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# 14. Minding the Middle: Insights from Hezbollah and Hamas for Future Warfare

David E. Johnson

## Introduction

This paper examines the relevance of Hezbollah and Hamas to current and future forms of warfare. A brief review of the literature, however, makes it clear that Hezbollah, particularly during its 2006 war with Israel, has already had a significant impact on US military thinking.

In the aftermath of the 2006 Second Lebanon War, considerable attention was paid to the implications of that conflict for the future of warfare. Frank Hoffman and others started a discussion in 2007 that, in the beginning, was quite useful in examining what many began hailing as a new form of warfare: so-called "hybrid war." Hoffman's initial definition framed hybrid war, based on the Hezbollah example, as a "blend of the lethality of state conflict with the fanatical and protracted fervor of irregular war." Others argued that it was nothing new, citing the Vietnam War and other precedents.

Over the next few years writing on hybrid warfare became somewhat of a cottage industry, with each successive article—trying to appear ever more insightful—perhaps generating more heat than light. By late 2009, Hoffman had expanded his definition of a hybrid adversary to "any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal behavior in the battle space to obtain their political objectives." He also added the category of "compound wars" to explain the 2008 Georgia War, defining them as "conflicts with regular and irregular components fighting simultaneously under unified direction." In his view, while the Russian Federation used armored formations and bombers, it also relied on cyber attacks and "irregular Chechen units, including the notorious Vostock Battalion" to defeat the Georgians. Hoffman's description, while interesting, tended to ignore the principal determinant of Russian victory: what crushed the Georgian military was overwhelming Russian force, which included Russian air, naval, ground, and special forces units. In many ways the debate about future warfare became similar to one often attributed to academics: It works fine in practice, but what about the theory?

One final point that is important to mention about the 2006 Second Lebanon War before moving on. The "lessons learned" from the conflict became central to the debates about future US military capabilities during the Quadrennial Defense Review and about operational doctrine at the US Joint Forces Command (USJFCOM). In short, the Second Lebanon War was used by some to challenge the views since the Kosovo War of the ascendance of America's air and network-centric, high-tech notions of warfare—which were already under assault after three years of tough, post-Operation Iraqi Freedom operations. Indeed, the Second Lebanon War became the basis for General James Mattis, USJFCOM Commander, to mandate "Effective immediately, USJFCOM will no longer use, sponsor, or export the terms and concepts related to EBO [effects-based operations], ONA [operational net assessment], and SoSA [system of systems analysis] in our training, doctrine development, and support of JPME."

Thus, one could argue that Hezbollah and the 2006 Second Lebanon War have already had a significant impact on current and future US military thinking, doctrine, and capabilities. This essay

will argue that the practice is perhaps more nuanced than the accepted theory, that it does matter, and that Hezbollah and Hamas provide insights into the challenges in future warfare that the United States could face in the next 20 years.

## Hezbollah

Hezbollah is a Shi'a Islamist political and paramilitary organization that rose to prominence largely in response to Israel's occupation of southern Lebanon from 1982 to 2000. It is classified as a terrorist organization by the United States and others.<sup>6</sup> Perhaps its most memorable act of terror was the 1983 suicide bombing of the Marine barracks that killed 299 American and French servicemen.<sup>7</sup>

Hezbollah seeks to eliminate "the influence of any imperialist power" in Lebanon, desires Israel's "obliteration from existence and the liberation of venerable Jerusalem," and wants to establish an Islamic regime in Lebanon. Hezbollah was inspired by Iran's leader of the 1979 Iranian Revolution, the Ayatollah Khomeini, and receives training and weapons from the Iranian Republican Guard and Svria. 9

Hezbollah's founders and its Deputy Secretary General "is thus another form of appraising life: death with surrender and shame versus a life of jihad ending with martyrdom for the sake of virtue's victory and national pride. In this context, Commander of the Faithful Imam Ali . . . said 'Death shall defeat you in life, and you shall defeat life through death."

Martyrdom was also viewed since the inception of the organization as a means to confront the Israel Defense Forces (IDF) with an asymmetric challenge by providing "compensation for military imbalance and infliction of painful losses on enemy ranks. . . . This was realized through simple and humble technologies that, on the one hand, shook the Israeli army's ability of defend itself and on the other unsettled its ability to retaliate." In the furtherance of its strategy, Hezbollah conducted raids and suicide attacks against IDF troops and other targets in Lebanon.

By 2006, Hezbollah was the dominant power in Southern Lebanon, providing education, health care, and other social services. Over time, Hezbollah, currently led by Secretary General Hassan Nasrallah, developed into a political organization, holding seats in the country's parliament and wielding considerable power in Lebanon's fractured political landscape. <sup>12</sup> Indeed, as a key member of the "March 8 Alliance," a coalition of political parties formed in 2005 and currently the ruling coalition in Lebanon, Hezbollah enabled the nomination of Najib Mikati as the Lebanese Prime Minister.

Hezbollah also has significant military capabilities. In 2006, the Israelis estimated Hezbollah had 10,000 fighters. Although active throughout Lebanon, Hezbollah was concentrated in South Lebanon, Beirut, and Baalbek. The headquarters and Nasrallah's offices were located in the Dahiye neighborhood in the Shiite section of Beirut. The majority of Hezbollah's fighters were located in the Nabatieh region and south of the Litani River. Although exact numbers are difficult to ascertain, published sources state that Hezbollah relied almost exclusively on the 3,000 fighters in the Nasr Brigade in Southern Lebanon during the 2006 war.<sup>13</sup>

Hezbollah's military wing is hierarchically organized, but operates in a cellular manner with good operational and communications security to avoid detection from Israeli sensors and aerial attack. Additionally, Hezbollah established bunkers and fighting positions in Southern Lebanon, taking

advantage of the complex terrain and villages in the area, before the 2006 war. They also integrated effective standoff weapons, such as antitank guided missiles (ATGMs), mortars, and short-range rockets, with mines and improvised explosive devices (IEDs) and competent fighters to stymic IDF advances into Lebanon in 2006. Finally, Hezbollah relied on cached materiel to avoid exposing its resupply efforts to Israel Air Force (IAF) interdiction.

Within and behind its ground defenses, Hezbollah deployed the rockets shown in Table 1, which ranged into Israel, as shown in Figure 1. This enabled Hezbollah to conduct a tactical defensean "anti-access" approach—to support a strategic rocket-based offensive. essentially

Table 1: Hezbollah-deployed Rockets (2006)

Type Range (km) Payload (kg) Quantity Short-Range: 107-mm Katyusha 122-mm Katyusha 7 13,000 7-40 122-mm Extended Range Katyusha 240-mm Katyusha Mid-Range: 240-mm Fadjr-3 330-mm Fadjr-5 45-70 50-175 ~1,000 220-mm Urgan 302-mm Khaibar-1 Long-Range: 200 400-600 Dozens 610-mm Zelzal 2

This is a random point on the Lebanese border chosen to show missile ranges - it is not area used by Hezbollah Mediterranean Sea SYRIA **GOLAN HEIGHTS** Katyusha range: 25km Haifa ISRAEL Fajr-3 range: 45km Fajr-5 range 75km Tel Aviv BANK Zelzal-2 range: 100km JORDAN □Jerusalem GAZA

Figure 1: Range of Hezbollah Rockets (2006)

Source for Table 1 and Figure 1: "Hezbolla's Rocket Force," BBC News, July 18, 2006, at http://news.bbc.co.uk/2/hi/middle\_east/5187974.stm, accessed May 15, 2010.

Zelzal-2 possible range: 200km

# The 2006 Second Lebanon War

The 2006 Second Lebanon War began when Hezbollah abducted two Israeli soldiers in July 2006, an act that was preceded by at least four other attempts to capture IDF personnel. <sup>14</sup> 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. Israel largely stumbled into ground operations in Lebanon, where it had no desire to renew a long-term presence having removed its ground forces from there in 2000.

Although the IDF was successful in finding and attacking medium- and long-range rockets that had hit major population areas like Haifa—largely because of their size and need to be in relatively open areas to fire—targeting and attacking short-range rockets proved an elusive proposition from the air. The evolving nature of targets the IDF has faced and solved over the years, shown in Figure 2, is the challenge to high-tech, standoff warfare posed by concealable rockets and adaptive adversaries.

Airfields Size Signature Price 1970: Surface-to- Order of battle Air Missile Mobility Installations Urban Mobile Surface to-Air Missiles Requires an integrated air approach Scuds 2006-2009: Short-range Mobile Katvusha Rockets rockets

Figure 2: Adversary Adaptation to High Technology Warfare

Source: IAF Doctrine Branch.

Throughout the war, short-range rockets rained down on Israel. Eventually, Israeli ground forces entered Lebanon to deal with the short-range rocket threat and confronted serious difficulties. One of the key deficiencies was that the Israeli Army, highly conditioned by its low-intensity combat (LIC) experience during the first and second *intifadas*, was initially confounded by an enemy that presented a stand-off fire challenge with its mortars, ATGMs and man-portable air defense systems (MANPADS), which required joint combined arms fire and maneuver and a combat mindset different from that used to address Palestinian terrorists, even though Hezbollah did not present large formations. The central issue was one of closing with the enemy. The irregular Palestinian forces were generally engaged immediately in close combat at ranges of 500 meters or less. Standoff

weapons gave Hezbollah the capability to engage with mortars and ATGMs at extended ranges (as much as five km with AT-14 Kornet-E ATGMs). For the IDF to have been successful, it would have had to use combined arms fires to suppress Hezbollah stand-off weapons to enable IDF infantry to maneuver to close combat ranges. 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." <sup>15</sup>

The IDF ground force performance in Lebanon was poor, and most units did not achieve their objectives by the end of the war. This created a significant issue for Israel: For the first time the IDF did not seem invincible, raising concerns domestically about deterrence. Finally, by staying in the fight until the ceasefire, Hezbollah was able to say it had won by not losing. The Second Lebanon War was a wake-up call for the Israelis.

In the aftermath of the Second Lebanon War, the IDF went "back to basics." Training on high-intensity, combined arms combat was markedly increased, as were procedures to integrate air and ground forces. Additionally, the IDF procured more Merkava IV tanks, began producing an armored personnel carrier based on the Merkava chassis (Namer), and started fielding active protection systems for its armored vehicles to mitigate the rocket propelled grenade (RPG) and ATGM threats. Israel also accelerated the development and fielding of its missile defense programs.<sup>16</sup>

#### Hamas

Hamas<sup>17</sup> is a Sunni Palestinian militant organization that was formed in 1987 at the beginning of the first *intifada* (uprising). Hamas has become a key player in Middle Eastern politics. Hamas is an offshoot of the Egyptian Muslim Brotherhood that "combines Palestinian nationalism with Islamic fundamentalism. Its founding charter commits the group to the destruction of Israel, the replacement of the PA [Palestinian Authority] with an Islamist state on the West Bank and Gaza, and to raising 'the banner of Allah over every inch of Palestine." Article 8 of the Hamas Charter is "The Motto of the Islamic Resistance Movement:"

God is its goal;

The messenger is its Leader.

The Quran is its Constitution.

Jihad is its methodology, and

Death for the sake of God is its most coveted desire.<sup>19</sup>

Hamas' founder and leader, Sheikh Ahmad Yassin, was killed by an Israeli missile in March 2004. Ismail Haniyeh, the Gaza government's prime minister, is the organization's senior figure in Gaza; Khaled Meshaal, Hamas' leader, lives in Damascus, Syria.<sup>20</sup>

Hamas broke from the nonviolent activism of the Muslim Brotherhood in 1988 when it committed itself to the objective of driving Israeli forces from the occupied territories and placing itself at the forefront of Palestinian resistance to the Israeli occupation. Hamas's tactics include suicide bombing and rocket attacks against civilians. Its founding charter calls for the destruction of Israel and for the

establishment of an Islamic state on all of historic Palestine, including Israel. The United States, European Union, and Israel have all designated Hamas as a terrorist organization.<sup>21</sup>

In January 2006, Hamas defeated Fatah, the party of the Palestinian Liberation Organization (PLO) president, Mahmoud Abbas, in parliamentary elections. In the summer of 2007, tensions between Hamas and Fatah erupted and "Hamas routed Fatah supporters, killing many and sending others fleeing to the West Bank. The result was a de facto geographic division of Palestinian-held territory, with Hamas holding sway in Gaza and Fatah maintaining the internationally recognized Palestinian Authority government in the West Bank town of Ramallah."<sup>22</sup>

The relationship between Hamas and Fatah appears to be changing. On April 27, 2011, Fatah and Hamas announced their reconciliation and prospects of forming a temporary unity government. This situation is alarming to Israel, as seen in the comments on the deal by Israeli Prime Minister Benjamin Netanyahu: "The Palestinian Authority must choose either peace with Israel or peace with Hamas. There is no possibility for peace with both."

Since its inception, Hamas divided its activities into three main spheres of operation: (1) a political section, involved in Palestinian politics; (2) a social section, providing basic social services to its constituencies such as hospitals, schools, and religious institutions (modeled on the Muslim Brotherhood and the Lebanese Hezbollah); and (3) a militant section, represented by its paramilitary wing, the Izzedine al-Qassam Brigades, which engages in acts of terror against Israelis and also participates in conflict against other Palestinian factions.<sup>24</sup>

The Izzedine al-Qassam Brigades is the main militant-terrorist organization in the Gaza strip. It is organized into several semi-military echelons, including brigades, battalions, companies, platoons, and teams, with more than 10,000 operatives.<sup>25</sup> These reinforce the regular hard core of several hundred skilled fighters, supplemented by others.<sup>26</sup> The force is organized into four regional sectors: Northern sector (one brigade), Gaza City sector (two brigades), Central sector (one brigade), and Southern sector (two brigades).<sup>27</sup> Hamas's skilled fighters, numbering several hundred, are mainly trained in Lebanon by Hezbollah, Iran, and Syria. Hezbollah provides specialized training in the use of standoff weapons such as ATGMs, MANPADS, and rockets.

Hamas has procured weapons and ammunition with the help of Hezbollah, Iran, and Syria. It also has manufactured Qassam rockets and a variety of IEDs. Getting weapons into Gaza is difficult. They must enter either through tunnels from Egypt or over the Mediterranean shore, which is closely monitored by the IDF. Hamas' rocket capabilities in 2008 are shown in Table 2, and their range into Israel is shown in Figure 3.

WS-1E Grad Qassam-1 Qassam-2 Qassam-3 Length (cm) ~80 ~180 ~200 283 294 ~150 ~170 122 122 Diameter (mm) ~60 Weight (kg)  $\sim 5.5$ ~32 ~90 72 74 5-9 18~22 Payload (kg) 0.5 10-20 18 10-12 Range (km) 3-4.5 8-9.5 18-20 34-45

Table 2: Hamas Rockets in 2008

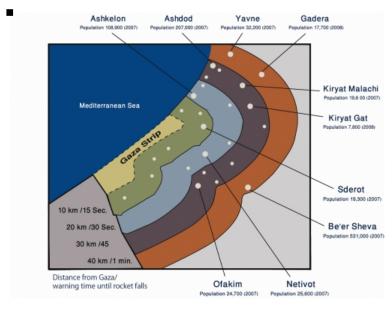


Figure 3: Range of Hamas Rockets in 2008

Source: Rocket and Population Map, 21 Jan 2009, at http://idfspokesperson.com/2009/01/21/rocket-and-population-map-21-jan-2009/, accessed May 21, 2011.

Moving large rockets via the tunnels is challenging, and the larger 122-mm Grad rockets reportedly have to be disassembled into four pieces to enable their transit. The indigenously produced Qassam rockets suffer from limited accuracy, poor reliability, and short shelf lives. None of the rockets used by Hamas are guided; as with Hezbollah, the goal is simply to hit Israel. The introduction of Grads and longer-range rockets is an important development because of their militarily significant payloads; the fact that they will put over one million citizens in range (including the towns of Ashqelon and Ashdod) and put critical infrastructure at risk (ports, a desalination plant, and a major electric power plant). The recent fall of the Egyptian government may make more and better weapons available across the Egyptian border.

Hamas, however, has several key military limitations when compared to Hezbollah, as demonstrated during Israel's offensive into Gaza during Operation Cast Lead (December 2008 to January 2009). First, they do not have Hezbollah's quality and quantity of weapons. Second, there is an inherent terrain constraint in Gaza that limits Hamas' operational depth and ability to use standoff, direct-fire weapons, e.g., ATGMs. Additionally, the ground is generally flat and open; the only complex terrain is in urban areas, which are relatively easy to isolate. Third, Israeli intelligence agencies have a much clearer understanding of Hamas, and targeting of key assets and individuals is much more effective than in Lebanon.

## **Operation Cast Lead**

Operation Cast Lead was an operation with carefully limited objectives, designed 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 on other fronts
- Desiring an end state of long-term cessation of terror attacks from the Gaza strip.<sup>29</sup>

Operation Cast Lead began with a weeklong air campaign that began on December 27, 2008, when 88 IAF strike aircraft hit 100 preplanned targets in 220 seconds.<sup>30</sup> The air campaign was followed up a week later with a ground operation consisting of four combined arms maneuver brigades. Three of these brigades (Paratroopers, Golani, Givati) rapidly pushed Hamas fighters out of their prepared positions and into Gaza City. The fourth brigade (401st "Tracks of Iron" armor brigade) cut off Gaza City from the supply routes from the Egyptian border. Israel also called up reserve units for Cast Lead. On January 18, 2009, an Egyptian-brokered ceasefire went into effect and the IDF withdrew from Gaza. Israel believes it met its principal objectives of harming Hamas and increasing its deterrence.

# Why are Hezbollah and Hamas important?

Hezbollah and Hamas are important for several reasons. First, they both pose a clear and increasingly potent threat to Israel, a state whose security the United States has underwritten since its founding in 1948. This is a largely contextual issue related to the overall Palestinian question. Until it is resolved, the threat to Israel from Hezbollah and Hamas will likely continue. Thus, it is somewhat unique. Second, Hezbollah and Hamas might also represent a category of potential adversaries—state-sponsored hybrid adversaries—that the United States itself could encounter in the future. Indeed, one might see these types of actors emerge from the ongoing turmoil in North Africa and the Middle East, or elsewhere. These actors would be nationalistic, Islamic, and potentially more subject to being influenced, and perhaps supported, by regional actors—like Iran—than by the West. Finally, both show the relatively rapid transition an irregular actor can make in military capability with outside state assistance. Thus, Hezbollah and Hamas provide insights into the four questions that framed the May 17–18, 2011, Global Trends and the Future of Warfare 2025 workshop. Each will be addressed in turn.

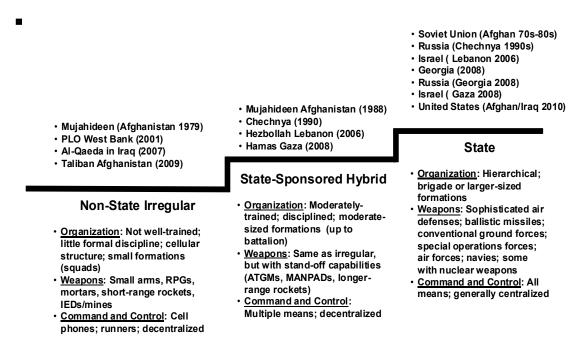
What features of war and warfare in the present can we expect to persist into the future, and which can we expect to fade or transform into something new?

Hezbollah and Hamas show that there is a "middle area" in the range of military operations between irregular warfare and state conflict. These state-sponsored hybrid adversaries create a *qualitative* challenge, despite their *smaller size*, because of their:

- Training, discipline, organization, and command and control
- Standoff weapons (ATGMs, MANPADS)
- Use of complex terrain (natural and/or urban) and fighting among the people.

Figure 4 shows this category of adversary relative to irregular and state actors.

Figure 4: Types of Adversaries with Characteristics and Historical Examples



State-sponsored hybrid adversaries, like Hezbollah, have acquired effective standoff weapons: rockets, mortars, ATGMs, MANPADS, and even shore-to-ship cruise missiles and unmanned aerial vehicles (UAVs). They are generally trained, disciplined, and cohesive forces that operate in a semi-centralized manner to avoid detection and attack, but can use terrain and urban areas to construct challenging defenses and hinder access.

What the IDF realized during the 2006 Second Lebanon War is that hybrid, state-supported adversaries like Hezbollah present a qualitative problem that is not scale dependent and that "precision, standoff fires are critical, but not sufficient, to cope with hybrid warfare opponents, particularly if they are operating 'among the people."

Furthermore, hybrid adversaries force changes to operational concepts that are relevant to irregular opponents. For example, because the adversary has MANPADS, the ability to use helicopters will likely be limited. This will constrain the ability of light forces to operate and will increase reliance on ground lines of communication. Heavy forces—with their protection, off-road mobility, and firepower—are key in this ATGM and RPG-rich environment. That said, the absence of advanced air defenses means that fixed-wing air power will still be able to operate with relative impunity above MANPADS range and, consequently, will become the key means for finding and attacking high-value targets (e.g., medium and long-range rockets, cruise missiles), destroying UAVs, and preventing the adversary from massing forces or resupplying forward units.

Irregular adversaries require state sponsorship to make the transition to hybrid capabilities. Consequently, providing advanced weapons to a non-state actor is clearly a policy decision for a state, because the source of the weapons will likely be traced back to them. This was the case when

the United States provided Stinger MANPADS to the Mujahideen during the Soviet occupation of Afghanistan. There seems to be a public perception that these weapons, particularly MANPADS, are available on the black market if one has the money to buy them. Although it may be possible to buy a small number of weapons to create an "event," i.e., shooting down a commercial airliner, it is not possible to attain an operational capability without state support. Military capability, like that possessed by Hezbollah in Lebanon, requires weapons, a supply chain, and training. Or, as in the case of the Chechen militants who confronted the Russians in the 1990s, the weapons and trained operators were left behind when the Soviet Union broke up. Either of these origins of hybrid capability is possible in the future, particularly in the changing landscape in the Middle East and North Africa.

Interestingly, the capabilities Hezbollah employed in the 2006 Second Lebanon War have not shown up in Afghanistan or Iraq, presumably because Iran and Syria have decided not to provide them.<sup>33</sup> Thus, preventing the transfer of these standoff capabilities to non-state irregular actors to prevent them from becoming hybrid adversaries should be central to how we think about deterrence regimes in the future.

What current, emerging, or foreseeable social, economic, and political trends, within and beyond the traditional security arena, will drive changes in warfare and conflict over the next 15-20 years?

One of the key characteristics about Hezbollah and Hamas is that they are not insurgencies. They are nationalistic, Islamist political parties that also have military capabilities. Their goal, in addition to securing historical Palestinian territory, is to obtain political power. One could speculate that emerging Middle Eastern and North African regimes may look more like Hezbollah and Hamas than Western democratic states and that they might turn to other Islamic powers, for example Iran, for support. Indeed, as recent events in the Middle East have shown, the United States has, not surprisingly, found its interests mixed, if not conflicted. It supports repressive regimes such as those in Bahrain and Saudi Arabia, while also recognizing and assisting internal rebellions as it has in Egypt and Libya.

# How is American thinking on the evolution of modern warfare perceived internationally?

This question is perhaps best answered by comparing how Israel was perceived before and after the 2006 Second Lebanon War. Like the United States now, Israel before that war was largely convinced that the era of major wars with large ground forces was past and that "the main challenge facing land forces would be low intensity asymmetrical conflicts." The IDF's interpretation of US air operations in Kosovo and the opening stages of the wars in Afghanistan and Iraq convinced it that standoff attack by precision fires (principally air power), enabled by advanced intelligence, surveillance, and reconnaissance (ISR) can deter the state or defeat its adversaries. This was highly attractive at the time and promised lower IDF casualties, a key domestic consideration; less collateral damage than ground operations, which was vital for managing international and regional opinion; and budgetary savings. Furthermore, since 2000, the Israeli Army had been highly stretched by the demands of dealing with the second *al-Aqsa intifada* terrorist attacks inside Israel.

The IDF became highly competent at LIC and largely shut down the *intifada*. In the process, however, Israeli ground forces became largely incapable of the combined arms fire and maneuver operations needed to contend with a hybrid adversary like Hezbollah. Thus, Israeli ground forces

looked incompetent and suffered unnecessary casualties that only heightened this perception in Israel and the region.

The US military is perhaps not that different from the IDF in 2006: It has highly reliant air power to deter state adversaries while its ground forces have adapted to the irregular challenges in Afghanistan and Iraq. Former US Secretary of Defense, Robert M. Gates, reinforced this view recently during a speech at West Point: "Looking ahead, though, in the competition for tight defense dollars within and between the services, the Army also must confront the reality that the most plausible, high-end scenarios for the US military are primarily naval and air engagements—whether in Asia, the Persian Gulf, or elsewhere." It is worth remembering that the IDF employed elements of five divisions in Lebanon because of the size of the operational area and the complexity of the terrain. If the mission is to clear dispersed and hidden adversaries from complex terrain in an area the size of Southern Lebanon—roughly 45 km deep and 45 km wide—significant numbers of ground forces are needed.

One could reasonably assume that America's potential adversaries have gone to school on the Second Lebanon War and will seek to adapt their capabilities to avoid US strengths. Indeed, the tactics used by the Serbs in Kosovo and those thus far employed by Colonel Muammar el-Qaddafi's forces in the current stalemated conflict in Libya show that an adaptive adversary can avoid Western military strengths by blending into the population or using complex terrain to hide forces.

There is also the sense, at least in Kosovo and thus far in Libya, made explicit by statements from Western political leaders, that there is little stomach for introducing ground forces into these types of conflicts. What the IDF learned in Lebanon was that a determined, adaptive adversary can avoid targeting and attack from the air if it is not forced to react to pressure on the ground by competent land forces capable of combined arms fire and maneuver. Operation Cast Lead showed that they learned from the Lebanon experience.

Operation Cast Lead also shows the limited options a state has in dealing with committed adversaries with hybrid capabilities. Israel faced three broad military options when confronted with the continued rocket attacks from Gaza: 1) do nothing, 2) execute a large-scale operation to defeat Hamas (and own Gaza again), or 3) execute a limited operation to damage Hamas and deter it from future rocket launches. These options are not that different from those that the United States might face in future security environments. Indeed, Edward Luttwak and Martin van Creveld have both argued that Israel's bombing during the Second Lebanon War did achieve the desired strategic effect of damaging and deterring Hezbollah. During Operation Cast Lead, Hezbollah stayed silent and even disavowed responsibility for a small number of rockets fired from Lebanon. Luttwak views this reliance on US/Israeli high-end capabilities as a solution for problems in the future, extending his argument to Afghanistan:

The better and much cheaper alternative [in Afghanistan] would be to resurrect strategic bombing in a thoroughly new way by arming the Taliban's many enemies to the teeth and replacing US troops in Afghanistan with sporadic airstrikes. Whenever the Taliban concentrate in numbers to attack, they would be bombed. This would be a most imperfect solution. But it would end the costly futility of 'nation-building' in a remote and unwelcoming land.<sup>37</sup>

Nevertheless, what does seem clear is that America's potential adversaries understand Western capabilities and are adapting.

What new concepts and doctrine for future warfare are emerging among current and prospective violent actors (both states and non-states) around the world?

The United States has not faced the challenges posed by hybrid adversaries since the Vietnam War. The US military, largely like the IDF before 2006, has adapted its ground forces to irregular warfare, with the expectation that its dominance in high-end, air-centric warfare is what is needed for future high-end challenges. One should expect future adversaries to go to school on the 2006 Second Lebanon War and attempt to acquire standoff fire capabilities, both direct (e.g., ATGMs, MANPADS, and shore-to-ship missiles) and indirect (e.g., rockets and mortars), that are concealable in complex terrain, particularly urban areas among civilian populations, to complicate their acquisition and attack from the air. These adversaries also believe, rightly or wrongly, that the quickest way to unhinge the strategies of Western military states is by creating large numbers of casualties, capitalizing on mistakes (e.g., bombing the wrong target, killing noncombatants) in the media, and protracting conflicts.<sup>38</sup>

These types of adversaries are also capable of creating difficulties for ground forces, because they will use standoff weapons to expand engagement areas far beyond what irregular adversaries with lesser weapons are capable of, thus making it difficult to close with them. If precision guidance becomes available for indirect-fire weapons (e.g., rockets and mortars), the standoff fires challenge will only become more dire and make adversary anti-access operations even more problematic. What is essentially a close combat fight of generally less than a kilometer against an irregular adversary becomes a five (or more) kilometer combined arms fire and maneuver fight to get to close combat ranges with a hybrid adversary.

## Concluding thoughts

In closing, there are several key points about the IDF's experiences with Hezbollah and Hamas that are relevant to the United States as it looks to the future. First, America's potential adversaries are working to counter US strengths with asymmetric approaches. Second, non-state hybrid adversaries are combining state capabilities with irregular organizations. This is not necessarily new. There was a hybrid war in South Vietnam during the Vietnam War, pitting US forces against well-armed Viet Cong insurgents and North Vietnamese Army units, largely armed and supplied by Russia and China. Third, although hybrid warfare is not a new phenomenon, we have not thought enough about how we are going to adapt our capabilities to deal with this problem, which is persistent for Israel and could become a problem for the United States and other nations. We have largely become a bipolar military: highly capable in irregular and state warfare, but with little recent experience "in the middle." Fourth, the likely challenges the United States will face in the future will require highly integrated air-ground-ISR capabilities whose tailoring must be highly relevant to the specific enemy and operational context to be effective. What worked on the West Bank against the intifada did not work in Lebanon; what toppled the regime of Saddam Hussein did not bring stability to Iraq. Clearly, we need to continue to develop the joint doctrines, processes, organizations, and interservice and interagency relationships that will enable success across the full range of military challenges.

<sup>&</sup>lt;sup>1</sup> Frank G. Hoffman, Conflict in the 21st Century: The Rise of Hybrid Wars, Arlington, Va.: Potomac Institute for Policy Studies, 2007, 14.

- <sup>2</sup> Frank, G. Hoffman, "Hybrid vs. Compound War, the Janus Choice: Defining Today's Multifaceted Conflict," *Armed Forces Journal* (October 2009).
- <sup>3</sup> Frank, G. Hoffman, 2009, 16.
- <sup>4</sup> Roger N. McDermott, "Russia's Conventional Armed Forces and the Georgian War," Parameters (Spring 2009), 65–80.
- <sup>5</sup> James N. Mattis, "USJFCOM Commander's Guidance for Effects-Based Operations," *Parameters* (Autumn 2008), 23.
- <sup>6</sup> Council on Foreign Relations, Hezbollah, at
- http://www.cfr.org/publication/9155/hezbollah\_aka\_hizbollah\_hizbullah.html, accessed January 31, 2011, and US Department of State, "Foreign Terrorist Organizations," as of November 24, 2010, at http://www.state.gov/s/ct/rls/other/des/123085.htm, accessed February 31, 2011.
- <sup>7</sup> Council on Foreign Relations, 2010.
- <sup>8</sup> Augustus Richard Norton, *Hezbollah*, Princeton, N.J.: Princeton University Press, 2007, pp. 38–40. See also Naim Qassem, *Hizbullah: The Story from Within*, London: SAQI, 2005, p.p. 13-59; and Hala Jaber, *Hezbollah: Born With a Vengeance*, New York: Columbia University Press
- <sup>9</sup> Hala Jaber, *Hezbollah: Born With a Vengeance*, New York: Columbia University Press, pp. 50–51, 112–113, and Council on Foreign Relations, 2010.
- <sup>10</sup> Naim Qassem, Hizbullah: The Story from Within, London: SAQI, 2005, pp. 336–353.
- <sup>11</sup> Qassem, Hizbullah, p. 49.
- <sup>12</sup> For example, see "Who are Hezbollah?" BBC News, May 21, 2008, at http://news.bbc.co.uk/2/hi/middle\_east/4314423.stm, accessed October 23, 2009.
- <sup>13</sup> Alastair Crooke and Mark Perry, "How Hezbollah Defeated Israel: Part 2: Winning the Ground War," Asia Times, October 13, 2006, at http://www.atimes.com/atimes/Middle\_East/HJ13Ak01.html, accessed March 30, 2010. See also Yakov Katz, "IDF Declassifies Intelligence on Hizbullah's Southern Lebanon Deployment," Jane's Defence Weekly, July 9, 2010. at
- http://www4.janes.com/subscribe/jdw/doc\_view.jsp?K2DocKey=/content1/janesdata/mags/jdw/history/jdw2010/jdw43599.htm@current&Prod\_Name=JDW&QueryText=%3CAND%3E%28%3COR%3E%28%28[80]%28+lebanon+%3CAND%3E+rockets%29+%3CIN%3E+body%29%2C+%28[100]+%28[100]%28+lebanon+%3CAND%3E+rockets%29+%3CIN%3E+title%29+%3CAND%3E+ckets%29+%3CIN%3E+body%29%28+lebanon+%3CAND%3E+rockets%29+%3CIN%3E+body%29%29%29%29, accessed September 20, 2010. This article estimates that Hezbollah now (July 2010) has "30,000 guerrilla fighters—20,000 deployed in southern Lebanon—compared with 15,000 in 2006."
- <sup>14</sup> Amos Harel and Avi Issacharoff, *34 Days: Israel, Hezbollah, and the War in Lebanon*, New York: Palgrave Macmillan, 2008, 6.
- <sup>15</sup> Yehuda Wegman, "The Struggle for Situation Awareness in the IDF," Strategic Assessment, Vol. 10, No. 4, February 2008, 23.
- <sup>16</sup> For a brief discussion of IDF actions during and after the 2006 Second Lebanon War, see David E. Johnson, *Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza*, Santa Monica, Calif.: RAND Corporation, OP-285-A, 2010. Open source materials indicate that Hezbollah has increased the quantity and quality of its rockets and has also continued preparing robust defenses in preparation for what many expect: the next round of the fight with Israel.
- <sup>17</sup> Jonathan Schanzer, HAMAS vs. FATAH: The Struggle for Palestine, New York: Palgrave MacMillan, 2008. Hamas is an acronym for the Arabic phrase Haraka al-Muqawama al-Islamiyya, "The Islamic Resistance Movement;" the word hamas also means "zeal" in Arabic.
- <sup>18</sup> Council on Foreign Relations, *Backgrounder: Hamas*, at http://www.cfr.org/publication/8968, updated August 2009, accessed November 17, 2009.
- <sup>19</sup> Khaled Hroub, HAMAS: Political Thought and Practice, Washington, D.C.: Institute for Palestine Studies, 2000, 272.
- <sup>20</sup> Council on Foreign Relations, 2009.
- <sup>21</sup> Council on Foreign Relations, 2009.
- <sup>22</sup> Council on Foreign Relations, 2009. For a detailed discussion of the relationship between Hamas and Fatah, see Schanzer, 2008.
- <sup>23</sup> Radio Free Europe/Radio Liberty, "Israel Threatens Punitive Measures Over Palestinian 'Unity' Accord," April 28, 2011.

<sup>&</sup>lt;sup>24</sup> Council on Foreign Relations, 2009.

<sup>&</sup>lt;sup>25</sup> Intelligence and Terrorism Information Center at the Israel Intelligence Heritage & Commemoration Center (IICC), "Hamas's Military Buildup in the Gaza Strip," April 8, 2008, p. 11, at http://www.terrorism-info.org.il/malam\_multimedia/English/eng\_n/pdf/hamas\_080408.pdf, accessed November 17, 2009.

<sup>&</sup>lt;sup>26</sup> IICC, 2008, 10.

<sup>&</sup>lt;sup>27</sup> IICC, 2008, 10-12.

<sup>&</sup>lt;sup>28</sup> Alon Ben-David, "Iranian Influence Looms as Fragile Gaza Ceasefire Holds," *Jane's Defence Weekly*, January 22, 2009; and Yiftah Shapir, "Hamas' Weapons," *Strategic Assessment*, Vol. 11, No. 4, 2009, at http://www.inss.org.il/publications.php?cat=21&incat=&read=2648&print=1, accessed August 18, 2009. Shapir presents a detailed discussion of the rockets available to Hamas.

<sup>&</sup>lt;sup>29</sup> Discussions with IDF officers in Tel Aviv, February 10–12, 2009, in Washington, D.C., and in Tel Aviv, September 2–10, 2009.

<sup>&</sup>lt;sup>30</sup> Barbara Opall-Rome, "In Gaza, Both Sides Reveal New Gear," *Defense News*, January 5, 2009, at http://www.defensenews.com/story.php?i=3885990, accessed September 24, 2009.

<sup>&</sup>lt;sup>31</sup> Johnson, 2010, 8.

<sup>&</sup>lt;sup>32</sup> See Christopher Bolkcom and Bartholomew Elias, *Homeland Security: Protecting Airliners from Terrorist Missiles*, Washington, D.C.: Congressional Research Service, 2006.

<sup>&</sup>lt;sup>33</sup> David E. Johnson, "Iran's Counter-Strike," *Providence Journal*, February 25, 2010, accessed at http://www.rand.org/commentary/2010/02/25/PJ.html.

<sup>&</sup>lt;sup>34</sup> "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.

<sup>&</sup>lt;sup>35</sup> Robert M. Gates, "Speech, United States Military Academy, February 25, 2011," at http://www.defense.gov/speeches/speech.aspx?speechid=1539, accessed May 1, 2011.

<sup>&</sup>lt;sup>36</sup> In this regard, see Edward Luttwak, "In Praise of Aerial Bombing," *Foreign Policy*, March/April 2010, at http://www.foreignpolicy.com/articles/2010/02/22/in\_praise\_of\_aerial\_bombing, accessed June 1, 2010, and Martin van Creveld, "Israel's War with Hezbollah Was Not a Failure," *The Jewish Daily Forward*, January 30, 2008, at http://www.forward.com/articles/12579/, accessed May 28, 2010.

<sup>&</sup>lt;sup>37</sup> Luttwak, 2010.

<sup>&</sup>lt;sup>38</sup> Israeli casualties during the Second Lebanon War—120 soldiers dead and over 1,000 wounded—were a serious domestic issue. During Operation Cast Lead the numbers were much lower: Ten dead (four from friendly fire) and 207 soldiers wounded, 19 severely.