on p. 127, he describes the ambush of an IDF convoy in which three Israeli soldiers were killed. On the same page, he also mentions the Egoz Unit's seizing of the initiative, thanks to which two Hizbollah operatives, who were apparently involved in preparing the ambush, were killed.
- 38 In other words, withholding the guerrillas' ability to move, militarily, towards becoming a regular army while exhausting the army they are fighting and finally winning a decision against it. This is the essence of the three-stage doctrine as Mao defined in his 1937 book *On Guerrilla Warfare*. See: Tal Tovy, *Guerrilla and Counter-Guerrilla: Mao's Military Legacy* (Jerusalem: Carmel, 2010), pp. 42-57.
- 39 Terry Griswold and D. M. Giangreco, *Delta: America's Elite Counterterrorist Force* (Osceola: Zenith Press, 1992), pp. 78-87; Steve Crawford, *The SAS Encyclopedia* (Miami: Lewis International, 1998), pp. 266-69.
- 40 Ken Connor, *Ghost Force* (London: Cassell, 2001), pp. 303-40.
- 41 For a description of the incident, see: James Adams and others, *Ambush: The War between the SAS and the IRA* (London: Pan Books, 1988), pp. 110-18.
- 42 *FM 7-98*, Chapter 7: Combat Support, 7-6: Attack Helicopter Units.

On Terrorism and Electoral Outcomes: Theory and Evidence from the Israeli-Palestinian Conflict. *Journal of Conflict Resolution* 50 (6):899-925. CrossRef Google Scholar. Bloom, Mia. When Terrorism Is Evidence of State Success: Securing the State Against Territorial Groups. *Oxford Economic Papers* 67 (1):116-32. CrossRef Google Scholar. Chalk, Peter. 1993. *West European Terrorism and Counter-terrorism: The Evolving Dynamic*. New York: St. Martin's Press. Google Scholar. Cheibub, Jos  Antonio, Gandhi, Jennifer, and Vreeland, James Raymond. Keywords: globalization, international terrorism, the prevention of terrorism, counter-terrorism, counter-terrorism ideology. In human history, terrorism is widely recognized as the world most famous enemy of the humanity. We should not underestimate this threat: terrorism is annihilation with far-reaching and destructive effects; it is the cruelest of crimes against humanity. It is able to turn neighbors into enemies and to make our societies and the whole world unsafe for living. Its aims and applications are global and uncompromising (Michael 2003: 7). Neither terrorism, nor perpetrators ar... Brother Against Brother: Violence and Extremism in Israeli Politics from Altalena to the Rabin Assassination, 1999. Vishnyakov, Ya. D. 2006. Contrary to terrorist groups, guerrillas usually work in open positions as armed units, try to hold and seize land, do not refrain from fighting enemy military force in battle and usually apply pressure to control or dominate territory and population.[3] While the primary concern of guerrillas is enemy's active military units, terrorists largely are concerned with non-military agents and target. mostly civilians. Guerrilla forces principally fight in accordance with the law of war (jus in bello). In this sense, they respect the rights of innocent civilians by refraining from targeting them. The PKK has continuously voiced that their so-called guerrilla struggle against the state is a kind of national liberation movement conducted on behalf of allegedly oppressed Kurdish people. Lessons from Israel's Response to Terrorism. Current: Resilience, the Israeli People's Weapon against Terror. Resilience, the Israeli People's Weapon against Terror. Fiamma Nirenstein. Shlomi's case perhaps typifies the entire phenomenology of the Israeli fight against terrorism, which forms the basis of the "resilience" essential to the resistance and to the victory that, by now, the entire world needs. Shlomi's family is seen as the main source of approval and appreciation, with the assertive and omnipresent mother who worries but admires and supports her child, who places immense value on the survival of her children, yet participates in their dangerous lives. themselves terrorists rather than guerrillas, precisely because guerrilla targets were. military and theirs were not. A new form of publicity was necessary because. spontaneous mass uprisings had become impossible, and revolutionaries were known as "idle word-spillers". Terror would command the masses' attention, arouse latent political. invasion. Inspired by the practices of the ancient Assassins a Shi offshoot, it reasserted in. a new way the martyrdom theme the first wave emphasized but the second neglected. 7. When she was made a prisoner, Vera Figner, a major figure in Narodnaya Volya wrote that her memory. would be immortalized by the revolutionary tradition, i.e. she would become a martyr. *Memoirs of a*.