Israel's Next Northern War: Operational and Legal Challenges

JINSA's Gemunder Center Hybrid Warfare Task Force
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I. Executive Summary

Israel may not be interested in war, but war is now almost certainly interested in it. As Bashar al-Assad brutally regains control over Syria, his Hezbollah shock troops and their Iranian overlords will turn their attention and arsenals to Israel. Any friction – a routine border patrol gone awry, drones penetrating Israeli airspace, Israeli airstrikes in Syria – could spark uncontrolled escalation and a catastrophic conflagration.

When such a conflict erupts, it will bear little resemblance to anything that has come before between Israel and its adversaries. Changes in the strategic environment in the twelve years since the last Israeli-Hezbollah conflict will translate into unparalleled death and destruction. Seven years of unrestrained Syrian conflict and, as a result, stepped-up Iranian sponsorship have supercharged Hezbollah's military capabilities in Lebanon and farther afield. Its ranks have swelled, its troops have been battle-hardened, its stockpiles brim with powerful accurate rockets and missiles that can now reach deep into Israel, and its resolve is stiffened by Iranian reinforcements stationed near Israel's borders. Today Hezbollah possesses more firepower than 95 percent of the world's conventional militaries and more rockets and missiles than all European NATO members combined.¹

Yet, despite this quantum leap in Hezbollah's ability to visit devastation on Israel, it is under no illusion about its ability to inflict a strategic military defeat on the Israel Defense Forces (IDF). Instead, Hezbollah's objective will be the political defeat of Israel.

By illegally exposing civilians to harm, manipulating the narrative and exploiting misperceptions about the laws of war, Hezbollah will seek to portray Israel as an arbitrary, immoral and illegal murderer of civilians. By weaponizing information and the law, Hezbollah will hope to survive to fight another day while delegitimizing Israel in the eyes of the world before the IDF can achieve decisive victory.

Against the backdrop of this looming conflict, the Jewish Institute for National Security of America (JINSA) established our Hybrid Warfare Task Force for two interrelated purposes: first, to articulate how actions taken by U.S., Israeli and other allied militaries in actual combat situations comply with, and often exceed, the requirements of the law of armed conflict (LOAC); and second, to explain how hybrid adversaries like Hezbollah, Hamas and Islamic State intentionally exploit that same body of law to stymie U.S. and allied forces in battle and discredit their self-defense operations in the forum of public opinion.

To these ends, we have produced this report examining the operational and legal challenges confronting Israel in its next, unprecedently destructive, armed conflict with Hezbollah and potentially other adversaries including Iran. In addition to our own collective experiences as senior American military officers and legal experts, extensive meetings with current and former IDF officers, Israeli national security officials, members of the media, non-government officials and United Nations officials informed our research.

Our task force assesses that Israel and Hezbollah will wage their next conflict not just with missiles and tanks, but in the information domain with legal claims and media statements. Israel or Hezbollah will secure victory in the court of public opinion, not the valleys of Lebanon or the skies over Israel.

The nature of this conflict will give Hezbollah a tremendous advantage in its strategic use of information. First, Hezbollah's extensive and intentional merging of civilian and military infrastructure will deliberately force innocent civilians into harm's way, in order to direct the blame for ensuing casualties and damage onto Israel. Second, the expected scale of destruction to Israel from Hezbollah's dramatically increased missile and rocket arsenal will force the IDF to undertake rapid and large-scale operations against Hezbollah deep inside Lebanon and possibly elsewhere, while also limiting its ability to mitigate risks to Lebanese civilians through the exemplary and innovative measures it has employed in recent conflicts.

Therefore, even as it adheres to the LOAC, the scope and pace of IDF operations nevertheless will result in significant but lawful damage and casualties to Lebanese civilians and infrastructure. They also will stoke misunderstandings about the IDF's compliance with the LOAC – and Hezbollah's intentional exploitation of the law – all while exacerbating the challenges Israel faces in conducting a successful messaging strategy to set the record straight.

This is the increasingly prevalent face of hybrid warfare, where law-abiding militaries like the IDF confront non-state actors like Hezbollah that blend unrestricted warfare tactics and sophisticated information operations with the advanced weaponry of modern conventional forces.

The Law of Armed Conflict: Reality and Perception

International law comprises two frameworks applicable to war, both of which are underappreciated and often misunderstood. Such misunderstanding has proven fertile ground for exploitation by hybrid groups like Hezbollah.

First, the *jus ad bellum* defines when a nation can lawfully go to "war." Second, the *jus in bello* regulates the conduct of hostilities and the treatment of victims of war, such as the wounded and sick, civilians and prisoners of war. It is the *jus in bello*, often referred to as the law of armed conflict (LOAC) that is so often misconstrued and exploited by groups like Hezbollah in wartime.

While there is not agreement on the exact content of the *jus in bello*, there does seem to be widespread consensus on the significance of five principles: necessity, humanity, distinction, precaution and proportionality.

- *Military necessity* allows the military to employ all measures, not otherwise prohibited by international law, to bring about the prompt and efficient submission of the enemy.
- *Humanity* prohibits the infliction of suffering that cannot be justified by military necessity.
- Distinction requires that all attacks be directed at lawful military objectives, and in so
 doing distinguish between lawful military objectives and all other persons, places and
 things. Lawful objectives include: belligerent members of organized armed groups;
 civilians taking a direct part in hostilities; and any other object that qualifies as a military
 objective because its nature, location, purpose or use makes an effective contribution
 to military action and whose total or partial destruction, capture or neutralization, in
 the circumstances ruling at the time, offers a definite military advantage. This principle

- categorically prohibits deliberate attacks directed against civilians or civilian property that has not lost protection from attack.
- Precaution requires an attacking commander to take all feasible precautions to mitigate
 risk to civilians and civilian property anticipated to result from an attack on a lawful
 military objective.
- Proportionality, which defines as indiscriminate and thus prohibited any attack when
 the anticipated incidental injury to civilians and collateral damage to civilian property
 (property that has not been converted by enemy use into a military objective) is
 assessed as excessive when compared to the anticipated concrete and direct military
 advantage from the attack. Notably, while this principle prohibits some attacks based
 on assessed civilian risk, it also tolerates incidental or collateral harm to civilians and
 civilian property so long as it is not anticipated, at the time of planning the attack, to be
 excessive in relation to the anticipated military advantage.

These requirements apply to all parties to an armed conflict, whether the armed forces of a state or members of organized non-state armed groups. Thus, hybrid groups like Hezbollah also bear an obligation to take "constant care" to mitigate civilian risk, including being prohibited from using civilians to shield lawful military objectives; avoiding, when feasible, locating military assets in proximity to civilians and civilian objects; and, where feasible, removing civilians from the conflict area.

While these obligations are applied in good faith by professional militaries, the hybrid adversaries they fight are too often given a free pass when they violate their legal obligations, even when doing so is a deliberate tactic to exacerbate civilian risk.

Regardless, militaries like those of the United States and Israel rigorously ensure compliance with the LOAC. Institutionally, the IDF has a systematic methodology for assessing collateral damage potential and weighing it against anticipated military advantage to ensure maximum care in the targeting process.

Moreover, the IDF has executed a number of extraordinary and innovative methods in an attempt to further mitigate risk to civilians, including: warning civilians with leaflets, text messages, telephone calls and radio transmissions to leave a defined area of operations or to seek shelter; assisting with the evacuation of civilians; firing smoke and illumination rounds prior to the use of explosive munitions in order to encourage civilian evacuation; and using low yield explosives at an unoccupied corner of a structure to provide a pre-attack warning of an impending strike – known as a "knock on the roof." The IDF has implemented these precautionary measures with full knowledge that they might – and often did – degrade the efficacy of an impending attack.

Yet the IDF faces multiple institutional and external challenges in communicating both its commitment to observing the LOAC and the specifics of what happened in contested incidents. Too often, the IDF is too constrained, reluctant or slow to release information to the international media, allowing its adversaries' more immediate misrepresentations to drive the narrative. As a result, the IDF lost the information campaign in its conflicts with Hezbollah in 2006 and Hamas in 2014. When faced with an adversary that uses misinformation and exploits legal misperceptions to advance its strategic goals, such failures could prove disastrous for Israel in the next conflict.

Weaponizing the Law

Unfortunately, as the U.S. military has come to appreciate, the legitimacy of military operations is based not solely on respect for the law but also on public perception of compliance with those laws. This additional burden of perceived legality lies at the heart of the challenge Israel faces in the coming conflict with Hezbollah. Increasingly, Israel's adversaries rely upon the general lack of public understanding of how the LOAC operates in practice, leading to the misperception that Israel violates the law. This could not be further from the truth. The IDF systemically complies with, and often exceeds, LOAC requirements. In sharp contrast, hybrid adversaries like Hezbollah distort and routinely violate the same law.

Common misperceptions about the LOAC often concern the principles of distinction and proportionality, leading to arguments that any harm to civilians is automatically illegal. This is simply untrue. While the LOAC seeks to mitigate suffering, it balances this against the interests of military necessity. Deliberate attacks against non-military objectives are clearly prohibited. But the LOAC does recognize that civilians and civilian property may qualify as lawful military objectives – when, for example, Hezbollah emplaces missile launchers in or adiacent to a hospital.

The law also tolerates incidental injury to civilians and collateral damage to civilian property, so long as the assessed risk is consistent with the principle of proportionality (i.e. the attack is not excessive). This principle is frequently misconstrued as requiring a direct correlation of the actual civilian harm to the force required to defeat an adversary. Based on such a misconstrued version of the LOAC, some observers argue that if a military suffered so few casualties while inflicting so many, it must have been acting disproportionately and therefore illegally.

Such assertions are unfounded. Under the principle of proportionality, military commanders must avoid making decisions that are anticipated to create excessive collateral harm to civilians. As tragic as it may be, collateral damage and incidental injury to civilians is legally permissible under certain circumstances.

Cultivating these misunderstandings of the LOAC are central to Hezbollah's strategic objective of discrediting IDF operations and stoking political and popular pressure on Israel to terminate its legitimate self-defense campaign prematurely. To exploit the civilian casualties and destruction of protected property rendered unavoidable and lawful by its own deliberate placement of civilians in harm's way, Hezbollah will manipulate misperceptions about the law – specifically, the common and erroneous assumption that the military force employing a weapon is unquestionably legally responsible for the civilian suffering caused by the effects of that weapon. Legal responsibility, however, is often a much more complex issue, and often falls at the feet of those whose tactics placing civilians at risk rendered the civilian harm unavoidable by the attacking force.

Recent conflicts fought by Israel, including against Hezbollah in 2006 and Hamas in 2014, show how hybrid adversaries can exploit widespread misunderstanding of the LOAC among the media and international public to achieve strategic success.

In 2006, Hezbollah worked to steadily galvanize international opinion against Israel, especially after IDF strikes on Hezbollah military positions in the Lebanese village of Qana on July 29-30 killed dozens of civilians.² Despite having given advance warning of the attack, and

despite Hezbollah co-mingling military positions illegally among civilians, Israel's conduct was excoriated through official and popular protests around the world, leaving the United States isolated in supporting Israel and ultimately hastening the termination of IDF operations.³

Similarly, during the 2014 Gaza conflict, Hamas used unlawful concealment among civilians – such as firing rockets and mortars from within, or close to, hospitals and U.N. facilities – to constrain and blunt the effectiveness of IDF operations. Hamas then released false information and leveraged its control over media access in Gaza to portray the collateral damage caused by its own strategy and actions as illegal IDF conduct. These tactics delegitimized Israel's self-defense actions to the extent top officials from the Arab League, European Union (including Great Britain) and the United Nations either accused Israel outright of war crimes or publicly doubted IDF operations accorded with international law.

As a member of JINSA's Gaza Assessment Task Force, Major General Michael Jones, noted several years ago, "for U.S. commanders, information is understood as a supporting effort to combat operations. But for Hamas, combat operations are understood as a supporting effort to information. These enemies know they can't defeat the IDF in battle, and don't care, so long as the combat operations contribute to their strategic goal of delegitimizing Israel."

This strategic weaponization of the law represents a new face of warfare that exploits vulnerabilities of liberal democracies, which cannot win wars without popular support and whose values and commitment to the rule of law sensitize them to avoid causing unnecessary harm to civilians. These operational and legal challenges pose real enough problems for the effectiveness of U.S. military operations. For Israel, confronted on many sides by increasingly powerful actors denying the country's adherence to international law and even the legitimacy of its very existence, unnecessary greater restraint in its military operations poses even greater obstacles to victory.

Hezbollah's Ascendance

The operational and legal challenges of defeating a hybrid adversary will be unprecedented for Israel in its next conflict with Hezbollah.

For decades Hezbollah has been Iran's primary terrorist proxy and one of the leading anti-Israel and anti-American extremist groups in the world. In recent years, with concerted Iranian assistance, it has amassed weaponry and battlefield experience on par with, and often exceeding, many conventional militaries. As its military capabilities grow, Hezbollah has increasingly insinuated itself into the Lebanese state, society and armed forces, including literally stockpiling its arms amid civilians.

Hezbollah's military buildup would have been impossible without more than a decade of concerted and steadily increasing Iranian assistance designed to transform the group into a much more lethal threat to Israel than in 2006. By 2018, various Israeli estimates put Hezbollah's overall rocket and missile stockpiles between 120,000-140,000, up from roughly 10,000 in 2006. The vast majority are unguided short-range rockets that Hezbollah will use indiscriminately against northern Israeli towns and cities. But, unlike in 2006, Hezbollah now also has several thousand medium-range rockets and several hundred precision long-range missiles capable of striking targets throughout Israel – all of which are far more powerful than anything fired into Israel in recent conflicts.⁵

Hezbollah has emplaced this expanded rocket and missile arsenal within and around civilian infrastructure, including apartment blocs, hospitals, schools and mosques – in the hopes of deterring and defending against IDF airstrikes, and courting civilian casualties it can hypocritically and disingenuously blame on Israel.

Thanks to Iranian largesse, Hezbollah's ranks have also grown, from an estimated 13,000 in 2006 to 25,000 active-duty and 20,000-30,000 reserve troops in 2017. Hezbollah has deepened its entrenchment across southern Lebanon, and has created commando units for ground incursions into Israel in a future conflict. Lebanese homes and other civilian locations are frequently used by Hezbollah troops for reconnaissance, command and control, logistics and firing positions. Many of these sites are literally underneath civilians, connected by an increasingly advanced system of tunnels and bunkers. In neighboring Syria, Iran is making concerted efforts to emplace its own permanent military infrastructure in the country as well as transfer advanced missile technologies to Hezbollah.

These developments pose an unprecedented threat to Israel, and already have prompted a sustained, if often low-level, IDF campaign against Iran and its continuing efforts to expand Hezbollah's capabilities.

Israel's Challenges

Given Hezbollah's astounding growth as a military force, the entire Israeli homeland will become the front lines in any future conflict for the first time since the War of Independence (1948-49).

Advanced as it is, Israel's tiered missile defense architecture will face significant challenges defending against the onslaught from Hezbollah and possibly Iran or others. Israeli officials and outside observers repeatedly express concerns that even these three layers of defense will not be able to intercept 1,000 or more rockets and missiles per day, let alone 3,000 or more at the very outset of conflict. Such a rate of fire for one single day would be equivalent to the total number of rockets fired by Hezbollah in the entire 2006 conflict. On a more sustained basis, Hezbollah's capacity to launch rockets at a rate ten times what Israel faced before could easily overwhelm the capacity of Israel's active defenses for interception, especially given the IDF's finite quantities of batteries and interceptors.

The instantaneous and cumulative devastation caused by Hezbollah's expanded arsenals would be significant for any country; for one with as little strategic depth as Israel, the damage could be catastrophic.

The IDF's top defensive priority will be "enabling the continuity of the use of military force both for defense and offense" to eliminate Hezbollah's rocket and missile launch sites as quickly and thoroughly as possible – followed in descending order by protection of vital national infrastructure and population centers. This means much of Israel's critical infrastructure and most of its population will be forced to rely solely on passive defenses and luck to survive, likely resulting in mass casualties, major physical destruction to the country's densely-populated coastal and central heartlands and massive disruptions of basic services required for everyday societal functioning. Indeed, the daily barrage of hundreds of rockets and missiles could devastate military bases, level entire high-rise buildings and disable or destroy critical infrastructure like ports, desalination and power plants and transportation chokepoints.

The expectation of such widespread devastation will determine the pace and scope of the IDF response. Israel's warfighting doctrine seeks to achieve a decisive victory against Hezbollah as quickly as possible, targeting its rocket and missile launch sites before they can be fired on the Israeli homeland. Operationally, the IDF plans to conduct a combined-arms campaign in depth against the entirety of Hezbollah and related military infrastructure in Lebanon and potentially elsewhere, centered on a large-scale rapid ground maneuver into southern Lebanon and thousands of supporting airstrikes from the outset of conflict.

The goals and means of this projected campaign can be expected to place great strains on IDF wartime operations, including the necessity to employ four to five times as much airpower as in 2006. Given Hezbollah's interspersing of military assets in civilian sites as well as its growing ties to the Lebanese state and armed forces, the next conflict can also be expected to generate significant collateral damage in Lebanon and possibly elsewhere, even as the IDF complies with the LOAC.

Weaponizing the Law in the Coming Conflict: Advantage, Hezbollah

With Israel seeking a rapid and decisive military victory in the next war, Hezbollah will have strong incentives to exploit the Lebanese civilian population to gain functional immunity from IDF attack. It will be equally motivated to manipulate misunderstandings of the LOAC and media coverage of the conflict to pressure Israel to terminate operations before the IDF achieves its objectives. Hezbollah will have the advantage of several factors, some of which recall Israel's recent conflicts against hybrid adversaries and others which will be specific to the expected scale and intensity of the next Israel-Hezbollah clash.

Most fundamentally, Hezbollah has the advantage of a lack of moral and legal constraints on its actions that Israel, as a liberal democracy committed to the rule of law, must and does respect. Like Hamas, as a hybrid adversary unbound by treaties and other legal agreements particular to nation-states, Hezbollah can countenance unrestricted warfare in which it exploits the presence of civilians in the combat zone by intentionally placing them in jeopardy, which serves its larger strategic goals.

Hezbollah also has an advantage when it comes to exploiting widespread misunderstanding of the LOAC related to who bears legal responsibility for civilian injuries and causalities. Hezbollah, unlike its law-abiding opponent, feels no compunction about using manipulation and intimidation to influence audiences and win the contest of wills.

The next Israel-Hezbollah conflict likely will provide Hezbollah far more opportunities to exploit these advantages than previously. Though it intermingled its military assets with protected civilian sites in 2006, since then Hezbollah has interspersed significantly more military power among civilians throughout Lebanon – most notably, more than 120,000 rockets and missiles. It also enjoys much deeper ties to the Lebanese state, society and military, whose assets Hezbollah is now much more likely to utilize and coordinate with in wartime.

Consequently, the IDF will have a far larger target set than in any recent conflict, at the same time those targets are more entrenched among civilians. Even as the IDF complies with the LOAC, therefore, its operations will result in greater destruction not only to military sites such as ports, power plants, roads and telecommunications facilities, but also civilian infrastructure including homes, hospitals, schools and anywhere else Hezbollah has illegally

placed military assets. The central role accorded to ground maneuver in IDF planning for the next conflict likely will exacerbate the level of damage, given the inherently more destructive nature of ground operations and the use of supporting indirect fire. With all this will come greater collateral damage that Hezbollah can blame disingenuously on disproportionate and indiscriminate IDF firepower.

Moreover, the IDF's operational challenges in the next conflict likely will limit its ability to avoid civilian casualties through precautionary measures that exceed LOAC requirements. Israel's additional warning measures above and beyond the standard set by the LOAC, though morally admirable, may prove incompatible with operational and tactical requirements in a future conflict with Hezbollah.

The scale and intensity of the next conflict between Israel and Hezbollah will be unprecedented for either combatant in many respects, whether strategic, operational or tactical. What will be unchanged is Israel's commitment to the lawful conduct of operations, even as its adversaries continue to abuse the law to their own advantage on the battlefield and exploit its misunderstandings in pursuit of victory in the court of public opinion.

This task force has no doubt the IDF commanders and forces thrust into these operations will implement their obligations to follow international law in good faith. But we also know from our own experience that how the law is implemented in the context of rapid combined-arms operations involving air, ground and naval power, against an adaptable, competent and lethal adversary, will involve very different processes and outcomes than counterterrorism operations where commanders have the luxury of time, information awareness and tactical dominance. Understanding the true nature of this type of operation is the essential first step to understanding how the law functions in this operational context, and the equally essential foundation for any credible critique of legal compliance and strategic legitimacy.

II. Introduction

The United States, Israel and other western law-abiding militaries increasingly confront "hybrid" threats. While no standard definition exists for such threats, an actor can be understood as hybrid insofar as it is a non-state entity equipped with advanced weapons systems normally associated with nation-state conventional militaries. Such actors are also hybrid in the sense they combine conventional and unrestricted warfare tactics to pursue victory against their militarily more capable opponents. These include both standard battlefield tactics to impose costs on opposing militaries, as well as the intentional use of indiscriminate violence and sophisticated information operations to delegitimize opponents and generate political pressure on them to terminate legitimate defensive military action.⁹

Currently Israel faces the rising challenge of an unprecedentedly capable hybrid adversary in Hezbollah in Lebanon. The growth of Hezbollah's military competence and arsenal of lethal long-range attack capabilities, coupled with an increasing willingness to threaten aggression against Israel, creates a genuine risk of provoking major conflict with Israel. But Hezbollah is under no illusion that even these military capabilities and continued Iranian sponsorship will enable it to conquer Israeli territory or inflict a strategic military defeat on the Israel Defense Forces (IDF). From the outset of any future conflict Hezbollah will seek something quite different: a strategic victory resulting, ironically, from tactical military defeat.

To achieve this victory, Hezbollah will utilize military action for three primary purposes. First, it will aim to inflict maximum casualties on Israeli civilians, thereby forcing Israeli political leadership to approve increasingly robust military measures in self-defense. Second, it will maximize the risk to the Lebanese civilian population resulting from these operations, in order to advance a false narrative of Israeli indifference to the human suffering resulting from the conflict and disregard for humanitarian legal obligations during the conflict. Third, it will exploit isolated opportunities to inflict maximum casualties on Israeli forces in order to undermine Israel's political will to continue the conflict.

Achieving these objectives will necessitate Hezbollah tactics that deliberately target Israeli civilians and deliberately expose Lebanese civilians to the harmful effects of combat. While it is impossible to prevent all civilian casualties during armed conflict, international law imposes a clear obligation to take all feasible measures to mitigate this risk. Accordingly, utilizing the presence of civilians in an effort to instead exacerbate the risk of civilian casualties blatantly violates international law. But this is precisely the tactic that this task force believes will be central to Hezbollah operations in the next war, just as it was in prior conflicts with Israel.

This will be essential to enable Hezbollah to achieve both tactical and strategic advantage. Tactically, Hezbollah forces will seek to complicate Israeli military operations based on the knowledge that, even when they deliberately expose civilians to risk, IDF forces will constantly seek to mitigate that risk during their attacks, often giving Hezbollah forces an illicit tactical windfall they can exploit to the disadvantage of the IDF.

Strategically, Hezbollah will then exploit the civilian casualties and destruction of protected property that their own tactics render both unavoidable and lawful. This will be achieved by manipulating misperceptions about the international law of armed conflict (LOAC) – specifically, the common and erroneous assumption that the military force employing a weapon

is unquestionably legally responsible for the civilian suffering caused directly by that weapon. This over-simplistic conflation of cause and responsibility for harm is the fertile field of public misunderstanding Hezbollah will seek to cultivate. This misunderstanding is manifested in the public tendency to rely on images of the effects of combat as the basis for legal and moral condemnation, often referred to as "effects-based condemnations."

In cultivating public misunderstanding of the law, Hezbollah will advance its strategic objective of stoking political and popular pressure on Israel to terminate its military campaign prematurely. It also will delegitimize IDF operations that are justified by Israel's legitimate self-defense interests, even when the tactical execution of these operations comply with the LOAC and in spite of the fact Hezbollah's unlawful tactics are the true source of responsibility for civilian suffering on both sides of the battle lines.

This task force believes these considerations will be especially significant in the next Israel-Hezbollah conflict, based on the Hezbollah threat and what we anticipate will be the unprecedented scope and intensity of IDF operations that will be necessitated by that threat. While we sincerely hope such a conflict can be avoided, we also know that even before the first salvos are fired, the decisive battle will be fought in the strategic information and public opinion domains. It will be a battle of misinformation, international legal distortion and exploitation of simplistic effects-based condemnations. Ultimately, no matter how successful the IDF will be in neutralizing this growing and daunting threat to Israel, victory will be secured in the court of public opinion, not the valleys of Lebanon or the skies over Israel.

In each of the past two conflicts Israel has been compelled to launch against neighboring hybrid adversaries – Hezbollah in 2006 and Hamas in 2014 – its adversaries successfully employed a similar strategy relying on combat to support their strategic information campaigns. In both conflicts, these groups and their supporters made widely exaggerated claims that IDF operations were responsible for civilian casualties in violation of international law, thereby swaying public opinion against Israel. At the same time, they created isolated situations of "peer to peer" tactical engagements to maximize IDF casualties and bolster their own credibility as forces capable of standing up to the might of the IDF.

Ironically, this remains a real threat to IDF forces. Though highly adaptable and lethal, hybrid adversaries like Hezbollah and Hamas portray themselves as unfairly outmatched by IDF capabilities to advance the "David versus Goliath" myth that contributes so effectively to their strategic objectives. In reality, confronting these adversaries on their own territory is an immense operational challenge. They have transformed civilian communities into formidable battle positions, and they utilize tactics developed specifically to thwart the effect of Israel's technological and military strength.

Nevertheless, examination of these conflicts and the information this task force gathered during its study indicate the IDF remains committed to full compliance with its international legal responsibilities to mitigate risk to civilians, civilian property and other protected persons and property during its military operations. Moreover, it keeps this commitment even when confronting adversaries that not only disregard the law, but actually seek to exploit IDF legal compliance. Unfortunately, these past conflicts also indicate that despite this glaring disparity in commitment to international law, Israel will continue to swim against a powerful current of false condemnation of its operations by the international public and by many states.

Israel's adversaries have learned from these last two conflicts and their success in advancing the false narrative of Israel as a perpetrator of war crimes. As a result, Hezbollah's strategy in any future conflict will revolve heavily around using tactical operations to set the conditions for advancing this false narrative.

Two key aspects of the looming conflict tilt the battlefield in Hezbollah's favor and will make it even harder for Israel to defend itself against spurious accusations. First, Hezbollah's preparations for this next conflict – including the ongoing and pervasive use of civilian property and areas as military infrastructure – make it near impossible for the IDF to achieve its tactical and operational objectives without producing substantial civilian casualties and destruction of property that will be perceived as civilian in nature, even though it has been transformed into military objectives by enemy use.

Second, Hezbollah's dramatically more lethal missile and rocket arsenal, and its stated intention of launching ground raids into northern Israel to disrupt IDF counterattacks, will necessitate a major IDF combined-arms military response. This response will rely substantially on rapid and lethal ground maneuver operations deep inside Lebanon and potentially farther afield against Hezbollah's Iranian patron or other adversaries.

These IDF operations likely will be conducted consistent with time-tested principles of military operations, whereby IDF commanders will employ the full range of their combined-arms capabilities to neutralize the enemy threat as rapidly and efficiently as possible. We have no doubt the IDF commanders and forces thrust into these operations will implement their obligations to comply with international law in good faith. But we also know from our own experience that how the law is implemented in the context of rapid combined-arms operations involving air, ground and naval power, against an adaptable, competent and lethal adversary, will involve very different processes and outcomes than the type of counterterrorism operations to which the world has become accustomed, where commanders have the luxury of time, information awareness and tactical dominance. Understanding the true nature of this type of operation is the essential first step to understanding how the law functions in this operational context, and the equally essential foundation for any credible critique of legal compliance and strategic legitimacy.

III. Reality and Perception: LOAC and IDF Doctrine

International law has played a role in regulating war for centuries. Indeed, the *jus belli*, or international law of war, is one of the oldest branches of international law. The notion that law ceases to function during war – that the ends always justify the means – is categorically erroneous. States (and even some non-state groups) committed to the rule of law always seek to comply with international law, even when resorting to the use of military force to advance their interests or while engaged in hostilities.

It is equally important that this law was not developed to prevent achieving the legitimate objectives of war, first and foremost defeating an adversary as rapidly and efficiently as possible. Instead, the law seeks to strike a rational balance between this interest, sometimes characterized as military necessity, and the mitigation of risk to innocent civilians, civilian property and other protected persons and places (like military medical personnel and facilities). Central to this balance is the obligation to take all feasible measures to mitigate the risk to these innocent victims of war, but also the recognition that it is virtually inevitable that these measures cannot eliminate all such risk.

Compliance with this law is not merely a lawyer's interest. Instead, this law evolved from the informed judgment of experienced combat leaders who understood that respecting humanitarian limits on the destructive effect of the power they were entrusted with was central to achieving their tactical and strategic objectives. These commanders also understood that the men and women they were responsible for leading in combat did not cease to be moral beings simply because of their military duties, and therefore these internationally recognized humanitarian limits on the conduct of hostilities contributed to preserving the moral clarity of war, the good order and discipline of the units they commanded and the moral integrity of their subordinates. In short, this law is no mere legal code, but is instead integral to the strategic, operational and tactical success of any credible military organization.

Indeed, the relationship between the LOAC and strategic success is a central aspect of contemporary U.S. military doctrine; the "how to" of how we fight. This doctrine emphasizes legitimacy as a principle of military operations, alongside longstanding warfighting principles such as offensive, mass, unity of command and economy of force. The legitimacy of U.S. military operations, importantly, is based not solely on respect for domestic and international law during the course of military operations, but also on public recognition that the U.S. military is complying with those laws. Specifically, U.S. Joint Publication 3-0, Joint Operations, provides:

Legitimacy, which can be a decisive factor in operations, is based on the actual and perceived legality, morality and rightness of the actions from the various perspectives of interested audiences. These audiences will include our national leadership and domestic population, governments and civilian populations in the operational area, and nations and organizations around the world.¹⁰

This additional burden of perceived legality lies at the heart of the challenge that faces Israel and other law-abiding nations when their armed forces are given the difficult mission of fighting against enemies that disregard the law, including hybrid adversaries. Unfortunately, the widespread misunderstanding of the true nature of contemporary armed conflicts has led to an ascendancy of perception over reality that these enemies, especially Israel's enemies, so dangerously exploit. This leads too many official and private observers to believe Israel violates the laws of war when, in fact, it consistently demonstrates a good-faith commitment to this law.

Equally unfortunately, the community of law-abiding states has done little to correct misperceptions about what the laws of war really require. Israel in particular has struggled to communicate its commitment to fighting legally and its efforts to ensure its forces comply with the law, including measures it implements to mitigate civilian risk during hostilities even when fighting adversaries that disregard the law and the lives and safety of innocents under their control.

A. How Does International Law Regulate War?

International law comprises two legal frameworks applicable to war. First, the *jus ad bellum* defines when a nation can lawfully go to "war." Second, the *jus in bello* is a comprehensive body of treaty and customary international law rules that regulate the conduct of hostilities and the treatment of victims of war, such as the wounded and sick, civilians and prisoners of war. This branch of international law establishes the legality of all measures during "war."

1. Jus ad Bellum

Article 2(4) of the U.N. Charter establishes a presumptive prohibition against the use or threat of force by one state against another. However, the U.N. Charter and customary international law recognize three situations where this presumption is rebutted and states are permitted to use force.

First, a state may use force in the territory of another state with the consent of that state, such as assisting a government in defeating rebels and restoring order and security. A second justification is when the U.N. Security Council authorizes the use of collective military force in accordance with Chapter VII of the U.N. Charter in response to an act of aggression, a breach of the peace or a threat to international peace and security. Examples of such authorizations include the Gulf War in 1990 and the multinational intervention to protect civilians in Libya in the spring and summer of 2011. Finally, a state may use force as an act of individual or collective self-defense in response to an armed attack in accordance with Article 51 of the U.N. Charter, which states: "Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security." 11

International law establishes three requirements a state must satisfy when using force in response to an armed attack or an imminent threat of armed attack. First, the requirement of necessity allows the use of force only when there are no alternative non-forceful options that would effectively deter or defeat the attack. Second, the requirement of proportionality in *jus ad bellum* (as opposed to proportionality in *jus in bello*, an important distinction discussed below) requires that the extent of force used must be reasonably calculated to be no more than necessary to defeat the threat and restore a condition of peace and security.

This does not require a precise symmetry between the original attack or threatened attack and the use of force in response, and certainly is not properly assessed by merely comparing casualty figures between the two sides. Instead, the measure of whether the scope, duration and intensity of a self-defense action complies with proportionality is whether it is necessary to defeat or repel the triggering threat. This might often include ongoing operations due to the reasonable assessment that the threat itself is ongoing. It also means that the force used in response to an act of aggression or an imminent act of aggression may appear to be significantly greater than that used in the original attack, but will often be consistent with the proportionality obligation because the strategic objective will extend to neutralizing the threat of continuing or future attacks.

Finally, the requirement of imminence separates self-defense from unlawful retaliation. Imminence is central to the legal authority to act in self-defense before being the victim of the "first blow," but obviously also leads to complicated questions of legitimacy: was the threat sufficiently proximate to consummation to justify the imminence judgment? Or did the state act prematurely and in so doing launch a legally unjustified attack? This question is complicated further by the growing recognition that the right of self-defense may be triggered by a threat emanating from a hybrid adversary, because predicting the future actions of such groups, especially those who utilize terrorist and other unlawful tactics, is extremely complicated. While it is beyond the scope of this report, as a general touchstone, the state must reasonably assess that the threat is sufficiently immediate that alternate non-military measures would be insufficient to prevent the attack.

2. Jus in Bello

The second prong of the international legal regime applicable to war is the *jus in bello*. This branch of international law is far more significant to the planning and execution of military operations, and the assessment of legal compliance and legitimacy of those operations. This is because this branch of international law regulates the actual conduct of hostilities and treatment of victims of war. Originally known as the law of war, today it is more commonly referenced as the law of armed conflict (LOAC) or international humanitarian law (IHL). Importantly, IHL is not synonymous with international human rights law (IHRL).

The LOAC rules, whether codified in applicable treaties or derived from customary international law, are meant to balance the interests of military necessity (the authority to take all measures, not otherwise prohibited by international law, to bring about the prompt and efficient defeat of the adversary) with the humanitarian interest of mitigating, to the extent feasible, the inevitable suffering produced by armed conflict. Central to this balance are what are commonly referred to as "targeting rules":

- Rules developed to limit attacks to only those people, places or things that qualify as military objectives;
- Rules requiring attacking commanders to implement all feasible precautions to mitigate the risk of incidental injury to civilians and/or collateral damage to civilian property when executing such attacks; and
- Rules prohibiting attacks on military objectives when the anticipated incidental injury and/or collateral damage are assessed as excessive when compared to the anticipated military advantage that will flow from the attack.

Taken together, this package of rules is intended to mitigate risk to civilians and civilian property resulting from hostilities to the extent that is tactically and operationally feasible under the circumstances prevailing at the time of the attack decision.

While most all states and commentators agree that the *jus in bello* is built on a foundation of principles, not all agree on what those principles are. However, there does seem to be widespread consensus on the significance of these five principles: necessity, humanity, precaution, distinction and proportionality – two of which in name, but not content, coincide of those found in the *jus ad bellum*. This overlap can lead to confusion and conflation in assessing compliance during the *jus in bello*, requiring precision in determining that the correct laws are being applied to the relevant situation.

First, the principle of *military necessity* allows the military to employ all measures, not otherwise prohibited by international law, to bring about the prompt and efficient submission of the enemy. Importantly, the term "enemy" in this context does not refer to individual members of an enemy organized armed group, but to the enemy in the collective sense. Accordingly, when engaged in armed conflict, military forces may only deliberately attack targets reasonably assessed as being linked to the necessity to accomplish the military defeat of the opponent. Attacks with no such link – for example deliberately attacking civilians and civilian property – are thus never justified by military necessity and are therefore unlawful.

The second principle is *humanity*, which prohibits the infliction of suffering that cannot be justified by military necessity. This takes the form of legal unqualified obligations to protect prisoners of war, detainees and civilians taking no part in hostilities as well as the wounded and sick. Contrary to popular misconception, these unqualified protections may never be overridden by assertions of military necessity. However, with regard to the protection of civilians, it is important to note that while the principle of humanity prohibits the deliberate infliction of suffering, it does not prohibit all suffering. For civilians, the question of whether injury and suffering inflicted by an attack are legally permitted depends on whether they are incidental to the attack – as opposed to a deliberate attack on an otherwise lawful objective – and if so, whether the principle of *proportionality* (see below) was observed.

The third principle is *precaution*. This requires an attacking commander to take all feasible precautions to mitigate risk to civilians and civilian property anticipated to result from an attack on a lawful military objective. Common examples of precautionary measures falling within the scope of this obligation include efforts to gather timely and effective intelligence related to a target, issuance of warnings prior to attack, evacuation of civilians, timing of attacks and choice of weapons and tactics to mitigate civilian risk. Importantly, this obligation is qualified by feasibility considerations, which means that commanders are not always obligated to implement these measures. This also means that measures that are used in one phase of an attack may not be feasible in another.

Fourth, the principle of *distinction* requires military forces to direct their attacks only at lawful military objectives, and in so doing distinguish between lawful military objectives and all other persons, places and things. Most significantly, this principle demands differentiation between belligerents (members of organized armed groups) and civilians (unless the civilian is directly participating in hostilities). Belligerents, which is a general term that refers to members of organized armed groups, may be lawfully attacked at any time and at any place during armed conflict unless and until they are rendered incapable of further action due to sickness or

wounds, or are captured. There is no requirement to make an individualized threat assessment of such personnel beyond the assessment that they are in fact members of the enemy armed group. In other words, that group membership status triggers a presumption of threat that justifies the use of lethal force as a measure of first resort. This presumption is rebutted only when the individual is no longer capable of actively participating in hostilities.

In contrast, civilians are presumptively inoffensive, and therefore presumptively protected from deliberate attack. However, that presumption is also rebuttable. When the civilian directly participates in hostilities (DPH), he or she forfeits the protection from attack for such time as the DPH continues. The question of what qualifies as DPH, and how long it continues, is complex and beyond the scope of this report. Importantly, civilians who become functional members of an organized armed group lose their protection from attack for the duration of that membership, thereby preventing the "civilian by day/fighter by night" phenomenon. Thus, civilians are not the beneficiaries of an unqualified protection against deliberate attack. Such a rule would be absurd, as it would allow civilians to engage in hostilities while depriving armed forces the authority to respond to such conduct. Instead, civilian protection is contingent on refraining from conduct that is inconsistent with the protection.

In terms of places and things, a military objective is defined in terms of its "nature, location, purpose or use." An attack is permissible against a place or a thing, such as property that is normally civilian in nature, when it is used in a way, will be used in a way or is in a location that "make[s] an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage." Accordingly, deliberately attacking a civilian who has not directly participated in hostilities, or civilian property that has not been transformed into a military objective, is strictly prohibited.

However, pursuant to the LOAC, both civilians and civilian property may qualify as lawful military objectives, and when this occurs, they qualify as lawful objects of deliberate attack. In these cases, the attack is lawful so long as it complies with the precaution and proportionality obligation. For example, if the adversary emplaces a military asset in a civilian building, such as using the civilian building as a fire point or a command post, that use of the civilian building justifies its designation as a military objective. Importantly, this is always an *ex ante* assessment: the commander is held to a standard of reasonable judgment, not a strict liability standard, in the assessment that the intended target is a military objective. In other words, there will be situations where the military objective assessment was objectively reasonable when made, but turns out to be wrong in fact. So long as the judgment was reasonable when made, it was valid.

Fifth, while the LOAC clearly prohibits deliberately attacking civilians and civilian property that does not qualify as a military objective, it does not prohibit all harm to civilians or civilian property. When such harm is not the consequence of a deliberate attack against the civilian or civilian property, but is instead an incidental or collateral consequence of an attack on a proximate lawful military objective, the law tolerates such harm so long as it is not anticipated at the time of planning the attack to be excessive in relation to the anticipated military advantage. This rule is commonly characterized as the principle of *proportionality*. It is a clear recognition that injury to civilians and destruction of civilian property may be an unfortunate but necessary consequence of attacking a lawful military objective.

When assessing proportionality, one must separate decisions made *ad bellum* (initiating conflict) at the strategic level from those made *in bello* (during conflict) at the operational level. Decisions of national leaders regarding how much force can justifiably be exercised pursuant to their country's right to self-defense are entirely distinct from targeting proportionality required of commanders charged with defending their country. In the former case, "proportionality" requires the use of no more force than is necessary to reduce the strategic threat and restore security. In the case of targeting decisions made during conflict, the applicable standard is excessive, and not proportional, harm. Furthermore, unlike the peacetime principle of proportionality that applies to a use of force by a state agent like a police officer, the *in bello* principle in no way protects the lawful object of attack, but instead only civilians and their property expected to be impacted by the attack.

Accordingly, there is no obligation that military forces use "proportional" force to attack their enemy, or "minimum necessary" force to subdue an enemy (which would be a requirement for a police officer dealing with a peacetime threat). While this rule is characterized as one of proportionality, it does not require a close balance between anticipated risk and gain. Rather, the term "excessive" indicates that the LOAC requires a more significant imbalance between the anticipated injury to civilians and/or damage to civilian property and the anticipated "concrete and direct" military advantage.

This is obviously a very complicated standard to implement and assess. There is simply no formula that can be applied to determine what is or is not excessive in this context; each assessment is inherently contextual and unique. What is certainly improper is to judge compliance with this principle on the basis of the effects of an attack, which is an increasingly common phenomenon. While the destructive effects of an attack are certainly relevant when assessing the reasonableness of a proportionality assessment, they can never be dispositive, because the rule is *ex ante* in nature. Commanders and other attack decision-makers cannot know what cannot be reasonably known, and are not held to a standard of perfection. As a result, there will often be divergent opinions on whether an attack complied with this obligation.

Thus, the LOAC proportionality principle in no way supports an assertion that casualty totals between the contending forces in a conflict must be comparable. The only comparison required of commanders in the field is between the anticipated military advantage to be gained from an attack and the anticipated risk of harm to civilians and civilian property that reasonably can be anticipated. Furthermore, the anticipated risk of collateral damage and/or incidental injury to civilians does not alone render an attack prohibited and unlawful. Indeed, the prohibition against excessive anticipated civilian harm indicates that anticipated civilian harm that is not assessed as excessive, though unfortunate, is an acceptable consequence of war.

It is important to note that measures to mitigate civilian risk are not imposed exclusively on the attacking force. All parties to an armed conflict bear an obligation to take "constant care" to mitigate civilian risk. This obligation includes a prohibition against using civilians to shield lawful military objectives; avoiding, when feasible, locating military assets in proximity to civilians and civilian objects; and, where feasible, removing civilians from the conflict area. Unfortunately, illicit non-state armed groups routinely ignore these obligations. However, this never releases the attacking force from the obligation to take all feasible civilian risk mitigation measures as discussed above. The logic of this rule is self-evident: even when an enemy blatantly violates its obligation to mitigate civilian risk, it is not the civilian that is responsible

for such violation, and it would be perverse to then allow the attacking force to violate its own obligation. However, the enemy's violation of these obligations will inevitably complicate attack judgments, the accordant assessment of attack reasonableness.

While military professionals are knowledgeable in these principles and in the rational relationship between the LOAC and the nature of military operations in armed conflict, the media and public are not. This asymmetry in understanding and application of the LOAC creates strategic opportunities that unconventional adversaries can exploit by ignoring the LOAC's requirements themselves, while demanding the opponent be held to an invalid interpretation of the law. It is this tendency that leads some experts to view the law as being weaponized.

B. IDF LOAC Protections

In fighting hybrid adversaries like Hezbollah and Hamas, the IDF confronts a dilemma created by its adversaries' exploitation of civilians. It can either: refrain from conducting attacks that, while legally permissible, will create a perception of indifference toward civilians; or accept the consequences of legal misunderstandings in order to effectively destroy, disrupt or neutralize the threat.

The IDF has added to this dilemma by increasing its efforts to ensure legal compliance, including: developing attack capabilities and tactics that mitigate civilian risk; increasing resources devoted to target identification and verification; enhanced training; greater involvement of legal advisers at all levels of command; implementation of rigorous targeting methodologies for all attacks; use of carefully tailored rules of engagement; and comprehensive after-action reviews and, where appropriate, administrative and criminal inquiries into battlefield errors. The IDF's systematic methodology is substantially influenced by, and similar to, the best practices of other professional armed forces, including the U.S. military. This mosaic of implementation efforts indicates an overall good-faith commitment to LOAC compliance by the IDF.

Indeed, it is our assessment as military professionals that IDF operations exercise considerable restraint and constantly endeavor to implement the critical legal obligation to "take constant care" to mitigate the risks to civilians during the conduct of hostilities.

Institutionally the IDF has a systematic process for adhering to the LOAC, beginning with training at all levels of command, through excellent target assessment processes and decision-making at appropriate levels of command to ensure maximum care in the targeting process, especially in the employment of aerial delivered munitions.

First, the IDF has a method of assessing the legality of proposed attacks, the extent of which depends on the time available for such assessment. This process involves: determining the desired military effect; selecting the required combination of weapons and tactics needed to achieve that effect; implementing all feasible precautionary measures to mitigate civilian risk; assessing the potential for incidental injury and collateral damage; and ultimately weighing that risk against anticipated military advantage.

At that point, the attack is launched only after a determination that the anticipated incidental injury and/or collateral damage will not be excessive when compared to the anticipated

concrete and direct military advantage (known as the "proportionality" equation, though the test focuses on excessive, and not necessarily disproportionate, effects). In the context of deliberate attack decisions (those that are preplanned), when there was potential for collateral damage, the attack decision-making authority was sufficiently senior that it was clear to this task force that decisions to launch attacks were made only after extensive and experience-based deliberation.

Furthermore, this process often results in modifications to attack weapons and tactics to mitigate civilian risk, and results in cancelling or suspending the attack far more often than is commonly assumed. Even when engaged in time-sensitive attack decisions, a less formalized version of this process is utilized, even at very low levels of operational action. Our discussions confirmed that even very junior IDF commanders understand these obligations and implement such methodology as best they can in the context of rapidly evolving time-sensitive attack decisions. This methodology is similar to those employed by the United States and other modern militaries committed to the LOAC.

Second, in addition to their systematic methodology for assessing compliance with the LOAC proportionality rule, the IDF has executed several exemplary and innovative measures in an attempt to further mitigate the risk to the civilian population. These include: maximizing the use of precision-guided munitions; selecting the lowest acceptable yield explosives; warning civilians with leaflets, text messages, telephone calls and radio transmissions to leave a defined area of operations or to seek shelter; assisting with the evacuation of civilians; firing smoke and illumination rounds prior to the use of explosive munitions in order to encourage civilian evacuation; and most notably, dropping a small, non-lethal explosive at an unoccupied corner of a structure to provide a "knock on the roof" warning of an impending strike. IDF weapons development also reflects the good-faith commitment to civilian risk mitigation, such as a tank main gun round specifically designed to destroy only the single room in an apartment or home subject to deliberate attack.

As explained in more detail below, implementation of such precautionary measures is obligatory whenever a commander assesses that doing so is feasible. However, international law is generally vague on what qualifies as feasible in the myriad of combat situations. It is clear, however, that these measures are not required when a commander assesses they will compromise the success of an attack. Nonetheless, in our view, IDF commanders consistently accept risk of compromising tactical effect in an effort to "lean forward" in terms of precautionary measures. This, coupled with the effort to implement innovative new precautionary measures, indicates to this task force the genuine nature of the IDF commitment to this critical component of the "constant care" obligation. For example, providing advance notice to Gazan civilians of impending areas of operations during the 2014 conflict with Hamas often forfeited the IDF's tactical advantage of surprise for offensive ground operations and allowed the safe withdrawal of Hamas military personnel, equipment and/or munitions. Perversely, this also allowed Hamas to actually impede evacuations the IDF sought to encourage.

While the effectiveness of some of these warning techniques can be debated, the fact that the IDF implemented them is an indicator of the laudable measures they routinely take to comply with their LOAC obligations. To this end, it must be noted that while the LOAC does require an attacking commander to consider precautionary measures to mitigate civilian risk, there is no absolute obligation to implement such precautions. Such use is not required when doing

so would not be feasible under the circumstances – a consideration that includes the loss or compromise of tactical advantage and thus eliminating the threat.

As a result, it is often the case that the attacking force cannot feasibly utilize precautionary measures in the form of warnings, either because the attacking forces lack the capability or opportunity to use them, or because of the risk of ceding tactical advantage to an adversary. It is therefore noteworthy that the IDF takes these measures in many situations where they could arguably invoke feasibility considerations to justify not doing so. This, combined with the other efforts implemented to ensure LOAC compliant operations, demonstrated Israel's overall goodfaith commitment to the law.

C. Israel's Strategic Communications Challenges

Despite Israel's overall commitment to comply with the LOAC, in recent years its adversaries have proven increasingly effective at gaining international sympathy to their cause and a high degree of opposition to Israel and its conduct of military operations. They have done so by exploiting images of civilian deaths and destruction of property assumed to be civilian, even when the property qualifies as a military target due to enemy use. Indeed, we believe the IDF lost the information operations campaign at the strategic level in conflicts with Hezbollah in 2006 ("Second Lebanon War") and with Hamas in 2014. This undermined the perceived legitimacy of its tactical performance, generated immense pressure to terminate operations before achieving their objectives and negatively shaped the environment for future operations.

Despite active public affairs efforts in its recent conflicts, Israel has faced several institutional and external challenges that perpetuate its disadvantage in this information domain of conflict. Strategic communications by the IDF Spokesperson's Unit's Public Affairs (IDF-PA) branch focus on domestic Israeli audiences, with responsibility for international audiences falling to the Ministry of Foreign Affairs. Contrasting with the successes of the former, the latter often lacked the timely military information, video and images to effectively influence its intended audiences abroad. Shortly after the 2006 conflict with Hezbollah, the then Foreign Ministry Director of Public Affairs lamented publicly that "the Israeli government fell back on the tried and true methods of [sending] eloquent spokesmen with sound bites to combat the photographs of destruction and despair that dominated television and newspapers" during the war. ¹³

At the same time, the IDF Spokesperson's Unit has difficulty countering its adversaries' false claims about civilian casualties and overall indifference to international humanitarian legal obligations. Though full-motion video and other critical forms of intelligence often exist to rebut these claims, the IDF is reluctant to release classified material to the media – often because it is classified and its release would compromise the success of future operations. Moreover, if the incident in question was subject to an ongoing or potential investigation by the IDF Military Advocate General (MAG), releasing such information may jeopardize the due process rights of the IDF personnel involved or otherwise compromise the legitimacy of the investigative process.

Additionally, whereas Israel's adversaries appear comfortable making unfounded accusations freely, as a liberal democracy Israel is expected by international audiences to be more precise and accurate in its statements to the media. Israel's opponents have no hesitation asserting conclusively that images indicate violation of international law and indifference to civilians, exploiting the simple but legally and operationally invalid practice of effects-based

condemnations. In contrast, Israel is bound to the legally required approach of careful and deliberate investigation and assessment of such incidents, in an effort to assess what the attacking commander or force reasonably knew at the time of the decision. But while the assessment of legality demands recreating the situation as it existed at the time of the attack decision, the complexity of such assessments often falls flat on a public audience so easily influenced by images of human suffering in war. Furthermore this higher, more time-consuming standard can be problematic in a constant and instantaneous news cycle, where the primary incentive is to break the story rather than to get it right.

Inherent motivations in news media, which naturally draws conclusions based on images of wartime destruction and suffering, compounds these challenges. This coverage is also substantially influenced by the widespread misconception that compliance or non-compliance with international law is best indicated by comparing civilian "casualty counts" on either side of the border, which leads to a distorting focus on the imbalance of casualties as evidence of disproportionate or indiscriminate use of firepower by the IDF. As the *New York Times*' Jerusalem bureau chief during the Second Lebanon War stated bluntly, "the war was judged on its death toll." In 2014, the effectiveness of Iron Dome ensured the preponderance of casualties, and concomitantly a majority of news reporting, were in Gaza rather than in Israel – even though Iron Dome's efficacy in protecting Israeli civilians from deliberate unlawful Hamas attacks almost certainly afforded the IDF operational patience in responding to these attacks.

Additionally, there is a natural human tendency to sympathize with the perceived underdog, and it is easy for journalists to portray Israel as the region's Goliath. In short-duration media reports like much of the coverage of Israel's wars, it is also far easier to use simple effects-based methods, including casualty counts, as a shorthand for each side's adherence to the law than it is to provide a more comprehensive and complex analysis of actual LOAC compliance.

This host of hurdles for Israeli strategic communications has engendered a certain fatalism among Israeli officials and IDF officers that their country never will be dealt with fairly in the international community and media, and that the information campaign may inherently be unwinnable. It is therefore apparent why this task force hopes efforts such as ours will help offset operational and legal misperceptions and contribute to a more credible assessment of legality and legitimacy in future conflicts.

IV. Losing the Battle, Winning the War: Israel's Adversaries Weaponize the Law

In contemporary armed conflicts, hybrid forces increasingly seek to take advantage of their opponents' commitment to rule of law and LOAC compliance. Respect for the LOAC is central to a well-disciplined and professional military, and commanders of such forces are expected to prepare their forces to comply with the law. They also are expected to hold accountable any of their own troops deemed responsible for violations, and to endeavor constantly to improve tactics, techniques and procedures to enhance compliance.

This commitment is rare among hybrid adversaries, which frequently seek to exploit the presence of civilians in the belief it will provide functional immunity from attacks by law-committed militaries. This is explicitly prohibited by the LOAC, and it is precisely what Israel's terrorist enemies Hezbollah and Hamas have sought to do in recent conflicts. They have sought a tactical advantage, hoping to deter or at least complicate and slow IDF operations by hiding among and putting at risk civilians.

Increasingly, however, these hybrid adversaries are weaponizing the law not just as means of fighting Israel, but as the end of the conflict itself. This strategy seeks to exploit widespread misunderstanding of the LOAC, not just among warring parties but also media, observers and the international public. This misunderstanding is built on one of two, or both, false assumptions dominant in the popular narrative about the laws of war. First, that the law prohibits the infliction of any civilian casualties whatsoever; and second, that the party to the conflict that directly causes a civilian casualty by launching an attack is legally responsible for that casualty.

A. Weaponizing the Law

The ability of hybrid actors to turn the law against law-abiding states is a perversion that stems fundamentally from a lack of understanding, even among many sophisticated policymakers, about the requirements of the laws of war. But it is also aided by further public misperceptions about the nature of modern conflicts against hybrid groups, such as those Israel has fought against Hezbollah and Hamas. The popular narrative of these conflicts, often supported by militaries and politicians alike, is one of combat superiority, a seemingly unlimited capacity to engage in precision attacks often using stand-off capabilities like unmanned aerial vehicles (UAVs, or "drones") or other air and missile assets, and the luxury of extensive time to assess who, what, where and when to attack. In military doctrinal terms, these types of attacks are often characterized as the product of a "deliberate" targeting process, whereby targets are nominated, carefully assessed and vetted, and then addressed in a prioritized order. This has led to an expectation of attacks with absolute accuracy, launched at the optimum time and place, using the optimum capability, while minimizing collateral damage or incidental injury.

There can be little doubt that every commander would, if offered the opportunity, prosecute all wars in such a manner. But it is unrealistic in the extreme to assume that the nature of future conflicts will identically mirror this model.

This widespread public perception is simply not accurate. The recent conflicts between technologically advanced forces like those fielded by the United States and less-capable opponents simply have not been completely defined by this type of operation. Instead, these adversaries have demonstrated a capacity to adapt to their opponent's advantages and utilize innovative, and even sometimes primitive, tactics to offset these advantages. The use of tunnel (subterranean) warfare by Hamas and Islamic State is an iconic example of this adaptability, whereby the militarily weaker enemy utilized a relatively primitive tactic to nullify the extensive intelligence, surveillance and target acquisition assets of their more advanced opponent. These adversaries are also determined and ferocious, often fighting in what they consider their own territory.

These groups then exploit these misperceptions about the true nature of military operations in hybrid warfare and the LOAC. Adversaries leverage these misperceptions to manipulate and distort media reporting from conflict areas, in order to undermine their enemy's tactical effectiveness and sway public opinion – a perverse weaponization of the law.

First, the hybrid group's tactical objective will often be to maximize friendly and civilian casualties, rather than prevail outright in combat. This contributes to two objectives: exploiting the perception of casualty aversion that influences the political will of law-abiding states engaged in hostilities – a strategic vulnerability – and increasing popular support for their own cause by demonstrating an ability to stand toe-to-toe with the superior state enemy, even if in limited opportunity. This means that friendly forces must anticipate and confront situations where the opponent will seek to create isolated "peer to peer" engagements. Such engagements normally involve drawing a law-abiding state's forces into ground combat operations in densely populated areas where the defending adversary can exploit the natural advantage of operating in such an area.

Second, these adversaries, who routinely ignore if not deliberately violate LOAC obligations, understand that maximizing civilian casualties and destruction of civilian property can then be exploited with sophisticated information operations to produce a strategic windfall. Indeed, while non-state or irregular forces have been historically notorious for violating the LOAC, what is different today is that such violation actually is used to gain tactical and strategic advantage. At the tactical level, the use of civilians to shield military assets and the extensive use of densely populated areas as bases of operations complicates the attack decisions of the LOAC-compliant state forces. As explained above, while the law often permits attacks even when there is an expectation of producing civilian casualties, the tendency of the international community to engage in effects-based condemnations means that what is lawful rarely translates to what is legitimate.

Hybrid adversaries recognize this, and know that public and international opinion rarely will be influenced by legality assessments based on an informed application of controlling LOAC rules, but instead by attribution based on who fired the shot or dropped the bomb that caused the casualties. This ultimately creates a perverse incentive for illicit enemies to: embed their most vital assets among the civilian population; actively seek to prevent the evacuation of civilians from a conflict area; and create situations requiring highly destructive combat capabilities to be the only viable option for their law-abiding opponent to achieve tactical and operational success.

The remaining sections of this report review how Israel's adversaries have tried to weaponize the law in two recent conflicts — in Lebanon against Hezbollah in 2006 and in the Gaza Strip against Hamas in 2014 — and how the contours of a potential future conflict with Hezbollah could render lawfare an even more effective weapon against Israel.

B. Second Lebanon War

The last direct conflict between Israel and Hezbollah began with a July 12, 2006, Hezbollah kidnapping raid on IDF soldiers that ultimately spiraled into the 34-day Second Lebanon War. Israel relied initially on airpower to neutralize Hezbollah's rocket threat and establish deterrence against future such attacks, rather than attempt to eliminate Hezbollah as a military threat. When this failed to halt an average of 100 daily rocket attacks on northern Israel, the IDF conducted halting and piecemeal ground operations in southern Lebanon that confronted surprisingly stout Hezbollah defenses. These operations, too, failed to end Hezbollah's rocket attacks. As hostilities dragged on week after week, Israel faced steadily accumulating international pressure to terminate its operations, despite the fact Hezbollah – not Israel – increased the risk to civilians throughout the conflict.

Within the first 48 hours of the kidnappings, the IDF sought to prevent the abductors from escaping and to eliminate much of Hezbollah's strategic military assets, including its long-range rockets. The latter proved largely successful, as the Israeli Air Force (IAF) destroyed most of these capabilities in the opening days of the war.

Though the IAF neutralized most of Hezbollah's long-range rocket arsenal and a significant amount of its military infrastructure at the outset, Hezbollah was still able to fire a handful of longer-range missiles at Tiberias and Haifa, as well as over 500 short-range rockets across northern Israel, in the first week of the war. ¹⁵ On July 18, Israeli leadership decided the aerial campaign was insufficient to halt ongoing rocket fire and committed several brigades of ground forces to neutralize Hezbollah firing positions and other military emplacements in far southern Lebanon. ¹⁶

It quickly became evident the IDF had underestimated the depth and breadth of Hezbollah's defenses as well as the tenacity and tactical acuity of its fighters. To Ground maneuver forces struggled to secure quickly even the initial objectives of several small border towns, often encountering skilled Hezbollah defenders capable of conducting lethal ambushes with antitank weapons and improvised explosive devices (IED). Hezbollah also struck an Israeli Navy corvette with an Iranian-made C-802 anti-ship cruise missile, killing four Israeli sailors, and launched three small Ababil drones armed with 30-50 kilogram (kg) warheads – all of which were intercepted by IAF fighter jets over northern Israel and southern Lebanon.

With its aerial campaign and limited ground incursion proving insufficient to stop or even appreciably curtail the rate of Hezbollah rocket fire, the IDF called up three divisions of 30,000 total reserves and, on July 29, expanded its area of operations across southern Lebanon to create a "security belt" north of the Israeli-Lebanese border. Despite this increased commitment of ground troops, the IDF struggled to continue their advance into Lebanon and the rate of Hezbollah rocket fire from southern Lebanon actually increased, prompting the Israeli cabinet on August 9 to direct ground forces to push on to the Litani River.

Unlike air operations, the ground maneuver took a heavy toll on the IDF, with 119 personnel killed and 628 wounded in roughly three weeks of fighting – its most casualty-intense combat operations since the First Lebanon War in 1982.²² Hezbollah's effective use of antitank weaponry against both IDF infantry and armor contributed to these casualty rolls.²³

With no Israeli active defenses like Iron Dome to prevent or limit danger to populated areas, Hezbollah targeted Israeli towns with rockets and mortars throughout the conflict. It fired an estimated 3,970 rockets into Israel, killing 43 civilians and 12 soldiers while injuring another 1,300 civilians and displacing 300,000 residents in northern Israel.²⁴ More than 900 of these rockets landed within urban areas, damaging 6,000 homes as well as hospitals, schools and other protected sites.²⁵

According to Human Rights Watch, Hezbollah "repeatedly bombarded cities, towns, and villages without any apparent effort to distinguish between civilians and military objectives, [thereby violating] fundamental prohibitions against deliberate and indiscriminate attacks against civilians." More than half Hezbollah's rocket launches targeted three northern Israeli towns – Nahariya, Kiryat Shmona and Safed – inflicting more than 1,000 civilian casualties out of a combined population of around 100,000.27 Overall Israel's Ministry of Foreign Affairs estimated almost two million people – then a third of the population – were at direct risk from Hezbollah rockets during the war.28 The Bank of Israel estimated the overall costs of the war to the country at 0.5 percent of gross domestic product (GDP).29

The damage to Lebanon was also significant, though for appreciably different reasons. Just as Hezbollah abused protections for civilians in wartime by firing rockets indiscriminately at Israeli towns and cities, it likewise embedded its firing positions and other military infrastructure in civilian populated areas. It also utilized Lebanese critical infrastructure for its own military logistics and communications. Combined with the fact that ground combat occurred almost entirely on Lebanese soil and featured close-quarters battle in villages where Hezbollah intermingled its military forces with civilians, the level of destruction consequently was greater in Lebanon than in Israel.

Approximately 1,100 Lebanese were killed in the conflict, including at least 500 Hezbollah fighters, with an estimated 3,628 Lebanese civilians injured.³⁰ Overall, the 34-day conflict cost the Lebanese economy \$3-5 billion, with over 10,000 homes destroyed, 22,500 buildings badly damaged and another 73,000 partially damaged.³¹ The air campaign and ground maneuver operations also damaged or destroyed significant numbers of Lebanon's roads, factories and bridges as well as damaged its electric grid.³²

Throughout the conflict, Hezbollah astutely manipulated media coverage of this destruction and its own abuses of international legal protections for Lebanese and Israeli civilians – chiefly its use of civilian sites in Lebanon for military purposes and its indiscriminate rocket fire against Israeli towns and cities – to rouse international opinion against Israel and coerce the IDF to terminate operations before it could achieve its objective of deterring or eliminating the threats posed by Hezbollah.

The group exploited images of civilian deaths in Lebanon to generate impressions of illegal Israeli use of force through its own media stations like Al-Manar television and sympathetic broadcasters like Al-Nour radio, as well as its own print publications and websites in multiple languages.³³ It also managed the flow of information to the outside world by essentially curating

access to the battlefield. Tactics included staging recovery operations to exaggerate civilian casualties and prohibiting any photos or reporting on the presence of its own fighters or their intermingling among civilians and indiscriminate firing of rockets into Israel. It also employed physical intimidation or threatened lost access for reporters to deter attempts at objective accounting of the causes of civilian casualties.³⁴ The group even conducted cyberattacks to spread its propaganda in countries that supported Israel during the conflict.³⁵

These uses of information operations warfare to delegitimize and constrain IDF operations proved effective. Throughout the conflict, Arab and Western media asserted regularly that Israel's reaction was disproportionate to Hezbollah's initial provocation. Even as it criticized Hezbollah's rocket launches, Human Rights Watch released a report during the conflict accusing Israel of extensive use of indiscriminate force, suggesting Lebanese civilians had been targeted intentionally and casting doubt on Israeli claims that Hezbollah was using human shields. Amid this drumbeat, an IAF airstrike on the Lebanese village of Qana on July 29-30 that killed dozens of civilians generated a critical mass of pressure on Israel, including from the United States, to suspend operations and accept a ceasefire. Reflecting Hezbollah's control of battlefield access, media coverage of the strike helped encourage this response by providing inflated casualty estimates while downplaying IDF advance warning and Hezbollah's use of the heavily populated area for military operations.

Indeed, though Hezbollah's initial provocation that began the conflict was widely condemned, from the opening days Israel faced strong diplomatic pressure and hostile global opinion. These attitudes deepened as the conflict progressed, encouraged in part by the distorted narratives emerging from Lebanon. When the war began, then U.N. Secretary General Kofi Annan condemned Hezbollah's attack against the IDF "without reservations ... and [demanded] that Israeli troops be released immediately." On July 16, the G-8 publicly blamed Hezbollah for starting the conflict and, at U.S. and British insistence, avoided calling for an immediate end to IDF operations in Lebanon.

Yet simultaneously the European Union condemned Israel for its alleged "disproportionate use of force ... in Lebanon in response to attacks by Hezbollah." The then French foreign minister echoed these remarks, calling Israeli military actions a "disproportionate act of war."⁴² One week into the conflict, Annan was demanding an end equally to "deliberate targeting by Hezbollah of Israeli population centers with hundreds of indiscriminate weapons and Israel's disproportionate use of force and collective punishment of the Lebanese people."⁴³ British cabinet members and other officials increasingly condemned Israel in late July as the first IDF ground troops moved into southern Lebanon, with the Leader of the House of Commons saying publicly the war killed 10 times as many innocent Lebanese as Israelis. ⁴⁴ Officials in the Israeli Prime Minister's office admitted privately, "erosion of international support throughout the conflict was predictable as media pictures in the Arab world and Europe showed Israel hitting civilian buildings at the edges of Beirut."⁴⁵ During the period American diplomats pushed back against a growing chorus of calls from the United Nations, Europe, Russia and China for an immediate ceasefire. ⁴⁶

American backing was ultimately broken by the response to IDF strikes on Qana.⁴⁷ Despite having given advance warning of the attack, Israel's conduct was excoriated through official and popular protests around the world, leaving the United States isolated in supporting Israel.⁴⁸ As Secretary Rice's primary adviser at the time noted, Qana effectively culminated events in which "Hezbollah did a masterful job at propaganda that falsely multiplied the scale of

damage.... Arab governments grew nervous, because their 'street' was watching al-Jazeera depict the total destruction of Lebanon."

In the wake of the incident, the United States announced a 48-hour suspension of IDF air attacks. By August 4, as Hezbollah continued launching 100 or more rockets daily into Israel, American diplomats were helping advance comprehensive ceasefire resolutions in the U.N. Security Council (UNSC). As pressure mounted from the Arab League, Qatar and others, successive draft resolutions incorporated demands for immediate IDF withdrawal from Lebanon, resulting in the August 11 passage of UNSC Resolution (UNSCR) 1701 that ended the 34-day conflict.

C. 2014 Gaza Conflict

Similar to Hezbollah in 2006, in the 2014 Gaza conflict Hamas intentionally targeted Israeli civilians with sustained rocket fire while deliberately provoking and exacerbating the collateral damage caused by IDF responses. Also similar to Hezbollah in 2006, Hamas used information warfare to undermine Israel's international legitimacy and to try to compel it to agree to a ceasefire on Hamas' terms.⁵⁰

The precipitating causes of the conflict even mimicked those of 2006, with an escalating cycle of Hamas rocket attacks and Israeli airstrikes resulting from Hamas initially kidnapping three Israeli teenagers on June 12, 2014. After Hamas rejected Israel's July 6 offer to return to their 2012 truce – no rocket fire, no airstrikes – the IDF began Operation Protective Edge (OPE) on July 8. In the initial stage, Israel carried out several hundred airstrikes per day to destroy known rocket launchers as well as key Hamas military leadership and infrastructure. The IDF also began mobilizing tens of thousands of reservists to deploy around the Gaza Strip. Hamas responded by firing as many rockets in the first two days (several hundred) as in the entire month prior, including long-range attacks up to 90 kilometers into Israel. On July 15 Israel accepted, but Hamas rejected, an Egyptian ceasefire proposal to allow imports of humanitarian aid and construction materials into Gaza.

On July 17, Hamas special operations forces began using tunnels for cross-border raids on Israeli towns and IDF troop concentrations. That same day, the IDF switched to a combined air and ground operation with naval support to destroy the tunnels' entrances in Gaza. By late July, the rate of rocket fire from Gaza had diminished, but violence remained heavy as the IDF responded to continuing Hamas tunnel attacks. As the group's ability to launch rockets decreased, Hamas relied increasingly on mortars to attack Israeli troop concentrations and towns adjacent Gaza.

The conflict entered its last phase the first week of August. After the IDF neutralized the last of the tunnel entrances it could identify in Gaza, it withdrew its ground forces on August 3-5. Efforts to negotiate a ceasefire – repeatedly interrupted by rocket and mortar attacks from Gaza and IDF strikes targeting Hamas' military leadership and support bases – continued for three weeks before Hamas ultimately agreed to the original July 15 conditions for ceasefire.

Though it was able to some extent to mitigate Israel's military and technological superiority on the battlefield, Hamas' strategy was not premised on outright military victory. Rather, like Hezbollah its strategy depended on a combination of inflicting maximum casualties on IDF ground forces by drawing them into the meatgrinder of urban maneuver combat, and setting the conditions to

exacerbate civilian casualties in order to triumph in the court of international opinion, where Israel would be delegitimized and would face pressure to agree to Hamas' demands.

To this end, Hamas attempted to manipulate misunderstandings of international law and international media coverage to its advantage. It routinely used civilians and protected places like hospitals and U.N. facilities to shield lawful targets from attack. This tactic substantially complicated IDF attack decisions and military operations, for example in deciding how to respond when Hamas launched rockets and mortars against IDF forces and Israeli civilian population centers from within or in direct proximity to international safe havens and civilian buildings. It also trained a substantial amount of its mortar and rocket fire on Israeli civilians in blatant violation of international law. Despite such actions intentionally and egregiously violating the LOAC, Hamas used the ensuing civilian casualties to discredit Israel in the international community. Similar to Hezbollah's information operations in 2006, Hamas released false information and leveraged its control over media access in Gaza to portray the collateral damage caused by its own strategy and actions as illegal IDF conduct.

Unlike in 2006, where Hezbollah information operations helped compel Israel to terminate its military campaign, Hamas' weaponization of the law and media in 2014 failed to secure a ceasefire wholly on its terms. Yet its tactics delegitimized Israel's self-defense actions to the extent top officials from the Arab League, European Union (including Great Britain), and United Nations either accused Israel outright of war crimes or publicly doubted IDF operations accorded with international law. Throughout the conflict, Hamas' tactics also generated sustained and significant, but ultimately insufficient, pressure on Israel from the United Nations, Europe, Russia and even the United States to agree to an immediate termination of hostilities.⁵¹

D. Implications: Turning Defeat into Delegitimization

As the 2006 and 2014 conflicts demonstrated, key hybrid groups like Hezbollah and Hamas – as well as others like Islamic State – increasingly come equipped with advanced weapons systems normally associated with nation-state conventional militaries, while assuming none of the accountability such militaries incur. Confronting qualitatively superior armed forces like those of Israel or the United States, these hybrid groups do not routinely seek a direct armed confrontation on a traditional battlefield – though they will exploit such opportunities when they perceive a strategic advantage. They understand that they need not achieve tactical victory to achieve strategic success. Instead, in the case of Hezbollah and Hamas, they try to discredit Israel and generate political pressure to compel it to agree to their demands or to terminate lawful military operations prematurely.

As a member of JINSA's Gaza Assessment Task Force, Major General Michael Jones, noted several years ago, "for U.S. commanders, information is understood as a supporting effort to combat operations. But for Hamas, combat operations are understood as a supporting effort to information. These enemies know they can't defeat the IDF in battle, and don't care, so long as the combat operations contribute to their strategic goal of delegitimizing Israel." 52

The growing prevalence of strategies like those employed by Hezbollah, Hamas and Islamic State represents a new face of warfare that exploits vulnerabilities of liberal democracies like the United States and Israel, which cannot win wars without popular support and whose values and commitment to the rule of law sensitize them to causing unnecessary harm to civilians.

Indeed, recent history is replete with examples of how military operations by either country have been impacted negatively by an aversion to collateral, but often legal, damage.

Therefore, such adversaries can undermine the legitimacy of lawful military operations by employing strategies that intentionally increase civilian casualties. The use of these strategies also encourages international actors to condemn and pressure liberal democracies and inhibit them from utilizing military force to combat hybrid adversaries. These operational and legal challenges pose real enough problems for the effectiveness of U.S. military operations. For Israel, confronted on many sides by increasingly powerful actors denying the country's adherence to international law and even the legitimacy of its very existence, unnecessary greater restraint in its military operations poses even greater – and potentially insurmountable – obstacles to victory.

V. Hezbollah's Ascendance

A. Strategic Context and Flashpoints

Israel is confronted most clearly by a hybrid adversary on its northern borders. For decades Hezbollah has been Iran's primary terrorist proxy and one of the leading anti-Israeli and anti-American extremist groups in the world. In recent years, with concerted Iranian assistance, it has amassed weaponry and battlefield experience on par with, and often exceeding, many conventional militaries. As its military capabilities grow, Hezbollah increasingly has insinuated itself into the Lebanese state, military and society, including literally stockpiling its arms amid civilians. These robust arsenals pose an unprecedented threat to Israel, and already have prompted a sustained, if often low-level, IDF campaign against Iran and its efforts to expand Hezbollah's arsenals further.

1. Hezbollah: Iran's Primary Terrorist Proxy

Iran has been the world's leading exporter of terrorism for decades, and throughout that time Hezbollah has been its main proxy force. From its inception, Hezbollah's mission channeled Tehran's desire to expel the United States from the Middle East and eliminate Israel. To this end, it has operated under Iran's direct tutelage and has been a major recipient of Iranian money and weaponry, enabling Tehran to establish a direct front bordering Israel. This triggered a pattern long predating the Second Lebanon War of Hezbollah attacks on Israeli forces and territory, followed by IDF responses designed to degrade Hezbollah's military capabilities and curtail the threat posed to Israel.

Hezbollah originated from an Iranian attempt to coalesce various Lebanese Shia militias around the goal of combating the U.S. and Israeli military presences in Lebanon in the early 1980s.⁵³ To this end, Iran sent roughly 1,500 Islamic Revolutionary Guard Corp (IRGC) advisors to the Beqaa Valley to train and equip Hezbollah fighters.⁵⁴ The group first entered the American consciousness when its operatives detonated an explosive-laden truck in the U.S. Marine Corps barracks in Beirut on October 23, 1983, killing 299 U.S. and allied servicemembers.⁵⁵ Subsequently Iran was held legally responsible for the bombing, as well as an attack earlier that year against the U.S. Embassy in Beirut.⁵⁶ With significant Iranian assistance, Hezbollah also took numerous high-profile Americans and other Westerners hostage, among other terrorist activities. Already by 1985 the Central Intelligence Agency declared Iranian-sponsored terrorism the greatest threat to American personnel and facilities in the Middle East.⁵⁷

A political vision for Hezbollah crystallized over this same period. It was founded in "obedience to [Iran's] Supreme Leader Khomeini" and advocated the establishment of an "Islamic republic in Lebanon based on the Iranian model." Its 1985 manifesto defined the group as "the party of God (Hizb Allah), the vanguard of which was made victorious by God in Iran." It further reflected Iranian ideology in declaring Israel the "vanguard of the United States in our Islamic world," and "the hated enemy that must be fought until [it gets] what [it] deserves." In a section titled "the necessity for the destruction of Israel," Hezbollah also asserted it will "recognize no treaty with [Israel], no cease fire, and no peace agreements, whether separate or consolidated."

By the 1990s, Iran was bankrolling Hezbollah with a guaranteed \$100 million per year to pursue these goals. Tehran also supplied the group with light weapons including small arms, unguided short-range rockets, mines, mortars and antitank weapons. Combined these helped enable a steady stream of Hezbollah guerilla attacks on the IDF military presence in southern Lebanon (1985-2000), as well as indiscriminate rocket attacks on civilians in northern Israel. Hezbollah's military proficiency grew steadily as a result, and its attacks increasingly featured sophisticated combined-arms assaults. The IDF responded with military operations in 1993 ("Accountability") and 1996 ("Grapes of Wrath") using airstrikes, artillery and ground operations (in 1996) in southern Lebanon, Beirut and the Beqaa Valley to end Hezbollah's attacks, leading in both instances to temporary ceasefires effectively exchanging quiet for quiet. Beyond Lebanon, Hezbollah and other proxies, assisted by Iran, also carried out major suicide terrorist attacks on the Israeli embassy and Jewish community center in Buenos Aires in 1992 and 1994, respectively, killing a combined 114 civilians and injuring more than 500.

Hezbollah expanded its military infrastructure and informal political control in the vacuum of southern Lebanon following Israel's unilateral withdrawal in 2000. Combined with the nearly simultaneous death of Hafez al-Assad in Damascus and the assumption of power by his son Bashar, this ushered in a period of increased Iranian transfers of rockets and missiles to Hezbollah via Syria. By 2006, Hezbollah possessed an estimated 10,000-13,000 rockets and missiles – the vast majority of them unguided and short-range – as well as a core of 2,000-3,000 dedicated combat troops and up to 10,000 reserves.

Even after Israeli troops withdrew from Lebanon, and even as its focus pivoted to consolidating its position within Lebanon, Hezbollah's leadership maintained its implacable hostility to Israel, with its leadership stating in 2002, "If they [Jews] all gather in Israel, it will save us the trouble of going after them worldwide," and three years later "Israel is our enemy. This is an aggressive, illegal, and illegitimate entity, which has no future in our land. Its destiny is manifested in our motto: 'Death to Israel'." 65

During this time, Hezbollah also continued sporadic attacks on northern Israel. Consisting chiefly of artillery attacks and unsuccessful cross-border incursions to seize Israeli hostages, these culminated in the July 12, 2006, rocket attacks and accompanying raid that captured two IDF soldiers and killed three others, touching off the Second Lebanon War.⁶⁶

2. Failures of UNSCR 1701

One month later on August 11, 2006, the UNSC approved Resolution 1701 to implement the ceasefire that terminated the Second Lebanon War. In exchange for full Israeli withdrawal to the Blue Line – the de facto border between Israel and Lebanon – the Lebanese Armed Forces (LAF) and U.N. Interim Force in Lebanon (UNIFIL) would deploy throughout southern Lebanon. The resolution also called for Israel and Lebanon to support a permanent ceasefire based on the Lebanese government's control of all Lebanese territory and the disarmament of all non-state armed groups in Lebanon, including Hezbollah. A permanent ceasefire would be premised on the prohibition of weapons supplies to non-state armed groups and the "establishment between the Blue Line and the Litani River [in southern Lebanon] of an area free of any armed personnel, assets and weapons other than those of the Government of Lebanon and of UNIFIL...."

Though these terms were compatible with Israel's broad outlines for a ceasefire, ⁶⁸ they have not been implemented, in turn helping facilitate Hezbollah's massive postwar rearmament. In recognizing the Lebanese government's monopoly on force within the country, the resolution effectively authorized the LAF as the sole force for disarming Hezbollah, with UNIFIL delegated to support these efforts. It also authorized UNIFIL to ensure southern Lebanon "is not utilized for hostile activities of any kind" and to assist the Lebanese government in preventing arms transfers to Hezbollah.⁶⁹ Yet the Lebanese government and armed forces have made no concerted effort to remove Hezbollah's weapons, but instead have developed closer ties with the group since 2006. Simultaneously, UNIFIL has not fulfilled its mandate to support Hezbollah's disarmament and prevent southern Lebanon being used for hostile activities.

In the immediate aftermath of the conflict, Hezbollah's nationwide popularity for its resistance to Israel undermined any political will of the Lebanese government to attempt disarming the group. Only days after UNSCR 1701 passed, Lebanon's defense minister declared "The army is not going to the south to strip Hezbollah of its weapons and do the work that Israel did not."

Beirut's reticence was reinforced by Iranian cash, which was distributed via Hezbollah to rebuild national infrastructure and garner support across the country's confessional lines for Hezbollah's role as the country's main resistance against Israel.⁷¹ In succeeding years, Hezbollah's growing influence within the Lebanese government (see below) further undermined any attempts at disarmament or preventing arms transfers. By 2009, government leadership publicly supported Hezbollah's right to keep its weapons, with the president stating in 2010 "we cannot and must not tell the resistance [Hezbollah] ... 'Give us your weapons and put it under the state's command.'"⁷²

UNIFIL has mirrored the Lebanese government in failing to fulfill its UNSCR 1701 mandate. Though the U.N. force is tasked with helping disarm Hezbollah and ensuring peace in southern Lebanon, U.N. Secretary General António Guterres stated in July 2017 that, "in accordance with its mandate, UNIFIL does not proactively search private property for weapons in the south unless there is credible evidence of a violation of 1701, including an imminent threat of hostile activity from that location." This interpretation has enabled Hezbollah to retain and expand its military supplies and activities. Armed Hezbollah operatives thus carry out reconnaissance missions along the Blue Line without interference and, in 2017, even conducted a tour for international and local Lebanese media along the border in which its operatives openly wore uniforms, displayed the organization's flag and brandished weapons. In response the United Nations stated succinctly that "UNIFIL personnel did not observe unauthorized armed personnel when they encountered the media group."

Moreover, at various times UNIFIL peacekeepers are blocked by the LAF, Hezbollah and local populations from investigating suspected illegal arms depots. The United Nations has acknowledged that senior LAF officials have at times impeded UNIFIL from discovering Hezbollah violations of UNSCR 1701. Plainclothes Hezbollah operatives and civilians in villages with Hezbollah military presences likewise have obstructed or even attacked UNIFIL armored vehicles conducting inspections and routine patrols – including a car bomb that killed six UNIFIL soldiers in 2007 – to which the United Nations has responded largely by downplaying the incidents and claiming it has not observed any violations of UNSCR 1701.⁷⁵

The failures of the Lebanese government and UNIFIL to enforce UNSCR 1701's provisions have contributed directly to Hezbollah's alarming rearmament with Iranian and Syrian

assistance in the wake of the Second Lebanon War. As a result, Hezbollah's military capabilities to threaten Israel have expanded by an order of magnitude in slightly more than a decade since that conflict.

3. Hezbollah's Growing Power in Lebanon

Unlike when it last fought Hezbollah in 2006, today Israel faces an adversary with deep connections and influence in the Lebanese state, society and armed forces. Paraphrasing Voltaire's remark that Prussia was an army with a state, today Lebanon has become a terrorist organization with a state. This transformation gives Hezbollah a broader military base throughout the country and likely will compel the IDF to expand its targeting to include the LAF and related critical infrastructure in Lebanon in a coming conflict.

Hezbollah was a political minority with little connection to the LAF in the context of the 2006 conflict. The 2005 assassination of former Prime Minister Rafiq Hariri, linked to Hezbollah and the Syrian government, triggered the "Cedar Revolution" of widespread public demonstrations that ousted Syrian forces from Lebanon, engendered a wave of popular anti-Hezbollah sentiment across much of the country and ultimately ushered in a new ruling coalition with Hezbollah in the opposition.⁷⁶ This new government also explicitly distanced itself from Hezbollah, calling for the group's disarmament and blaming it publicly for instigating the conflict with Israel.⁷⁷

Accordingly, Israel intentionally distinguished between Hezbollah and the Lebanese state in 2006, largely constraining its operations geographically to Hezbollah's strongholds and deliberately limiting damage to non-Hezbollah assets – for example, cratering the Beirut airport's runways without striking terminals or hangars.⁷⁸

Nonetheless, Hezbollah's resistance against Israel in that conflict boosted its nationwide popularity and led ultimately to its gaining a veto over all cabinet-level decisions, initiating a decade-long accumulation of power within the Lebanese cabinet and parliament. In October 2016, Hezbollah ally Michel Aoun was elected Lebanese president and awarded Hezbollah a majority of cabinet positions. In the May 2018 elections, Hezbollah's coalition won a majority of seats in parliament for the first time. These victories also gave Hezbollah and its allies effective control of Lebanon's Supreme Defense Council, which oversees the LAF. Combined with their joint operations against Islamic State in 2013, Hezbollah and the LAF now coordinate on an almost daily basis. They also exchange intelligence and conduct joint operations where Hezbollah is effectively in command – such as in 2016-17 operations against Islamic State in northeast Lebanon. At the same time Hezbollah's provision of social services like healthcare and education – particularly for historically underserved Shiite communities in southern Lebanon – has helped ingratiate the group to parts of the Lebanese population, thereby making it easier to emplace weapons systems within and around civilian infrastructure.

Hezbollah's military doctrine of using the government, army and Lebanese civilians to support its resistance against Israel has affected the LAF officer corps, with the army and internal security forces not only failing to enforce UNSCR 1701 but even bolstering their deployments in southern Lebanon alongside Hezbollah. President Aoun remarked in 2017 that "as long as the Lebanese military lacks the power to stand up to Israel, [Hezbollah's] arms are essential, in that they complement the actions of the army and do not contradict them. They are a major part of Lebanon's defense." The Supreme Defense Council likewise mirrors Hezbollah in calling on

the LAF to "resist Israeli aggression," and Prime Minister Saad Hariri saying Israel "remains the primary threat to Lebanon." Hezbollah's leader Hassan Nasrallah simultaneously calls the LAF a "partner" and "pillar" in Hezbollah's larger objectives against Israel. As one rank-and-file Hezbollah fighter put it succinctly in 2017, "we can't say one is stronger than the other. Without the Resistance [Hezbollah], the army is nothing, and it's the same with the Resistance. They complete each other."

4. Iran Transforms Hezbollah into Unprecedented Threat

Beyond its strengthened ties with the Lebanese state and LAF, Hezbollah's astonishing rearmament since 2006 stems from the lessons of the Second Lebanon War and the failed implementation of UNSCR 1701. Today it possesses more firepower than 95 percent of the world's conventional militaries and more rockets and missiles than all European NATO members combined.⁸⁵ Primarily, Hezbollah's military buildup would have been impossible without more than a decade of concerted and steadily increasing Iranian assistance designed to transform the group into a much more lethal threat to Israel than in 2006.

Though Hezbollah leadership claimed "victory" in the Second Lebanon War for having attacked the Israeli homeland and fought the IDF head-on, Nasrallah later admitted he would never have authorized the initial kidnapping raid if he could have foreseen the ensuing escalation that resulted in major destruction to his group's military capabilities. By the end of the war, Hezbollah had lost most of its long-range missiles, depleted roughly half of its short-range rockets and taken serious casualties. Iran, basking in the glow of Hezbollah's proclaimed victory, nevertheless assessed its proxy required substantial reinforcement if it were to continue pressuring Israel and achieve better results in any future military conflict. Syria, too, worried that Hezbollah's deterrence against Israel had been undermined by the 2006 war. By

Therefore, Tehran launched a major years-long campaign to substantially bolster its main proxy's rocket and missile arsenals. Most of these weapons were transferred from Iran via Syria, in direct violation of UNSCR 1701's prohibitions against arms transfers to Hezbollah and its remilitarization of southern Lebanon.

In the first two years after the war, Tehran gave priority to restocking the backbone of Hezbollah's rocket capabilities, namely unguided short- and medium-range rockets that had been fired in mass quantities or eliminated by the IDF in 2006. Beginning in 2009, emphasis shifted to provisioning Hezbollah with longer-range rockets and missiles. Israeli airstrikes had proven quite effective in neutralizing Hezbollah's limited quantities of these longer-range projectiles in 2006, reinforcing for Tehran the need to expand this arsenal. Due in part to Hezbollah's successful strike on an Israeli Navy ship in 2006, Iran also increased its transfers to Hezbollah of surface-to-sea missiles and drones during this period. Beginning the backbone of Hezbollah of surface-to-sea missiles and drones during this period.

Starting around 2012, Iran focused on equipping Hezbollah with precision-guided missiles.⁹⁰ Since 2015, Tehran has continued transferring precision-guided missiles via Syria, while also supplying Hezbollah with guidance kits to convert its existing unguided projectiles into precision weapons. It also initiated a program to provide Hezbollah with facilities to manufacture precision munitions inside Lebanon.⁹¹ By 2018, various Israeli estimates put Hezbollah's overall rocket and missile stockpiles between 120,000-140,000, the vast majority of them unguided short-range rockets as well as several thousand medium-range rockets and several hundred precision long-range missiles.⁹²

Iran also greatly increased its financial assistance to Hezbollah in parallel with growing weapons transfers. In addition to \$400 million total to rebuild Hezbollah's stronghold in Beirut in the aftermath of the war, Tehran's estimated annual financial support to the group increased to \$200 million from roughly half that amount in the early 2000s. ⁹³ By 2017, this amount had grown significantly to at least \$700-800 million per year, with some estimates as high as \$15 billion overall for the decade following the Second Lebanon War. ⁹⁴ Hezbollah's own illicit global enterprises, including drug smuggling, counterfeiting and money laundering among other activities, bring in an estimated additional \$200 million annually. ⁹⁵

Though some of these significant cash infusions support Hezbollah's social services in Lebanon and operations in Syria, Iraq and elsewhere, they have also helped the group rebuild and expand its overall military capabilities across Lebanon since 2006. As Nasrallah proclaimed in a June 2016 speech, "We are open about the fact that Hezbollah's budget, its income, its expenses, everything it eats and drinks, its weapons and rockets, are from the Islamic Republic of Iran." This includes the expansion of its overall ranks, from an estimated 13,000 total in 2006 to 25,000 active-duty and 20,000-30,000 reserve troops in 2017, as well as its deepening entrenchment and construction of defensive fortifications across southern Lebanon and the creation of commando units for ground incursions into Israel in a future conflict.

5. Escalating Tensions in Syria and Beyond

Iran's aggressive transformation of Hezbollah into the world's best-armed hybrid actor, combined with its ongoing attempts to establish a permanent military presence in Syria, have precipitated IDF operations against both actors in recent years. Often referred to as part of Israel's "campaign between the wars," these operations were initially sporadic and focused on interdicting intermittent transfers of advanced missiles and other capabilities to Hezbollah. Recently the scope and tempo of IDF efforts, and their direct targeting of Iranian forces, have increased hand in hand with Iran's steadily deepening footprint in Syria, direct Iranian attacks against Israel and the rise in Syrian air defenses' targeting of IAF aircraft. As a result of these developments, Israel has stated it will consider Lebanon and Syria as a unified area of operations in a future conflict.

Israeli airstrikes in Syria started interdicting transfers of longer-range and more precise missiles to Hezbollah no later than January 2013, and potentially as early as 2011. According to the IAF, through August 2017 it conducted nearly 100 such strikes against arms convoys and depots belonging to Hezbollah and the Syrian military – an average of less than two per month. These strikes targeted precision rockets and missiles, including anti-ship and antiaircraft systems, as well as sites linked to chemical weapons production, among other capabilities. A small number also targeted Hezbollah and IRGC leaders in Syria. These strikes is strikes targeted Hezbollah and IRGC leaders in Syria.

Direct tensions and violent clashes between Israel and Iran (and Syria) have heightened markedly in the last year. With fewer clear remaining internal threats to Assad's rule, and with Damascus deeply indebted to Tehran for suppressing the Syrian rebellion, Iran shifted its focus to replicating in Syria the threat already posed to Israel from Lebanon. This includes emplacing missiles and factories for their manufacture, as well as weapons depots, airfields and bases for IRGC- and Hezbollah-led Shiite militias.¹⁰¹

Israeli leaders have made clear they view a permanent Iranian presence in Syria as a redline. In addition to diplomatic initiatives attempting to lever Iran out of the country, Israel has undertaken a sustained air campaign against Iranian and Syrian military infrastructure throughout Syria and against further weapons transfers to Hezbollah. In October 2017, Syrian air defenses fired on Israeli aircraft over Lebanon, the first such attack by Syria on Israeli aircraft since the Syrian civil war began. Two months later, Israel struck what it alleges was an Iranian military base under construction near Damascus, reportedly killing 12 Iranians – potentially the first direct Israeli strike on Iranian personnel in Syria. Total

On February 10, 2018, Israel and Iran exchanged direct fire for the first time ever. That day the IRGC infiltrated Israeli airspace with a UAV; after intercepting it, the IAF struck the drone's command and control base in Syria before Syrian air defenses downed an Israeli F-16 aircraft over northern Israel. This prompted extensive IAF airstrikes against Syrian air defenses, as well as against additional Iranian targets in Syria. Since successfully hitting the F-16, Syrian air defenses have begun targeting IAF aircraft much more aggressively over Syria and Lebanon.¹⁰⁴

A series of continued IAF airstrikes on Iranian airbases in Syria, including missile storage sites, throughout April and May killed at least 25 more Iranians. On May 9 IRGC forces adjacent to the Golan Heights retaliated with Iran's first direct attack on Israeli soil by firing a salvo of 20 unguided short-range rockets at IDF forward positions. After Iron Dome intercepted the four rockets that breached Israeli territory, the IDF conducted its largest operation in Syria in decades with the stated goal of striking nearly all Iran's known military installations throughout the country – attacking several dozen sites in total, including Syrian air defenses that fired on IAF aircraft.¹⁰⁵

Even as the risks of major conflict flared to levels not seen for decades on the Syrian front, the IDF simultaneously conducted its most extensive operations on its southern border since the 2014 Gaza conflict, raising the very real prospect of a demanding multifront war. Israel confronted a similar situation in 2006 during the Second Lebanon War, when it conducted simultaneous but limited air and ground operations in Gaza in response to sporadic rocket fire from Gaza and Hamas kidnapping an IDF soldier.¹⁰⁶

Escalating initially from repeated "March of Return" mass protests in spring 2018 in which Hamas operatives tried to breach the Gaza-Israel border, Hamas and other extremist groups in the Gaza Strip ultimately launched over 200 rocket and mortar attacks – as well as airborne incendiary devices – into southern Israel over the course of the summer. The IDF responded with extensive airstrikes, artillery and armor against more than 100 Hamas firing positions, tunnels and command and control installations throughout Gaza Strip. While tensions deescalated by late summer, the potential for renewed conflict between Israel and Hamas remains high.

At the same time, Israel continued striking Iranian-related military installations throughout Syria as well as arms transfers to Hezbollah. This included a long-range airstrike in June near the Syria-Iraq border, as well as interceptions of Syrian drones and aircraft that entered Israeli airspace. In early September, the IDF revealed it had conducted some 200 strikes against Iranian sites in Syria alone in the previous year and a half, equivalent to a rate roughly seven times that of its interdiction activities in Syria up through 2017. Later that month, in an attempt to shoot down IAF aircraft carrying out a strike mission against Iranian weapons transfers near

Latakia, Syrian air defenses accidentally downed a Russian reconnaissance plane. In response Russia is providing Syria with advanced S-300 air defenses; despite the added operational challenges posed by these systems, Israeli Prime Minister Benjamin Netanyahu said Israeli "will continue to act to prevent the Iranian military buildup in Syria." ¹⁰⁹

From the outset of this heightened campaign to forestall a permanent Iranian presence in Syria, Israeli leaders have made clear they would view a future major conflict with Hezbollah not in isolation but as a unified area of operations. According to Defense Minister Avigdor Lieberman in October 2017, "in the next war in the north of the country, Lebanon will not be the only front. There is now only one front in the north composed of Lebanon, Syria, Hezbollah, the Bashar al-Assad regime and all those who help his regime." In February 2018 Netanyahu stated "we will act, if necessary, not just against Iran's proxies that are attacking us, but against Iran itself." Increasingly, Israel is preparing not for a Third Lebanon War but rather a Northern War.

B. Hezbollah's Capabilities and Strategy

1. Increasingly Large, Accurate and Lethal Missile Arsenal

Hezbollah has actively expanded its arsenal of rockets and missiles by an order of magnitude since 2006, thanks to significant Iranian and Syrian assistance and the lack of enforcement of UNSCR 1701. This cache makes Hezbollah the world's most heavily-armed hybrid actor. Many of these missiles are longer-range, far more accurate and lethal than the arsenal Hezbollah fielded over a decade ago, posing a significantly greater threat to vital Israeli military and civilian infrastructure. Their enhanced range also enables Hezbollah to disperse them throughout Lebanon and even Syria, which will force the IDF to operate over greater ranges against a wider target set.

From roughly 13,000 before, and 5,000-7,000 rockets after, the Second Lebanon War,¹¹¹ Hezbollah has steadily rebuilt and modernized its rocket and missile arsenals with Iranian assistance to an estimated 120,000 or more today. Already in 2015, Hezbollah had an estimated 100,000 short-range rockets, several thousand missiles capable of reaching Tel Aviv and central Israel and hundreds ranging the entire country.¹¹²

Today the majority of Hezbollah's expanded arsenal remains unguided short-range rockets and mortars. An estimated 95 percent are unguided 122-millimeter (mm) rockets with warheads of 30kg or less. With ranges of roughly 30 kilometers, these rockets could be expected to be fired from far southern Lebanon, similar to the 4,000 launched indiscriminately in 2006 at Israel's far north. Lacking precision, roughly a quarter – slightly less than 1,000 – landed in populated or built-up areas, most of them 15 kilometers or less from the Lebanon border. 113

Hezbollah also has greatly expanded its stockpiles of Fajr-3 and Fajr-5 unguided medium-range rockets. From under 1,000 in 2006, less than 250 of which it fired at Israel, it possesses an estimated several thousand today. Most are 220mm and 240mm rockets with up to 50kg warheads and a range of 50 kilometers, plus a handful of 300mm+ rockets with up to 150kg warheads and a range of 100 kilometers. ¹¹⁴ Given the inaccuracy of these rockets – for instance, a Fajr-5 has only a 50/50 chance of landing within three kilometers of its target at maximum range – Hezbollah sought to maximize the probability of destruction by firing them indiscriminately at large towns and cities, including Haifa and Hadera. Israel viewed

Hezbollah's introduction of this weapon in 2006 as a sufficient threat to escalate its air campaign against launch sites in southern Lebanon.¹¹⁵

Notably, Hezbollah did not use its most dangerous unguided medium-range rockets in 2006. These 610mm "Zelzal" rockets have a 600kg warhead and 160-kilometer range, making them capable of delivering more than three times as much explosive mass over more than twice the area of even the most powerful rockets Hezbollah fired in 2006 – including those that struck Haifa – and more than 30 times the explosive mass over more than seven times the area of the short-range artillery rockets Hezbollah fired by the thousands in that conflict. Though highly inaccurate, they can travel twice the distance of anything Hezbollah fired in 2006, suiting them for targeting large built-up areas like the Tel Aviv metropolis.

In recent years, Hezbollah also has acquired hundreds of precision-guided Fateh-110 (also known as "M600") ballistic missiles capable of carrying a 500kg warhead up to 240 kilometers, reaching as far south as the Negev in southern Israel and capable of targeting Israel's densely-populated central core. Due to its Iranian-supplied guidance system utilizing global navigation satellites and electro-optics, the Fateh-110 is estimated to be four times as accurate as the Fajr-5 and twenty times as accurate as the Zelzal. Thus whereas Hezbollah's longest-range unguided missiles, if fired at Tel Aviv, have an even chance of landing within three kilometers of their target, the Fateh-110 reduces the margin to roughly one kilometer, increasing significantly the probability of causing major damage to large urban areas or military bases. These missiles are solid-fueled and road-mobile, giving them short launch times and making them more difficult to target than many of Hezbollah's other medium- and long-range rockets and missiles fired from fixed positions.¹¹⁸

Israeli intelligence also believes Hezbollah possess a small number, perhaps a dozen, 880mm SCUD-D ballistic missiles. These missiles can deliver a one-ton warhead – twice the size of the Fateh-110 – anywhere in Israel. The missiles' long range – three times that of the Fateh-110 – enables even southern Israel to be targeted from launch sites as far north as the northern Beqaa Valley. Moreover, they are highly accurate, estimated to have a 50/50 chance of landing within as little as 150 feet of the target. Given their game-changing threat to Israel, the IAF has launched multiple strikes in Syria since 2013 to interdict suspected shipments of Fateh-110 and SCUD missiles from Iran to Hezbollah.¹¹⁹

In another signal change from 2006, Iran is developing an indigenous weapons manufacturing capability for Fateh-110s in Lebanon, intended to reduce Hezbollah's dependence on supply lines through Syria to grow its guided-missile arsenal and to enable it to resupply itself in wartime. The underground manufacturing plant is believed to be in Hezbollah's stronghold in northern Beqaa Valley, buried 150 feet underground with multiple defense layers against IAF bombardment. 120

Hezbollah's arsenal of anti-ship cruise missiles is also much more formidable now, estimated to number somewhere in the hundreds. Its Iranian-made C-802 variants from 2006 have been supplemented by more advanced and powerful Russian-made Yakhont missiles capable of carrying a 50 percent larger warhead at more than twice the speed and range. Combined with their sophisticated radar guidance, these missiles pose enough of a threat to Israeli naval vessels, commercial shipping and offshore energy infrastructure that the IAF has gone to great lengths to interdict their transfer to Hezbollah via Syria. 121

Hezbollah is the world's most prolific non-state drone operator, from flying an advanced UAV over the heart of Israel in 2012 to becoming the first hybrid actor to carry out a lethal drone attack, in Syria in 2014. Since then Iran has invested in expanding Hezbollah's reconnaissance and attack UAV programs for operations against Israel, with Syrian battlefields serving as testing grounds. ¹²² Unlike the three Ababil attack drones Hezbollah sent over Israel in 2006, some of these models – namely the Iranian Shahed-129, likely copied from the U.S. Predator – can carry air-to-surface missiles, a far more substantial payload than the Ababil. The Shahed-129 is twice the size of its Ababil counterpart and has a substantially greater operating range, encompassing all of Israel. It also has longer loitering times and double the flight ceiling. Iran has already demonstrated its willingness to send these drones on armed missions, with two being shot down as they approached U.S. forces in Syria in June 2017. ¹²³

Hezbollah and Iranian leadership have been unequivocal about the threat they envision these weapons posing to Israel. In 2012, Nasrallah noted Israel has several "weak points: economic, industrial, electrical, chemical and nuclear sites. [...] You have factories, you have bases and compounds, and I have rockets." As he said around the same time, "Hitting these targets with a small number of rockets will turn ... the lives of hundreds of thousands of Zionists to real hell." 124 He also warned that in a future conflict, Hezbollah will not hold back as "there will be no ... limits or red lines." 125 Subsequently he threatened specifically to attack the ammonia storage tanks near Haifa, its port and ships carrying the chemicals, as well as Ben Gurion airport and the Dimona nuclear reactor. 126

More recently Iran underscored these threats, with an IRGC general in March 2018 warning "north and west of Israel are at the intersection of fire; you will not escape [...] You live in the dragon's mouth. You cannot bear it. When your civilians and military forces escape, you'll have no way but to the sea. Don't trust in your airbases, they are within reach...."¹²⁷ The following month a close aide to Supreme Leader Ali Khamenei vowed that Iran would "expand [its] missile capabilities despite Western pressure," and insisted that "Tel Aviv and Haifa will be totally destroyed."¹²⁸

2. Missiles Emplaced Within Civilian Communities

Hezbollah has emplaced its expanded rocket and missile arsenals within and around civilian infrastructure, including apartment blocs, hospitals, schools and mosques – with the obvious goal of deterring and impeding IDF airstrikes, and courting civilian casualties that hypocritically and disingenuously can be blamed on Israel. While Hezbollah's transformation of civilian structures for military purposes is not per se illegal, its inferred use of the presence or movement of civilians to shield military objectives from attack crosses the line of illegality.

In 2006, Hezbollah located its rocket and missile storage and launch sites primarily outside civilian areas in underground bunkers and dense foliage ("nature reserves"), though IDF ground operations also uncovered caches hidden in mosques, hospitals and schools.¹²⁹ However, having observed the condemnation brought upon Israel for the deaths of civilians Hezbollah placed in harm's way in 2006, and by Hamas in Gaza in 2014, Hezbollah has spent the past decade converting hundreds of towns and villages in southern Lebanon into rocket-and missile-launching bases.¹³⁰

In 2011, the IDF released a map of nearly 1,000 bunkers, underground storage and command posts and other military sites spread across 270 villages in southern Lebanon.

Many of the sites, nearly all of which are located near hospitals, homes and schools, contain rockets, missiles and associated infrastructure. ¹³¹ In 2016, the IDF began publishing maps and aerial photography of southern Lebanese towns like Muhaybib, where signs of Hezbollah rocket-launching sites within the town are visible across the Israeli border, and Shaqra, a nearby town of 4,000 that contains 400 military sites within its perimeter, including 10 rocket launcher positions. ¹³²

These towns are microcosmic of the estimated thousands of military sites that since 2006 Hezbollah has converted into military strongholds shielded by civilians. The IDF estimates "one-third of Hezbollah weapons are stashed in or under private homes in Shiite villages in southern Lebanon," creating a situation where essentially "civilians are living in a military compound." As U.S. Ambassador to the U.N. Nikki Haley told the U.N. Security Council earlier this year:

"Hezbollah ... use[s] schools, hospitals and apartment buildings to shield its war arsenal in Lebanon. In the course of its massive arms buildup, Hezbollah has turned Lebanese villages into military compounds, stationing weapons depots, rocket launchers and command posts in, around and under the civilian population." ¹³⁵

3. Fortification of Lebanon

The IDF has made clear in its doctrine, exercises and public statements that conflict with Hezbollah will involve rapid ground maneuver into Lebanon to eliminate rocket and missile stockpiles and launchers. ¹³⁶ Hezbollah is preparing for this scenario by fortifying Lebanese towns and villages into a network of defensive military compounds to protect its forces and establish periodic and isolated "peer to peer" encounters in which it can inflict maximum casualties on IDF ground forces, slow their progress and encourage collateral damage from return fire. In constructing these strongpoints within civilian villages and towns, Hezbollah is expanding on some of the most successful tactics and capabilities used against IDF ground forces in the 2006 and 2014 conflicts, and against the U.S. military in Iraq, including: tunneling, antitank weaponry and improvised explosive devices.

In addition to rockets and missiles, Hezbollah has increased its embedding of other military infrastructure among civilians since 2006, when many of these sites were located in "nature reserves" and other locations separate from towns and villages. The group now utilizes Lebanese homes and other civilian locations for its bases of operations, including reconnaissance, command and control, logistics and all number of firing positions. Many of these sites are literally underneath civilians, connected by an increasingly advanced system of tunnels and underground bunkers. With Iranian assistance, many of these tunnels are thought to be constructed of durable concrete with electricity, secondary exits and ventilation systems resembling the sophisticated assault tunnels constructed by Hamas in Gaza. Moreover, it is possible these new positions extend into towns north of the Litani River, compared to 2006 when much of Hezbollah's defensive fighting occurred south of the river. 137

This subterranean network is designed to maneuver and supply Hezbollah forces under the cover and concealment of civilian buildings. Tactically, Hezbollah has learned valuable lessons from Hamas' extensive use of tunnels in the 2014 Gaza conflict – and the IAF's difficulties detecting them. Hezbollah units could be expected to use tunnels to flank, ambush and abduct IDF soldiers before quickly melting back into the surrounding civilian infrastructure,

similar to 2006 and to Hamas tactics that imposed significant casualties on IDF ground units advancing into Gaza in 2014, as well as imposing casualties on nearby civilians that Hamas intentionally placed in harm's way.¹³⁹

Emerging from these tunnels and moving through surrounding built-up civilian areas, Hezbollah can use mortars, air defenses and antitank weaponry, including antitank guided missiles (ATGM), to destructive effect against IDF ground and air support units. These weapons inflicted the most casualties against IDF infantry in 2006, particularly advanced manportable Kornet ATGMs that give Hezbollah antitank capabilities on par with most modern militaries. These weapons also proved dangerous to IDF armor in that conflict, hitting fully one-tenth of all Israeli tanks committed to the invasion. Since 2006, Hezbollah has refined and improved its tactical employment of such weapons from fighting in Syria and Iraq, and likely has expanded its stockpiles of Kornet and other advanced, longer-range ATGMs as a result of operating alongside Russia and Iran in Syria. Presumably it has observed Hamas' ability to use tunnels for staging lethal ATGM attacks on IDF forces in Gaza in 2014.

Improvised explosive devices also could pose serious challenges to IDF ground operations in Lebanon. Thanks to training from the IRGC, such weapons were a central element of Hezbollah's attacks on Israeli forces in southern Lebanon during 1985-2000, escalating in frequency to cause the majority of IDF casualties during the last five years. ¹⁴⁴ In the 2006 conflict, Hezbollah planted powerful IEDs and mines throughout a seven-kilometer belt across southern Lebanon which proved so effective at disabling tanks and killing crews that IDF units began attaching steel plates to the undercarriages of their armored vehicles during the war. ¹⁴⁵

Beginning around the same time, Hezbollah reportedly began working with Iran to equip and train Iraqi Shia militias with a type of IED known as explosively formed penetrators (EFP). The single deadliest weapon against U.S. forces in Iraq (2003-11), EFPs are dubbed "superbombs" for their exceptional lethality against even the most heavily armored vehicles. Unlike other IEDs which require an operator or remote detonator, EFPs can be triggered passively by the heat or electronic jamming signals of nearby vehicles. Furthermore, their design, small size and sheer explosive power are well-suited for urban settings, since they do not need to be planted in a roadside hole but instead can be hidden adjacent to roadways and thus more easily camouflaged. More recently, EFPs captured from Iran's Houthi proxies in Yemen bear all the characteristics of those supplied to Iraqi militias by Hezbollah. Hezbollah.

Hezbollah has also upgraded its air defense capabilities since 2006, which could force the IAF to operate at higher altitudes and thus reduce its ability to strike missile launch points and other ground-based targets accurately. In 2006 Hezbollah deployed short-range man-portable air-defense systems (MANPADS) with infrared homing that proved unsuccessful in targeting IAF aircraft. Despite concerted Israeli interdiction efforts, since 2006 Hezbollah has acquired more advanced surface-to-air missiles (SAM) including medium-range SA-8 and likely SA-17 systems. Instead of infrared, these systems utilize more advanced radar guidance to target enemy aircraft at up to 10 times the range – nearly 50 kilometers – and five times the altitude of MANPADS, likely enabling them to threaten IAF aircraft at any altitude.

4. Ground Incursions into Israel

Israel faces the very real prospect of a significant enemy ground incursion into its territory for the first time since 1973, and the first time ever in its conflicts with Hezbollah. Such an assault

likely would seek a propaganda victory for Hezbollah by capturing targets in northern Israel for a brief period, inflicting casualties on Israeli civilians, taking hostages and potentially disrupting IDF ground maneuver into Lebanon. This is a notable recent expansion in Hezbollah's warfighting doctrine to include offensive combined-arms operations, based on its ongoing experiences and newly developed capabilities from fighting in Syria. Neutralizing the threat of such an incursion, even if it were to last only a short period of time, is among the IDF's highest operational and strategic priorities.

From the group's inception through the 2006 war, Hezbollah ground operations against the IDF were primarily defensive or guerrilla-style hit-and-run attacks. Since then, pronouncements and actions from Hezbollah indicate the group is planning to stage raids into northern Israel from Lebanon and possibly Syria in the next major conflict.¹⁵¹ On February 16, 2011, Nasrallah addressed "the fighters of the Islamic resistance: be ready for the day, should war be forced upon Lebanon, where the resistance's leadership will ask you to take over the Galilee." This could also include seaborne or undersea naval commando raids on Israel's coastline, similar to what Hamas attempted in the 2014 Gaza conflict. 153

Unlike the massive Egyptian and Syrian offensives in 1973 that sought to achieve operational or even strategic breakthroughs and conquer Israeli territory, Hezbollah doctrine envisions a series of infiltration operations designed to gain a psychological coup by "planting the flag" on Israeli soil and broadcasting the resultant images. Even though such an assault ultimately would be defeated, the experience of hundreds of Hezbollah special forces seizing an Israeli village or IDF outpost, holding out as long as possible against IDF counterattacks and demonstrating a new capability to inflict casualties on Israelis on the ground in Israel would discredit the IDF's vaunted ability to defend the country, demoralize the Israeli home front and bolster Hezbollah's credentials in the Arab and Islamic worlds as the main resistance front against Israel.

These raids also could create opportunities for Hezbollah to take Israeli hostages – both military and civilian – to further demoralize Israelis and gain bargaining leverage in any diplomatic negotiations. Such attacks could also disrupt, delay or otherwise impose costs on IDF troop concentrations massing near the border for ground maneuver operations in Lebanon.¹⁵⁴

Though its conception predates the Syria conflict, such an incursion would be far less credible without the invaluable combat experience Hezbollah has gained in Syria. Hezbollah's special forces – the Radwan Unit – has been deeply involved in major operations alongside Russian and Iranian forces in the largest and most pivotal battles of the Syrian conflict including Homs, Aleppo and Palmyra. Cumulatively, 5,000-8,000 Hezbollah regular fighters are estimated to have been directly involved in combat in Syria. ¹⁵⁵

Through these battles, Hezbollah is learning to conduct sizable and sophisticated offensives. Its forces increasingly are familiar with conducting company- and even battalion-sized assaults in Syria. It also is learning to use these forces to control and hold ground rather than simply conduct small-scale hit-and-run raids as it has in past conflicts with Israel. ¹⁵⁶ Thanks both to the much larger geographic scale of the Syrian theater compared to Lebanon, as well as the group's development of a dedicated armored support unit with modern armored personnel carriers and main battle tanks, its ground operations also are becoming much more mobile than previously when it relied primarily on foot soldiers and small arms. ¹⁵⁷

Perhaps most importantly, from working alongside Russian and Iranian forces, Hezbollah increasingly understands how to plan complex operations, including gathering and incorporating valuable intelligence into its combat preparations. These advances could enable it to coordinate its new armored and motorized capabilities with existing infantry, artillery and aerial units – chiefly drones – in a combined-arms incursion into Israel. Less tangibly, but still important despite the heavy casualties Hezbollah has suffered to learn these lessons, its ground forces have gained a new sense of self-assurance that they can now seize the initiative and take the offensive, rather than simply awaiting the IDF's own ground maneuver operations in Lebanon.

5. Additional Fronts in Syria and Beyond?

Israel will have to plan for the real possibility of fighting on multiple fronts in its next conflict with Hezbollah. Iran, Hezbollah and a network of other sectarian militias have sought to use their presence in Syria to transship strategic Iranian capabilities to Hezbollah and establish their own forces permanently in the country. Among other objectives, this entrenchment is meant to unite Syria and Lebanon as a single "axis of resistance" posing a greater, shared challenge for Israel in any future conflict. With Israel already engaged in a "campaign between the wars" to forestall these outcomes in Syria, any military escalation in that country could spill over into Lebanon, or vice-versa.

As in Lebanon, a primary threat in Syria comes from Iranian-supplied missiles. Hezbollah has claimed it will fire longer-range missiles at Israel from mountains on both the Lebanese and Syrian sides of the border. ¹⁶⁰ It also is reportedly relocating parts of its missile arsenal to Syria, out of range of IDF ground troops and potentially stored in hardened shelters on Syrian airbases. ¹⁶¹

Israeli strikes on these sites, particularly as part of a larger conflict in Lebanon, could invite retaliation from Damascus or Tehran. The Syrian regime has an appreciable arsenal of short-range rockets and missiles, including the SS-21 with a 500kg warhead. Damascus also possesses modified Iranian and North Korean extended-range SCUD missiles with a one-ton payload, all of which are highly accurate and can reach central Israel, and it produces a solid-fueled road-mobile variant of the Fateh-110 with Iranian assistance. Many of these missiles can deliver chemical weapons. ¹⁶²

In early 2018, in response to Iran's efforts to entrench itself in Syria, Prime Minister Netanyahu declared Israel "will act, if necessary, not just against Iran's proxies that are attacking us, but against Iran itself." Iran's missile arsenal is the largest in the Middle East and includes powerful ballistic and cruise missiles capable of striking Israel from Iranian soil, as well as missiles in Syria and possibly Iraq it could use against Israel. Both Syria and Iran have fired missiles against targets in Syria during the ongoing conflict in that country, including Tehran firing upgraded Fateh-110s more than 600 kilometers into Syria from western Iran on separate instances in 2017 and 2018. There is also a latent, yet potent, threat from Russia's mobile and highly accurate nuclear-capable Iskander ballistic missiles at Khmeimim airbase in Syria, which could target most of Israel. 165

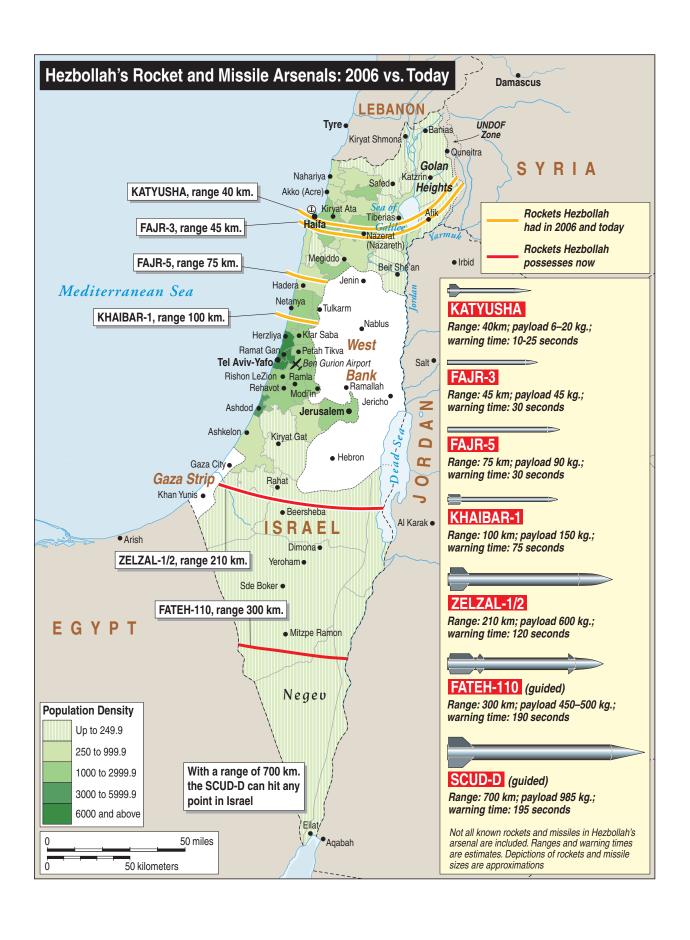
Another challenge comes from the estimated 10,000-20,000 Shiite militiamen in Syria, including Hezbollah, and the IRGC military presence overseeing them. Iran has established a constellation of bases across western Syria to equip, train and deploy these forces, and it

supports their operations with intelligence-gathering, drones and IRGC and Hezbollah advisers and frontline commanders. ¹⁶⁶ Though they currently provide the manpower for retaking rebel strongholds in Syria, ultimately their purpose is to confront Israel with a second front in Syria, most directly along the Golan. With Iran's help, Hezbollah is standing up its own Syrian and Iraqi proxy groups to threaten Israel along this second front as it draws down its presence in Syria, with Hezbollah leadership declaring publicly that the Golan "can be included in any future confrontation with Israel." ¹⁶⁷ Even if an Israeli-Hezbollah conflict does not spread to Syria, the mere presence of Iranian proxies could act as a force-in-being threatening the flank of IDF operations in Lebanon. Indeed, Israeli reinforcements were sent to the Golan in summer 2018 to quard against the Iran-backed offensive to retake adjacent swathes of Syria from rebels. ¹⁶⁸

Any IAF operations in Syria would continue to operate in the face of that country's integrated air defense system (IADS), which is more formidable than Hezbollah's SAM capabilities. The core of Syria's IADS includes long-range S-200 systems, self-propelled medium-range SA-17 and Pantsir systems and dozens of early warning radars, as well as hundreds of obsolescent SAM batteries. Beginning October 2018, Damascus began taking delivery of S-300 long-range air defense systems from Russia in the wake of the accidental shootdown of a Russian aircraft by a Syrian S-200 battery that intended to target IAF aircraft. The S-300 represents a significant upgrade in Syria's air defenses, at a time when Damascus has been increasing its efforts to intercept IAF aircraft.

A latent, but also the biggest, operational challenge comes from Russia's IADS in Syria. Since 2015 the skies over Lebanon, northern Israel and much of Syria have been covered by the advanced mobile Russian S-400 air defense systems deployed at Khmeimim airbase and Tartus naval base in Syria. Though this system has not engaged IAF aircraft conducting combat missions in Lebanon or Syria, the S-400's ability to track up to 80 targets simultaneously – combined with its radar range and hypersonic interceptors – poses a potentially game-changing challenge to IAF operations. ¹⁶⁹ Russia also has deployed its own S-300s to Syria, including a naval version aboard *Slava*-class cruisers in the Mediterranean, which effectively establishes an anti-access area denial (A2/AD) envelope to defend its bases and potentially critical Assad regime assets. The IAF already operates within range of these systems, which cover most of Syria, all of Lebanon and much of Israel. However, the possible inclusion of the Syrian regime in a major Israel-Hezbollah conflict could increase the likelihood of Russian involvement, and thus the risks to the IAF of operating over Syria, Lebanon and potentially even Israel.

Especially in light of the use of persistent human wave, rocket and incendiary attacks against Israel from Gaza since spring 2018, there is an added possibility of the IDF having to conduct air and/or ground maneuver operations on its southern front simultaneous with a conflict in the north.



VI. Challenges and Impacts for Israel in the Next Conflict

A. Risk of a Thousand Rockets and Missiles Fired at Israel Daily

Hezbollah's threats to unleash unprecedented destruction against Israel are not idle. Despite the advent of Israel's multi-layered missile defense shield – possibly the most sophisticated and capable in the world – since the last Lebanon conflict, the growth in range, payload and accuracy of Hezbollah's missile arsenals in the intervening years likely will enable the group to overwhelm these defenses and impose terrible costs and suffering on Israel from the outset of the next war. The entire Israeli homeland will become the front lines for the first time since the War of Independence (1948-49) under the daily brunt of hundreds of rockets and missiles that could level entire high-rise buildings, devastate military bases and disable or destroy critical infrastructure like ports, desalination and power plants and transportation chokepoints.

Reflecting primarily the growth in sheer numbers of rockets and missiles at its disposal, Hezbollah is widely estimated to be capable of firing 1,000-1,500 projectiles per day in a future conflict. By comparison, in 2006 Hezbollah fired an average of 116 per day, peaking at 250 in a 24-hour period toward the end of the conflict – the largest rocket barrage since the Iran-Iraq War.¹⁷⁰

In 2015-16, two successive IDF Home Front commanders warned Israelis to expect a "blitz of attacks" from Lebanon that would be a "completely different scenario from anything we've known." ¹⁷¹ In a use-them-or-lose-them scenario in the opening days of a conflict, Israeli government officials adjudge Hezbollah could fire as many as 3,000-4,000 rockets and missiles daily – an average of 2-3 per minute for 24 hours straight – before IDF operations could neutralize many of the launchers and stockpiles. ¹⁷² Such a rate of fire for one single day would be equivalent to the total number of rockets fired by Hezbollah in the entire Second Lebanon War.

Advanced as it is, Israel's tiered missile defense architecture will face significant challenges defending against this onslaught. Iron Dome generally will be tasked with intercepting short-range artillery rockets that Hezbollah possesses in the tens of thousands, and that accounted for the vast majority of projectiles fired into Israel in 2006. Against missiles never fired at Israel before, David's Sling generally will seek to intercept Hezbollah's longer-range and much more accurate missiles, with Arrow and U.S.-supplied Patriot batteries likely trying to neutralize the longest-range and most powerful precision missiles and any similar projectiles coming from Syria, Iran or elsewhere.

Israeli officials and outside observers repeatedly express concerns that even these three layers of defense will not be able to intercept 1,000 or more rockets and missiles per day, let alone 3,000 or more at the very outset of conflict. Hezbollah's capacity to fire rockets at a sustained rate ten times what Israel faced before could easily overwhelm the capacity of Israel's active defenses for interception, especially given IDF's finite quantities of batteries and interceptors. In far less demanding circumstances the United States had to replenish Israel's stocks of Iron Dome interceptors midway through the 2014 Gaza conflict. 174

In 2016, IDF officials explained these defenses "will be 'lucky' to shoot down 90 percent of incoming rockets, missiles, and mortars" in such circumstances.¹⁷⁵ In the two previous conflicts in which it was deployed – Gaza in 2012 and 2014 – Iron Dome faced a combined average of 85 rockets per day, with a one-day peak of nearly 200. As these were all unguided rockets, some 80 percent of those fired were allowed to land harmlessly in unpopulated areas, further reducing the burdens on Israel's missile defenses.¹⁷⁶

Under these relatively favorable defensive circumstances, Iron Dome was widely reputed to have achieved an 85-90 percent success rate in attempted intercepts of rockets whose trajectory the system deemed threatening to built-up areas. However, contravening studies estimated Iron Dome only intercepted 32 percent of threatening rockets in the 2012 conflict and 59-75 percent in the 2014 conflict. The David's Sling and Arrow have been tested far less in real-world combat: the former failed to intercept two ballistic missiles fired by the Syrian regime headed toward Israeli territory in July 2018, while Arrow successfully intercepted an errant Syrian surface-to-air missile last year.

Even assuming a 90 percent success rate, there simply will not be enough batteries and interceptors to protect against Hezbollah's rockets and missiles that can target the entire country. Since these defenses started becoming fully operational, the quantity, range and accuracy of rockets fired at Israel in the 2012 and 2014 Gaza conflicts were low enough to permit the IDF to focus on protecting nearby critical infrastructure and population centers while facing little or no threat to the rest of the country.

These considerations imply that under "lucky" conditions, no element of surprise and a performance equivalent to the highest assessment of their intercept rates in far more favorable conditions, 90 percent success would still allow 100-150 rockets and missiles per day to strike the length and breadth of Israel, and potentially as many as 300-400 per day at the outset of conflict. Under any other conditions, the rate would be appreciably higher, and with it the amount of unprecedented destruction visited upon the Israeli homeland.

B. Potentially Catastrophic Damage to Israeli Homefront

The instantaneous and cumulative devastation caused by Hezbollah's expanded arsenals would be significant for any country; for one with as little strategic depth as Israel, the damage could be catastrophic. The consequences will be compounded by limited missile defense resources relative to the threat. With so many more, and more critical, assets held at risk by long-range, accurate and powerful missiles in a future conflict, the IDF will have to ruthlessly prioritize its defenses – including roughly a dozen airbases for the entire country as well as civilian and military leadership sites like the Knesset and IDF Headquarters – as the most effective means of eliminating Hezbollah's launchers and stockpiles as rapidly as possible.

By the same token, Hezbollah likely will have a strong incentive to target these sites as part of a massive barrage at the very outset of conflict. Even assuming only 10 percent of Hezbollah's rockets and missiles make it through the missile defenses protecting military sites, these could still cause heavy damage to the small handful of airfields, marshalling yards, command and control and other sites vital to ending the conflict as rapidly and decisively as possible in Israel's favor. Damage to these sites would then prolong the duration of Israel's absorption of unprecedented levels of daily rocket and missile attacks.

Accordingly the IDF's top defensive priority will be "enabling the continuity of the use of military force both for defense and offense," followed in descending order by protection of vital national infrastructure and protection of population centers. This means much of Israel's critical infrastructure and most of its population will be forced to rely solely on passive defenses and luck to survive a conflict that could very well destroy urban centers and knock out the basic services upon which Israel's society and economic viability depend. Given the small number of critical infrastructure sites and their limited amount or lack of redundancy in other parts of the country, the consequences of even limited success by Hezbollah would be severe.

As Nasrallah intimated, Israel has several incredibly vulnerable chokepoints upon which the everyday functioning of its economy relies. In January 2018, IDF Home Front Command and Israel's National Emergency Authority classified 50 infrastructure systems around the country as critical which would require a broad defense¹⁸⁰ – a small overall number for a whole country, but nevertheless greater than what Israeli missile defenses likely could protect over and above military bases. According to one economist earlier this year, a protracted conflict with Hezbollah "will shut down [Israel's] entire economy [and] would likely decrease annual GDP." Israel's previous conflict with Hezbollah, as well as its recent conflicts with Gaza, each led to quarterly rather than annual GDP contractions.¹⁸¹

In 2014, the outgoing head of IDF Northern Command warned that Hezbollah could use its vast missile arsenal to shutter Ben Gurion airport and Haifa seaport. That same year another IDF senior officer said both transit hubs would be closed on the first day of fighting with Hezbollah. Is Israel relies almost exclusively on Ben Gurion, in Israel's heartland between Tel Aviv and Jerusalem, for the more than 20 million passengers entering and exiting the country annually – including the tourism industry that accounts for five percent of annual GDP. At several square kilometers in size, the airport presents a suitable target for Hezbollah's guided Fateh-110 and SCUD-D missiles, and possibly even its unguided Zelzals. Even attacks in proximity to the airport could interfere with its normal functioning, as evidenced by an unguided Hamas rocket that landed two kilometers from the airport in 2014 and caused all airlines other than Israel's national carrier to suspend operations.

Israel's economy is equally profoundly beholden to its small handful of commercial seaports, chiefly Haifa. Given its lack of significant overland trade routes, fully 98 percent of its trade is maritime based. As the chief economist at Israel's Foreign Trade Administration stated last year, Israel's economy is "entirely dependent on open sea lanes and ports that function continuously every day of the year." The port area also contains much of Israel's heavy industry, including refineries and chemical processing plants. To an even greater extent than Ben Gurion airport, the closure of Haifa port and the shipping arteries connecting it to the outside world for even a few days would bring Israel's economy to a standstill, creating shortages of basic provisions and driving up prices precipitously.

Hezbollah illustrated these vulnerabilities when it struck the Israel Navy corvette *Hanit* with an anti-ship missile in 2006: in response the world's primary shipping insurance provider, Lloyd's, increased premiums by 2,000 percent for all ships docking in nearby Haifa, forcing seaborne traffic into the bottleneck of the much smaller southern Ashdod port. In a future conflict, Hezbollah will possess more advanced and longer-range anti-ship missiles to expand this threat; it also will be able to target Haifa port itself – like Ben Gurion, a multiple-square-kilometer area – with unguided and guided projectiles alike. Similar to the airport, Hezbollah may not even need to strike the facility directly to achieve its desired results; the mere threat

of such attacks likely could suffice to shutter the port or at least trigger more major spikes in shipping insurance rates.

Israel's power grid is similarly dependent on a small handful of targets for its everyday functioning. Nearly two-thirds of the country's electricity is generated from the natural gas produced by one offshore energy platform in the Mediterranean, well within range of Hezbollah's anti-ship missiles. ¹⁸⁷ To minimize risks of irreparable damage to the rig, Israel's Energy Ministry has stated it will preemptively suspend operations in any conflict, likely resulting in rolling blackouts throughout the country even if Hezbollah does not attempt to strike it. ¹⁸⁸ Hezbollah also could target any or all of Israel's five primary power plants to amplify power outages across the country.

Even if Hezbollah struck no other targets, destroying or significantly damaging these key nodes of the electrical grid would have devastating cascading effects across Israel's other vital national infrastructures, including telecommunications, banking, transportation, sanitation and medical care – most of which would already be in heightened demand to assist first responders and other emergency services during a major conflict. Basic societal functioning would be crippled further by successful missile strikes on any of the country's four desalination plants, which combined provide fully three-quarters of Israel's drinking water.¹⁸⁹

Israel's transportation network also features several critical chokepoints that could be disabled by a small number of successful Hezbollah rocket and missile strikes. The country's coastal plain forms a more than thirty-kilometer long, fifteen-kilometer-thin waistline with two arterial highways linking Haifa and northern Israel with the heavily populated central core of Tel Aviv and Jerusalem (as well as the rest of the country). Key interchanges bring these two north-south highways together with east-west routes connecting the coastal plain with Galilee at the top of the waistline, and connecting Tel Aviv and Jerusalem at the bottom of the waistline. Using its longer-range precision missiles against these junctions, Hezbollah potentially could grind road transit to a near-halt in the heart of Israel, and with it impose costly delays on IDF troops mobilizing northward, evacuees heading southward and first responders heading in every direction. Limiting the flow of people and goods between Israel's main cities and industrial areas would also impose immediate and long-term economic costs.

Tempting as these infrastructural nodes will be for Hezbollah, the biggest targets will be the large, relatively undefended urban areas in the heart of the country. Israel's population density is among the highest in the Middle East, and equivalent to the Low Countries or India. Its least inhabited areas – chiefly the southern third – are also least threatened by Hezbollah's arsenal, while the vast majority of the population lives in the central and northern thirds of the country that fall well within range of thousands of unguided and guided rockets and missiles.

More than half the population, nearly 4 million people, lives along the crowded coastal plain stretching from Haifa through Tel Aviv's southern environs. This area includes some of the densest-populated areas in the Middle East such as the inner ring of Tel Aviv (15,440 people per square kilometer) and suburbs such as Bnei Brak (at 26,370/km², the sixth-densest city in the world) and Givatayim (18,350/km²). The metropolitan area of Tel Aviv alone is more than 1,500km² in area, with 2,300 people living in each square kilometer on average. Closer to Lebanon, the Haifa metropolitan area, Israel's third-largest, is half as large with 1,100 people per square kilometer on average; the central city itself is 64 square kilometers with an average of more than 4,400 people in each square kilometer.

In addition to heavy industry and other critical infrastructure, the skyline of this populated central and northern core features hundreds of high-rise commercial and residential buildings. The Tel Aviv metropolitan area alone contains no fewer than 344 buildings of 12-plus stories either completed or under construction, of which 29 are at least 500 feet tall – more than Boston, Dallas or Seattle. Nearly 100 additional such buildings line the coastal plains northward through Netanya and Haifa.¹⁹¹

These cities can be expected to receive the brunt of Hezbollah's most powerful missiles. Tel Aviv and all points north will form one large, semi-continuous target for unguided Zelzal rockets which possess roughly the same payload as the World War II-era German V-2 rocket. For comparison, V-2s were fired indiscriminately at large, densely-populated cities like London and Antwerp, with individual strikes regularly killing dozens and even hundreds of civilians in the last year of the war, in one instance killing 567 in a single strike. Individual buildings like skyscrapers, as well as the large dense urban areas surrounding them, will also make inviting targets for Hezbollah's hundreds of Fateh-110 precision missiles as well as its handful of SCUD-D missiles. As one recent assessment stated, "a single M-600 [Fateh-110] could wipe out a good chunk of Times Square and maim and kill people four football fields away from the point of impact." 192

Israel faced a barrage of Iraqi SCUDs – a modified B-variant – during the Persian Gulf war, but these missiles were far less accurate or powerful than Hezbollah's SCUD-Ds. To extend their range to reach Israel, Iraq had to modify SCUDs with reduced payloads and accuracy, meaning they had only a 50/50 chance of landing within 4-7 kilometers of their intended target and their payloads were less than one-quarter that of a SCUD-D. Nevertheless, the estimated dozen or so that actually landed in populated areas in Israel destroyed a combined 200-400 apartments and moderately or heavily damaged another 1,600-2,500. Though only two Israelis were killed in total, one in-depth study noted "as far as casualties are concerned, Israel's luck was probably relatively good. [...] Shifting the impact point of a single missile by tens of meters could have changed the casualty statistics dramatically." Indeed, around the same time an Iraqi SCUD-B strike on the U.S. military barracks in Dhahran, Saudi Arabia, killed 28 U.S. soldiers, injured 98 and completely destroyed the barracks.

Iraq fired similarly modified SCUD-Bs and other missiles with extended ranges and reduced payloads – most of them roughly equivalent to a Fateh-110, though appreciably less accurate – at Iranian cities throughout the Iran-Iraq War (1980-88). Over eight years a total of 414 Iraqi missiles hit Iranian urban areas or industrial targets, causing an estimated 2,312 fatalities and 11,625 injuries, each missile leaving in its wake "dozens of heavily damaged or pulverized buildings – hospitals, houses, a market on a busy square, a theater and small shops and offices." Even assuming Israeli defenses achieve a 90-percent interception rate, the country could still be subjected to the same amount of missile firepower in a matter of days as Iran suffered in eight years.

At the same time, northern Israel also will be subject to a far greater rocket barrage than it faced even in 2006. Towns and villages close to the border likely will be pummeled by rapid salvos of up to 48 artillery rockets at a time, each of which can saturate an area two to three times the size of a football field with more than one ton of total explosives or other munitions in each volley – making each volley roughly equivalent in explosive power to a SCUD-D missile. Compared to conventional artillery, these weapons can disperse their killing power over much wider areas, making them ideal for targeting entire villages and large crowds in open areas – especially given the low accuracy of each individual rocket in the salvo. 195

To help compensate for inaccuracy, many of these individual rockets have payloads of either "two layers of scored steel fragmentation, 6mm steel spheres, or 39 submunitions, all designed primarily to kill or injure people." The most common warhead is designed spray out 3,150 fragments which can kill or injure across a radius of 28 meters. With few exceptions, almost all such rockets Hezbollah fired in 2006 used anti-personnel munitions indiscriminately against civilian areas. While inflicting limited damage to hardened structures or air defense shelters, these weapons caused 80 percent of total casualties inside Israel – 43 dead and more than 1,000 injured – by killing or wounding civilians in the open. 197

The use of such rockets against Haifa in 2006 killed eight and wounded more than twenty civilians in a single hit, when its antipersonnel shrapnel warhead caved in the roof of a railway maintenance building. A separate strike on Haifa from one of these rockets demolished half of a three-story building, and its tens of thousands of marble-sized ball bearings tore clean through the outer walls of houses up to 150 feet from impact. ¹⁹⁸ According to Human Rights Watch, some of these rockets "contained hundreds of ball bearings, which have only limited effectiveness against military targets but [cause great] harm [to] civilians and civilian property." ¹⁹⁹

More recently, versions of these weapons have been used indiscriminately against built-up areas in the War in Donbass in eastern Ukraine, with the worst salvos killing dozens of civilians, injuring more than one hundred and damaging or destroying buildings. Throughout the Syrian civil war such unguided rocket salvos have been one of the main drivers of civilian casualties and physical destruction, including in some of the grisliest urban battles like Aleppo and Ghouta.

The threat from such indiscriminate rocket fire in 2006 paralyzed large areas of northern Israel, "shuttering factories, offices and stores ... sending large numbers of people into bunkers," and compelling hundreds of thousands of inhabitants to seek safety in the south.²⁰¹ The dangers posed by these rockets to northern Israel in the next conflict, combined with those of a Hezbollah cross-border ground incursion, will prompt the first mandatory evacuations of civilians in Israel's history, likely totaling in the hundreds of thousands. According to the IDF, "it will take several days and will not be simple."

Israel's limited strategic depth will exacerbate the aggregate effects of thousands of Hezbollah rocket and missile attacks throughout the country, resulting in appalling physical damage, loss of basic services and significant civilian casualties. Impacts from thousands of short-range unguided rockets, fired in salvos with each rocket spraying thousands of fragments of anti-personnel shrapnel hundreds of feet in every direction, will kill and injure thousands of civilians while collapsing hundreds of smaller buildings and damaging hundreds of larger ones – including everything from homes and apartment blocs to medical facilities and transmission substations. The many makeshift shelters needed to handle thousands of evacuees will also be vulnerable. Shrapnel will also tear through emergency and civilian vehicles, many more of which will be on the roads fleeing rocket attacks or trying to reach the many injured. When used for their original intention of laying down heavy area fire on enemy troop concentrations, these rockets could also inflict heavy casualties on IDF units mustering in northern Israel.

At the same time, more powerful longer-range rockets and missiles will disable or even cripple significant nodes in critical infrastructures, from power and desalination plants to ports and storage facilities for basic necessities. They will also scar the cityscapes of Israel's densely

populated central core. Zelzals, Fateh-110s and SCUDs very likely could obliterate entire city blocks and level high-rise buildings, whose collapses would in turn cause significant damage for blocks in every direction. These missiles likely also will also crater runways, railways and vital roadways linking these cities with outside assistance. Similar to 2006 and ongoing protests in Gaza, rockets and missiles landing in rural areas could cause fires damaging thousands of acres of agricultural land and forests.²⁰³

In addition to mass casualties from direct impacts, immediate civilian suffering will be magnified by the interruptions to essential services. Mass blackouts will hamper basic communication needed to coordinate evacuations and emergency responders. Hospitals and other medical facilities, already overflowing with casualties, will struggle with dayslong power shortages and outages that cause crucial medications like insulin, plasma and blood supplies and antibiotics to perish, all as supplies of potable water dry up. Relief efforts from less affected parts of the country will be hamstrung by significant damage to transportation infrastructure. Sanitation will be crippled by damage to the electrical grid as well as water treatment facilities and sewage lines in crowded cities. The normal functioning of Israel's robust financial and tech sectors, as well as everyday services like banking, likewise will be interrupted.

Even if the conflict ends as quickly and decisively as the IDF intends, the longer-term damage to Israel will be severe as well. Destruction to Haifa port and the attendant rise in shipping insurance for Israel-bound vessels will generate significant price hikes for everyday items that will be in exceptionally high post-conflict demand such as fuel, food and basic reconstruction materials. Damage to Ben Gurion airport, and the drop-off in tourism resulting from the conflict, could cause one of the country's largest economic sectors to contract for months if not years. The potential for mass and prolonged mobilization of IDF reserves could hamper economic productivity and growth more generally as large swathes of the population leave job sites to don uniforms. All these economic costs will be compounded by the havoc wreaked on Israel's financial, banking and insurance sectors from damage to the electric grid.

By comparison, with a much smaller arsenal, Hezbollah was able to sustain rocket and missile fire on northern Israel for more than a month in 2006, costing Israel's economy nearly \$4 billion in direct damage and lost productivity, including from extended call-ups of reserves.²⁰⁴ (An equivalent economic cost to the United States would be \$320 billion.) Though the estimated impacts on Israel were significantly less during the fighting in 2008-09 – with southern Israel absorbing roughly half the daily rate of rocket strikes as northern Israel in 2006 – the 2014 conflict significantly affected Israel's economy. Even with the new Iron Dome greatly reducing civilian casualties and direct physical damage from rocket attacks, the conflict dragged on for fifty days, costing Israel's economy an estimated \$2.5 billion – an equivalent of \$140 billion to the U.S. economy – and causing it to contract 0.5 percent during and after the conflict.²⁰⁵

Facing the prospect of enduring even greater rocket and missile attacks in the next conflict, the IDF's basic strategic premise in the next conflict of ensuring its ability to conduct operations against Hezbollah's rockets and missiles is a direct reflection of the threat that arsenal poses to Israel's basic viability as a functioning state and society.

C. IDF Strategy and Operations

The IDF's official strategy since 2015 is designed specifically to address the expected intensity and scale of Israel's next major conflict with Hezbollah. The first such document to be released publicly since the country's founding, it translates lessons from Israel's recent conflicts in Lebanon and Gaza into more maximalist strategic objectives and more ambitious offensive operational concepts for the coming war in the north. IDF warfighting doctrine seeks to achieve a decisive victory against Hezbollah as quickly as possible. Operationally, it plans to conduct a combined-arms campaign in depth against the entirety of Hezbollah and related military infrastructure in Lebanon and potentially elsewhere, centered on a large-scale rapid ground maneuver into Lebanon from the outset of conflict. The goals and means of this projected campaign can be expected to place great, and perhaps unprecedented, strains on IDF wartime operations. Given Hezbollah's interspersing of military assets among civilian sites as well as its growing ties to the Lebanese state, armed forces and society, the next conflict can also be expected to generate significant collateral damage in Lebanon and possibly elsewhere, even as the IDF complies with the LOAC.

1. Strategy of Rapid Decisive Victory

In contrast to its recent conflicts, in the next war Israel will seek to defeat Hezbollah as totally and quickly as possible. Official planning includes as an overarching objective "fundamentally altering the situation up to a change in the strategic balance, by neutralizing enemies or by significantly changing their capabilities or status."²⁰⁶ The explicit goal will be to "destroy," rather than merely degrade or attrite, Hezbollah's arsenal and its will to continue fighting.

The IDF will strive to conduct this campaign "in such a manner as to lead to an improvement in national security in the aftermath of the conflict" and "affect the enemy regime's survivability" instead of simply restoring the status quo ante or exchanging renewed quiet for quiet, as it has sought to do in recent conflicts.²⁰⁷ To this end, it will wage a "campaign for a decisive defeat of the enemy," centered on a rapid and sizable ground maneuver, that will allow Israel to "dictate terms for the end of hostilities."²⁰⁸ Or, as the head of IDF Northern Command stated succinctly in September 2018, "I hope there won't be another war, but if there is, it won't be another Second Lebanon War, but the final northern war."²⁰⁹

This ambitious objective stems from the strategic threat posed to Israel by the advancing missile arsenals of Iran and its proxies, foremost Hezbollah. These include the more than 120,000 rockets and missiles in Lebanon capable of oversaturating Israel's missile defenses and targeting its critical infrastructure and cities, as well as sophisticated surface-to-air and anti-ship missiles.²¹⁰ The fundamental untenability of these threats is reflected in Israel's ongoing determination both to interdict further Iranian proliferation of such weapons, and to prevent it establishing in Syria a military presence similar to Hezbollah's in Lebanon.

For Israel, this decisive conflict will be inseparable from a short one. Its ability to impose a clear defeat will diminish in proportion to the time permitted to Hezbollah, and possibly Iran or others, to maintain a devastating barrage of rockets and missiles that degrades IDF capabilities and inflicts unprecedented damage and chaos on the Israeli home front. Any successful Hezbollah spoiling attack or ground incursion in northern Israel will further diminish these prospects. Acknowledging that "the Israeli public expects the IDF to provide prompt threat resolution,"211 IDF strategy from the outset of conflict will be to conduct "a combined,

immediate and simultaneous strike" that emphasizes "initiative, impetus and pace," strives "to achieve surprise and shock" and "decreases the effectiveness of [enemy] action as soon as possible."²¹²

Planning a rapid major offensive represents a stark departure from, and reflects the lessons of, recent Israeli experiences. From the outset in Lebanon in 2006, and in Gaza in 2008-09, 2012 and 2014, the IDF attempted to restore prewar deterrence by eroding, not eliminating, its adversaries' capabilities with graduated applications of stand-off airpower and artillery. Only when this approach failed to halt rocket fire and attacks on Israeli civilians did the IDF expand the scope of its relatively small limited incursions (if at all). These limited approaches, even in such limited conflicts, produced mixed results for Israel that could be unsustainable given the expected scale of a future conflict on its northern front.

IDF strategists have absorbed these experiences directly into planning for a more decisive and short operation in the next, far larger conflict with Hezbollah. Given the much greater strategic threat to the IDF and Israeli civilians posed by the size and sophistication of Hezbollah's current rocket and missile inventories, the effort required to neutralize this arsenal and the threat to northern Israel from ground incursions, Israel will operate on the overarching assumption that it cannot afford to fight another prolonged conflict, let alone one that merely seeks to restore the status quo ante.

2. Large-Scale Combined-arms Operation in Lebanon

On the operational level, Israel's strategic objective to end the next conflict decisively and quickly will require the IDF to conduct a major combined-arms campaign integrating extensive strategic fires with immediate large-scale ground maneuver. Applying lessons from previous conflicts against significantly less potent adversaries, the IDF strategy accords its ground forces the role of achieving decisive victory in this scenario, supported by significant airpower and coordinated by timely, high-quality intelligence. The operational requirements to implement this strategy successfully can be expected to place significant, perhaps unprecedented, costs and strains on the IDF. Thanks to Hezbollah's illicit emplacement and use of weapons among civilians, as well as its reliance on state infrastructure and the LAF to help conduct operations, the next conflict likely will create the risk of substantial combat damage and destruction within Lebanon even in the course of lawful IDF operations.

Israeli planning and recent exercising proceeds from the assumption, based on prior experience from less demanding operational environments, that airpower and active defenses will suffice neither to neutralize rocket and missile threats to Israel nor destroy Hezbollah's ability and will to continue fighting.²¹⁴ Instead, airpower will support a combined-arms ground operation targeting the entirety of Hezbollah's military capabilities and possibly the LAF, Iran and its proxies as well. Accordingly, in laying out the components necessary to achieve decisive results, the official IDF strategy prioritizes maneuverability (i.e. ground operations) before "effective use of fire" (namely airpower).²¹⁵

In pursuit of decisive and rapid victory, the IDF expects this ground operation to differ markedly from those of recent conflicts in at least two key respects. First, the operation will begin at the outset of conflict to minimize the amount of time for Hezbollah's – and potentially Iran's and others' – rockets and missiles to wreak catastrophic damage on IDF bases, troop concentrations and the Israeli homeland, and to preempt any Hezbollah effort to launch a

ground incursion into Israel. By the same token, according to the official strategy, offensive ground actions will "strive to reach final maneuver lines as quickly as possible" before stabilizing lines of defense and mopping up remaining enemy units. ²¹⁶ This stands in stark contrast to 2006, 2008-09 and 2014, when IDF ground operations began only after it became apparent airpower alone could not eliminate rockets or other attacks on Israeli territory.

Second, ground forces will maneuver "into the enemy's depth toward political and state centers of power," including emphasis on surprise, airborne and special operations in Hezbollah's operational and even strategic rear. Unlike in 2006 or 2014, when IDF ground forces advanced only several kilometers into Lebanon and Gaza, respectively, future ground operations likely will seek to push much farther to neutralize the longer-range missiles Hezbollah now possesses – in addition to helping eliminate the tens of thousands or shorter-range rockets closer to the border. Notionally, this could push IDF assault formations well past the Litani River into the Beqaa Valley and Awali River lines – up to 100 kilometers inside Lebanon – to clear the potential launch areas for Hezbollah's medium-range rockets.

The IDF is prioritizing integration between infantry, armor and artillery units as part of a broader force buildup to support this increased emphasis on ground maneuver. Many of these forces are being combined into battlegroups better suited to utilize enhanced firepower from more advanced tanks, infantry fighting vehicles and UAVs. In addition, IDF artillery likely will play a larger role than in previous conflicts, as it is set to acquire significant numbers of precision-guided rockets and missiles – with ranges up to 300 kilometers – both to provide direct fire support to maneuver units and strike targets in depth.²¹⁹

From the start of conflict, the IAF plans to support this ground maneuver with an intense "precision and wide-scale effort" against longer-range rockets and missiles deep inside Lebanon, air defenses, reinforcements and resupplies and other strategic Hezbollah military targets and Lebanese infrastructure enabling Hezbollah military operations. The IAF will also provide close air support for ground maneuver forces. Unlike in 2006, when the vast majority of airstrikes were conducted south of the Litani River, in the next conflict the IAF could be expected to operate more deeply around Beirut, the Beqaa Valley and northern Lebanon. Operations could also extend into Syria or even farther afield. Simultaneous with its ground counterparts, the IAF will undertake full-scale operations immediately as it seeks to replicate its success in the 2006 conflict when it neutralized Hezbollah's long-range arsenal almost from the outset of hostilities – albeit against a much larger target set than previously.²²⁰

The Israel Navy will perform a strategic role by guarding the country's littoral and its critical maritime infrastructure – chiefly offshore energy platforms – from anti-ship missiles and seaborne attacks. It also will provide supporting fire for ground and air operations, and interdict enemy naval movements, along the Lebanese coast.

Operations in Lebanon will also have a wider scope than previously. Israeli policymakers and planners have responded to Hezbollah's expanding sway over Lebanese government and armed forces by declaring their readiness in a future conflict to target the LAF and Lebanese state infrastructure that reinforces Hezbollah's military power.²²¹ Defense Minister Avigdor Lieberman said in 2017 that "the Lebanese army has turned into an integral part of Hezbollah's command structure. [It] has lost its independence and is another unit in Hezbollah's apparatus, and therefore, as far as we are concerned, the infrastructure of the Lebanese army and the Lebanese state is one with the infrastructure of Hezbollah."²²² Israeli Minister Naftali Bennett

echoed this in response to Lebanon's May 2018 parliamentary elections, tweeting "Hezbollah = Lebanon. The State of Israel will not differentiate between the sovereign State of Lebanon and Hezbollah, and will view Lebanon as responsible for any action from within its territory."²²³

3. Operational Challenges Confronting the IDF

The strategic imperative for Israel to win a short war decisively against a stronger adversary than in its recent conflicts will place great strains on the IDF's operational capabilities and likely will impose heavy costs on its forces, even with its extensive planning and buildup for such a scenario.

Precision rocket and missile attacks by Hezbollah will pose significant threats to the IDF's intention to conduct simultaneous and immediate offensive operations from the outset of conflict. The IDF will need to concentrate sizable troop formations along the border in preparation for rapid ground maneuver, where they will be within range of tens of thousands of short-range rockets in southern Lebanon that will be fired in salvos intended to overwhelm Iron Dome and other active defenses. Longer-range Hezbollah rockets and missiles will target Israel's handful of airbases in an effort to severely hamper the high levels of IAF sortie generation required from the start of the campaign.

Despite these challenges, from the start IDF ground, air and naval forces will be expected to generate and attack thousands of targets per day – compared to hundreds in recent conflicts – including tens of thousands of preplanned targets throughout the northern theater.²²⁴ The demands of striking these preplanned targets, as well as potentially thousands more targets of opportunity as operations unfold – all while coordinating the different arms of the IDF and ensuring fire is directed accurately onto these targets, sometimes within several hundred feet of friendly forces – will place an incredible premium on timely IDF intelligence gathering, analysis and distribution.

Ground forces will begin attacking targets immediately upon leaving their lines of departure. Along the border they will encounter warrens of Hezbollah tunnels, minefields and other defensive positions among the cover and concealment provided by what the IDF calls 2,500 "aboveground tunnels" created by the heavily folded and foliated terrain, complicating the effective use of artillery and other fire support. Once into southern Lebanon, IDF ground forces will be tasked with neutralizing Hezbollah ground forces and thousands of launch, storage and command sites for short-range rockets, most of them buried underneath or placed within homes and other civilian buildings throughout hundreds of towns that have been converted into military strongholds. Villages along the likely IDF axis of advance also will anchor Hezbollah strongpoints for creating periodic and isolated "peer to peer" engagements by using mines, IEDs and other weapons to fix or channel advancing IDF formations in order to target them with coordinated massed antitank, small arms and rocket and mortar fire.

Neutralizing these objectives will place significant operational demands on the IDF and likely will make it unavoidable that substantial destruction of Lebanese infrastructure will flow from the process of reducing Hezbollah and associated capabilities. Embedded among civilians, most Hezbollah strongpoints and rocket-firing sites can only be eliminated by costly close quarters battle, including house-to-house fighting and subterranean warfare, that neutralizes the IDF's firepower advantages and renders its forces vulnerable to counterattacks, all while causing significant damage to villages in which Hezbollah is illicitly ensconced.

In all engagements, Hezbollah units will be difficult to detect or neutralize as they emerge from and quickly retreat into buildings or tunnels. Their intermingling with, and firing from, civilian infrastructure also could encourage return fire that causes collateral damage, in turn offering an opportunity for Hezbollah to seek to delegitimize Israeli operations.²²⁶

Throughout ground operations, the IDF will confront the challenge of advancing quickly and deeply into Lebanon in order to set the conditions of the battle and preserve operational initiative. This will impose potentially very heavy costs on IDF ground forces attempting to break through better defended and more extensive Hezbollah centers of resistance, manned by greater numbers of better-trained and combat-tested soldiers, than in 2006. Lacking the luxury of time to methodically reduce every entrenched strongpoint, advancing IDF ground forces will face increasing vulnerabilities the deeper and more rapidly they advance into Lebanon, including growing attrition and lengthening lines of supply and communication that leave their flanks and rear increasingly exposed to counterattacks. As they move forward, spearheads also could encounter growing streams of hundreds of thousands of refugees interwoven with Hezbollah fighters and clogging the planned axis of advance. Once final lines are reached, succeeding operations to "stabilize the lines of defense and purify the area," as the official strategy puts it, will impose further costs on the IDF.²²⁷

From the start of operations, added demands will be imposed on the IDF ground forces by their requirement to simultaneously protect northern Israel against potential Hezbollah ground incursions and seaborne or undersea naval commando raids. The IDF's declared intention to defend the entire Blue Line likely will necessitate additional deployments in the north beyond ground maneuver units, potentially posing logistical challenges for a rapid advance into Lebanon and offering more troop concentrations for Hezbollah to target with short-range rockets and missiles. These difficulties could be magnified by the need to evacuate hundreds of thousands of civilians from northern Israel, sending them south at the same time troops are headed north. Purchasel in the same tortuous terrain that camouflages Hezbollah border defenses also provides infiltration routes into Israel, raising the risks of both spoiling attacks against massing IDF ground maneuver units and successful "plant the flag" invasions targeting Israeli civilians in border towns.

In addition to a major operation in Lebanon, the IDF will have to devote additional resources to defend against incursions into the Golan Heights from Syria, and potentially conduct simultaneous ground maneuver into southwestern Syria to eliminate rocket and missile installations controlled by Hezbollah, Syria, Iran or its other proxies. The IDF may simultaneously have to devote resources to guard against a potential additional, southern front in Gaza.

Even as its bases face missile attacks and IDF ground forces prepare to maneuver into Lebanon, the IAF is expected to commence striking thousands of targets per day across the northern theater. As with the ground maneuver, the objective of eliminating rather than degrading Hezbollah's military capabilities translates to a much larger and more comprehensive target set than 2006, in which the IAF averaged 350 combat missions daily.²³⁰ As then IAF Commander Maj. Gen. Amir Eshel stated in 2017, "what we could do in 34 days during the Second Lebanon War, we can now do in 48 hours," in the process employing "four to five times" the total firepower of air operations compared to the previous conflict.²³¹ To a much greater extent than in the previous conflict, these airstrikes will focus on enemy centers of gravity, long-range missile sites and other targets deep inside Lebanon and beyond.

Such requirements will pose significant challenges for the IAF. The operational strains created by the sheer volume of targets that must be neutralized immediately will be compounded by the time and distance needed to reach much of this expanded target set in central and northern Lebanon (and potentially farther afield). With its quantities of medium- and long-range missiles growing in the intervening years, Hezbollah's arsenal can become more dispersed geographically into central and northern Lebanon. Unlike in 2006, this means a significant share of Hezbollah's military capabilities could be located north, rather than south, of the Litani River.²³² This dispersal will force the IAF to operate over greater ranges against a wider target set than in the previous conflict, reducing the sortie rate for any given strike aircraft at the same time those aircraft are required to attack targets at a high tempo.

Likewise, Israeli airpower will have to cover more geographical area than in previous conflicts to interdict enemy reinforcements and support advancing ground forces. Hezbollah's enhancements to active and passive defenses since 2006, chiefly improved antiaircraft systems and hardened or buried firing positions, could further challenge the effectiveness of air operations. The expansion of any conflict beyond Lebanon, including potentially Syria, Gaza and other theaters simultaneously, would impose added pressures on the IAF. Though U.S. and IAF airstrikes to date have successfully countered or evaded Syria's IADS – including Israel inflicting heavy losses on Syrian SAMs in February and May 2018 – the high demands of simultaneous air operations over Lebanon could challenge Israel's current air superiority over Syria in a prospective multi-front conflict, especially as Syria incorporates new S-300 air defenses.

VII. Hezbollah and the Weaponization of Law in the Next Conflict

With Israel seeking a rapid and decisive military victory in the next war, Hezbollah will have strong incentives to exploit the presence and suffering of the Lebanese civilian population in an information effort to gain functional immunity from IDF attack. It will have equally strong incentives to manipulate understandings of the LOAC and media coverage of the conflict to pressure Israel to terminate operations before the IDF achieves its objectives. Hezbollah will be advantaged by several factors, some of which recall Israel's recent conflicts against hybrid adversaries and other which will be specific to the expected scale and intensity of the next Israel-Hezbollah clash.

Most fundamentally, Hezbollah is advantaged by a lack of moral and legal constraints on its actions that Israel, as a liberal democracy committed to the rule of law, must and does respect. Similar to Hamas, as a hybrid adversary unbound by treaties and other legal agreements particular to nation-states, Hezbollah can countenance unrestricted warfare in which it exploits the presence of civilians in the combat zone, including intentionally placing civilians in jeopardy, in service of its larger strategic goals. By contrast Israel and other states that respect their own citizens' rights and observe the rule of law generally demand their armed forces conduct operations in accordance with all applicable domestic and international law.

Hezbollah also has an advantage when it comes to exploiting these misunderstandings. Unlike its law-abiding adversaries, deception, denial, untruthfulness, manipulation, intimidation and threat of violence against civilians and media are tools readily available to Hezbollah – all of which can be used to manipulate the information domain to influence audiences and win the contest of wills. Conversely, the Israeli military and government can rely only on truth as a source of information.

In 2006 Hezbollah's dissemination of misinformation through its own media stations, combined with its control over outside media access to the battlefield, contributed to reporting that inflated civilian casualty estimates, downplayed its indiscriminate rocket fire on Israel and misconstrued the IDF's decision-making in instances resulting in collateral damage. In that conflict Hezbollah's production of grisly, and at times altered, images of civilian deaths without proper context were far easier to convey than complex information about IDF operations and LOAC compliance; this imbalance favoring Hezbollah is likely only to have grown as the information domain is dominated increasingly by short-form and short-lived social media. Doubtless Hezbollah's incentive to manipulate media has been reinforced by the lessons of the 2014 conflict, in which Hamas successfully exploited images of civilian deaths to gain international sympathy and build international opposition to the Israeli cause.

The next Israel-Hezbollah conflict likely will provide Hezbollah far more opportunities to exploit these advantages than previously. Though it intermingled its military assets with protected civilian sites in 2006, since then Hezbollah has interspersed significantly more military power among civilians throughout Lebanon – most notably, more than 120,000 rockets and missiles. It also enjoys much deeper ties to the LAF and Lebanese state, whose assets Hezbollah is now much more likely to utilize and coordinate with in wartime. Unlike in 2006, there is also very real potential for any conflict in Lebanon and Israel to expand to Syria and farther afield.

Consequently, the IDF will have a far larger target bank than in any other recent conflict, at the same time those targets are more entrenched among civilians. Even as the IDF complies with the LOAC, therefore, it will be difficult if not impossible to avoid destruction not only to military sites such as ports, power plants, roads and telecommunications facilities, but also civilian infrastructure including homes, hospitals, schools and anywhere else Hezbollah has illegally placed military assets. The level of damage likely will be exacerbated by the central role accorded to ground maneuver in IDF planning for the next conflict, given the inherently more destructive nature of ground operations and the use of supporting indirect fire. For the IDF as for all militaries, the nature of artillery fire in support of ground maneuver is characteristically more rapid and often less precise than attacks utilizing precision guided munitions. All this will almost certainly produce unavoidable but greater collateral damage and incidental injury to civilians, which Hezbollah will blame disingenuously on disproportionate and indiscriminate IDF firepower.

The imperative for Israel to eliminate Hezbollah's military arsenals as quickly as possible in the next conflict poses significant operational challenges that likely will exacerbate this equation. In addition to thousands of preplanned targets at the outset of hostilities, the IDF can be expected to strike thousands more targets of opportunity as the conflict unfolds. As the IDF strategy acknowledges, timely and accurate intelligence will be critical. Yet such information may not always be available to a commander amid the fleeting and mutable circumstances under which targets of opportunity present themselves, raising the risks of collateral damage even as the commander complies with LOAC obligations in deciding whether to strike.

Indeed, the nature of rapidly evolving combined-arms maneuver combat, especially the IDF's emphasis on ground maneuver operations, will affect what qualifies as a reasonable attack judgment, resulting in a very different context for implementing LOAC obligations than the IDF's incrementally escalated operations of the past. In this context, commanders will execute operations to achieve the broadly defined intent of superior command, exercising tactical initiative to rapidly exploit opportunities to defeat or degrade the enemy as they develop. These "mission type orders" operations push responsibility for attack decisions down to lower levels of tactical command that is normally associated with high-level deliberate attack decision-making processes. While the LOAC is equally applicable in both contexts, it would be unrealistic to expect an analogous level of situational awareness and attack deliberation in the context of combined-arms maneuver warfare as in deliberate air-dominated operations.

This is a critically important assessment consideration, because the ultimate touchstone of compliance with LOAC targeting and attack obligations is whether the attack decision-maker made a reasonable judgment that the attack was lawful under the circumstances. However, what is a reasonable decision for a tank platoon leader engaged in deadly urban combat against an adaptive and lethal hybrid adversary will be different from a reasonable decision made by a senior commander with the benefit of maximum intelligence, surveillance and reconnaissance assets and a wide array of attack capabilities.

Moreover, the IDF's operational challenges in the next conflict likely will limit its ability to avoid civilian casualties through precautionary measures that exceed LOAC requirements. In the 2014 Gaza conflict Israel executed a number of extraordinary and innovative methods attempting to further mitigate risk to civilians in a good faith effort to implement LOAC obligations, including extensive warnings of impending strikes and cancelling certain lawful missions because of the presence of civilians. The IDF was able to implement such measures

with full knowledge they might – and often did – degrade the efficacy of impending attacks. This was possible in part from the protection Iron Dome provided to Israel's civilian population, which allowed Israeli decision-makers to exercise greater strategic restraint than would have been the case if missiles or rockets launched from Gaza created mass casualties.

Israel's practice of providing such extensive warnings, though admirable, may prove incompatible with operational and tactical requirements in a future conflict with Hezbollah and potentially others. The fundamental military objective of mitigating unprecedented rocket and missile fire on the Israeli home front will render impossible such time-consuming precautions that cede tactical advantages to the adversary.

Accordingly, the scale and intensity of the next conflict between Israel and Hezbollah will be quite different than recent IDF operations. What will be unchanged is Israel's commitment to the lawful conduct of operations, even as its adversaries continue to abuse the LOAC to their own advantage on the battlefield and exploit its misunderstandings in pursuit of victory in the court of public opinion.

APPENDIX: Common Questions About How Law Regulates War

1. Why it is important to understand the symmetry between the law of armed conflict and military operational practice.

The law of armed conflict ("LOAC") evolved from codes of conduct imposed on belligerents by their commanders. This law has always reflected the core logic of military operations. While it is axiomatic that the law serves important humanitarian objectives, it is equally axiomatic that the law seeks to balance this humanitarian objective with facilitating the ability of belligerents to accomplish their strategic, operational and tactical objectives, which at its very core involves bringing the enemy into submission as promptly and efficiently as possible. The contemporary LOAC continues to reflect this carefully evolved balance between these two interests; a balance informed by the realities of armed conflict.

This balance is manifest in numerous provisions of the customary and treaty rules. Examples include the principle of military necessity, military objective, precautionary measures, proportionality and the authority to administratively detain captured enemy belligerents. Importantly, even humanitarian obligations serve an underlying military utilitarian purpose. These protections are derived from the reasoned judgment of the profession of arms that unnecessary violence, destruction and suffering will ultimately undermine the strategic objective of defeating the enemy and the restoration of peace.

Most observers have little difficulty understanding that legal limitations on the violence associated with armed conflict serve the interests of civilians and other non-combatants (such as prisoners of war, wounded and sick members of the armed forces and other fighters who are incapable of participating in hostilities due to wounds, sickness or capture). What is less obvious and frequently overlooked is that this law also serves the interests of belligerents and the commanders under whose authority they fight. However, this purpose is clearly central to the law, as emphasized in the following extract from the *Oxford Manual of the Laws of War on Land*, one of the most important precursors to the twentieth century evolution of the conventional laws of war:

By [codifying the rules of war derived from State practice], it believes it is rendering a service to military men themselves.... A positive set of rules, on the contrary, if they are judicious, serves the interests of belligerents and is far from hindering them, since by preventing the unchaining of passion and savage instincts – which battle always awakens, as much as it awakens courage and many virtues – it strengthens the discipline which is the strength of armies; it also ennobles their patriotic mission in the eyes of the soldiers by keeping them within the limits of respect due to the rights of humanity.²³³

This same compelling logic is integrated into the U.S. Department of Defense *Law of War Manual*, which includes among the purposes of the LOAC, "assisting military commanders in ensuring the disciplined and efficient use of military force," and "preserving the professionalism *and humanity* of combatants." These purposes of, and the symmetry between the scope

of legal regulation of armed conflict and military operational interests, provides essential background to understanding and assessing compliance with the law in combat. This is because professional military forces, and those who command them, should be assumed to understand and embrace these purposes and in so doing constantly endeavor to strike a rational balance between the necessities of war and humanitarian considerations.

Accordingly, it is erroneous to view the LOAC as some type of unfair constraint on commanders as they execute combat operations. Indeed, the LOAC is replete with examples of the symmetry between legal regulation and operational logic. A quintessential example is the prohibition against the infliction of superfluous or unnecessary suffering. This rule traces its roots back to the St. Petersburg Declaration of 1868. By prohibiting the infliction of superfluous suffering or injury, the principle advances not only a humanitarian purpose, but also the military logic reflected in the concept of economy of force. There is no military value in wasting resources for the purpose of exacerbating the suffering of an opponent already rendered combat ineffective.

Another example is the rule of military objective. While there may be definitional uncertainty on the fringes of the rule, the underlying logic is militarily sound: combat power should be directed only against those persons, places or things that contribute to achieving operational military objectives. A resource-conscious commander should instinctively avoid wasting finite combat resources on targets of no strategic, operational or tactical significance, and this rule is consistent with that logic.

Inherent in the law's regulatory framework, however, is the recognition that no two tactical or operational situations are identical; that commanders and the forces they command must exercise judgment, often in the proverbial fog of war; and that these judgments will often vary within a margin of reasonableness. This is especially true with regard to attack judgments: the determination that a person, place or thing qualifies as a lawful object of attack. While, as noted above, the LOAC provides the rules that dictate what is a lawful military objective and how to mitigate the risk of anticipated civilian casualties and destruction of civilian property when attacking such objectives, reasonableness it the ultimate standard applicable to these attack judgments. Of course, some judgments are per se unreasonable, for example the decision to deliberately attack someone or something that is not a military objective, or the decision to employ a weapon known to be indiscriminate in effect because it cannot be adequately directed at a military objective or because the effects of the weapon cannot be controlled once released. However, beyond these unqualified prohibitions related to the conduct of hostilities, most attack decisions require a balancing of relevant interests, most notably the anticipated military advantage that will result from the attack and the anticipated risk to civilians and civilian property.

What the law demands of individuals making these attack judgments is that they are reasonable under the prevailing circumstances; it does not demand that they always reflect, in hindsight, a completely accurate assessment of these competing interests. Nor does it demand that these judgments be informed by information that was, at the time of the decision, not reasonably available but comes to light only after the fact. Were this the case, the law would essentially impose a "strict liability" standard on commanders and their subordinates, demanding not that their decisions be reasonable, but that they are always right. This simply unrealistic. In reality, the wide variety of factors that impact attack judgments necessitates a relatively wide margin of appreciation when assessing what was or was not reasonable. These factors are reflected in the U.S. military doctrinal mnemonic METT-T-C: Mission, Enemy, Troops

available, Terrain, Time, and Civilian considerations. In short, assessing whether a given attack judgment was or was not reasonable demands considering how all these factors aligned to influence that judgment at the moment it was made.

One phenomenon that has distorted the significance of this "contextual reasonableness" equation has been the nature of recent armed conflicts between states and non-state groups, such as "hybrid" adversaries. The public perception of these conflicts has been dominated by expectations of state combat superiority, an abundance of real-time information, a seemingly unlimited capacity to engage in precision attacks often using stand-off capabilities like unmanned aerial vehicles (UAVs, or "drones") or other air and missile assets and the luxury of extensive time to assess who, what, where and when to attack. In military doctrinal terms, these types of attacks are often characterized as the product of a "deliberate" targeting process, whereby targets are nominated, carefully assessed and vetted, and then addressed in a prioritized order. This has led to an expectation of attacks with absolute accuracy, launched at the optimum time and place, using the optimum capability, producing little or no collateral damage or incidental injury.

There can be little doubt that every commander would, if offered the opportunity, prosecute all wars in such a manner. But it is unrealistic in the extreme to assume that the nature of future conflicts will identically mirror this model. First, this public perception is simply not accurate. The recent conflicts between technologically advanced forces like those fielded by the United States and less-capable opponents have simply not been completely defined by this type of operation. Instead, these enemies have demonstrated what enemies throughout history have demonstrated: a capacity to adapt to their opponent's advantages and utilize tactics to offset these perceived advantages. The use of tunnel warfare by Hamas and Islamic State is an iconic example of this adaptability, whereby the militarily weaker enemy utilized a relatively primitive tactic to nullify the extensive intelligence, surveillance and target acquisition assets of their more advanced opponent. These enemies are also determined and ferocious, often fighting in what they consider their own territory.

Perhaps most importantly, these enemies understand that they need not achieve tactical victory to achieve strategic success. As Major General Mike Jones, a member of JINSA's prior Gaza Assessment Task Force noted several years ago, "for U.S. commanders, information is understood as a supporting effort to combat operations. But for Hamas, combat operations are understood as a supporting effort to information. These enemies know they can't defeat the IDF in battle, and don't care, so long as the combat operations contribute to their strategic goal of delegitimizing Israel." This is critical to understand the complexity associated with implementing LOAC obligations when fighting this type of enemy.

First, the opponent's tactical objective will often not be to prevail in combat, but to maximize friendly casualties. This contributes to two objectives: exploiting the perception of casualty aversion that influences the political will of states engaged in hostilities, and increasing popular support for their own cause by demonstrating an ability to stand toe-to-toe with the superior state enemy, even if in limited opportunity. This means that friendly forces must anticipate and confront situations where the opponent will seek to create isolated "peer to peer" engagements. This will normally involve drawing friendly forces into ground combat operations in densely populated areas where the defending enemy can exploit the natural advantage of operating in such an area. Such engagements are the antithesis of the type of stand-off deliberate attack operations too many people assume are sufficient to address contemporary non-state threats such as hybrid groups.

Second, these enemies, who routinely ignore if not deliberately violate LOAC obligations, understand that maximizing civilian casualties and destruction of civilian property will produce a strategic information windfall. Indeed, while non-state or irregular forces have been historically notorious for violating the LOAC, what is different today is that such violation is actually used to gain tactical and strategic advantage. At the tactical level, the use of civilians to shield military assets and the extensive use of densely populated areas as bases of operations complicates the attack decisions of the LOAC-compliant state forces. While, as explained above, the LOAC often permits attacks even when there is an expectation of producing civilian casualties, the tendency of the international community to engage in "effects-based condemnations" means that what is lawful rarely translates to what is legitimate.

Illicit enemies know this, and know that what will influence public and international opinion will rarely be legality assessments based on an informed application of controlling LOAC rules, but instead attribution based on who fired the shot or dropped the bomb that caused the casualties. This ultimately creates a perverse incentive for illicit enemies to: embed their most vital assets amongst the civilian population; actively seek to prevent the evacuation of civilians from a conflict area; and create situations requiring highly destructive combat capabilities to be the only viable option for the LOAC-compliant state force to achieve tactical and operational success.

For Israel, this equation is further complicated by the proximity of the threat to Israeli territory and the capacity of that threat to launch massive rocket and missile attacks from these border areas. As explained earlier in the body of this report, this may very well result in a perceived need to neutralize this threat as rapidly and efficiently as possible, which could translate into the need to launch a major combined-arms offensive if and when the threat becomes imminent. The nature of combined-arms maneuver warfare is, as discussed in this report, fundamentally different from the deliberate drone, air and missile operations. Ground maneuver is defined by speed, initiative and lethality. Rarely will missions be defined in terms of attacking specific targets. Instead, commanders issue "mission type" orders, which means they define the mission in broad terms, provide subordinate commanders with their overarching "commander's intent," and then empower subordinate leaders at every level to exercise initiative to accomplish their part of the overall mission. While there will be deliberate-type targeting in the context of such operations, the vast majority of attack decisions will be time-sensitive, decentralized and influenced by the speed of the fight and the limited resources available to the respective maneuver commanders.

In this context, it is unrealistic to expect the type of information dominance and deliberation that associated with deliberate targeting. This increases the value of ensuring junior combat leaders are well-trained in their legal obligations, and capable of exercising their initiative consistent with humanitarian constraints and obligations. But when confronting an enemy who at best embeds vital military assets among civilian property, and at worst seeks to exploit the presence of the civilian population in order to neuter the capabilities of the attacking force and produce substantial civilian casualties, any rational assessment of LOAC compliance will have to acknowledge the likelihood of a much more significant level of collateral damage and injury than would be associated with precision or stand-off attacks. It is also a reality of this operational context that there will be more "reasonable" mistakes that result in unfortunate consequences.

2. Why it is important to understand the difference between the LOAC and rules of engagement.

Rules of Engagement (ROE) and the LOAC are two distinct sources of operational regulation. This is important to understand because ROE will often be tailored to the unique aspects of different operations, which means the ROE will often be more restrictive than the LOAC. However, because ROE is a policy constraint on otherwise lawful authority, this also means that the ROE tomorrow may be very different than the ROE today, or even in the context of the same mission different units may be operating under different ROE constraints.

While ROE will often reflect LOAC rules, they are not synonymous. Rules of Engagement and other "tactical directives" are intended to give operational and tactical military leaders greater control over the execution of combat operations by subordinate forces. Though not historically designated in contemporary terms, the history of warfare is replete with examples of what have essentially been ROE. The Battle of Bunker Hill provides what is perhaps a quintessential example of such use. Captain William Prescott imposed a limitation on the use of combat power by his forces in the form of the directive "don't shoot until you see the whites of their eyes," in order to accomplish a tactical objective. Given his limited resources against a much larger and better equipped foe, he used this tactical control measure to maximize the effect of his firepower. However, there is no reason to assume that tactical constraint should or would be applied to the next engagement.

ROE have become an essential tool for regulating the conduct of hostilities in modern warfare, especially when fighting an unconventional or hybrid enemy operating in civilian population centers. Ideally, ROE represent the confluence of three important factors: Operational Requirements, National Policy, and the LOAC. It is particularly important to note while ROE are not coterminous with the LOAC, they must be completely consistent with this law. In other words, while there are provisions of the LOAC that do not affect a mission's ROE, all ROE must comply with the LOAC. For example, in order to provide greater protection against collateral injury to civilians, the ROE may require that attacks against a military objective in a populated area is authorized only when the target is under direct observation.

Appreciating this interrelationship is therefore essential to understanding why the scope of attack authorities utilized by armed forces during different missions may appear very different. When that authority is dictated by ROE, it will be carefully tailored to the nature and needs of the specific mission. So long as the granted authority is consistent with the LOAC, it may vary from mission to mission. Accordingly, it is erroneous to assume that what appears to be an expansion of authority during the progression of a military campaign reflects a violation of the LOAC.

A similar principle applies in relation to measures implemented prior to an attack to mitigate the risk to civilians. These "precautionary measures" are required by the LOAC, but this requirement is qualified by feasibility considerations. This means that an attacking commander, at any level, should constantly assess whether measures such as warnings, evacuations, timing of attack, choice of weapon or tactic or delay of an attack to gather more information will mitigate the risk to civilians resulting from the attack. However, if the commander reasonably determines that such precautions are not feasible, which again involves a consideration of the range of METT-T-C factors, precautionary measures are not required. Accordingly, it is erroneous to assume that because a commander utilized

a particular precautionary measure during one attack, that measure is always required. For example, one attack may be preceded by extensive pre-attack warnings, whereas a subsequent attack may not. Ultimately, so long as the assessment that the warnings were not feasible in relation to the second attack was reasonable under the circumstances prevailing at the time, the decision to forego them was lawful.

3. Why it is important to understand the relationship between the principle of distinction, the law of military objective and whether an opponent can immunize a target by placing it among or in proximity with civilians or civilian objects.

As noted above, it is a legal axiom that military objectives are lawful targets, and that civilians are unlawful targets. It is equally axiomatic that compliance with the principle of distinction becomes most difficult when lawful military objectives are co-mingled with civilians and/ or civilian property. While the LOAC imposes an obligation on belligerents to take "constant care ... to spare the civilian population, civilians and civilian objects" (Article 51, AP I), it is clear from both historical practice and from the structure of AP I that such co-mingling is virtually inevitable. Extending the obligation to mitigate risk to civilians by prohibiting attacks against military objectives whenever civilians or civilian objects are in close proximity to these objectives would be unworkable for multiple reasons. First, the rule would invite violation due to the reality that belligerents have historically refused to consider military objectives immune from attack due to the proximity of civilians or civilian property. Second, belligerents would be provided an incentive to exacerbate the risk to civilians or civilian objects by deliberately comingling them with military objectives in an effort to immunize those objectives.

In response to the reality of a co-mingled battle-space, the drafters of AP I adopted a compromise approach. Belligerents bear a constant obligation to endeavor to mitigate risk of harm to civilians and civilian property. However, Article 51 explicitly provides that the presence of civilians or civilian objects in the proximity of military objectives does not immunize those objectives from attack. Of course, this does not permit the deliberate targeting of civilians or civilian objects. It does, however, permit the attacks on lawful military objectives with knowledge that the attacks will likely cause harm to civilians or civilian property. Thus, the commander does not violate the LOAC when he orders an attack with knowledge that civilians will likely become casualties of the attack, so long has he does not act with the purpose, or conscious objective, to cause such casualties.

An equally critical aspect of this balance is that the obligation to "take constant care" to spare civilians and civilian objects from the harmful effects of hostilities requires belligerents to make prima facie good faith efforts not to co-mingle military objectives with civilians or civilian property. This obligation is qualified by the term "endeavor" and is not absolute. However, a belligerent who *deliberately* locates military objectives in proximity to civilians or civilian objects for no valid tactical or operational reason, but instead in an effort to shield the military objective from attack, shares responsibility for harm to those civilians resulting from an enemy attacking those military objectives.

The final aspect of this equation is the relationship between co-mingled civilians and the proportionality rule. Just as a belligerent is not permitted to immunize a military objective by deliberately co-mingling that objective with civilians or civilian property, even when the co-

mingling is deliberate, it does not release the attacking commander from the obligation to consider whether the harm to the civilians or civilian property would violate the proportionality prong of the prohibition against indiscriminate attacks. Because of this, the deliberate comingling of civilians with military objectives does provide a potential residual immunization effect, for the attack would be unlawful if the harm to civilians was anticipated to be excessive in relation to the anticipated concrete and direct military advantage. However, excluding such situations from the scope of the proportionality rule would be both unworkable (due to an attacking commander's inability to determine whether the co-mingling was deliberate, reckless, negligent or innocent), and would subject civilians to the manipulation of commanders acting in bad faith.

In summary, when a commander identifies a lawful military objective co-mingled with civilians or civilian property, the commander is permitted to attack that objective even with knowledge that the attack will cause collateral damage or incidental injury to civilians or civilian property. The only limitation on this permission is that the commander must refrain from the attack if he determines that the collateral damage or incidental injury will be excessive in relation to the concrete and direct advantage anticipated from the attack.

4. When is a commander obligated to select a method or means of warfare that poses the least risk to the civilian population and how must a commander must evaluate this obligation in light of the risk to his own forces?

AP I's effort to mitigate the risk to civilians in areas of hostilities includes a rule that imposes on commanders planning an attack the obligation to place a high priority on this mitigation when selecting how they will conduct attacks. This rule, contained in Article 57, applies whenever a commander has the option to select from more than one military objective or more than one method or means of attack to achieve a tactical objective. When this is the case, the law requires a commander to select the objective or the method or means of warfare that poses the least risk to the civilian population. However, this rule includes an important and pragmatic qualifier: the alternate options must be equally effective for achieving the commander's purpose. In essence, the rule is that "when all options are equal in anticipated effect, select the option that creates the least risk to the civilian population."

It is critical, however, to understand what the concept of "equality" means in assessing multiple options. It is not merely an effects-based analysis. Instead, a commander may legitimately consider both resource availability and risk to friendly forces when assessing equality. For example, a commander is not automatically obligated to use a precision guided munition (PGM) in lieu of a "dumb" round when attacking an area in which civilians are located. While the PGM will almost certainly be the option that reduces the risk to the civilian population, the commander is entitled to consider the supply of PGMs compared to "dumb" munitions, other military objectives that might require the use of the limited number of PGMs, and available resupply and rates of resupply. If the commander determines that it is operationally necessary to "husband" the PGMs, then the option to use PGMs is not "equal" to the option to use the dumb rounds.

One area of controversy in application of this rule is the effect of risk to friendly forces when conducting equality analysis. Most experts seem to agree that a commander is entitled (some

would argue obligated) to consider the comparative risk to friendly forces as a component of this analysis. Accordingly, the commander is not obligated to select the method or means of warfare that poses the least risk of harmful effects to civilians when that choice increases the risk to his own forces. For example, a commander might have a need to destroy or disable an enemy command post located in a populated area. When assessing the possible options to achieve this objective, the commander may have a choice between indirect artillery fires or a special operations assault on the objective. Because the special operations assault will reduce the risk to civilians as the result of the more precise engagement probability, from an effects standpoint it would appear to be the option the commander is obligated to adopt. However, because use of that option will pose a substantially greater risk of casualties to his forces, that option is not equal to the use of indirect fires within the meaning of the rule.

Of course, commanders may always choose to assume greater risk in the interest of minimizing harm to civilians as a matter of policy because the benefit is perceived as outweighing the risk to friendly forces (which is often a motivating factor in the imposition of constraints within rules of engagement that are more restrictive than required by the LOAC). However, such choices are not legally mandated.

5. Are there special rules for the use of artillery in populated areas?

There are very few per se LOAC prohibitions related to the use of weapons and weapon systems during armed conflict. Some of these take the form of treaties which establish an outright prohibition against the use of certain weapons, such as the prohibition against the use of chemical, biological and bacteriological weapons. Other prohibitions impose contextual limitations on the use of weapons or methods of warfare, such as the prohibition of bombarding undefended population areas, or the use of booby traps in certain contexts.

There is no per se prohibition against the use of artillery to attack lawful military objectives in populated areas. Instead, the legality of the use of this means of warfare, like the use of almost all means of warfare, is determined by application of the broad principles that regulate targeting (see above). Accordingly, the legality of use of artillery in such areas is dependent on consideration of a variety of factors related to the operational necessity for the use, the availability of alternate methods and means of warfare to achieve the military purpose, the enemy situation and the risk to civilians. The acronym METT-T-C is used in U.S. practice to indicate the relevance of these considerations in all operational decision-making, and is a key component in assessing the propriety of use of artillery in populated areas.

METT-T-C analysis considers each of these factors to provide the contextual background for operational decisions. While "law" is not an explicit element of this analysis, the requirement to consider the civilian population and the enemy situation implicitly invokes the LOAC in assessing the propriety of targeting decisions. An example of the multiple factors a commander must assess in deciding whether to use artillery to achieve an operational effect can be found in the U.S. Army Field Manual 6-20:

Any variable that could affect the mission is a factor. Before the estimate is started, all relevant information must be collected from all available sources. Once this information has been assembled and the factors that could affect the plan have been identified, they should be listed and arranged in priority.

Examples of the factors that may be considered are as follows:

- The task organization of subordinate forces and their missions.
- The availability of field artillery resources, including cannons, multiple launch rocket systems (MLRSs), missiles, ammunition (conventional, nuclear and chemical) and target acquisition assets.
- The availability of other fire support resources, including mortars, NGF, tactical air support and Army aviation support. Also included are electronic warfare (EW) and other intelligence-controlled surveillance assets.
- In the attack, the enemy dispositions (including frontage and depth), the degree of
 protection afforded the enemy, objectives for subordinate forces or units, the number of
 phases and the likely frontage and depth of the assault. These will affect the allocation
 of fire support resources to subordinate units.
- In the defense, the mission of the security force, the frontage and depth of the MBA, the contingencies for counterattack and considerations for deep and rear operations.
- The mobility of the supporting artillery and its speed of movement to contact and withdrawal.
- In light forces, the force antiarmor plan.
- Courses open to the enemy artillery commander, especially his most probable course of action. These are derived from the intelligence estimate and knowledge of enemy artillery doctrine.
- The identification of high-payoff targets.

Use of artillery in populated areas should be dictated by assessment of these factors. The commander first must determine how the mission should be tactically executed, which will drive selection of targets and dictate the effects that must be achieved for each target. The commander then assesses the enemy situation to guide analysis of which component of his power will be most effective in achieving the desired effects. The commander will then assess the assets available that are capable of achieving the effects, the effectiveness of each asset for this purpose, other demands on each asset, etc. This is often called "weaponeering," and involves the process of selecting the best asset for each proposed target. The commander must then consider the element of time, as time might make some assets that are potentially effective in an attack non-responsive to the operational need.

Finally, the commander must assess the impact of the targeting decision on the civilian population and civilian property. First, the commander must ensure the desired effect can be achieved without violating the prohibition against indiscriminate attacks. If the commander determines that artillery can be employed in a manner that is not indiscriminate, then so long as the object of attack is lawful, the commander should also then consider whether even if lawful, the potential harm to civilians creates an unacceptable policy risk. It is not uncommon in contemporary operations for commanders to refrain from launching lawful attacks based on policy-driven concerns (e.g., it simply might not be worth the cost of having to defend the legality of the attack in the public realm; or a commander may not want to alienate the civilian population by causing casualties that while lawful, would still be perceived as unjustified). However, this consideration is directly linked to the first element of the analysis, the mission, because the mission will dictate the degree of risk of public condemnation of civilian alienation a commander is willing to assume.

While the contemporary practice of U.S., NATO and IDF forces is to place ROE controls on the use of artillery in populated areas, it is simply improper to characterize these controls as indications of per se prohibitions against such use. In fact, almost all such ROE controls permit the use of artillery fires under certain circumstances, or when authorized by a certain level of command. For example, a prohibition against the use of unobserved indirect fires in populated areas will often provide an exception for "forces in contact," or permit such fires when authorized by "Division command or higher." The variety of control measures is not relevant. What is relevant is that by providing exceptions to these policy-based constraints, ROE indicate that such fires are not prohibited per se by the LOAC, but are instead dictated by METT-T-C considerations.

If a commander decides to employ artillery against military objectives in civilian populated areas, the commander must act consistently with the obligation to endeavor to minimize the risk to civilians. This will often involve considering the use of artillery observers or "spotters" to better control the effects of the attack. This is referred to as "observed" indirect fires, which obviously mitigates the risk of collateral damage or incidental injury to civilians. Unobserved indirect fires use intelligence indicating the location of proposed targets and indirect fire direction calculations to maximize the probability of achieving the desired effect. Observed fires are therefore also operationally preferable because they enhance the effectiveness of the artillery attack.

However, it is not always possible to use observed indirect fires. Observation requires getting personnel into a position where they can have "eyes on" the target. Because one of the key advantages of artillery is the capability to engage in long-range targeting, commanders might not be willing or even able to place friendly spotters in close proximity to long range targets, especially those targets in areas under significant enemy control. Ultimately, commanders will have to engage in a cost/benefit analysis to decide whether placing artillery spotters in a position enabling observed fires is the best operational decision.

A per se prohibition on such fires would be wholly unworkable for two reasons. First, it would encourage belligerents to put their most important targets in populated areas (a practice that already occurs as the result of the knowledge that commanders often impose policy constraints on such fires), thereby increasing the danger to the civilian population. Second, it would require attacking commanders to either ignore such targets (giving an enemy a reward for co-mingling them), or resorting to ground assaults to attack such targets. Because ground assaults in populated areas are considered the most complex and dangerous type of ground operations, this will place commanders in an untenable position of having to assume maximum risk to friendly forces whenever an enemy chose to abuse the law by co-mingling important targets in civilian populated areas.

Accordingly, there is no prohibition against using artillery, either observed or unobserved, against lawful military objectives in civilian populated areas. The legality of such use must be assessed on a case-by-case basis that focuses on METT-T-C.

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