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PAPER

# Military Capabilities for Hybrid War

## Insights from the Israel Defense Forces in Lebanon and Gaza

David E. Johnson

Prepared for the United States Army

Approved for public release; distribution unlimited

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# Preface

This paper was written for an ongoing project entitled "An Army for Full Spectrum Operations: Lessons from Irregular Wars." The project aims to assess recent "irregular" and "hybrid" conflicts and their implications for U.S. Army force mix and capabilities, and the forces that support or operate with ground forces. The paper summarizes the research still in progress and is meant to provide perspectives on initial insights from the hybrid warfare experiences of the Israel Defense Forces in Lebanon and Gaza. Insights from those operations could be informative as the structure and capabilities for forces facing hybrid threats are debated.

The ongoing research is sponsored by the Office of the Deputy Chief of Staff, G-8, Headquarters, Department of the Army, and is being conducted within RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center sponsored by the United States Army.

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# Glossary

| | |
|---|---|
| ATGMs | Anti-Tank Guided Missiles |
| C2 | Command and Control |
| COIN | Counterinsurgency |
| HIC | High-Intensity Conflict |
| IAF | Israeli Air Force |
| IDF | Israel Defense Forces |
| IEDs | Improvised Explosive Devices |
| IFV | Infantry Fighting Vehicle |
| ISR | Intelligence, Surveillance, and Reconnaissance |
| IW | Irregular Warfare |
| LIC | Low-Intensity Conflict |
| MANPADS | Man Portable Air Defense Systems |
| OIF | Operation Iraqi Freedom |
| RPGs | Rocket-Propelled Grenades |
| UAV | Unmanned Aerial Vehicle |

# Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza

## Background

What kind of Army does the United States require to protect its interests in the future? Will the future challenges facing the United States be, as some argue, centered on "irregular warfare" (IW), similar to Iraq and Afghanistan?[1] Will they be conflicts against state actors, like North Korea or Iran? Or might they be "hybrid wars," defined by defense analyst Frank Hoffman as a "blend of the lethality of state conflict with the fanatical and protracted fervor of irregular war"?[2] This paper examines the experience of the Israel Defense Forces (IDF) in the recent conflicts in Lebanon and Gaza to argue for balanced Army forces, capable of joint combined arms fire and maneuver, to provide the range of capabilities needed to prevail in future conflicts. Furthermore, as recent U.S. operations have shown, Army forces are particularly important against irregular adversaries where there is often a requirement for "boots on the ground" for a protracted period of time to reach desired strategic end states. Hybrid opponents only increase the challenges the joint force—especially ground forces—might face.

The U.S. military, particularly its ground forces, has made significant adaptations to its high-end warfighting skills in response to the IW environments in Afghanistan and Iraq.[3] This adaptation is evident in the implementation of a new counterinsurgency (COIN) doctrine that has markedly increased U.S. effectiveness in both of these wars. Nevertheless, the opponents the United States and its partners have faced in Afghanistan and Iraq have limited military capabilities, especially in the realms of training, organization, equipment, and command and control (C2). Therefore, to better understand the breadth of IW challenges that should affect U.S. decisions about future military capabilities, one must look elsewhere. To this end, RAND Arroyo Center researchers have been examining the recent experiences of the IDF in Lebanon and Gaza for insights to broaden the understanding of the capabilities needed to prevail against more sophisticated hybrid opponents.

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[1] See U.S. Joint Chiefs of Staff, *Joint Publication 3-0: Joint Operations,* Washington, D.C., 2008, p. GL-16, where irregular warfare is defined as "A violent struggle among state and non-state actors for legitimacy and influence over the relevant population. Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will."

[2] Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars,* Arlington, VA: Potomac Institute for Policy Studies, 2007, p. 28.

[3] For a discussion of the post–Cold War evolution of major combat capabilities, see David E. Johnson, *Learning Large Lessons: The Evolving Roles of Ground Power and Air Power in the Post–Cold War Era,* Santa Monica, CA: RAND Corporation, MG-405-1-AF, 2007.

## The IDF Before the 2006 Second Lebanon War

Israel's security situation, like that of the United States, demands that it prepare for full-spectrum operations, what it calls the "rainbow of conflict," which includes low-intensity conflict (LIC), mainly focused on the West Bank and Gaza; high-intensity conflict (HIC) against contiguous states, most notably Syria (and now Lebanon); and "states without common borders," specifically, Iran. Three events affected Israeli perceptions about future warfare prior to the 2006 Second Lebanon War:

- The 1999 war in Kosovo, Operation Enduring Freedom in Afghanistan, and Operation Iraqi Freedom (OIF) spurred a belief in the Israeli defense establishment that standoff attack by fires (principally by air power) was an effective means to affect the will of the adversary and determine conflict outcomes. This approach also seemed to promise lower IDF casualties (a major domestic political consideration), less collateral damage (a key consideration for managing international and regional opinion), and budgetary savings.
- The second *al-Aqsa* intifada, which began in late 2000, forced the Israeli Army to focus on operations to stop terrorist attacks inside Israel.
- The U.S. presence in Iraq following OIF, coupled with low threats from neighbors except Syria, encouraged a belief that Israel was beyond the era of a major war and that the primary role of ground forces was LIC.

The findings of the Israeli government's Winograd Commission, which examined the 2006 Second Lebanon War after its conclusion, showed the problem this kind of thinking had caused in Israel:

> Some of the political and military elites in Israel have reached the conclusion that Israel is beyond the era of wars. It had enough military might and superiority to deter others from declaring war against her; these would also be sufficient to send a painful reminder to anyone who seemed to be undeterred; since Israel did not intend to initiate a war, the conclusion was that the main challenge facing the land forces would be low intensity asymmetrical conflicts.[4]

The mindsets of military and political leaders were fundamentally—and understandably—shaped by this view of Israel's future security environment. The net result was significant cuts in defense spending for ground forces, both active and reserve, that affected training, procurement, and logistical readiness, particularly for reserve ground units and active heavy units. The active Israeli Army focused on stopping terrorist attacks, using targeted assassinations (including air strikes) to "mow the grass," and raids against high-value targets, all enabled by close coordination with Israeli security services.[5]

The Israelis were very successful at LIC in the years before the Second Lebanon War, suppressing the intifada and dramatically lowering Israeli casualties. Unfortunately for Israel, as operations in Lebanon in 2006 would show, the Israeli Army's almost exclusive focus on LIC

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[4] "The Winograd Report: The Main Findings of the Winograd Partial Report on the Second Lebanon War," Haaretz.com, January 5, 2007. As of March 1, 2009:
http://www.haaretz.com/hasen/spages/854051.html

[5] Discussions with IDF officers in Tel Aviv, March 2–5, 2008. "Mow the grass" is an Israeli term.

resulted in a military that was largely incapable of joint combined arms fire and maneuver. Furthermore, operations in Gaza and the West Bank were highly centralized small-unit actions that were conducted almost exclusively by active infantry formations and special operations forces. The clear imperative was to avoid Israeli military casualties. Thus, the timing of missions became discretionary: the imperative was "zero casualties to our forces."[6] The IDF could wait for the best time to strike.

Heavy units (tank and mechanized infantry) played little, if any, role in these operations. Armored unit training was neglected, because they were deemed largely irrelevant in LIC. Furthermore, training and exercises for division and higher units were infrequent. Additionally, the IDF posted the best brigade commanders to deal with LIC threats (further incentivizing the focus on LIC). Finally, Air Force tactical air control capabilities were pulled out of ground brigades. This is particularly important in the IDF, because the Israeli Air Force owns almost all fixed-wing and rotary-wing aircraft; the Israeli Army has only small unmanned aerial vehicles (UAVs).[7]

## The IDF in the 2006 Second Lebanon War

In Lebanon, the Israelis faced terrain and enemy conditions for which they were not prepared. An Israeli journalist, writing about the war, noted that in the years preceding the operation in Lebanon, "at no stage was an Israeli unit required to face down an enemy force of a size larger than an unskilled infantry squad."[8] Hezbollah, although not ten feet tall, was trained and organized into small units and armed with sophisticated weapons, including anti-tank guided missiles, RPGs (including RPG-29s), rockets, mortars, mines, IEDs, and MANPADS. Hezbollah also occupied prepared defensive positions in Lebanon's difficult hilly terrain and urban areas.

Initially, the IDF tried to decide the issue with standoff air and artillery attacks, but this did not stop the rocket attacks on Israel, nor result in the return of the soldiers whose capture had precipitated the war. Eventually, Israeli ground forces entered Lebanon, where they had real difficulties, well documented in Matt Matthews's *We Were Caught Unprepared*.[9] One of the key deficiencies was that the Israeli Army, highly conditioned by its LIC experience, was initially confounded by an enemy that presented a high-intensity challenge that required joint combined arms fire and maneuver and a combat mindset different from that of Palestinian terrorists, even though Hezbollah did not have large formations. One IDF Israeli observer noted that "Prior to the war most of the regular forces were engaged in combating Palestinian terror. When they were transferred to Lebanon, they were unfit to conduct combined forces battles

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6 Yehuda Wegman, "The Struggle for Situation Awareness in the IDF," *Strategic Assessment,* Vol. 10, No. 4, February 2008, p. 23.

7 For excellent examinations of the state of the IDF prior to the 2006 Second Lebanon War, see Amos Harel and Avi Issacharoff, *34 Days: Israel, Hezbollah, and the War in Lebanon,* New York: Palgrave Macmillan, 2008; Sergio Catignani, *Israeli Counter-Insurgency and the Intifadas: Dilemmas of a Conventional Army,* London: Routledge, 2008; and Shlomo Brom and Meir Elran (eds.), *The Second Lebanon War: Strategic Perspectives,* Tel Aviv: Institute for National Security Studies, 2007.

8 Harel and Issacharoff, *34 Days: Israel, Hezbollah and the War in Lebanon,* p. 45.

9 Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War,* The Long War Series Occasional Paper 26, Fort Leavenworth, KS: Combat Studies Institute Press, 2008.

integrating infantry, armored, engineering, artillery forces, and other support forces."[10] This was particularly apparent with field artillery and air—which were used almost exclusively for attacks on preplanned targets and rarely in support of ground maneuver.

Hezbollah was a disciplined and trained adversary, operating in cohesive small units and occupying good terrain. It also had a standoff fires (ATGMs, mortars, and rockets) capability. Thus, defeating Hezbollah required joint combined arms fire and maneuver, something the IDF was largely incapable of executing in 2006. Fire suppresses and fixes the enemy and enables ground maneuvering forces to close with him. Fire also isolates the enemy, shutting off lines of supply and communication and limiting his ability to mass. Maneuver forces enemy reaction. If the enemy attempts to relocate to more favorable terrain, he becomes visible and vulnerable to fire. If he remains in his positions and is suppressed, he can be defeated in detail by ground maneuver. Thus, hybrid opponents like Hezbollah demand integrated joint air-ground-ISR capabilities that are similar to those used against conventional adversaries, but at a reduced scale. Finally, the IDF's highly centralized C2 system, which had been effective in confronting the intifada, proved problematic against Hezbollah.

Quite simply, during the Lebanon War the IDF was not prepared for ground operations when standoff strikes did not force Hezbollah to meet Israeli demands.

## The IDF After the 2006 Second Lebanon War

In the aftermath of Lebanon, the IDF underwent intense internal and external scrutiny. Regarding the military, the Winograd Commission is very specific:

> the [chief of staff] did not alert the political echelon to the serious shortcomings in the preparedness and the fitness of the armed forces for an extensive ground operation, if that became necessary. In addition, he did not clarify that the military assessments and analyses of the arena was that there was a high probability that a military strike against Hezbollah would make such a move [ground operations] necessary.[11]

The IDF set about correcting the deficiencies identified in the Second Lebanon War, particularly in its ground forces. Several generals resigned or were fired, including the chief of staff, Lieutenant General Dan Halutz (the only Air Force officer ever to serve as IDF chief of staff). Additional resources were invested in training and equipping, for both reserve and active forces. Most important, the IDF shifted its training focus from LIC to HIC and a "back to basics" approach that emphasized joint combined arms fire and maneuver training.

The IDF also rethought the role of heavy forces, concluding that the Lebanon War "suggests that if properly deployed, the tank can provide its crew with better protection than in the past. The conclusion is that the Israel Defense Forces still requires an annual supply of dozens of advanced tanks in order to replace the older, more vulnerable versions that are still in service."[12] Thus, production of the Merkava IV tank resumed, and the IDF began work on

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[10] Wegman, "The Struggle for Situation Awareness in the IDF," p. 23.

[11] "The Winograd Report."

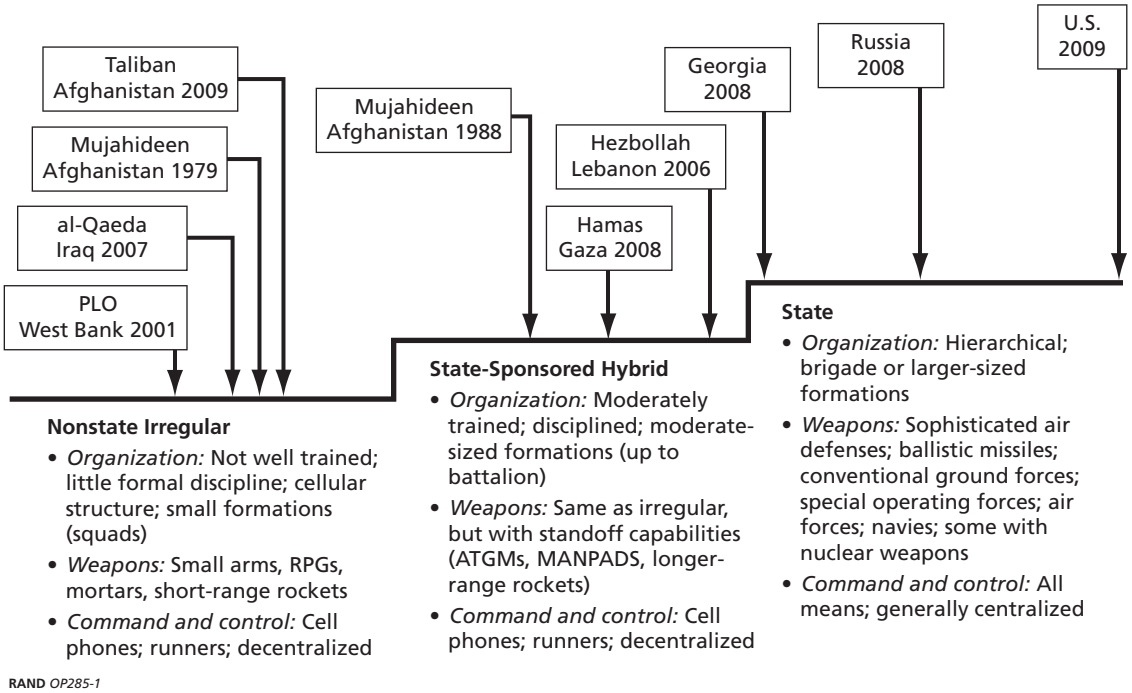
[12] Amir Oren, "IDF Girds for Possibility of War with Syria, Hezbollah in 2007," Haaretz.com, June 11, 2006. As of March 1, 2009:
http://www.haaretz.com/hasen/spages/784053.html

fielding the Namer, a heavy infantry fighting vehicle (IFV) based on the Merkava chassis, to replace less capable systems like the Achzarit IFV, based on a T-55 tank chassis, and M-113 armored personnel carriers. Finally, procedures to integrate artillery and air fires into maneuver brigades were adopted and practiced, and air controllers were again assigned to maneuver brigades.

## The "Middle" of the Range of Military Operations

What is apparent from the Israeli experience in Lebanon is that there are opponents at three basic levels of military competence, and each level places different demands on the military forces being designed to confront them, as illustrated in the figure below.

**Figure 1**
**Steps in Warfare and Capability**




SOURCE: David Johnson, 2009.

Israel faced in Hezbollah an adversary that was in the middle of the range of military operations—neither an irregular opponent nor a state actor. What is especially important to note about these steps is the relative ease of transitioning from a nonstate irregular capability to a state-sponsored hybrid capability. All that is needed is a state sponsor (Iran in the case of Hezbollah) to provide weapons and training to irregular forces. The United States itself created such a transition in Afghanistan in the 1980s when it gave Stinger missiles and other weapons to the Mujahideen, turning them from an irregular force to a hybrid adversary that unhinged Soviet strategy in Afghanistan.

## Observations: The IDF in Gaza 2008–2009 (Operation Cast Lead)

The single most important change in the IDF between the 2006 Second Lebanon War and the recent operation in Gaza was the clear understanding by senior Israeli political and military leaders that ground operations are an essential component of military operations. They no longer believe standoff attack alone, principally by air, can create success.

Thus, from the beginning, it was a given to Israeli political and military leaders that ground forces would have to fight in Gaza—putting troops on the ground was a necessary precondition to achieving their military and political objectives.

Given this renewed appreciation for the importance of ground forces, the Israelis invested heavily in preparing the Army for what it might face in Gaza—or in Lebanon, if it has to take on Hezbollah again. Since the 2006 Second Lebanon War, the Israeli Army has gone back to basics after years of focusing almost exclusively on LIC. It has trained extensively on HIC skills, particularly combined arms fire and maneuver. Indeed, before the Second Lebanon War, roughly 75 percent of training was on LIC and 25 percent on HIC; after Lebanon this ratio was reversed. When the IDF went into Gaza in Operation Cast Lead, it was markedly better prepared to fight a hybrid opponent than it had been in Lebanon in 2006. Operation Cast Lead also had very limited objectives:

- To create conditions for a better security situation in southern Israel, by the following:
  - inflicting severe damage to Hamas
  - decreasing terror and rocket attacks from Gaza
  - increasing Israel's deterrence
  - while minimizing collateral damage and avoiding escalation in other fronts.
- The end state: a long-term cessation of terror attacks from the Gaza strip.[13]

There were also differences between the Second Lebanon War and Operation Cast Lead. The terrain in Gaza was more conducive to IDF operations than had been the case in southern Lebanon. The flat, relatively open terrain in Gaza facilitated a rapid ground advance to isolate Gaza City and sever the lines of communication from the Egyptian border. Furthermore, the IDF had limited goals and chose not to try to invest Gaza City. The terrain in southern Lebanon is more complex, with its hills and channelizing terrain and urban areas. Additionally, there is not a single area—like Gaza City—that can be isolated. In short, Lebanon would still pose formidable challenges for the IDF. Furthermore, Hamas is not as capable an opponent as Hezbollah, neither in its training and discipline nor its weaponry. Hezbollah defended its positions; Hamas frequently retreated. Hezbollah had advanced ATGMs and used them to good effect; Hamas seems not to have had many and used few, if any, relying mainly on small arms, RPGs, mortars, rockets, IEDs, and mines.[14]

Finally, Operation Cast Lead was a relatively small-scale operation for the Israeli Army, involving only a handful of brigades, one division, and the Southern Command. Thus, the Israeli Air Force (IAF) was able to resource the Army brigades in a way that is probably not possible in a large-scale operation. For example, there are only four attack helicopter squadrons

[13] Discussions with IDF officers in Tel Aviv, February 10–12, 2009; in Washington, D.C., February 26, 2009 and April 1, 2009; and in Tel Aviv, September 2–10, 2009.

[14] Discussions with IDF officers in Tel Aviv, February 10–12, 2009, and September 2–10, 2009.

in the IAF; one runs out of these squadrons very quickly if they are in a direct support role to a specific maneuver brigade, as they were in Cast Lead.[15] Furthermore, the ability to resource air controllers throughout the Israeli Army as fully as in Cast Lead would present significant challenges for the IAF.[16]

The force mix in Gaza also shows that the Israelis believe that heavy forces are relevant and necessary in facing hybrid challenges like those in Gaza or Lebanon. Of the four principal ground maneuver brigades, two were infantry (Golani Brigade, Givati Brigade), one was armored (401st Tank Brigade), and one was airborne infantry (Paratroopers Brigade). Heavy armored vehicles (tanks, IFVs), with additional belly armor to protect against IEDs, were used in all of these brigades and provided the Israelis with the ability to conduct protected maneuver and direct fire in an area presumed to have large concentrations of mines, snipers, and RPGs. Engineer and logistical units also used armor for protected mobility. Finally, tanks provided mobile and protected precision firepower, reduced risks, and were an important intimidation factor.

The Israelis also relied heavily on combat engineers and on artillery- and air-delivered fires to neutralize mines and IEDs on their approach routes ("paving the way with fires"). Furthermore, unlike in Lebanon in 2006, maneuver brigade commanders had air assets (attack helicopters and UAVs) and artillery units in direct support of their operations. By all reports, these fires were highly responsive and effective.

Finally, the ground brigades were the locus of tactical decision making. This was important, because fighting in complex terrain required split-second decisions against fleeting targets and tight integration with strike and ISR platforms. Brigades were accordingly resourced to manage their fights with liaison officers from other services and agencies and direct support air, artillery, and ISR assets.[17]

## Relevance of the IDF Experience for the U.S. Army

Although the U.S. security situation is much different from that of Israel, similarities do exist. Both nations believe they must prepare for challenges across the range of military operations. Therefore, the following insights from recent Israeli experience have relevance for the U.S. Army:

- The basics of combined arms fire and maneuver are necessary for successful operations against opponents with capabilities like Hezbollah and Hamas. These hybrid opponents create a qualitative challenge that demands combined arms fire and maneuver at lower levels, despite their generally small-unit structures. The Israelis had lost these skills after years of preparing for and confronting (understandably) terrorist attacks during the second intifada. The U.S. Army, focused as it necessarily is on preparing soldiers and units for duty in Iraq and Afghanistan, might be approaching a condition similar to that of the Israelis before the 2006 Second Lebanon War: expert at COIN, but less prepared for

[15] International Institute for Strategic Studies, *The Military Balance 2009,* Milton Park, UK: Routledge, 2009, p. 250.

[16] Discussions with IDF officers in Tel Aviv, February 10–12, 2009, and September 2–10, 2009.

[17] Discussions with IDF officers in Tel Aviv, February 10–12, 2009; in Washington, D.C., February 26, 2009 and April 1, 2009; and in Tel Aviv, September 2–10, 2009.

sophisticated hybrid opponents. Furthermore, the introduction of sophisticated weapons (e.g., ATGMs, MANPADS) could radically escalate the challenges faced by U.S. forces in Afghanistan, as it did for the Soviet Union in the 1980s.

- Precision, standoff fires are critical, but not sufficient, to cope with hybrid warfare opponents, particularly if they are operating "among the people."
- Responsive and adequate air, artillery, and UAV support are critical components of the combined arms fight against hybrid opponents. The well-practiced capacity to integrate these capabilities is a precondition for success.
- Heavy forces—based on tanks and infantry fighting vehicles—are key elements of any force that will fight hybrid enemies that have a modicum of training, organization, and advanced weapons (e.g., ATGMs and MANPADS). Light and medium forces can complement heavy forces, particularly in urban and other complex terrain, but they do not provide the survivability, lethality, or mobility inherent in heavy forces. Quite simply, heavy forces reduce operational risks and minimize friendly casualties.

Finally, the Israeli experience points to the need for further analysis in at least several areas to improve U.S. joint force effectiveness against hybrid opponents:

- What are the air-ground-ISR integration implications (in organizations, C2 technologies, and procedures) of operations against hybrid opponents, particularly when they are operating "among the people"?
- What are the training implications of hybrid opponents for U.S. units, i.e., individual and collective skills that are different from those employed in COIN or major combat operations?
- What kinds of ground combat vehicle capabilities—in the realms of survivability, lethality, and mobility—are required to prevail against hybrid opponents?