2014 Gaza War Assessment:

The New Face of Conflict

A report by the JINSA-commissioned Gaza Conflict Task Force

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LEBANON

Damascus

Tyre •

Kiryat Shmona •

Nahariya •

Akko (Acre) •

Haifa •

Kiryat Ata •

• Banias

UNDOF Zone

• Quneitra

S Y R I A

Golan Heights

Safed • Katzrin •

• Afik

Sea of Tiberias Galilee

Nazerat (Nazareth) •

Yarmuk

Megiddo •

• Irbid

Hadera •

Jenin •

• Beit She'an

Netanya •

• Tulkarm

Jordan

Herzliya •

• Kfar Saba

• Nablus

Ramat Gan •

• Petah Tikva

West Bank

Zarqu

• Salt

• Zarqa

Tel Aviv-Yafo •

Rishon LeZion •

Rehavot •

• Ramla

• Modi'in

• Ramallah

Amman

Ashdod •

Jerusalem •

• Jericho

Ashkelon •

• Madaba

Kiryat Gat •

J O R D A N

Gaza City •

Gaza Strip

• Hebron

Dead Sea

Rahat •

Khan Yunis •

Beersheba •

• Al Karak

I S R A E L

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GEORGIA

ARMENIA

AZER.

Caspian Sea

TURKMENISTAN

TURKEY

CYPRUS

SYRIA

IRAN

AFGH.

Mediterranean Sea

LEB.

ISRAEL

IRAQ

JORDAN

KUWAIT

BAHRAIN

Persian Gulf

G. of Oman

QATAR

U.A.E.

EGYPT

Nile

SAUDI ARABIA

OMAN

L. Aswan

Red Sea

SUDAN

ERITREA

YEMEN

Arabian Sea

DJIBOUTI

G. of Aden

ETHIOPIA

SOMALIA

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2014 Gaza War Assessment

— Executive Summary —

The Hamas strategy employed in the 2014 Gaza War represents the new face of war that threatens to undermine the effectiveness of conventional militaries, endangers civilians in irregular conflicts and distorts the international legal structure. American policymakers and military leaders should take heed and act to avert the potentially serious consequences for U.S. national security.

I. Introduction

Battles have been fought for millennia in cities, amid large civilian populations. Many wars have been waged against unconventional adversaries willing to kill their opponent's civilians and hide among their own. Misinformation has been disseminated and the mantle of justice claimed in the service of countless causes. However, the 2014 Gaza War featured a hybrid non-state force – Hamas – that perhaps uniquely combined four elements:

- Acting with reckless disregard for civilian safety, if not deliberately putting them in harm's way;
- Distorting internationally-recognized legal standards to exploit legal protections afforded civilians and the casualties caused by this exploitation;
- Portraying its opponent, through an information operations campaign, as legally culpable for what were lawful, defensive responses to aggression; and
- Securing advantageous pressure from the international community on its opponent to terminate legitimate defensive military action.

Commissioned and supported by the Jewish Institute for National Security Affairs (JINSA), this Task Force closely studied the evolution of Hamas's strategy and Israel's response, based on primary source research and discussions with senior Israeli, Palestinian and United Nations (U.N.) officials. Contrary to accusations of widespread unlawful military conduct, we observed that Israel systemically applied established rules of conduct that adhered to or exceeded the Law of Armed Conflict (LOAC) in a virtually unprecedented effort to avoid inflicting civilian casualties, even when doing so would have been lawfully permitted, and to satisfy the concerns of critics. However, it is the conclusion of this Task Force that Israel's military restraint unintentionally empowered Hamas to distort both the law and facts for their own purposes to the ultimate detriment of civilians' safety, for which Hamas bears sole responsibility.

Future, and perhaps even ongoing, conflicts will match the U.S. military against adversaries employing Hamas's unlawful tactics that increase civilian casualties so as to undermine the legitimacy of U.S. military operations, encourage international actors to condemn and pressure the United States and sap its will to continue such campaigns. When confronting such a foe, unnecessary greater restraint in U.S. military operations will not deliver victory. Therefore this Task Force recommends American political and military leaders take additional steps now to prepare to encounter this new face of war.

II. Overview of 2014 Gaza War

As long as Hamas governs Gaza, that territory will remain locked in an enduring conflict with Israel. Indeed, the 2014 Gaza War was the third major eruption of hostilities between Israel and Gaza in less than six years. Neither side expects it to be the last.

A. Background

The modern Gaza Strip is a narrow enclave of dune-covered plains along the Mediterranean coast, home to 1.8 million people living within 140 square miles and bordered by Egypt to the southwest and Israel to the north and east. Israel last took control of Gaza following the Six Day War of 1967, and then withdrew in 2005, while maintaining restrictions on access to it by land, sea and air. Israel's continued conflict with Gaza is due partly to those continued restrictions, but more fundamentally to the governing Hamas's ideological hostility to Israel's existence. The group's founding charter holds that no true Muslim "can abandon [Palestine] or part of it," and that there is "no escape for raising the banner of Jihad" to remove Israel from it.[1]

B. Causes of Conflict

Nominally, the 2014 Gaza War was fueled by Hamas's increasing isolation – materially, financially and diplomatically – within the Gaza Strip. Despite an Israeli blockade on non-humanitarian, dual-use materials into Gaza, Hamas maintained a network of tunnels connecting Gaza to the Sinai desert in Egypt through which it smuggled consumer goods, weapons, military supplies and even fighters.[2] Yet between late 2012 and early 2014, Hamas's underground lifeline and its ties to regional backers were severely curtailed.

In July 2013, Field Marshal Abdel Fattah el-Sisi ousted Mohamed Morsi's Muslim Brotherhood government – which had sympathized with its Palestinian counterpart, Hamas – and closed the Egypt-Gaza border shortly thereafter. By this time, the Syrian Civil War already had driven a wedge between Sunni Hamas and its traditional Shiite backers.[3] Isolated and no longer easily able to smuggle (and tax) goods, Hamas's revenue declined markedly, exerting economic and political pressure that encouraged actions to reverse the group's waning position.[4]

C. Strategies and Concepts of Operations

Prior to the outbreak of last year's hostilities, both Israel and Hamas recognized the long-term nature of the conflict and the likelihood that a clash in 2014 would not materially change realities on the ground. Despite these shared perceptions, they entered the war with divergent objectives, as a result of differing ideologies and concepts of warfare.

Hamas
We believe that, while not intending for the 2014 Gaza War to play out as it did, Hamas entered the conflict with a preexisting set of strategic objectives. We believe it sought to resolve its diplomatic and economic vulnerabilities by uniting all factions within Gaza behind its leadership, forcing its regional allies to come to its rescue and ultimately compelling Israel to accept a ceasefire that would reopen Gaza's borders.[5]

This Task Force believes Hamas pursued a corresponding military strategy designed to compel a ceasefire in three interrelated ways: using military resources to raise the costs to Israeli

civilians and military forces of continuing the conflict; deliberately provoking and exacerbating the collateral damage caused by an IDF response; and deploying a well-orchestrated information campaign of distorted facts and legal principles to create a narrative of Israeli legal culpability for civilian casualties to undermine Israel's international legitimacy. In short, Hamas found a way to redefine inevitable battlefield losses as strategic victories. This approach – death by a thousand casualties – requires regular and prolonged bouts of armed conflict to fuel Hamas's narrative and achieve incremental progress. For Hamas, it would seem, each outbreak of war with Israel is just one battle in the larger ideological and informational conflict.

Israel

Israel pursued limited tactical objectives. Overall, Israel sought to restore the *status quo ante*; more specifically to: stop rocket fire on its civilian population centers; prevent or delay further terrorist attacks; and continue to isolate Hamas from the West Bank and Fatah.[6] With the Palestinian Authority unready to assume control of Gaza, Israel intended to weaken Hamas militarily while leaving it responsible for governing the territory, in order to maximize the amount of time before Hamas would be willing to initiate another round of conflict.[7] Thus Israel's military strategy was to defend against Hamas's most immediately threatening capabilities and diminish Hamas's ability and willingness to continue waging war, without getting bogged down in a long slog and occupation. Simultaneously, Israel sought to minimize both its own casualties – military and civilian – and to limit the collateral damage to Gaza that could allow Hamas and the international community to pressure Israel to halt its campaign.[8]

Israel's approach emphasized defensive measures – such as Iron Dome – but also being able quickly and precisely to target Hamas's military pressure points to force an end to hostilities. Tactically, Israel's success in the former, and Hamas's ability to evade or deter the latter by nesting among civilians, combined to contribute to drawing out the armed conflict. Strategically, Israel's preference for removing Hamas's military ability to endanger Israeli civilians, which has been referred to as "mowing the lawn," does not address the root cause of the conflict and makes the outburst of another war likely.

D. Summary of Events

We believe Hamas sought to resolve its strategic predicament by renewing conflict with Israel, without intending for it to be waged on such a large scale.

On June 12, 2014, Hamas operatives kidnapped three Israeli teenagers in the West Bank. Events escalated quickly thereafter. Israel launched an extensive effort to identify and apprehend those responsible, and also conducted airstrikes against the tunnels along Gaza it believed were being prepared for use in further attacks. The result was an increasing cycle of Hamas short-range rocket fire and Israeli airstrikes against rocket launch sites.

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 of the operation, Israel carried out several hundred airstrikes per day to destroy known rocket launchers as well as key Hamas operational leadership and military 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 60 miles 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 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 (supported by naval forces) 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.

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's military leadership and support bases – continued for three weeks before Hamas ultimately agreed to the original July 15 conditions for ceasefire.

III. Observations, Implications, and Recommendations

Though hybrid adversaries and asymmetric conflicts are not battlefield innovations, many of the effective techniques Hamas employed do represent an evolution in unconventional warfare, and will probably be imitated and improved upon by America's enemies. For this reason, we undertook this study and offer the following observations, implications and recommendations for U.S. policymakers and military officials.

A. Hybrid Actors and Unrestricted Warfare

Hamas's demonstrated "hybrid" capabilities in the 2014 Gaza War – a non-state force equipped with advanced weapons systems normally associated with nation-state conventional militaries. Other non-state groups are similarly receiving more sophisticated weaponry than ever before, and are operating like conventional armies.

The 2014 Gaza War also illustrated non-state actors' increasing propensity for operating from heavily populated urban environments, a problem that will become more acute in the coming decades due to increased global urbanization. Though U.S. forces have engaged in numerous urban battles against non-state entities over the past 13 years in Nasiriyah, Sadr City, Fallujah, Ramadi and other cities and villages in Iraq as well as in Afghanistan, Hamas deployed a different and more dangerous concept of operations than the United States has encountered.

Hamas appears to have pursued "unrestricted warfare," defined as the ability to blend technologies with military actions and political-influence activities, seeking victory not on the battlefield but through pressure on Israeli decision-makers. Hamas's focus in the conflict was on the exploitation of the presence of civilians in the combat zone, not just as a passive defense tactic, but through actions intended to place its own civilians in jeopardy. Hamas's strategy appears to have been to discredit Israel internationally by portraying the IDF's military operations as indiscriminate and disproportional.[9]

The U.S. military must prepare for similar conflicts. Hybrid threats, equipped with an advanced and dangerous arsenal, will pose a greater battlefield danger to U.S. troops than irregular adversaries of the past. Emplaced amid civilian populations in dense urban terrain, such forces will create significant challenges for operational commanders committed to observing LOAC and protecting civilians. However, against an adversary for whom military defeat is not a strategic loss, a restrained strategy of disrupting and degrading, but not necessarily

destroying, the enemy can win the battle, but not the war. Professional military education and campaign planning should be adjusted to address this new face of war, and an effort should be undertaken to inform policymakers and the American people.

B. Weaponizing the Law

During periods of armed conflict, LOAC protects civilians by prohibiting deliberate attack against them, as well as attacks – even against lawful targets – when the attacking commander reasonably anticipates that the harm to civilians and damage to civilian property will be *excessive* in relation to the concrete and direct military advantage to be gained by the attack. But civilians are not entirely and always inviolable. They can forsake their legal protections by engaging in military activities and, while tragic, their incidental injury might be lawful if proper legal procedure is followed in targeting decision-making. LOAC does not render unlawful any attack that risks or even results in incidental injury and collateral damage; its principles are applied with a standard of the best available information at the time of a commander's decision, not information that subsequently becomes available after an engagement.

Though this Task Force did not have access to Hamas's targeting and attack decision data, the available evidence makes clear that Hamas habitually violated LOAC. It is the judgment of this Task Force that most of the rocket fires emanating from Gaza were not, as required by LOAC, directed at legitimate military targets, but rather at civilian population centers. This Task Force observed significant evidence that, on numerous occasions, Hamas's rocket launchers were situated in a way, such as at United Nations facilities, that violated LOAC obligation to refrain from placing vital military assets among civilian populations. This Task Force cannot but conclude that Hamas's infractions were deliberate, nor can we imagine a military justification for Hamas's tactics.

It is the conclusion of this Task Force that Hamas sought to exploit the civilian population and IDF respect for LOAC to prevent Israeli attacks or to ensure an Israeli response would cause civilian casualties. Further, Hamas also exploited general lack of understanding about the balance between military necessity and humanitarian protection central to LOAC to present a false narrative that combat operations which produce civilian casualties are inherently unlawful.

The IDF confronted a dilemma – neuter their military response or accept some risk of civilian casualties in order to effectively leverage their combat power – and responded by following a rigorous targeting methodology for airstrikes. The IDF's systematic method of determining a strike's desired military effect, selecting the required combination of weapons and fusing needed to achieve that effect, assessing potential collateral damage, and weighing that risk against military necessity is similar to that of the U.S. military and reflects good-faith commitment to LOAC compliance.

The IDF executed a number of extraordinary and innovative methods to mitigate civilian risk. These measures included: 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. The IDF implemented unprecedented precautionary measures with full knowledge that they often would degrade the efficacy of an attack by

allowing evacuation of military personnel, equipment or munitions. It is our assessment as military professionals that IDF operations in Gaza exercised considerable restraint and exceeded the requirements of LOAC.

While we respect the IDF's restraint and innovations, we do not believe the Israeli level of restraint should be considered the standard for U.S. armed forces in future conflicts. We recognize that strategic and tactical interests will often result in restraints on the use of combat power that exceed those required by LOAC. However, we also believe the ever-increasing level of restraint implemented by the IDF reflects the inherent risk in conflating law and policy. Unless there is a clear demarcation between law and policy-based restraints on the use of combat power, raising standards in one instance – even if done as a matter of national policy and not as the result of legal obligation – risks creating a precedent to which military forces will likely be expected to adhere in the future. The result will not only be a greater danger to national security, but also an increased risk to civilians, since unconventional enemies will (like Hamas) deliberately seek to instigate civilian casualties in order to portray them, usually erroneously, as the result of unlawful attacks by their opponents.

Countering future adversaries who would thus distort LOAC requires preparing the informational battlefield. We recommend that U.S. policymakers declare that the United States will continue to abide by LOAC during armed conflicts and clearly indicate the policy-based nature of any additional restraints imposed on the use of combat power by U.S. forces during military operations. We also recommend they launch an initiative to make clear the principles and requirements of LOAC and educate relevant elements of the U.S. government, media and, where possible, the United Nations and international audiences. In addition, Israel might consider requesting an alternative analysis of the legality of IDF action in the 2014 Gaza War by NATO and ANZUS militaries that conducted combat operations in Iraq and/or Afghanistan.

C. Information: From Domain to Campaign

Hamas's strategic manipulation of law and civilian casualties was supported by its ability to propagate misinformation and misconstrued legal arguments through media channels. Hamas operated an array of websites and social media accounts with each online outlet tailored to a specific audience. Its Arabic-language content focused on glorifying jihad against Israel and reciting the number of rockets fired into Israel. Conversely, its websites in Western languages emphasized Israel's aggression and the deaths of innocent civilians.[10] Disinformation was coupled with restrictions on journalists' movements within Gaza, effectively preventing them from providing coverage of Hamas's indiscriminate firing against Israeli civilians and locating its military firing positions, weapons, ammunition and military facilities among Gazan civilians.

The IDF-Public Affairs (IDF-PA) branch was active in response to Hamas's efforts. Nevertheless, at the strategic level, the IDF lost the information operations campaign, undermining the perceived legitimacy of its overall mission and negatively shaping the environment for its next fight with Hamas or any other terrorist threat. In our judgment, Israel encountered a series of institutional and external challenges that reduced the effectiveness of its information operations campaign.

First, there is a roles and capability mismatch. The IDF views the Ministry of Foreign Affairs (MFA) as responsible for international audiences. Yet, MFA officials we spoke with noted that they lacked the timely military information, video and images and the understanding of military operations and LOAC to effectively inform international reporting. Second, though full-motion

video and other forms of intelligence that could counter Hamas's claims of civilian casualties in Gaza often existed, the IDF was reluctant to release classified material to the media.

Hamas's success in controlling the narrative of the 2014 Gaza War is likely to be replicated. For the United States, the information domain might be a supporting effort in a broader military campaign, but increasingly we will face adversaries that see violence as supporting their primary focus: the information campaign.

To come to grips with the information domain's increased importance, the U.S. government and military must develop a whole-of-government approach that properly apportions responsibility, authority and resources to ensure that timely and highly accurate information about facts, law and policy is presented in a persuasive manner. Within the U.S. military, information operations experts need to be involved in operational planning. The Department of State must be seriously resourced and empowered to promote our truthful messages and to counter our adversaries' distortions. New technologies must also be developed for this domain, including social media analytical tools and a wide-area, full-motion battlefield video surveillance system.

D. The Role of Technology

Hamas's main strategy might have been victory in the court of international opinion, but it still confronted Israel on the battlefield, where it deployed tactical and technological innovations to negate Israel's military advantages to the highest degree possible.

It sought to penetrate Israeli territory not only with rockets and missiles, but also from underground tunnels as well as the sea and air, demonstrating an unprecedented, albeit limited, level of "jointness" in its operations. Undoubtedly, the most significant of these was Hamas's use of tunnels. An extensive network beneath Gaza offered cover and concealment, making it extremely difficult, if not impossible, for the Israelis to detect or prevent movement of fighters, munitions and weapons. In other words, Hamas's tunnels countered Israeli aerial reconnaissance capabilities. Infiltration tunnels allowed a limited number of Hamas fighters to reach Israeli territory undetected.

These tunnels posed a tactical challenge for the IDF. Hamas's ability to flank the IDF using tunnels redefined the concept of the front line. They also distracted IDF ground force commanders from their main effort by substantially increasing the risk of attacks against civilians in areas proximate to the Gaza border. Hamas's attack tunnels also proved difficult to target and destroy. The IDF did not possess a technology capable of determining where each branch of the tunnel went, or their exit points within Israel. In short, the IDF underappreciated the extent of Hamas's recent tactical and technological innovations, especially tunnel warfare.

The U.S. military must prepare itself to confront such adaptations as Hamas demonstrated in the 2014 Gaza War. More specifically, we recommend the United States work with Israel and other allies to develop technologies and capabilities to address this threat. These should include: aerial platform mounted tunnel detection technology capable of reaching significant depths in a variety of terrain conditions; a technology capable of readily de-capacitating detected tunnels; a counter-unmanned aerial vehicle (UAV) air defense network to detect and destroy swarms of UAVs; intelligence collection, targeting procedures and munitions – to include non-lethal technology deliverable by airborne platforms – for future urban conflicts; a wide-area underwater swimmer detection capability; and a robust counter-mortar and counter-artillery active protection system.

2014 Gaza War Assessment

— Causes, Conceptions, and Operations —

The 2014 Gaza War marked the third eruption of hostilities between Israel and Hamas in less than six years, part of a long-simmering conflict that each side believes will likely last as long as Hamas governs Gaza. Operation Cast Lead, in December 2008-January 2009, was launched by the Israel Defense Forces (IDF) after an escalation in rocket fire originating from the Gaza Strip, and included a ground incursion. Operation Pillar of Defense, in November 2012, consisted mostly of IAF airstrikes and ended with a quick ceasefire after a week of hostilities.[11]

2014 Gaza War Summary

The modern Gaza Strip is a narrow enclave of dune-covered plains along the Mediterranean coast, home to 1.8 million people within 140 square miles, and bordered by Egypt to the southwest and Israel to the north and east. Since its founding in 1948, Israel has taken control of Gaza and surrounding areas multiple times in response to attacks originating from the territory. Each time, it subsequently relinquished control as part of a ceasefire or negotiated settlement.

Causes of Conflict

Nominally, the 2014 Gaza War was fueled by Hamas's increasing isolation – materially, financially and diplomatically – within the Gaza Strip. Through its control over Gaza since 2007, when it defeated Fatah in a brief civil war, Hamas developed extensive and sophisticated military resources and a sizable territorial base. Despite an Israeli blockade on non-humanitarian, dual-use materials into Gaza, Hamas maintained a network of tunnels connecting Gaza to Sinai in Egypt through which it smuggled consumer goods, weapons, military supplies and even fighters.[12]

- **June 2007:** "Battle of Gaza" between Hamas and Fatah lasts for 5 days, killing 118 people; ends with Hamas taking over the Gaza Strip.
- **February 28-March 3, 2008:** Operation Hot Winter combined-arms IDF incursion in Gaza in response to rocket fire from Gaza; 112 Palestinians are killed, with conflicting reports on the casualty ratio of civilians to militants.
- **June 2008:** Israel and Hamas declare six-month truce, which is sporadically violated by rocket fire.
- **December 27, 2008-January 18, 2009:** Operation Cast Lead. Three-week air and ground offensive by Israel against Hamas in Gaza. Over 1,100 Palestinians are killed; casualty ratio of civilians to militants is disputed.
- **January 2010:** Qassam Brigades commander Mahmoud al-Mabhouh found dead in Dubai. Dubai police and Hamas blame Israel's Mossad for the assassination.
- **May 2010:** Gaza Flotilla raid; nine Turkish nationals are killed.
- **March 2011:** Iron Dome is deployed in Israel for the first time.
- **April 2011:** Hamas and Fatah announce a new unity government in their first reconciliation attempt. It fails to materialize. Tensions between Israel and Hamas significantly rise after an attack on an Israeli school bus kills one, followed by an IDF strike against a senior Hamas official.
- **August 2011:** Terrorist attack by Palestinian militants infiltrating from Sinai, targeting two civilian buses kills six Israelis and injures 40. Five Egyptian soldiers are killed in the ensuing fire exchange.
- **October 2011:** IDF corporal Gilad Shalit is freed by Hamas in exchange for over 1,000 Palestinian prisoners.
- **March 2012:** Series of cross-border clashes prompts Israel to launch Operation Returning Echo, in which 22 militants and four civilians are killed in Gaza; Palestinian militants in Gaza launch over 300 rockets during the month, 177 of which fall in Israeli territory.
- **August 2012:** Terrorist attack on the border between Egypt, Gaza and Israel kills 16 Egyptian soldiers; Egyptian military responds with crackdown on terrorist activity in Sinai.
- **October 2012:** 116 rockets fired at Israel from Gaza during the month, a significant increase from prior months.
- **November 14-21, 2012:** Operation "Pillar of Defense" starts after IDF airstrikes kill Ahmed Jabri, head of Hamas's military operations. Most sources agree that over 150 Palestinians were killed; casualty ratio of civilians to militants is disputed. Hostilities end when the two sides agree to an Egyptian ceasefire proposal.

Timeline 1: *Events in Gaza 2007-2012*

Exploiting these tunnels, Hamas was able to assemble a sizable arsenal of rockets and small arms, as well as allow militants from other radical Islamist and Palestinian groups, including al-Qaeda affiliates, to infiltrate into Gaza.[13] This materiel and personnel figured in recent conflicts with Israel, including Operation Cast Lead and Operation Pillar of Defense, as Hamas and other groups fired their rockets arsenals at Israeli towns and cities.[14]

The tunnels were crucial not just to Hamas's military strength but also to maintaining its financial solvency and political clout in Gaza. Hamas taxed consumer goods smuggled into Gaza, yielding a major revenue stream.[15] Yet between the end of Operation Pillar of Defense in late 2012 and early 2014, a series of events progressively strangled Hamas's underground lifeline and severed its ties to regional backers.

In July 2013, General Abdel Fattah el-Sisi ousted the Muslim Brotherhood government in Egypt led by Mohamed Morsi, which supported its Palestinian counterpart Hamas. The latter retaliated by launching attacks from Gaza against Egyptian military forces in Sinai.[16] The new Egyptian government responded by closing the Egypt-Gaza border in September 2013.

This move cut one of Hamas's last remaining links to its supporters and the outside world. Its security and financial ties to Syria and Iran had begun to wane even before this point, as the group split with its Shia backers over its support for the Sunni opposition to the Asad regime in Damascus.[17]

Isolated and no longer able to smuggle – and tax – goods, Hamas's revenue streams dried up.[18] The local economy stagnated further, shortages of basic services like water and electricity spread and the group's leadership increasingly struggled to pay public employees' salaries. In April 2014, Hamas attempted to resolve this crisis by agreeing to a Palestinian unity government with its erstwhile rival Fatah.[19] Hamas hoped this would allow it to use the Fatah-dominated Palestinian Authority's funds to pay Gazans' salaries in arrears without compromising its own control over Gaza's military infrastructure. However, Fatah evinced little interest in this arrangement, seeking instead to increase their leverage over Hamas by withholding such support.[20]

As these combined pressures grew, some observers believe Hamas concluded that the moment was right for increased violence against Israel. In this view, Hamas hoped to create a sense of alarm that would unite Gaza behind its leadership, compel Israel to lift its economic cordon, engender support among the Egyptian people for ending their government's blockade of Gaza, and force Hamas's remaining allies – chiefly Qatar and Turkey – to come to its rescue.[21] By April, Israel intelligence believed Hamas was planning major tunnel attacks from Gaza against Israeli civilians and soldiers to break this isolation. While Israel correctly understood Hamas's heightened willingness to renew conflict, it did not foresee that Hamas's Gaza leadership would also encourage attacks by its West Bank operatives (rather than only using its tunnels from Gaza into Israel).[22]

By June 2014, these circumstances set the stage for an escalating conflict beyond either side's immediate control. On June 12, Hamas operatives in the West Bank kidnapped three Israeli teenagers, with no direct order to do so from the group's leadership in Gaza but in keeping with Hamas's overall campaign of terror against Israeli civilians.[23] In response, Israel launched Operation Brother's Keeper the next day, consisting primarily of large-scale searches and arrests of Hamas operatives in the West Bank. It also expanded the operation to Gaza with preemptive attacks, including roughly 40 airstrikes, against tunnels Israel believed Hamas would use to kidnap Israelis in towns near the Gaza Strip.[24]

- **February 26, 2013:** Medium-range rocket fired at Ashkelon from Gaza; Israel closes Erez and Kerem Shalom crossings between Gaza and Israel except for urgent humanitarian cases.
- **March 21, 2013:** During President Obama's visit to Israel, four rockets are launched from Gaza Sderot, one of which strikes a home.
- **April 2013:** Twenty-two rockets and mortars are fired at Israel: 20 from Gaza and two from Sinai.
- **June 23-24, 2013:** Rockets fired from Gaza at Netivot, Rahat and two regional councils in Israel, with Iron Dome intercepting two; Israel temporarily suspends borders crossings for commercial purposes and IDF strikes two terrorist sites in Gaza.
- **July 2013:** Israel and Palestinian Authority agree to restart peace talks, commencing August 2013; Egyptian commander-in-chief and Defense Minister Abdel Fattah el-Sisi ousts Muslim Brotherhood-led government.
- **July-October 2013:** Hamas retaliates with attacks from Gaza against Egyptian military forces in Sinai.
- **September 2013:** Egypt closes border with Gaza at Rafah Crossing "indefinitely."
- **October 2013:** Large terror tunnel discovered and later destroyed by IDF.
- **December 2013:** Israeli is shot and killed by sniper near Gaza border; IDF counterattacks with airstrike on rocket manufacturing site in southern Gaza.
- **March 5, 2014:** Israeli Navy intercept KLOS C, a merchant vessel originating in Iran and carrying arms heading toward Gaza, including M-302 rockets.
- **March 11-14, 2014:** Cross-border fire between Gazan militants and IDF; over 60 rockets fired from Gaza at Ashkelon, Ashdod, Sderot and Netivot, and IDF airstrikes against 29 sites in Gaza.
- **March 21, 2014:** Large terror tunnel discovered and destroyed by IDF.
- **April 2014:** Hamas and Fatah agree to reestablish unity government; Israel halts peace talks with Palestinian Authority.

Timeline 2: *Events in Gaza February 2013-April 2014*

Thereafter, a series of escalating actions by both sides widened the scope and scale of the conflict. Between June 13 and June 30, Hamas and other groups in Gaza fired 78 short-range rockets into Israel in retaliation for Operation Brother's Keeper.[25] This in turn triggered IDF airstrikes against the rocket launch sites – more than 30 on the night of June 30.[26] Simultaneously, heavy IDF airstrikes against an assault tunnel leading to kibbutz Kerem Shalom killed seven Hamas fighters. These events, combined with the murder of a Palestinian teenager in East Jerusalem by three Israeli civilians, prompted increased short-range rocket attacks by Hamas during the first week of July.[27] After Hamas rejected Israel's July 6 offer to return to the 2012 truce – no rocket fire, no airstrikes – the IDF began Operation Protective Edge (OPE) on July 8.

- **June 2:** Hamas and Fatah swear in unity Palestinian government.
- **June 12:** Three Israeli teenagers abducted in the West Bank by Hamas operatives.
- **June 13:** Israel launches Operation Brother's Keeper to search for the three teenagers; Israel publicly blames Hamas, which denies responsibility but praises the abduction.
- **June 13-29:** More than 45 rockets fired from Gaza at Israel.
- **June 14-15:** IDF strikes 10 rocket launchers and tunnels and other military sites in Strip.
- **June 15:** Hamas issues warning to Israel regarding the recent escalation during Operation Brother's Keeper.
- **June 16-26:** Israel detains 417 Hamas activists in the West Bank.
- **June 27:** IDF strike kills two militants in Gaza.
- **June 30:** Bodies of the three kidnapped Israeli teenagers are found; 16 rockets fired from Gaza into Israel.
- **July 2:** Palestinian teenager from East Jerusalem is abducted and murdered; following the murder, several days of riots break out in East Jerusalem.
- **July 3:** Over 55 rockets and mortars fired from Gaza at Israel.
- **July 5:** Beersheba hit by rockets fired from Gaza for the first time since November 2012.
- **July 6:** Six Israelis are arrested by Israeli police in connection with the murder of the Palestinian teenager; three are later charged with murder.
- **July 7:** IDF airstrikes against an attack tunnel in the Gaza Strip, killing six Hamas operatives.
- **July 7:** 120 rockets fired from Gaza at Israel; Iron Dome intercepts ten long-range missiles.
- **July 7:** Israeli Security Cabinet decides on a military operation in response to escalation of rocket fire from Gaza; IDF airstrikes against 50 Hamas targets in Gaza.

Timeline 3: *Escalation June 2-July 7, 2014*

Ideologies, Strategies and Concepts of Operations

Hamas and Israel entered the 2014 Gaza War with markedly divergent objectives. Though they possessed differing military capabilities – Hamas an irregular force with increasingly advanced weaponry and sophisticated asymmetric tactics, and Israel a modern, conventional military with technological superiority – these were not the determining factors in each side's strategic approach to this conflict. Instead, it was their differing ideologies and conceptions of warfare. Hamas's Covenant connects the movement's radical Islamist ideological underpinnings to its political leadership's objectives and its military commanders' tactics. As the opening section of the Hamas charter states: "Israel will exist and will continue to exist until Islam will obliterate it, just as it obliterated others before it."[28] This is because Hamas "believes that the land of Palestine is an Islamic Waqf consecrated for future Muslim generations until Judgment Day. It, or any part of it, should not be squandered: it, or any part of it, should not be given up."[29] This carries a religious and political imperative, namely that negotiation toward a truly peaceful compromise is forbidden.

As a corollary, Hamas considers that every Muslim has an individual obligation to perform armed jihad and "join the ranks of the fighters." This is "not confined to the carrying of arms and the confrontation of the enemy."[30] In contrast to the Western notion that war is a competition between uniformed combatants, Hamas specifically declares that, "Writers, intellectuals, media people, orators, educators and teachers, and all the various sectors in the Arab and Islamic world – all of them are called upon to perform their role, and to fulfill their duty…"[31]

This contrasts sharply with Israel: a secular, democratic state in which the military, the Israel Defense Forces, is the entity responsible for conducting all military operations and waging Israel's wars. Combatant and civilian are clearly differentiated in the IDF's Code of Ethics, even when blurred lines make such distinctions difficult to define.[32] During the 2014 Gaza War, Israel pursued a limited operational objective of maintaining the *status quo*. This was the result of several factors influencing Israeli decision-making on Gaza. Politically, because of its need to maintain overwhelming public support for military operations, Israeli leaders sought to minimize IDF casualties. In addition, the protection the Iron Dome missile defense system provided to Israel's civilian population allowed Israeli decision-makers to exercise greater strategic restraint than would have been the case if missiles or rockets launched from Gaza had created mass casualties.

These different ideologies and conceptions of warfare dictated the divergent strategies and concepts of operations pursued by either side. Both Hamas's and Israel's approaches, however, ensured the extension and likely resumption of war.

Hamas cannot achieve outright victory against a militarily superior opponent like Israel; at the same time, because it is incapable of accepting Israel's legitimacy, it also cannot abandon the conflict. Therefore it has found a way to redefine inevitable battlefield losses as strategic victories. Its reckless tactics and disregard for civilian lives increase collateral damage during eruptions of hostilities with Israel. In turn, Hamas translates these civilian casualties into propaganda to undermine Israel's international standing. This approach – death by a thousand casualties – depends on regular and prolonged bouts of armed conflict to fuel Hamas's narrative. For Hamas, it would seem, each outbreak of war with Israel is just one battle in the larger ideological and informational conflict.

Israel, on the other hand, while militarily capable of defeating Hamas, has been unwilling to shoulder the political burden this would entail. As a result, it seeks to constrain Hamas's ability to harm its own civilians and interests while also constraining its own military operations. This approach requires an emphasis on defensive measures – such as Iron Dome – but also on quickly and precisely being able to target Hamas's military pressure points to force an end to hostilities. Tactically, Israel's success in the former, and Hamas's ability to evade or deter the latter by nesting among civilians, combined to contribute to drawing out the armed conflict. Strategically, Israel's preference for removing Hamas's military ability to endanger Israeli civilians, which has been referred to as "mowing the lawn," does not address the root causes of the conflict and makes the outburst of another war all but certain.

Hamas

Though Hamas did not intend for the 2014 Gaza War to play out as it did, we believe it nevertheless entered the conflict with a preexisting set of ambitious strategic objectives. It sought to resolve its diplomatic and economic vulnerabilities by uniting all factions within Gaza behind its leadership, forcing its regional allies to come to its rescue and ultimately compelling Israel to accept a ceasefire that would reopen Gaza's borders.[33] (It later added the construction of an airport and seaport in Gaza to its demands.[34]) More broadly, it did not seek to defeat Israel outright on the battlefield, but rather to undermine Israel's international legitimacy and the credibility of its deterrent as an unchallengeable regional military Goliath.

These goals presumably drove Hamas's coherent concept of operations, whereby it sought to pressure the Israeli government to agree to a ceasefire in three interrelated ways:

- Hamas used its military resources to raise the costs to Israeli civilians and military forces of continuing the conflict.
- By locating its military materiel, personnel and infrastructure in proximity to civilian, safeguarded areas, Hamas provoked and exacerbated the destruction caused by IDF responses that incidentally resulted in collateral damage. At best, Hamas acted with reckless disregard for the safety of both Israeli and Gazan civilians; at worst, it deliberately sought to put civilians in harm's way.
- Hamas used a well-orchestrated information campaign to distort the media's understanding and reporting of the conflict in order to undermine Israel's international legitimacy.

Offensively, Hamas employed attacks via underground tunnels, land, air and sea against Israel's military forces and civilian population centers.[35] Most prominently, it launched its rebuilt (and improved) rocket arsenal at Israeli cities, transportation nodes and utilities. As in prior rounds of conflict, it launched large numbers of short-range Qassam and Grad rockets at Israel's densely-populated southern coastline and Beersheba; furthermore, it targeted Tel Aviv and Jerusalem with medium-range rockets, as during Pillar of Defense; as well as reaching northern Israel for the first time with its longer-range rockets.[36] Toward the end of the conflict, Hamas also used substantial mortar attacks against nearby Israeli communities.[37] The unprecedented extent and range of Hamas's attacks, combined with their inherent inaccuracy, likely was designed to maximize the vulnerability and disruption felt by all of Israeli society.[38] Hamas relied heavily on the well-trained artillery units of its Qassam Brigades to launch these attacks from throughout Gaza.[39]

During the conflict, Hamas also introduced new offensive threats from special forces and unmanned aerial vehicles (UAV). The special forces, often consisting of commando teams, were to utilize assault tunnels primarily for cross-border terrorist and kidnapping raids against Israeli towns, as well as attack the vulnerable rears of IDF forces deployed around Gaza. In certain instances, these raids were conducted as seaborne operations.[40]

In addition to supporting Hamas's preexisting tactic of taking hostages to compel Israeli political concessions, the use of tunnels and the launches of armed UAVs toward Tel Aviv was meant to compound the pressures on the Israeli government by threatening its population in startling new ways. Indeed, the profusion of assault tunnels expanded the traditional domains of Israel-Hamas warfare, to include the subterranean domain. Since Israel's 2005 withdrawal from Gaza, the two sides fought primarily on land and in the air, with Israel regularly enjoying dominance in both. Hamas's expanded use of offensive tunnels for raids, rocket and mortar attacks, and to flank IDF ground forces, created a new subterranean domain of warfare, offering the potential for new means of gaining tactical and political advantages against a materially and technologically superior foe.[41]

Defensively, Hamas exploited Gaza's dense urban terrain to protect their forces and to maximize the military and political costs to Israel as the result of any military response. This was designed to help protect Hamas's own infrastructure, exploit Israel's aversion to casualties – its own and Gazan civilians' – trigger an international sense of urgency to pressure Israel to halt its operation prematurely and reverse the deteriorating situation inside Gaza, and undercut the legitimacy of Israeli actions.

Hamas used these asymmetric tactics in several ways. It sought to neutralize the IDF's precision-guided munitions (PGM) by covering and concealing its military leadership and forces within civilian infrastructure and underground, including tunnels.[42] Hamas utilized parts of its expanded tunnel networks to maneuver and supply its forces while limiting the likelihood of being detected or targeted.[43] In perhaps the most notable indication of its strategy to exploit IDF respect for the law of armed conflict (LOAC) as a force multiplier, Hamas deliberately and unlawfully placed command and control, firing positions and logistical hubs underneath, inside or in immediate proximity to structures it knew the IDF considered specially protected, to include hospitals, schools, mosques, churches and housing complexes, as well as administrative buildings formerly belonging to the Palestinian Authority, in full knowledge that this would substantially complicate IDF targeting decisions and attack options.[44] Hamas's embedding of military capabilities amid densely populated civilian areas in Gaza was not merely an incidental consequence of the operational environment or the fog of war, but instead a deliberate and unlawful tactic utilized to exploit the presence of civilians in an effort to obtain functional immunity from attack and degrade the IDF's combat effectiveness.

By locating firing positions, weapons and ammunition and command and control facilities in populated areas, Hamas provoked IDF fire on locations that increased the probability of Gazan civilian casualties. Hamas simultaneously launched rockets and attacked IDF forces from within or in direct proximity to normally protected sites – especially facilities of the United Nations Relief and Works Agency for Palestinian Refugees (UNRWA) – and from civilian buildings (sometimes forcing civilians to congregate in these areas immediately afterward), fled into these buildings after launching attacks and reportedly prevented civilians from leaving buildings after the IDF targeted them with warning communications and munitions.[45]

By limiting Israel's willingness to counterattack by air, these tactics may have been intended to force the IDF to utilize a ground assault, while simultaneously limiting their ability to achieve a decisive victory against Hamas forces.[46] The Qassam Brigades' infantry, artillery and armor units used mines and improvised explosive devices (IED) against tanks, anti-tank guided missiles (ATGM) against tanks and armored personnel carriers (APC), and short-range rockets and mortars against troop concentrations.[47] In the case of rockets and mortars, Hamas fired from positions that had a high risk of causing collateral damage among their own civilian population, given the high probability of an Israeli response.[48] In many of these engagements, Hamas fighters attempted to inflict maximum damage by attacking the vulnerable rears of IDF columns from tunnels and densely-packed civilian buildings, and by booby-trapping these buildings extensively.[49]

The final prong of Hamas's strategy was an offensive information operations campaign. Because a conventional military or terrorist campaign was unlikely to compel Israel to meet its demands, Hamas sought to discredit Israel's actions in the eyes of the Arab and Muslim worlds, and in the international community more broadly, by portraying the IDF's use of combat power as indiscriminate and disproportional.[50] We assess they believed this would then create pressure for Israel to agree to a ceasefire on Hamas's terms. Hamas undertook efforts to implicate Israel in illegal military conduct while simultaneously violating LOAC through its targeting of Israeli civilians and its exploitation of Gazan civilians to shield its military activities. By shrewdly controlling access to much of the Gaza Strip by media and international organizations, Hamas was also able to portray collateral damage resulting from its own actions as illegal IDF conduct.[51]

Israel
Israel pursued limited objectives in the 2014 Gaza War: preventing or delaying further terrorist attacks, and continuing to isolate Hamas from the West Bank and Fatah. This reflected Israel's long-term strategic dilemma regarding Gaza. From the perspective of Israel's government, no option was palatable. Placing further restrictions on Gaza would further erode Israel's international reputation. Opening Gaza's borders would effectively reward rocket attacks, provide Hamas a propaganda victory and give Hamas access to more resources with which to build its military capabilities. Getting the Palestinian Authority to assume control for Gaza was not feasible; even if it were, that option could absolve Hamas of governing responsibility and allow it to become an unaccountable militia like Hezbollah. Invading Gaza to eliminate Hamas would incur a level of politically unacceptable casualties and risk creating a vacuum that could be occupied by an even more extreme group such as Palestinian Islamic Jihad or the Islamic State (also known as ISIS or ISIL). Eliminating Hamas and reoccupying Gaza would risk an entanglement that drained Israel's resources in a theater perceived as ultimately secondary, while further eroding Israel's international legitimacy.

Therefore, with the Palestinian Authority unready to assume control of Gaza, Israel intended to weaken Hamas's militarily capabilities while leaving it responsible for governing the Strip (with all the attendant domestic political pressures that would create for Hamas), to maximize the amount of time before it would be willing to return to another round of conflict.[52] Israel's military strategy was to defend against Hamas's most immediately-threatening capabilities, first and foremost rockets, as well as undermining Hamas's capacity and willingness to continue waging war by the discriminate targeting of military leadership (which includes civilians who direct military strategy and operations); command, control and communications capabilities; operational assets such as rocket launchers and launch sites; and sources of logistical support for Hamas operations. Throughout the campaign, the IDF sought to mitigate the risk of incidental injury and collateral damage to civilians and civilian property.[53]

To degrade Hamas's military infrastructure and leadership, IDF tactics initially relied on precision airstrikes against rocket launch sites, assault tunnels and command and control facilities. This decision to emphasize airstrikes from the outset – as opposed to ground invasion – would limit the risk to Israeli forces. However, because Hamas embedded its forces underground and among civilians, Israel had to devote significant resources to collecting and analyzing intelligence for precision strikes, often in real time.[54] Once airstrikes proved ineffective at neutralizing the assault tunnels, Israel switched to a combined-arms operation with air, naval and artillery forces providing close fire support for infantry and armored units searching out and destroying these targets.[55] Employing these forces discriminately and effectively in Gaza's close urban quarters required the IDF to coordinate its different arms through integrated or "networked" fire.[56] Because a primary mission was to eliminate entrances to the assault tunnels, ground forces only penetrated up to three kilometers around the edges of the Gaza Strip.[57]

Defensively, Israel employed a liberal intercept policy using Iron Dome against rocket attacks launched from Gaza. Iron Dome only needed to intercept a fraction of the rockets – 661 out of roughly 3,700 total, or 18 percent – because of the system's ability to predict and accurately target only those rockets headed toward Israeli cities and infrastructure.[58] Indeed, Iron Dome intercepted 90 percent of the rockets projected to land on Israeli population centers. By comparison, in Pillar of Defense in 2012, Iron Dome intercepted 421 of the roughly 1,500 rockets fired by Hamas – 28 percent overall.[59] On the ground closer to Gaza, the IDF deployed its Gaza territorial brigades to defend towns from raids by Hamas special forces. Once inside Gaza, some armored vehicles in IDF armor and infantry units used Trophy active protection systems to intercept rocket-propelled grenades (RPG) and ATGMs fired by Qassam Brigades infantry and armor units.[60]

Israel sought to mitigate the risk of incidental injury to civilians and collateral damage to civilian property in Gaza by adhering to LOAC. The IDF demonstrated this commitment through a range of training and implementation measures, to include extensive involvement of military legal advisors, independent from the chain of command, who contributed to the target decision-making process. Central to this effort was a ten-step process for evaluating each potential target, including review and possible veto by the Military Advocate General (MAG, an independent IDF legal office) if the intended attack was deemed to be either indiscriminate or disproportional in its use of force. Furthermore, as a matter of policy, the IDF in many cases implemented civilian risk mitigation measures that went beyond those required by LOAC, voluntarily constraining otherwise lawful combat activities.

In many cases, this process would result in "qualified" target approval: approving attack on a military objective on condition that certain precautionary measures were employed. In the many cases where this occurred, the IDF used various precautions to mitigate civilian risk – leaflets, phone calls, non-explosive "knock-on-the-roof bombs" and smoke munitions, and modification of attack timing and attack methodology – to encourage civilians to evacuate before a target was actually attacked and/or mitigate the risk of collateral damage resulting from attack. IDF air and ground forces employed a range of PGMs in striking many of these targets.[61]

Separately, Israel also attempted to deliver humanitarian supplies to Gaza throughout the conflict, though Hamas targeted the border crossings with rockets.[62] Israel placed LOAC restrictions on its own use of force consistent with its longstanding practice of LOAC compliance. It followed additional policy-based restrictions partly because of the efficacy of

Iron Dome, which bought its leaders time to exercise these restraints. At the same time, these policies were severely challenged by Hamas locating itself among Gaza's dense urban terrain and urging Gazans to ignore or defy IDF warnings.[63]

Summary of Events
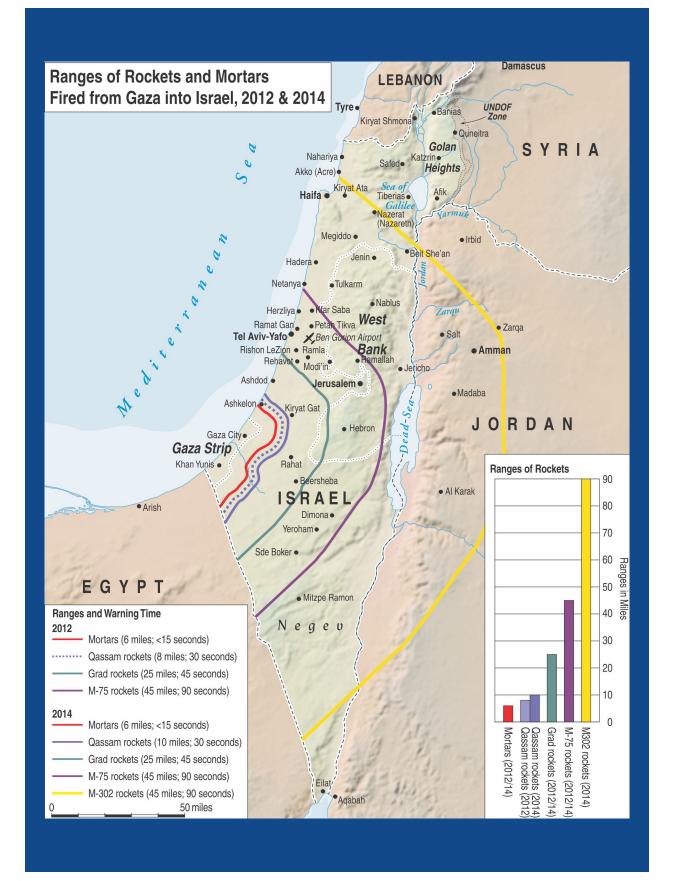
Early Stages: Rockets and Airstrikes

The IDF launched the initial stage of OPE on July 8, with large numbers of airstrikes designed to destroy the rocket launchers it could identify in Gaza, as well as key Hamas and Islamic Jihad commanders and military infrastructure. Israel also activated 40,000 reservists for duty in the West Bank, to allow some of its active combat brigades to redeploy from there toward Gaza.[64] In response, Hamas announced all Israelis were legitimate military targets, firing as many rockets in the next two days (286) as in the previous month. This included a long-range M-302 launched at Hadera more than 60 miles away – the farthest any rocket from Gaza had ever been fired up to that point – and several others fired at the nuclear reactor at Dimona.[65]

Overall, Israel carried out 1,900 airstrikes during the first week of the war, compared to 300 in the first week of Operation Cast Lead and 1,500 in the eight days of Operation Pillar of Defense.[66] Concentrated in northern Gaza, roughly half the targets were rocket launch sites, with the other half consisting mostly of military bases, military leadership sites and tunnels within Gaza. Despite the high number of strikes, Hamas was able to sustain its escalated number of rocket attacks: more than 150 rocket launches per day during the first week, compared to roughly that many in the entire week prior to the war. The majority of these were short-range attacks toward the densely-populated southern Israeli coastline and Beersheba. On July 13, some of these rockets hit power lines delivering electricity from Israel to central and southern Gaza Strip, after which the IDF took significant risks to restore and sustain infrastructure for delivering power from Israel into Gaza.[67]

For the first time since 2012, Hamas also launched 106 medium-range rockets against the Tel Aviv metropolitan area – more than 3 million people – and roughly a dozen at Jerusalem and the West Bank. Hamas also launched its first long-range attacks against northern Israel, with several M-302s reaching Haifa.[68] As a result, nearly 80 percent of Israeli territory fell within range of rockets launched from Gaza.[69] Iron Dome batteries intercepted nearly 230 of these rockets (compared to 23 the entire week prior to the war).[70] Hamas also launched its first attack UAV into Israel on July 14, which was shot down by an Israeli Patriot air defense missile.[71]

The IDF struggled to successfully target Hamas military leadership in the first week, since the group had mostly abandoned its known headquarters before the conflict. Israel then called up another 10,000 reservists as its ground forces massed opposite Gaza's northeastern border in preparation for a campaign to neutralize Hamas's continuing high rate of rocket fire. Thousands of Gazans began relocating from these areas toward the center of the Gaza Strip in anticipation of an invasion, with many of them seeking shelter in U.N. facilities.[72]

On July 15, Egypt proposed a ceasefire whereby both sides would cease attacks and Israel would allow imports of humanitarian aid and construction materials into Gaza. Israel accepted and Hamas rejected the proposal. The next day, Hamas counter-offered with a proposal for the complete lifting of the Gaza blockade and release of its operatives arrested during Operation Brother's Keeper – conditions Israel rejected.[73]

Ranges of Rockets and Mortars Fired from Gaza into Israel, 2012 & 2014

LEBANON

Damascus

Tyre ●

Kiryat Shmona ●
● Banias
UNDOF Zone
● Quneitra

S Y R I A

Golan
Nahariya ●
Safed ●   Katzrin ●
Heights

Akko (Acre) ●
Kiryat Ata ●
Sea of Tiberias ●
● Afik
Haifa ●
Galilee

Yarmuk

● Nazerat (Nazareth)

Megiddo ●
● Irbid

Hadera ●
Jenin ●
● Beit She'an

Netanya ●
● Tulkarm

Zarqu

Herzliya ●   ● Kfar Saba
West
● Nablus
Ramat Gan ●   ● Petah Tikva
Bank
● Salt
● Zarqa
Tel Aviv-Yafo ●
✗ Ben Gurion Airport
Rishon LeZion ●   ● Ramla
Amman
Rehavot ●   ● Modi'in
● Ramallah
Ashdod ●
Jerusalem ●
● Jericho

Ashkelon ●
Kiryat Gat ●
● Madaba

Gaza City ●
● Hebron
J O R D A N

Gaza Strip

Khan Yunis ●
Rahat ●
● Al Karak

Beersheba ●

● Arish
I S R A E L
Dimona ●

Yeroham ●

Sde Boker ●

E G Y P T

● Mitzpe Ramon

N e g e v

Eilat
Aqabah

Ranges and Warning Time

2012

— Mortars (6 miles; <15 seconds)

···· Qassam rockets (8 miles; 30 seconds)

— Grad rockets (25 miles; 45 seconds)

— M-75 rockets (45 miles; 90 seconds)

2014

— Mortars (6 miles; <15 seconds)

— Qassam rockets (10 miles; 30 seconds)

— Grad rockets (25 miles; 45 seconds)

— M-75 rockets (45 miles; 90 seconds)

— M-302 rockets (45 miles; 90 seconds)

0   50 miles

Ranges of Rockets

Ranges in Miles

90
80
70
60
50
40
30
20
10
0

Mortars (2012/14)
Qassam rockets (2014)
Qassam rockets (2012)
Grad rockets (2012/14)
M-75 rockets (2012/14)
M302 rockets (2014)

24

Assault Tunnels and the Ground Campaign

At this point, Qassam Brigades special forces had begun cross-border operations to raid Israeli villages and IDF troop concentrations from assault tunnels that transited from Gaza into Israel. Most notably, Hamas attempted to attack Kibbutz Sufa through an assault tunnel from southern Gaza early on July 17.[74] That same day, the IDF switched to a combined air and ground operation (supported by naval forces) to search out and destroy tunnel entrances inside Gaza. To locate and eliminate these tunnels, the invasion force carved a buffer zone up to three kilometers deep along Gaza's northern and eastern perimeter.[75] They received fire support from tanks and howitzers along the hills in the concentration areas on the Israeli side of the border, as well as close-in support from attack helicopters and aircraft.[76] Israel attempted to warn 100,000 Gazans to evacuate the border region before launching the ground operation – warnings which Hamas officials reportedly demanded Gazans ignore as merely "psychological warfare."[77]

Within 24 hours of launching the ground invasion, IDF troops discovered and began to neutralize 21 assault tunnels. Some of the hardest fighting occurred in Gaza City's densely-populated Hamas stronghold of Shejaiya on July 20-23 – the source of one in every twelve rocket attacks – when Golani Brigade units trying to destroy tunnel entrances encountered heavy resistance from Qassam Brigades forces. Sixteen Israeli soldiers were killed and more than fifty wounded – the largest single loss coming on the first day from an ATGM attack on an Israeli APC – in addition to significant Hamas and Gazan civilian casualties caused by IDF use of artillery to support ground maneuver forces and Hamas's tactical actions that intentionally placed civilians in jeopardy.[78] Despite locating the entrances to another ten tunnels by the fourth day of the ground operation, the IDF continued suffering losses on its own side of the border. Hamas special forces wearing IDF uniforms emerged from one tunnel intending to kidnap IDF soldiers on July 19, killing two in the process; two days later, a special forces unit operating out of an assault tunnel hit a jeep with an ATGM in an IDF staging area, killing another four soldiers.[79]

During this initial phase of the ground operation, UNRWA announced the discovery of rockets in two of its schools, condemning it as a "flagrant violation of [its] inviolability." UNRWA facilities had swelled as Gazans displaced into cities in the center and south of the Strip to avoid the fighting, making them ideal civilian shelters for Hamas both to hide its weaponry from the IDF and to court heavy collateral damage in any strike near these buildings.[80]

From July 24-27, rocket fire decreased slightly (roughly 60 per day, down by half from the first week of the ground invasion) as the combined-arms operation attrited Hamas's arsenal and limited its ability to maneuver. The two sides agreed to a daylong partial ceasefire for July 27, but this crumbled quickly as rocket fire from Gaza resumed.[81] The next day, Hamas special forces emerged from an assault tunnel near Nahal Oz, opposite Shejaiya, to attack IDF rear areas and kidnap soldiers, killing ten in the process and attempting to carry one of the bodies back to Gaza through the tunnel. Israel responded on July 29 with one of the largest series of attacks during the entire war, using airstrikes and artillery to strike high-value military objectives throughout Gaza, including: Gaza's sole power plant that provided power in support of Hamas command, control and communications; port facilities and the finance ministry; and the top levels of Hamas's and Islamic Jihad's military leadership.[82]

The tempo of combat remained high over the next week. On July 30, an UNRWA facility and crowded marketplace in Gaza City were damaged by IDF artillery, killing nearly 40. According to the IDF, it ordered this attack as counterbattery fire against mortar attacks launched at its

Assault Tunnels in 2014 Gaza War

Mediterranean Sea

Zikim
Karmia
Yad Mordechai
Netiv HaAsara
Or HaNer
Erez Crossing
Erez
Beit Lahiya
Beit Hanoun
Sderot
GAZA CITY
Jabalia
Gevim
Shejaiya
Mefalsim
Kfar Aza
Yakhini
Zeitoun
Karni Crossing
Nahal Oz
Sa'ad
Alumim
Tkuma
Nuseirat
Bureij
Zimrat
Be'eri
Tushia
Netivot
Deir al-Balah
Shibolim
Givolim
Re'im
Kissufim
Ein Hashlosha
Ranen
Maslul
KHAN YUNIS
Patish
Nirim
Nir Oz
Urim
Magen
Rafah   RAFAH
Ein Habesor
Rafah Crossing
Airfield (closed)
Sufa Crossing
Sufa
Ami'Oz
Nir Yitzhak
Mivtahim
Karem Shalom
Peri Gan
ISRAEL
EGYPT
Sede Avraham

IDF 3km Buffer Zone

Known Assault Tunnels from Gaza into Israel *(location of tunnels is approximate)*

Extent of IDF Ground Incursion in Operation Protective Edge

0   5 miles

soldiers from these locations. Over the next two days nine IDF troops were killed by three separate booby traps, including one in a tunnel entrance in an UNRWA health center.[83] Meanwhile, Hamas relied increasingly on mortar attacks against Israeli forces and towns in the adjacent Eshkol region and Ashdod. Simpler to assemble and launch, and rapidly displaceable after each attack, these mortars posed a significant threat to the IDF, most notably when five soldiers were killed in an attack on a rear staging area on July 31. Though IDF target acquisition radar could provide immediate and precise locations of these mortar positions, the lack of real-time information about the potential for collateral damage frequently caused IDF commanders to refrain from counterbattery fires in the interest of civilian risk mitigation. Mortars were also a major problem for Israeli citizens: they could not be intercepted by Iron Dome, which forced inhabitants of many of the towns near Gaza to evacuate by the later stages of the war.[84]

Withdrawal and Fitful Ceasefires
A 72-hour ceasefire was announced on August 1, which was violated with another Hamas kidnapping raid from an assault tunnel, this time on IDF forces across the border from Rafah. The IDF responded with an immediate counterattack against Hamas forces in Rafah, utilizing a range of ground maneuver, air and indirect fire support assets in an effort to neutralize the threat of such raids and recover any IDF personnel who may have been kidnapped. Ten Gazans were killed in one of the strikes on August 3, when an Israeli missile exploded near an UNRWA school sheltering refugees.[85]

Beginning the same day, IDF ground forces began a partial withdrawal from Gaza after neutralizing the entrances to the assault tunnels. Simultaneously, with roughly 100 rockets and mortars still being launched per day from Gaza, the IDF began targeting military objectives lodged in high-rise apartment towers in Gaza City, including Hamas military leadership and command and control.[86] Though launching attacks against targets within these larger and taller complexes brought a higher risk of collateral damage, the value associated with attacking these targets was assessed as extremely significant, in turn leading to the determination that the attacks were lawful. To mitigate the risk of collateral damage, the IDF utilized the lowest-yield munitions it concluded would produce the desired attack effect and implemented other precautions, such as timing of attack and use of precision-guided munitions.[87]

Overall, the IDF destroyed 32 tunnels (including as many as 15 that crossed into Israel) during this phase, which lasted until Israel withdrew the last of its ground forces to a defensive cordon around Gaza on the eve of an August 5 Egyptian-brokered 72-hour ceasefire.[88] Of the many rockets Hamas was able to fire at Israel during this period, one landed one mile from Ben Gurion International Airport, prompting the Federal Aviation Administration to bar U.S. flights to Israel temporarily.[89] This unexpected incident, in part resulting from a decision not to intercept – because the point of impact was not projected to (and did not) cause casualties – was a propaganda victory for Hamas. In addition, Hamas violated three separate ceasefires almost immediately and broke four truces for the delivery of humanitarian supplies to Gaza.[90]

The final phase of the conflict began with the end of the Egyptian-brokered ceasefire on August 8. Hamas resumed rocket attacks shortly before the deadline, firing 130 over the next three days before another truce was agreed on August 11. A lull in fighting occurred over the following eight days as Israel and Hamas negotiated a potential long-term ceasefire in Cairo.[91] Fifty rockets were fired from Gaza as attacks resumed on August 19 – though Hamas denied responsibility – after which Israeli diplomats left Cairo and the IDF resumed airstrikes, hitting 41 targets in Gaza.[92]

Between then and August 26, Hamas increased the number of sustained mortar attacks against civilians, while the IDF persisted in targeting only lawful military objectives: Hamas's and Islamic Jihad's remaining military leadership and the assets of Gaza's other sources of military power. Three senior Hamas military commanders were killed in southern Gaza on August 21, two days after the IDF targeted Qassam Brigades commander Mohammed Deif in Gaza City. Israel also escalated its air campaign by conducting airstrikes on targets lodged within high-rise apartment towers in Gaza City that housed command and control facilities (after hitting mostly empty Hamas headquarters in the early phase of the conflict). Though they were not the targets of these lawful strikes, some of Gaza's most influential families – elites that until this point of the war felt they would be immune from the costliest consequences of Hamas's persistence in the conflict – also resided in these towers.

Hamas agreed to a ceasefire under the July 15 proposed terms.[93] The war's extended duration also began to tell on Israel. It is estimated the conflict cost the Israeli economy upwards of $3 billion (roughly one percent of Israeli GDP) as Hamas's continued rocket and mortar fire disrupted the normal patterns of daily life by prompting factories and businesses to close, deterring tourists and causing tens of thousands of IDF reservists to be called away from work.[94]

- **July 8:** IDF begins OPE with airstrikes against over 200 targets in the Gaza Strip, and mobilizes 40,000 reserves; IDF engages and kills Hamas naval commandos attempting raid near Kibbutz Zikim; Hamas fires over 160 rockets.
- **July 9:** 180 rockets fired from Gaza at Israel; IDF airstrikes against more than 230 targets in Gaza.
- **July 11:** Rockets fired from Gaza reach as far as Haifa in northern Israel (88 miles away).
- **July 12:** Long-range missiles fired from Gaza on Tel Aviv area; Iron Dome intercepts three rockets heading for populated areas.
- **July 13:** Death toll in Gaza reaches 166, with approximately 10,000 displaced people.
- **July 14:** Primitive UAV launched from Gaza is brought down by IDF Patriot missile over Ashdod.
- **July 15:** Israel accepts and Hamas rejects Egyptian ceasefire proposal.
- **July 16:** Four children apparently playing on a Gaza beach are killed by an IDF airstrike; incident is filmed by international media and becomes a leading news story.
- **July 17:** Thirteen Hamas militants raid Israel in failed attempt to attack and kidnap Israeli soldiers and civilians.

Timeline 4: OPE First Phase July 8-17, 2014

- **July 17:** IDF begins ground operations in Gaza Strip, aided by artillery, naval and air forces.
- **July 19:** Nine Hamas special forces infiltrate near Kibbutz Be'eri wearing IDF uniforms and kill two IDF soldiers; subsequent kidnapping attempt is thwarted.
- **July 20:** Hamas requests and is granted a temporary ceasefire; Hamas resumes firing after one hour. Death toll in Gaza surpasses 500.
- **July 20-23:** Battle of Shejaiya in which IDF infantry attempt to locate and destroy attack tunnels in Gaza City neighborhood; over 60 Palestinians are killed, as well as 13 Israeli soldiers.
- **July 22:** FAA temporarily bans U.S. flights into Ben-Gurion Airport after rocket fired from Gaza lands one mile from the airport.
- **July 24:** UNRWA school in Beit Hanoun is shelled, killing 11; accounts differ as to the responsible party.
- **July 26:** Both sides agree 12-hour humanitarian ceasefire; Israel agrees four-hour extension, but Hamas rejects.
- **July 28:** Hamas tunnel raid into Israel kills five IDF soldiers; four soldiers killed by mortar attack in Eshkol.
- **July 30:** IDF airstrike kills 16 Gazans at U.N. school; IDF artillery strike in market in Shejaiya kills 20 Gazans.
- **August 1:** Three-day truce collapses after 90 minutes following an attack that kills two IDF soldiers, with a third believed to be captured by Hamas militants, triggering IDF counterattack; captured soldier pronounced dead by IDF three days later.
- **August 3:** Explosion of IDF shell near U.N. school in Gaza kills 10 people, prompting public condemnation from U.S. State Department.
- **August 5:** IDF withdraws ground forces from Gaza, followed by 72-hour truce as ceasefire negotiated in Cairo.

Timeline 5: OPE Second Phase July 17-August 8, 2014

- **August 8:** 72-hour truce ends when Hamas resumes firing rockets at Israel.
- **August 15-18:** Four-day truce upheld by both sides.
- **August 18:** UNRWA reports over 237,000 Gazans residing in 81 U.N. shelters in Gaza.
- **August 19:** Temporary truce broken by rockets launched from Gaza against Beersheba; IDF resumes airstrikes in Gaza as Israel recalls its delegation from Cairo ceasefire talks. Israel targets Hamas military chief Mohammed Deif in an airstrike; his condition remains unknown. Hamas fires rockets at Tel Aviv, Jerusalem and near Ashkelon.
- **August 21:** Three senior Hamas military commanders killed in airstrike in southern Gaza.
- **August 22:** Hamas publicly executes 18 alleged collaborators of Israel in Gaza City.
- **August 22-26:** More than 700 rockets launched from Gaza against Israel.
- **August 26:** Conflict ends with open-ended ceasefire, whereby Hamas agrees to July 15 ceasefire terms.

Timeline 6: OPE Third Phase August 8-26, 2014

2014 Gaza War Assessment

— Observations, Implications, and Recommendations —

The latest Gaza War represents the new face of war. It is because it presages future U.S. conflicts that we undertook this study, and offer the following observations, implications and recommendations for U.S. policymakers and military officials.

The most significant developments this Task Force identified in military strategy and tactics during the 2014 Gaza War were the emergence of Hamas as a hybrid adversary force whose strategy depended not on military victory, but triumph on the battlefield of international opinion, where it effectively manipulated both the understanding of international law and international media coverage of the conflict to its advantage. Hamas also successfully developed measures to mitigate Israel's military and technological superiority. We discuss each of these in turn.

Hybrid Forces and Unrestricted Warfare

The 2014 Gaza War pitted a modern Western army against a "hybrid adversary," a non-state force equipped with advanced weapons systems normally associated with conventional militaries. Yet, Hamas did not deploy these capabilities for the sake of achieving a military victory against Israel, which possesses technologically superior armed forces. Rather, Hamas adopted and adapted the doctrine of unrestricted warfare in a manner that is likely to be studied by other nations and terrorist organizations.

> *Observation 1a: Hamas demonstrated a wide range of combat capabilities more commonly associated with conventional militaries than with a non-state actor.*

From Hamas's establishment in 1987 through much of the 1990s, its military forces were equipped with little more than suicide belts and AK-47s, and was incapable of conducting operations other than terrorist attacks against Israeli civilian targets. Over the past decade, however, Hamas's armed wing (the Qassam Brigades) has obtained:

- Approximately 6,000 rockets, including M-302 and R-160 rockets capable of ranging Haifa;
- Anti-tank guided munitions (ATGM), to include the Malyutka, Konkurs, Fagot, and Kornet types, as well as RPG-29s; and
- Anti-air assets including shoulder-launched surface-to-air missiles (man-portable air-defense systems, or MANPADs), SA-7s, and SA-18s that enabled them to fire at Israeli Apaches and UAVs.[95]

These weapons were distributed among a professionally-organized force structure comprised of six "brigades" with operational responsibilities for a specific sector of the front with Israel and grouped together under a regional commander. Indeed, Hamas has also developed doctrine, tactics, training, organizations and strategies that befit the military of a nation-state, while assuming none of the accountability that such militaries incur.

In addition to possessing weapons systems that would have been unthinkable for Hamas's militia a generation earlier, the Qassam Brigades demonstrated greater tactical proficiency than in prior conflicts. Hamas organized the defensive battlefield by deploying dense systems of IEDs and by taking advantage of the urban terrain and civilian structures for defensive purposes. For example, in the Israeli advance into the Shejaiya district of Gaza City, Hamas forces were able to fix elements of the IDF Golani Infantry Brigade with a minefield and coordinate fire from ATGMs, infantry and indirect fire from mortars, killing 13 IDF soldiers.

Though the IDF seems to have won most close combat actions, one analyst notes that "Hamas fighters appeared more effective and aggressive than in past conflicts, surprising Israeli forces and coordinating fire…. [They] inflicted casualties on even the best Israeli infantry and armored formations.[96] Hamas was also able to protect much of its strategic assets and military infrastructure by placing them in prepared tunnels that offered cover and concealment to mitigate Israel's vast air superiority. Consequently, the IDF was not able to successfully target Hamas senior operational leaders until the sixth week of the conflict. These tunnels enabled Hamas to sustain its rocket and mortar fire against Israeli civilian targets despite intense pressure from the IDF's air campaign.

> **Observation 1b:** *Hamas did not deploy these advanced combat capabilities to achieve a military victory, but to create conditions on the ground that would serve its strategic objective of generating international pressure that would force Israeli concessions.*

Despite its acquisition of advanced capabilities, and although it fought as something more than an irregular force, Hamas did not adopt the strategies of a conventional military. Instead, it appears to have sought victory in the court of international public opinion using, as will be discussed at greater length below, a sophisticated information operations campaign in an attempt to undermine the strategic effectiveness of Israeli military operations.

In 1999, two Chinese People's Liberation Army officers asserted that the ability to blend technologies with military actions and political-influence activities, a technique they dubbed "unrestricted warfare," signifies a new type of war, in which a key principle is "no longer using armed force to compel the enemy to one's will, but rather, using all means, military and non-military, lethal and non-lethal, to compel the enemy to accept one's interests."[97] In the 2014 Gaza War, Hamas appears to have pursued precisely such unrestricted warfare. Their concept of operations aimed to force Israel into making concessions – such as reopening Gaza's borders – as a result of political pressure. What was novel about Hamas's approach, however, was where and how they sought to create that pressure.

A key vulnerability for liberal democracies, such as the United States or Israel, is their citizens' aversion to excessive or unjustified casualties. Though voters are willing to support wars – and casualties – that are perceived as legitimately defending the homeland or securing vital national interests, popular support for military operations can decline when these goals begin to be doubted or overshadowed by deaths of civilians from the opposing side and, especially, of their own soldiers. Furthermore, in a democratic system, few politicians can stomach standing up to rapidly declining poll numbers. This is no secret among irregular forces and non-state actors. As Major General (ret.) Robert Scales wrote in 2005:

In Somalia, Lebanon and Iraq, the enemy also learned that America's vulnerable center of gravity is dead American soldiers. Thus, killing Americans has gravitated from merely a means to an end to an end itself, and the most efficient killing ground is in cities, where urban clutter allows the enemy to hide. Familiar terrain, the presence of supporting populations, and a useful infrastructure gives the enemy the advantage of sanctuary in the midst of the occupying power, an advantage impossible to achieve in open terrain. He can literally hide in plain sight and become indistinguishable from the indigenous urban masses that shield, protect and sustain him.[98]

Hamas certainly engaged in such classic irregular warfare, and utilized its enhanced arsenal and conventional military structure to inflict greater casualties among the IDF. Hamas's infiltration tunnels, dug into Israeli territory, were particularly effective for striking at the rear of IDF formations, fundamentally transforming the location and definition of the "frontline" of the conflict.

Hamas's greater focus, however, was on the exploitation of the presence of civilians in the combat zone. It used unlawful concealment among civilians to constrain and blunt the effectiveness of IDF military operations. It sought to neutralize the IDF's precision-guided munitions by covering and concealing its leadership and military forces amid and often below civilian infrastructure.[99] It utilized its expanded tunnel networks to maneuver and supply its forces while limiting the likelihood of being detected or targeted.[100] And it deliberately and unlawfully placed command and control, firing positions and logistical hubs underneath, inside or in immediate proximity to structures it knew the IDF considered specially protected, such as hospitals, schools and mosques, in full knowledge that this would substantially complicate IDF targeting decisions and attack options.[101]

But Hamas did not just stop with using civilians as a passive defense tactic. Its contribution to unrestricted warfare doctrine was to ensure maximum political pressure would be exerted on Israel by, at best, acting in reckless disregard of civilians' safety or, at worst, consciously and actively provoking IDF fire on Gazan civilians. It did so in part simply by virtue of embedding itself among the surrounding civilian infrastructure.[102] Simultaneously it launched rockets and attacked IDF forces from within or in direct proximity to international safe havens – especially UNRWA facilities – and from civilian buildings, often forcing civilians to congregate in these areas immediately afterward. Further, Hamas reportedly discouraged or actually prevented civilians from leaving buildings after the IDF targeted them with warning communications and munitions.[103] Hamas's strategy for victory depended on incurring civilian casualties among its own people.

The public that Hamas sought to sway with these casualties, however, was not that of its opponent. Rather, its strategy appears to have been to discredit Israel in the international community more broadly, by portraying the IDF's military operations as indiscriminate and disproportional.[104] This would subsequently create pressure from Hamas's regional supporters and others against Israel to agree to a ceasefire on Hamas's terms. Most remarkably, Hamas undertook this effort in earnest despite intentionally and egregiously violating the Law of Armed Conflict (LOAC) through its targeting of Israeli civilians and its exploitation of Gazan civilians to shield its military activities (as we discuss below).[105] By shrewdly controlling access to much of the Gaza Strip by media and international organizations, Hamas was also able to portray collateral damage caused by its own strategy and actions as illegal IDF conduct.[106]

Implication 1: *U.S. forces will increasingly confront "hybrid" non-state actors pursuing unrestricted warfare.*

The United States has traditionally faced irregular adversaries consisting of small groups of fighters with low levels of training and armed with only short-range weapons (i.e., small arms, machine guns, RPGs, mortars, short-range rockets and IEDs) that afforded little standoff capability.[107] The enemies U.S. troops are likely to encounter in the future, however, are likely to be of a different variety. As one military analyst noted a decade ago, "The boundaries between 'regular' and 'irregular' warfare are blurring. Even non-state groups are increasingly gaining access to the kinds of weapons that were once the exclusive preserve of states."[108] In addition to Hamas's capabilities, other non-state groups are similarly receiving more sophisticated weaponry than ever before, as Hezbollah possesses a larger rocket arsenal than Great Britain, France and Italy combined. Similarly, terrorist groups are now operating like conventional armies with increasing frequency, as illustrated by ISIS's rapid movement through Mosul and Anbar province in Iraq in 2014, or by Jabhat al-Nusra's defeat of Syrian armored units. The rise of such "non-state actors using operational concepts and high-end capabilities traditionally associated with states" has been defined loosely as "hybrid" threats.[109]

Even with advanced military capabilities, non-state actors still typically face overwhelming conventional dominance by the technologically advanced militaries of the United States and its Western allies. Consequently, hybrid adversaries are learning to adapt their means and methods of warfare to avoid or neutralize Western strengths, and to exploit Western vulnerabilities.

Because non-state combatants traditionally have lacked the firepower to stand up to U.S. forces in a direct combat engagement, they have relied on cover and concealment to avoid detection and to choose the timing and terrain of the fight on terms that even the odds as much as possible. Yet even with greater military capabilities, non-state entities will seek to operate from heavily populated urban environments in which they can evade detection, complicate targeting by air assets and intentionally raise Western moral concerns about causing civilian casualties. Whereas armed forces once existed to protect civilian populations, now civilian populations are frequently used to protect irregular forces.[110] New technologies, such as ubiquitous cellphone cameras, the Internet and Twitter, can be exploited by non-state actors to attack this chink in the U.S. military's armor.

U.S. forces have engaged in numerous urban battles against non-state entities over the past 13 years in Nasiriyah, Sadr City, Fallujah, Ramadi and other cities and villages in Iraq as well as in Afghanistan. Yet the problem of such irregular forces nesting among civilian populations will only become more acute in the coming decades, due to increased global urbanization. In 1800, only three percent of the world's population lived in a city with one million inhabitants or more; by April 2008 the world had passed the 50 percent urbanization mark. About 1.4 million people across the world migrate to a city every week, and by 2050 roughly 75 percent of the world's population will be urbanized. Consequently, the portion of global conflict occurring in urban environments – including those that attract U.S. military intervention – can be expected to increase in the coming decades as well.[111]

Together, these trends suggest a future in which non-state forces armed with increasingly sophisticated weaponry intentionally nest in urban environments to negate Western militaries' air superiority, firepower and technological advantages. They will further leverage the vulnerabilities of Western democracies through intentional perversion of LOAC to expand the

domain of combat, and through sophisticated information operations. Thus, the 2014 Gaza War appears to foreshadow the type of future warfare facing U.S. forces.

> **Recommendation 1:** *The U.S. military must adapt professional military education and campaign planning to extended conflicts with hybrid adversaries, and simultaneously work to educate policymakers and the American public regarding the new face of war.*

As Michael Evans of the Australian Defence Academy wrote about hybrid adversaries more than a decade ago: "The possibility of continuous sporadic armed conflict, its engagements blurred together in time and space, waged on several levels by a large array of national and sub-national forces, means that war is likely to transcend neat divisions into distinct categories."[112] In other words, hybrid threats will often defy decisive defeat. Military operations will periodically be viewed as strategically necessary to manage the threat, thereby imposing significant challenges for operational commanders who will have to tailor the use of combat power in a more nuanced manner in order to disrupt and degrade, but not necessarily destroy the hybrid enemy. Just as Israel and Hamas appear to have viewed the 2014 Gaza War as one in a series of prolonged conflicts, the U.S. military may have to adjust its resourcing, planning and some aspects of its organization to account for multiple operational-level campaigns wherever such actors seize territory or threaten U.S. interests or allies. Such campaigns will need to be fought in conjunction with allies and the interagency on a variety of battlefields, to include non-kinetic planes such as cyberspace and the information realm. If so, the U.S. military must place a premium on adaptability and learning, starting with extensive investment in diverse educational experiences. Moreover, to maintain the public support necessary to conduct protracted campaigns on multiple levels, the U.S. military will need to conduct an extensive education campaign of American policymakers and the public, both of whom have a natural preference for shorter, decisive campaigns.

Weaponizing the Law

One of the asymmetries that irregular forces seek to take advantage of against their conventional opponents – especially if that opponent is a liberal democracy – is commitment to the rule of law. States that respect their own citizens' rights and observe the rule of law generally demand that their armed forces conduct operations in accordance with all applicable domestic and international law. This is rarely the case among guerillas, insurgents, terrorists and non-state armed groups. Unconventional adversaries frequently seek to exploit the presence of civilians, believing it will provide functional immunity from law-committed militaries.

These tactics are emboldened by widespread misunderstanding of LOAC not just among warring parties but also media, observers and the international public – a misunderstanding built on the false assumption that the law prohibits the infliction of any and all civilian casualties. In fact, LOAC tolerates the infliction of harm to civilians and destruction of civilian property during armed conflict, prohibiting such harm only when it is inflicted deliberately, or when it is assessed as an excessive incidental consequence of a deliberate attack on a lawful target. However, the persistence of misconceptions about LOAC's content and requirements will enable continued manipulation of legal arguments, risk incentivizing further exploitation of civilian populations and thereby risk greater civilian deaths in future urban conflicts. For this reason, clarity on LOAC's requirements is paramount.

The Law of Armed Conflict: A Misunderstood Protection for Civilians

The law that developed – through treaties, general principles and customary law – to regulate the use of military force during conflict and to mitigate the suffering produced by conflict is referred to as the Law of Armed Conflict (LOAC), what was known historically as the laws and customs of war. It is actually comprised of two legal frameworks applicable to war and the use of military force.

First, the *jus ad bellum* determines when a nation can lawfully resort to the use of military force within the constraints of the United Nations (U.N.) Charter framework and established legal principles. Although Article 2(4) of the U.N. Charter establishes a presumptive prohibition against the use or threat of force by one state against another, the Charter and customary international law recognize three situations where this presumption is rebutted and states are permitted to use force: with the consent of the state in which the action is taking place; in accordance with authorization by the U.N. Security Council; or in self-defense.

Once hostilities are under way, the second legal regime applicable to the use of military force, the *jus in bello*, regulates how that force can be used. These regulatory norms, more commonly referred to as LOAC, are meant to balance the necessity to employ military force to efficiently bring an enemy into prompt submission with the humanitarian interest of mitigating, to the extent feasible, the inevitable suffering produced by armed hostilities. The *jus in bello* is comprised of five principles – necessity, precaution, humanity, distinction and proportionality.

First, the principle of necessity allows the military to employ all measures, *not otherwise prohibited by international law*, to bring about the prompt submission of the enemy. The principle of *precaution* requires an attacking commander to take all feasible precautions to mitigate risk to civilians and civilian property inherent in the attack. The principle of *humanity* prohibits the infliction of suffering that cannot be justified by military necessity, thereby implicitly recognizing that both belligerents and civilians will suffer *necessary* consequences of war.

The principle of *distinction* requires that military forces constantly distinguish between lawful military objectives and all other persons, places and things, especially belligerents (members of organized armed groups) as well as civilians and civilian property. The former are lawful objects of attack unless captured or incapable of fighting as the result of wounds or sickness; the latter are protected from deliberate attack unless and for such time as they directly participate in hostilities. Thus, civilian protection is not unqualified, but instead contingent on refraining from conduct that is inconsistent with the protection: directly participating in hostilities.

Finally, while 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. The law tolerates such harm when it is not the result of deliberate attack, but is instead an incidental or collateral consequence of an attack on a proximate lawful military objective, so long as the attack was not anticipated to be excessive in relation to the expected advantage. This rule is commonly characterized as the principle of *proportionality*, though it does not require a close balance – just the avoidance of an excessive imbalance – between anticipated risk and gain.

Moreover, adherence to these principles must be judged on what is known at the time of the decision to strike a target, not on the ultimate attack effects; what is best understood as a contextual reasonableness assessment. The touchstone of LOAC compliance, therefore, is

reasonableness based upon the information available to a commander: the reasonableness of the judgment that the target qualified as a lawful military objective; the reasonableness of the judgment that all feasible precautions had been utilized; the reasonableness of the judgment that the risk to civilians and their property was not excessive in relation to the anticipated military advantage.

Thus, under LOAC, the risk of collateral damage and/or incidental injury to civilians does not render an attack automatically prohibited and unlawful. Nor are civilian casualties resulting from a strike on a lawful target, although always tragic, automatic indicators of a LOAC violation. LOAC, in short, does not condone a *post hoc* effects-based critique.[113]

This balance between facilitating the effective execution of military operations, even when they place civilians at risk, and protecting civilians is central to LOAC. It customarily applies to all organized armed groups, even those belonging to non-state actors. Thus, in the same way that LOAC does place restrictions on, though does not disable, the ability of a military force to attack an enemy that seeks to exploit the presence of civilians for tactical advantage, it also seeks to disincentivize unconventional adversaries from hiding among civilians by subjecting them to the same obligations related to targeting or mitigating risk of injuring civilians as govern the conduct of their conventional opponents. Ultimately, the balance between necessity and humanity enshrined in LOAC can function ideally only when both parties to a conflict endeavor to mitigate civilian risk, which is rarely the case with conflicts such as that in Gaza.

Military professionals are knowledgeable of these principles, and of the rational relationship between LOAC and the nature of military operations in armed conflict. The media and general public are not. This asymmetry in understanding and application of LOAC creates strategic opportunities that unconventional adversaries can exploit by ignoring LOAC's requirements themselves, while demanding an invalid interpretation of it be applied to their opponent. We believe that the 2014 Gaza War demonstrates how civilians can be placed in greater danger and conflicts can be prolonged when the unconventional belligerent force – particularly one that publicly avows an extremist ideology in which civilian deaths are permitted, if not celebrated – is able to leverage spurious readings of LOAC.

> **Observation 2a:** *Hamas violated the Law of Armed Conflict and exploited misunderstanding of its requirements to undermine Israel's perceived moral standing and international support.*
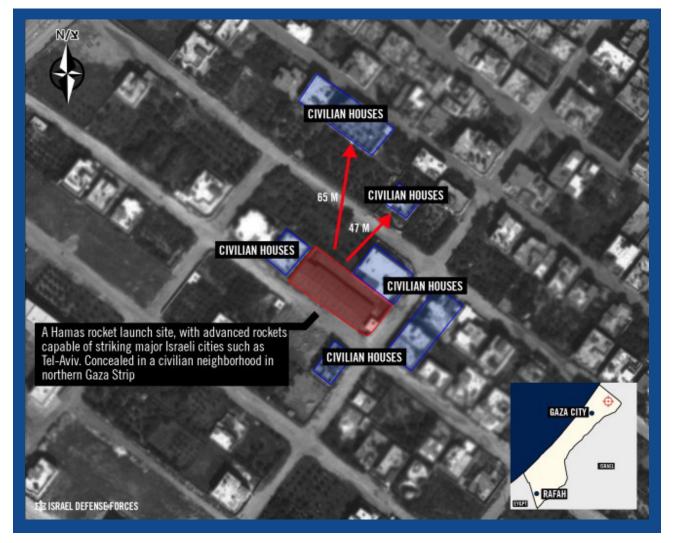
In our assessment, during the 2014 Gaza War, Hamas not only violated LOAC but also expertly enlisted and perverted its principles in an attempt to delegitimize Israel's actions. It was able to do this because the expectations of some in the international community are not aligned with actual, applicable law governing armed conflicts.

Hamas violated LOAC both in terms of the nature of its attacks against Israel, which appear to have been mostly indiscriminate, and the location of its operations – particularly missile, rocket and mortar firing positions – among protected civilian sites. Though we did not have access to Hamas's targeting methodologies and attack decision data, it seems clear that most of the fires emanating from Gaza were not directed at lawful Israeli military targets.

Most of Hamas's rockets were fired toward Israeli population centers. Under LOAC, such attacks on Israeli civilians and civilian property would only be lawful if they qualified as lawful

targets pursuant to the rules of military objective and proportionality. This was not the case: no Israeli weapons or combatants were positioned in Israeli cities. Instead, Hamas leaders made numerous statements during the conflict about terrorizing Israeli civilians. "Not a single Arab Palestinian child will be hit by one of our missiles," declared Hamas spokesman Fawzi Barhoum. "Our rockets are aimed at the Hebrews, the murderers, the Israelis, the criminals." Similarly, another Hamas spokesman declared "all Israelis have become legitimate targets for the resistance." Conversely, we could not identify any instance of Hamas officials identifying an actual Israeli military target they were attempting to target with rocket fire.[114]

This suggests they were intentionally attacking non-military targets to gain a psychological advantage, not a legitimate military benefit. Hamas attained that goal: though Israel suffered relatively few civilian casualties, Hamas's rocket attacks did indeed have a significant negative impact on the Israeli economy and on the Israeli population's psyche. But ultimately whether or not Hamas achieved its intended objective is irrelevant to the assessment of illegality, which is based on the intended and not actual outcome.

Rocket launching site next to civilian homes, Gaza City.

Source: IDF Blog

Some may argue that Hamas was limited by the inaccuracy of its weapons. However, this argument finds no basis in law. "Indiscriminate attacks are prohibited," according to Additional Protocol I to the Geneva Conventions, which is considered a codification of customary international law. The rule defines indiscriminate attacks as "those which are not directed at a specific military objective; those which employ a method or means of combat which cannot be directed at a specific military objective."[115] Moreover, LOAC is intended to protect the civilian population not only from physical harm, but also from the psychological trauma resulting from being deliberately terrorized. In fact, both Protocols I and II expressly prohibit the use of attacks that are intended to "spread terror" among the civilian population. Firing indiscriminately toward large Israeli civilian population centers is indication of just such an unlawful intention. And, even in the unlikely event Hamas was attempting to strike military targets in Israel, the weapons and tactics it employed were indiscriminate and therefore unlawful.

In addition to the unlawful attacks in the form of rocket fires, we also observed significant conclusive evidence that, on numerous occasions, the rocket launchers and mortar positions were deliberately and unlawfully located in close proximity to civilians. Hamas did not simply place military assets in civilian areas such as key industrial sites and residential apartment buildings; it routinely located them in, or in close proximity to, structures it knew were considered specially protected, such as mosques and U.N. schools. UNRWA itself issued a report on July 17 condemning instances of Hamas storing munitions in U.N. facilities, stating: "This is a flagrant violation of the inviolability of its premises under international law."[116]

Such siting of rocket launchers and other materiel is a clear violation of LOAC. Article 51(7) of Additional Protocol I, a provision considered to reflect customary international law, states that:

> The presence or movements of the civilian population or individual civilians shall not be used to render certain points or areas immune from military operations, in particular in attempts to shield military objectives from attacks or to shield, favor or impede military operations.

Article 58 further provides that parties to the conflict shall "avoid locating military objectives within or near densely populated areas." Defending forces, in other words, are required to avoid as best as possible exposing civilians to the danger of war by ignoring these rules.[117] While we understand the argument of "what other option does Hamas have" may seem logical given the dense population of the Gaza Strip, an examination of the territory's terrain from a military perspective shows that Hamas did and does have options other than co-locating their launch sites in or near U.N. facilities, key infrastructure or residential areas. Gaza is indeed a densely populated area; however, there still are significant non-residential and open areas available to Hamas as rocket launch sites that would not have exposed civilians to the risk of IDF counterattacks. For example, from a protection standpoint, why not dig a tunnel under a farmer's field and emplace launchers in the tunnel with a small opening for the rockets to be fired, rather than digging that same tunnel up to the wall of a U.N. compound, of which we saw photographic evidence?

Indeed, the ubiquitous alignment of U.N. facilities with rocket points of origin, as documented by the U.N. itself, render it almost conclusive to us that Hamas purposefully violated its LOAC obligation to refrain from locating military assets in the midst of the civilian population. We believe Hamas's tactics were not an unfortunate necessity dictated by the urban terrain of the campaign, but were instead a deliberate effort to abuse LOAC by exploiting the anticipated – and actual – IDF hesitation to attack targets proximate to the most sensitive civilian structures.

Hamas's use of mortar fire had instances of both lawful and unlawful use. Because of the weapons and ammunition available to Hamas, it was clear that their mortar fires were aimed and much more precise than their rocket fire. There were numerous instances where Hamas targeted IDF forces who were legitimate and lawful objects of attack. On the other hand, mortars fired at Israeli villages and towns – where there were no lawful objects of attack – were precisely aimed and were clearly intended to create innocent civilian casualties and spread terror among the civilian population. As noted above, this clearly violated LOAC.

It is less clear as to whether the location of the Hamas mortar firing positions generally complied with LOAC. Based on the limited range of mortars, there is far less choice of firing locations for a given intended target. Thus, for those Hamas mortar fires that were striking legitimate targets, it is possible that firing locations in proximity to residential areas were the only tactically feasible locations to achieve the necessary military effect. However, as noted above, Hamas did not just locate mortar firing positions among civilian structures, but instead in or proximate to structures it knew were considered specially protected by the IDF, such as hospitals, schools and mosques. This contradicts the inference that Hamas was attempting to employ these weapons lawfully.

Even more unfortunate is the fact that this conduct compelled the IDF to launch responsive attacks. By firing from specially protected sites, Hamas effectively stripped them of their protected status, rendering them lawful military objectives for Israeli attack. While we acknowledge that Hamas's positioning at protected sites may have been militarily necessary in fighting Israeli ground forces that entered into Gaza, we find it impossible to imagine a lawful military necessity for the exploitation of such a large number of protected buildings throughout the depth of Gaza for this purpose.

Hamas also made an extensive effort to use civilians to deter Israeli attacks during both the air and ground operation phases of the conflict. Sami Abu Zuhri, a Hamas spokesperson, appeared on Al-Aqsa TV at the beginning of the conflict, declaring: "This attests to the character of our noble, jihad-fighting people, who defend their rights and their homes with their bare chests and their blood ... We in Hamas call upon our people to adopt this policy in order to protect the Palestinian homes."[118] A Hamas manual on "Urban Warfare" belonging to the Shejaiya Brigade, captured during ground operations into Gaza, explained how the civilian population can be used against IDF forces, because "the soldiers and commanders (of the IDF) must limit their use of weapons and tactics that lead to the harm and unnecessary loss of people and [destruction of] civilian facilities. It is difficult for them to get the most use out of their firearms, especially of supporting fire [e.g., artillery]." Demonstrating how this advice was implemented, Israeli engineers discovered civilian homes with claymores, RPGs, ready bags and explosive labs, as well as Hamas-placed military manufacturing equipment in the basements of multi-story apartments with civilians residing above them.

These violations of LOAC, however, went beyond simply exploiting the civilian population in an effort to gain functional immunity from IDF attack. The captured manual also discusses the benefits to Hamas when Palestinian civilian homes are destroyed: "This increases the hatred of the citizens towards the attackers and increases their gathering around the city defenders."[119] Additionally, we saw evidence that Hamas at least directed, if not forced, innocent civilians to areas that they knew were to be attacked by the IDF. Hamas provided leaflets telling people to stay in place and paid "helpers" to remain in battle areas until fighting began and block the evacuation of neighborhoods in Gaza.[120]

Based on the evidence available to us, it is our judgment that Hamas significantly increased the danger to Gazan civilians – and consequently increased the number of civilian fatalities – by locating rocket launchers, other weapons, command and control facilities and munitions at sensitive sites and in residential areas. This was done with no apparent military necessity – a clear violation of LOAC. Additionally, Hamas unlawfully discouraged and, in some cases, prevented civilians from leaving areas they knew would be targeted by the IDF. This goes well beyond the tactic of using human shields (with which the IDF and U.S. military are already well-acquainted) and introduced a dangerous new dimension to this conflict.

This apparent exploitation of civilians by Hamas is not only strategic in nature, but also ideological in origin. Hamas's Charter declares that the organization "judges all its actions according to Islam" and "believes that the land of Palestine is an Islamic *Waqf* [Trust] upon all Muslim generations till the day of Resurrection." Thus, "the liberation of Palestine is obligatory for every Muslim," for "When an enemy occupies some of the Muslim lands, *Jihad* becomes obligatory for every Muslim."[121]

Hamas later stresses that "*Jihad* is not only carrying weapons and confronting the enemy," and cites a hadith stressing that "He who provided equipment to a fighter in the way of Allah ... and he who remained behind [to look after the] family of the fighter in the way of Allah, in fact fought in the way of Allah." In other words, noncombatants can still play a significant strategic role in any conflict, and not necessarily a completely voluntary one, as "withdrawal from the circle of struggle is high treason and a curse on the doer." Hamas also justifies attacks on all people who "show enmity towards" Islam "or stand in its path to stop the movement."[122]

Such statements demonstrate Hamas's belief that the ends of defeating Israel justify any means for doing so – including killing and/or sacrificing civilians, whether Israeli or Palestinian – in a manner incompatible with the core LOAC obligation to mitigate risk to civilians that lies at the very foundation of the law.

Not only did Hamas appear unconcerned about fulfilling its own obligations under LOAC, but it also utilized the language of LOAC to condemn Israeli operations. In a memo to social media activists at the beginning of the 2014 Gaza War, the Hamas Interior Ministry provided suggested talking points and encouraged activists to compare Israeli actions to the Holocaust. "When speaking to the West, you must use political, rational and persuasive discourse, and avoid emotional discourse aimed at begging for sympathy," the memo stated. "Avoid entering into a political argument with a Westerner aimed at convincing him that the Holocaust is a lie and deceit; instead, equate it with Israel's crimes against Palestinian civilians."[123] On the Qassam Brigades information office's official website, Hamas published weekly updates of "Israeli violations of international and humanitarian law." Moreover, Hamas officially gave consent to the Palestinian Authority's efforts to join the International Criminal Court to allow war crimes probes into Israel's operations in Gaza to be initiated.[124]

These statements suggest a concerted strategy on the part of Hamas to exploit misunderstandings of LOAC to gain international condemnation of Israel. Such attempts to move the conflict from the battlefield, where Israel enjoyed military and technological superiority, to the court of international opinion appears to have been part of Hamas's concept of operations in the 2014 Gaza War.

This strategy depended not just on distorting the principles of LOAC to assert claims of unlawful conduct against Israel but also – and more disturbingly – on ensuring Gazan civilian casualties to support Hamas's assertions of Israeli legal violations.

Unfortunately, it appears to have been a successful strategy. Numerous individuals claiming to be experts in the relationship between law and military operations quickly seemed to accept Hamas's assertions of unlawful IDF operations. On July 23, 2014, the U.N. High Commissioner for Human Rights, Navi Pillay, stated: "There seems to be a strong possibility that international law has been violated, in a manner that could amount to war crimes." The U.N. Human Rights Council subsequently issued a resolution condemning "in the strongest terms the widespread, systematic and gross violations of international human rights and fundamental freedoms arising from the Israeli military operations" in Gaza.[125] In September, Human Rights Watch issued a report declaring that "three Israeli attacks that damaged Gaza schools housing displaced people caused numerous civilian casualties in violation of the laws of war."[126] And, in November, Amnesty International concluded that the IDF's "use of large aerial bombs [to attack civilian homes] suggests that these attacks either were intended to cause the complete destruction of the targeted structure or a determination to ensure the killing of targeted individuals without due regard to the killing and destruction to those in their immediate vicinity," which would constitute "prima facie evidence of serious violations of international humanitarian law."[127]

These condemnations were premised on premature, effects-based assessments of military operations, or on the same flawed understandings of the law that Hamas was promoting, while refusing to apply that same law to its own actions. These routine distortions of the actual law applicable to military operations produced a fundamentally false narrative of legal compliance and non-compliance during this conflict, one that misrepresented Israeli attempts to minimize civilian deaths and the legality of their targeting Hamas and other factions engaged in military operations.

> **Observation 2b:** *Based on the evidence we saw, Israeli military operations in Gaza met or exceeded the requirements of the Law of Armed Conflict as part of an extensive effort to avoid civilian casualties.*

Israeli efforts to comply with its obligations under LOAC stand in contrast to Hamas's systemic and apparently purposeful violation of international law. Though Amnesty International claimed that Israeli forces displayed "callous indifference to the carnage caused"[128] and the U.S. Department of State asserted that "Israel could have done more to prevent civilian casualties,"[129] these conclusions were premature and not fully informed. We believe Israeli commanders exercised remarkable judgment and, at times, restraint in the employment of combat power. Moreover, they did so while facing an extremely complex operational environment and an adaptive asymmetric enemy that deliberately increased the risk of civilian casualties through its tactics, even when other alternatives were available. The IDF institutionally had a systematic process for adhering to 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. We also know the IDF is conducting ongoing investigations into civilian deaths in a credible and conscientious manner, indicating it will not tolerate LOAC violations among its own force.

While it was not the purpose of this Task Force to conduct an investigation of the legality of IDF attacks, and while we were not provided specific targeting data, we were able to glean a number of observations in talking to multiple sources about targeting methodology and specific attacks conducted by both the IDF and Hamas. Though Israel is conducting ongoing investigations into a number of their attacks that produced civilian casualties, we were not provided access to materials gathered as part of that process. Nor are we aware of any investigations being conducted by Hamas or by international organizations into Hamas's targeting methodologies or LOAC violations. Despite the lack of specific targeting data from the parties to the conflict, based on the information we did consider, there are some general observations about each side's adherence to LOAC that became clear.

First, the IDF has a method of assessing proposed air strikes and other deliberate attacks that involves: determining the desired military effect, selecting the required combination of weapons and fusing needed to achieve that effect, assessing the potential for collateral damage and weighing that risk against anticipated military advantage. Their methodology is similar to that of the U.S. and other modern militaries we are familiar with, and reflects a good-faith commitment to LOAC compliance. When there was potential for collateral damage, the attack decision-making authority was sufficiently senior that it was clear that decisions to launch attacks were made only after extensive and experience-based deliberation, and often resulted in modifications to attack weapons and tactics to mitigate civilian risk.

We were provided with a number of documented cases in which the IDF exercised considerable restraint or did not strike a valid military target out of concern for the potential for collateral damage, even though the target was clearly lawful in accordance with LOAC. Such restraint is common in U.S. military operations and reflects, on the part of the IDF, adherence to rules of engagement that impose even greater constraints on the conduct of combat operations than is required by LOAC, in an effort to further mitigate civilian risk in the interests of strategic success.

Second, adherence to LOAC also extended to the IDF's use of indirect fire during ground operations in Gaza. For all militaries, the nature of artillery fire in support of ground maneuver operations is characteristically more rapid and less deliberate and precise than airstrikes. In urban combat, for example, this is because indirect fire is primarily used for two missions: when troops are in direct contact and under immediate threat; or for counterbattery missions against enemy weapons systems that can be quickly displaced. While we were not provided the data on specific fire missions and targeting procedures, we discerned no evidence that indirect fire used for either of these missions was indiscriminate or unlawful. Though by nature they could not be as deliberately planned as the air campaign, IDF indirect fires methodologies and rules of engagement seemed to be roughly equivalent to other modern militaries in similar circumstances; we saw nothing to indicate they were non-compliant with LOAC.

Third, in addition to their systematic methodology for assessing collateral damage potential and weighing it against anticipated military advantage, the IDF executed a number of extraordinary and innovative methods in an attempt to further mitigate the risk to the civilian population. More than one million leaflets were dropped to warn Gazan civilians to leave a defined area of operations. Advancing ground forces fired smoke and illumination rounds to encourage civilian evacuation of pending areas of hostilities. Telephone calls were placed to homes targeted for airstrikes and text messages sent to their occupants hours in advance, to provide warning to civilians and directing evacuation of the building. Minutes before the actual strike, a small

explosive would be fired at an unoccupied corner of the structure as a "knock on the roof" warning of an impending strike. Furthermore, consideration of the timing of attack, weapons selection and attack tactics was a consistent aspect of all deliberate targeting, in an effort to achieve desired attack effects while mitigating risk to civilians to the greatest extent feasible.
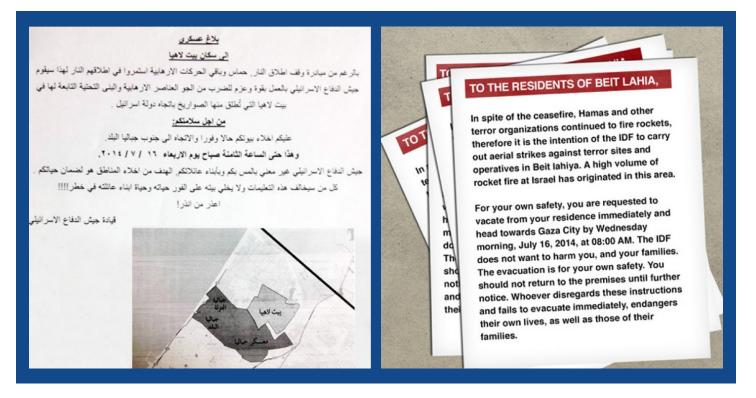

Figure 1: An IDF leaflet dropped over Beit Lahiya, with translation at right.

The IDF implemented these precautionary measures with full knowledge that they might – and often did – degrade the efficacy of an impending attack. Providing advance notice to Gazan civilians of impending areas of operations forfeited the tactical advantage of surprise critical to offensive ground operations and allowed evacuation of military personnel, equipment and/or munitions.

Despite going to such lengths to give civilians notice, the IDF still cancelled a number of lawful missions because of the presence of civilians (one Israeli official put this number at 200 instances, though there is no way to verify this independently). In one such example, Israel was not able to target a key Hamas center of gravity – its senior operational leadership – despite knowing their precise location at the Shifa Hospital, because of the gathering of Gazan refugees above Hamas's command and control facilities. Though some of these Hamas senior operational leaders were later reacquired, Israeli intelligence was unable to reacquire others.

While the effectiveness of some of these warning techniques can be debated, the fact that the IDF implemented them is an indicator of the extraordinary measures they took to comply with their LOAC obligations. To this end, we must note that while LOAC does require an attacking commander to consider precautionary measures to mitigate civilian risk, there is no absolute obligation to use 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. As a result, it is often the case that precautionary measures in the form of warnings are not utilized because of the risk of ceding tactical advantage to an enemy. It is therefore noteworthy that the IDF took these extraordinary measures in many situations where they could have credibly invoked feasibility considerations to justify not doing so. This, combined with the other efforts implemented to ensure LOAC compliant operations, demonstrated to us Israel's overall good-faith commitment to the law.

Finally, beyond exercising diligence in its targeting procedures, the IDF made an extensive effort to alleviate Gazan civilian suffering by pushing food and medicine into – and conducting medical evacuations out of – Gaza. During the 51 days of the conflict, 5,637 trucks crossed from Israel into Gaza through the Kerem Shalom border crossing to provide Gazans with 4,766 tons of gas, 4.4 million liters of diesel for Gaza's power station and 2 million liters for UNRWA facilities, 1,742 tons of medicine and 4,000 units of blood from Jordan and the International Red Cross. Cessations of electricity in Gaza were principally the result of misfiring Hamas rockets destroying transmission lines, and Israel repeatedly sent repair teams into Gaza to repair these lines while under fire. This humanitarian support for Gazans' basic needs may have inadvertently reduced pressure on Hamas to end the conflict, but demonstrates Israel's intent was likely not to cause undue suffering among Gaza's population.

This is not to claim the IDF conducted a perfect tactical campaign. Regardless of IDF efforts to avoid collateral damage, in many cases they faced only bad choices, and Israeli commanders readily admitted to us they may have made mistakes. On more than one occasion, civilians evacuated a structure identified as a Hamas command and control center or weapons depot when the initial warning call was placed, but when the "knock on the roof" round impacted, these same civilians mistook it for the actual attack. People subsequently returned to the targeted house after the actual destructive munition had been released and was unable to be recalled.

However, it is essential to bear in mind that the standard of LOAC targeting compliance is reasonableness, not absolute accuracy. Mistakes often occur in war, but they violate LOAC only when they are the result of unreasonable judgment. Nonetheless, the IDF has committed to investigating any credible indication of unlawful targeting. To investigate these and other incidents, the IDF has established a Fact Finding Assessment Mission (FFAM) headed by a major general – and including officers with expertise in artillery, intelligence and air power – to determine whether criminal investigations should be initiated in specific cases where Gazan civilians were killed. As of early December 2014, approximately 100 such incidents had been referred for examination by the FFAM, approximately 50 of which had been investigated and referred to the Military Advocate General (MAG, an independent IDF legal office) for decision.

Five of these have been referred to the MAG for criminal investigation, in addition to nine cases already being investigated for criminal misconduct due to *prima facie* grounds for reasonable suspicion that were not referred to the FFAM. Nine cases have been dismissed, and the remaining cases either await the MAG's decision or are in various stages of examination by the FFAM. Independent of IDF investigations, the state comptroller Joseph Haim Shapira (Israel's government watchdog) announced in January 2015 that he had opened an investigation into decisions made by military and political leaders during the 2014 Gaza War. On the other hand, we are aware of no investigations being conducted by Hamas into the conduct of its fighters or their compliance with LOAC.

Though these processes are ongoing, they appear to show Israel's willingness and capability to credibly self-investigate potential LOAC violations consistent with generally recognized

international standards for investigations.[130] While the Task Force cannot say that the IDF did not have any instances of LOAC violations, it is our conclusion that the IDF has procedures in place that are well-designed and that ensure that their operations comply with LOAC. It is also our conclusion that, in general, the collateral damage resulting from IDF attacks during this campaign is insufficient to justify the conclusion that these attacks were the result of unreasonable and unlawful targeting judgments. While LOAC violations could have occurred, as a whole we believe that not only did the IDF take prudent and reasonable precautions to prevent such violations, but their methodology for target assessment and practices of providing civilians advance notice of impending operations far exceed their legal obligations.

We agree with Chairman of the Joint Chiefs of Staff General Martin Dempsey's statement that "Israel went to extraordinary lengths to limit collateral damage and civilian casualties." It is our assessment as military professionals that in terms of distinction, proportionality and precautions required by international law, the IDF generally conducted itself in an exemplary fashion. The IDF's conduct during the 2014 Gaza War represents an admirable case of restraint, on par with and in some cases exceeding U.S. procedures for minimizing civilian casualties.

However, the 2014 Gaza War also represents a successful effort by Hamas and others to leverage distorted interpretations of international law in an effort to unjustifiably constrain the militaries of nations who adhere to LOAC, and to discredit what are in fact lawful military operations. Some experts have characterized this type of distortion as "lawfare," defined as "the strategy of using – or misusing – law as a substitute for traditional military means to achieve a warfighting objective."[131] In this case, Hamas and its supporters engaged in lawfare by substantially manipulating LOAC to allege that collateral damage resulting from Israeli attacks against lawful military objectives was actually illegal, while concealing the fact that Hamas simultaneously encouraged that collateral damage by virtue of their deliberate and systematic LOAC violations.

> **Implication 2:** *Exceeding the requirements of the Law of Armed Conflict did not effectively prevent effects-based condemnations and risks further incentivizing the exploitation of civilian casualties by hybrid enemies.*

An accurate understanding of LOAC is essential to properly and credibly assess the legality of combat operations. Unfortunately, it is poorly understood, allowing it to be easily distorted to present a false narrative that combat operations producing civilian casualties are inherently unlawful. Such distortions are further enabled by the almost instinctive, but legally invalid, tendency to judge military actions based on effects of combat operations.

Effects-based critiques distort this equation by relying on *post hoc* consequences as the sole indication of LOAC compliance. However, the legal standard for compliance turns on the reasonableness of the attack decision at the time it was made based on available information. For example, a commander may launch an attack on an identified enemy command and control bunker or tunnel, having made good faith efforts to identify all available intelligence related to the target, based on the conclusion that the bunker is used exclusively for military purposes. However, it may turn out that the enemy had encouraged civilians to shelter in the bunker, with the attack producing the *effect* of civilian casualties. This effect is not sufficient to conclude the law was violated. Instead, as clearly established by LOAC, compliance must be assessed on the totality of the military situation at the time the decision was made.[132]

In the first instance, it may seem that the appropriate response to such distorted analyses is for militaries to go to even greater lengths – above and beyond LOAC requirements – to demonstrate their respect for innocent life and avoid condemnation. Indeed, such was Israel's approach the 2014 Gaza War. Based on this Task Force's observation, however, this is not necessarily an effective response to offset this distortion. What may appear at first glance as a rush to defend civilians actually enables a race to the bottom, empowering those who would exploit efforts to mitigate civilian risk while gutting existing legal principles – all to the detriment of civilians' safety.

The abusive use of law to gain tactical and strategic advantage by hybrid enemies, and to discredit lawful conduct of professional military forces, must be countered by defending – rather than abandoning – those legal principles. Military restraint beyond the carefully developed and time-tested boundaries of LOAC should be imposed only when it is perceived to produce a tactical, operational or strategic advantage, and not merely in response to anticipated improper invocation of inapposite legal standards. Furthermore, policy-based constraints should be clearly demarked from legal obligations, so that raising standards in one instance does not set a precedent to which a military force will be expected to adhere in the future. Otherwise, any constraints beyond LOAC adopted by one country will submit others to great pressures to conform similarly. Once this becomes entrenched, it will be difficult to walk back.

The result of conflating policy and law, and of attempting to apply legal standards other than LOAC to armed conflicts, will not only be a greater danger to national security – as armed forces will become much more limited in their ability to respond to and counteract threats from unconventional adversaries operating among civilian populations – but an increased risk to civilians as well. The application of standards more exacting than LOAC to armed conflicts may produce the perverse effect of incentivizing unconventional adversaries to dress as civilians, hide among civilians, launch operations from civilian areas, use civilians as human shields or even (as Hamas did) deliberately seek to instigate civilian casualties, since any civilian deaths could be considered a legal violation. If such an approach to assessing legality in warfare becomes the norm, the combat power and initiative of military force will be functionally neutered. Even reasonable targeting errors resulting from the inevitable "fog of war" would subject service-members and commanders to criminal responsibility based on distorted legal principles, establish a standard that no military could reasonably meet, delegitimize and constrain the U.S. military, embolden potential adversaries and, therefore, increase the risk to civilian populations unable to defend themselves against terrorist entities.

Therefore, proper adherence to LOAC entails stringent observance of LOAC requirements and imposition of additional policy-based constraints only when they serve the interests of mission accomplishment. The United States and its allies should devote resources to countering existing misunderstandings of LOAC. When restrain is exercised for reasons other than legal obligations, the United States should also explain its motivations and reasoning, lest it contribute to further misunderstanding of LOAC requirements.

> **Recommendation 2a:** *The U.S. Government should declare that it will continue to abide by the Law of Armed Conflict, but will not be bound by an interpretation of international law that attempts to apply the standards of International Human Rights Law to military operations.*

U.S. forces will inevitably operate against enemies who will attempt to exploit LOAC in a fashion similar to Hamas's conduct. While we respect their restraint and innovation, we *do not* believe the Israeli level of restraint should be the expectation for adherence moving forward. Israel's additional warning measures above and beyond the standard set by LOAC – although morally admirable – may prove incompatible with operational and tactical requirements in future conflicts. Just as the attempt to distort LOAC may inhibit policymakers from utilizing military force to combat irregular organized armed opponents, adherence to overly restrictive rules of engagement for fear of criticism or prosecution will reduce U.S. forces' effectiveness when deployed for combat, since it could lead them to consistently err on the side of caution – to the potential detriment of both their physical safety and accomplishment of their mission. To attempt to deter such distortions of law against U.S. forces in future operations, while stressing its commitment to mitigating risk to civilians, the U.S. military should continue to emphasize its strict adherence to LOAC and carefully ensure that additional constraints are properly characterized and derived from interests related to mission accomplishment, and not imposed in response to distorted or erroneous interpretations of legal obligation.

> **Recommendation 2b:** *The U.S. military should, as soon as possible, take the lead in educating other elements of the U.S. government, the media, the population and where possible the United Nations and international audiences, on the Law of Armed Conflict in order to preempt legal distortions and misunderstanding of the line between law and policy.*

The type of flawed legal analysis that was so common during the course of the 2014 Gaza War is built on a foundation of misunderstanding at best, and deliberate distortion at worst. Therefore, in addition to educating the U.S. military on LOAC and the distinction between legally-mandated restraint and policy-based enhancements to the law, it is important that the media, the U.S. government, the population and where possible the United Nations and international audiences be educated as well. This should be a concerted, deliberate effort, for as long as our adversaries perceive distortion and exploitation of LOAC as a potential weapon against us. The U.S. military and government should actively and vociferously oppose those who attempt to use international law illegitimately to manipulate opinion to gain sympathy for the very organizations that most egregiously violate international law. The U.S. government has an interest in constantly highlighting the illegal conduct of terrorist groups and of other state and non-state actors and hybrid enemies. Simultaneously, the United States must itself adhere to international law and LOAC obligations scrupulously, and must ensure it explains the legal justification and legal basis for its actions and operations constantly, credibly and comprehensively.

> **Recommendation 2c:** *Israel should consider proposing an alternate investigation into IDF and Hamas targeting procedures and decisions, to be conducted by NATO and ANZUS militaries that conducted combat operations in Iraq and/or Afghanistan.*

It would be a grave error to allow inexperienced critics to determine legal culpability and outcomes through effects-based analysis of the 2014 Gaza War. Instead, legal compliance must be assessed through the lens of contextual reasonableness: whether operational judgments are within a range of reasonable decision-making similar to that made by experienced commanders in the same or similar situation. It is in Israel's interest, therefore, to propose an alternate investigation into IDF targeting procedures and decisions. This should be led by the North Atlantic Treaty Organization (NATO) and Australia, New Zealand, United States Security Treaty (ANZUS) countries who fought in Iraq and Afghanistan, as they would have a

proper understanding of the complexities of fighting irregular forces nested within a civilian population. We believe such an investigation would provide a more objective understanding of Israel's conduct than the current U.N. Human Rights Commission inquiry, would uphold LOAC as the legal standard for armed conflicts such as the 2014 Gaza War, and could also establish standards of accountability for non-state actors that violate LOAC.

Information: From Domain to Campaign

Hamas's strategy in the 2014 Gaza War included tactics that inevitably led to the deaths of their own civilians, and that manipulated international law to accuse Israel of war crimes. However, by themselves these tactics were not sufficient to achieve Hamas's objectives. To influence international opinion against Israel, Hamas also needed to be able to propagate its message. Not only did Hamas succeed in this, but Israeli strategic communications proved largely incapable of overcoming Hamas's narrative. Such use of information operations is likely to become an increasingly common part of irregular adversaries' strategy in asymmetric conflict against conventional militaries. If, as Clausewitz said, war ultimately is a contest of wills, the information age increases the importance of fighting war in the information domain.

> **Observation 3a:** *Hamas supported false claims against the IDF by distorting stories and images to serve the organization's narrative, and by manipulating stories in the international media.*

Despite ample evidence of Hamas's indiscriminate firing against Israeli civilians and reckless disregard for and exploitation of Gazan civilians, the only significant international outrage over the conflict was in regard to Gazan civilian casualties. Indeed, the few cases of Hamas's illegal actions documented by international journalists received very little traction in the international media. This is a testament to Hamas's understanding of, and ability to control, modern media.

Through a combination of their own media releases, including false information, and manipulation of access to what journalists and U.N. officials were allowed to see, Hamas proved very effective at exploiting images of civilian deaths, particularly children, to gain international sympathy to their cause and a high degree of international opposition to the Israeli cause. Further, Hamas was effective at not allowing access to their more brutal and illegal actions, beyond what they published themselves as part of their internal intimidation efforts.

To support this line of effort, Hamas operated a wide array of websites and social media accounts to disseminate its messages in multiple languages, with each online outlet tailored to a specific audience. Its Arabic-language websites and social media outlets focused on glorifying jihad against Israel and providing statistics on the numbers of rockets fired into Israel. It also posted videos of attacks carried out by the Qassam Brigades against the IDF. Conversely, its websites in Western languages emphasized Israel's aggression and the deaths of innocent civilians.[133]

These messages and outlets were centrally coordinated, as Hamas's interior ministry issued guidelines to Gaza Strip social media users instructing them to refer to all Gaza casualties as civilians. "Don't forget to always add 'innocent civilian' or 'innocent citizen' in your description of those killed in Israeli attacks on Gaza." Hamas's guidelines also urged Gazans to "avoid publishing pictures of rockets fired into Israel from [Gaza] city centers" and "not [to] publish close-ups of masked men with heavy weapons, so that your page will not be shut down on the claim that you are inciting violence."[134]

Moreover, Hamas coerced international journalists reporting from Gaza to cover only the stories it wanted told. According to the Foreign Press Association, Hamas conducted "blatant, incessant, forceful and unorthodox" intimidation of international journalists in the Gaza Strip who attempted to film rocket launches, yet provided the international media free access to Gazan hospitals to cover casualties.[135] The Head of Foreign Relations in Hamas's Information Ministry, Isra al-Mudallal, conceded that Hamas had strong-armed journalists, as Hamas security personnel would give the journalists "some time to change their message" and "one way or another" they would be forced to change their reporting. She also admitted that reporters were kept "under security surveillance" and that reporters were deported from Gaza after they tried to film the launching of rockets against Israel, which al-Mudallal called "collaborating with the occupation."[136]

The results of this campaign of misinformation and manipulation are stark. Hamas's accusations of Israeli disregard for civilians and violations of LOAC effected a significant change in international opinion. In the United States, where a March 2014 Gallup Poll showed 64 percent of Americans sympathized with Israel as opposed to 12 percent supporting Palestinians, a July 2014 Pew Research Center poll showed that only 40 percent of Americans blamed Hamas for the outbreak of the 2014 Gaza War, while 19 percent blamed Israel.[137] Similarly, whereas in 2012 only 17 percent of Britons said they "feel especially unfavorable towards" Israel in 2012, an August 2014 survey by Chatham House showed that number had risen to 35 percent, making North Korea the only country more loathed by Britons.[138]

> **Observation 3b:** *Israel confronted a series of internal and external challenges in conducting information operations.*

We believe these gaps between reality and perceptions of the Gaza War stem from the fact the IDF was overwhelmingly focused on fighting and winning at the tactical level. However, at the strategic level the IDF lost the information operations campaign, thereby undermining the legitimacy of its tactical performance and negatively shaping the environment for its next fight with Hamas.[139] This conclusion was shared by some IDF officers whom we interviewed. One admitted that "we are good at doing the right things, but not very good at talking about them." Another Israeli general conceded that "information operations were pretty poor in this operation."

The IDF-Public Affairs (IDF-PA) branch was not complacent or inactive in response to Hamas's efforts. Over the 51 days of the 2014 Gaza War, IDF Spokespersons Unit personnel were deployed to the brigade and territorial command level while IDF-PA was responsible for providing information to the 1,400 journalists covering the conflict. The IDF's strategic communications campaign during the 2014 Gaza War was better than in the Second Lebanon War (2006) or in Operation Cast Lead (2008-9). The IDF significantly improved the timeliness of making available military images and video to its strategic communications operators.

IDF-PA facilitated 1,458 interviews of IDF spokespersons in different languages, released 185 videos to the international media, issued 86 official press releases, and the Spokesman for International Media – Lieutenant Colonel Peter Lerner – conducted 354 interviews and over twenty phone briefings. The IDF also improved their use of social media, with a 571 million-person reach via Facebook, 145 million users exposed to the IDF Twitter Feed, and 336 video items released. This information campaign was a success with regard to Israel's domestic audience, as one public opinion poll last summer showed that 95 percent of Israeli Jews believed the military campaign in Gaza was justified.[140] We have no information regarding the opinions of non-Jewish Israelis, or how they might have changed.

Yet the broader information operations campaign was critically hampered by several factors. First, there is a mismatch of roles and capabilities between IDF-PA and the Ministry of Foreign Affairs (MFA). The IDF members we talked to viewed their strategic communication audiences as the military and the Israeli domestic audience, and as noted above, their strategic communication efforts with these audiences was highly successful. However, the responsibility for international audiences fell to the MFA. Those MFA officials we spoke with readily admitted that international audiences were their responsibility, but also noted they did not have the wherewithal, and specifically the timely military information, video and images, that the military had, in order to effectively influence them. Responsibility for this mismatch in roles and capabilities – and any subsequent strategic communications failures that resulted – ultimately falls at the feet of the Government of Israel, not the IDF.

Second, for procedural reasons the IDF Spokespersons Unit had a difficult time countering Hamas's claims of civilian casualties in Gaza. Though full-motion video and other forms of intelligence often existed supporting the IDF's version of events, it was reluctant to release these to the media because they were classified. Moreover, if the incident in question was subject to an ongoing or potential investigation by the MAG, video could not be released lest it jeopardize the due process rights of the IDF personnel involved. Israeli generals we spoke with recognized that Israel suffers strategically from this stringency, but were adamant that protecting servicemen's rights were paramount. Additionally, whereas Hamas appeared comfortable making unfounded accusations freely, as a democracy Israel is expected by international audiences to be more precise and accurate in its statements to the media. This higher standard for precision can be problematic in a constant, instantaneous news cycle, as frequently by the time the truth emerges the media has moved on to the next headline-grabbing incident. Relatedly, using the short and short-lived format of social media to convey complex information about military operations and LOAC compliance effectively is a difficult task, and one the MFA does not yet appear to have mastered.

These institutional limitations to the IDF's information operations campaign are compounded by the news media's inherent motivations. In addition to the possibility of physical intimidation noted above, the media often favors "if it bleeds, it leads" coverage, and the effectiveness of Iron Dome in last summer's conflict ensured the preponderance of casualties were in Gaza rather than in Israel. Additionally, there is a natural human tendency to sympathize with the underdog, and it is easy for journalists to portray Israel as the region's Goliath. It is also far easier to present effects-based criticisms in short duration media reports than a more comprehensive treatment of the complex analysis related to actual LOAC compliance. Finally, there is anecdotal evidence that at least some portion of the international media is motivated by a pro-Palestinian bias, as the 2,000 Palestinians killed in the Gaza conflict appeared to gain far more coverage and more sympathy than the estimated 12,000 Iraqi civilians killed by ISIS during the same two months.[141]

Given these perceived biases, many IDF officers believe any strategic communications campaign will be an uphill battle, and that in some outlets "we are doomed to be the bad guys." The belief that it is "not a matter of evidence," because of pre-existing prejudice among some journalists, leads to cynicism amongst some Israelis. "It would sell better if we allowed them to kill fifty of ours," one general lamented, while another senior official rhetorically asked why the Jews need to always apologize for not being killed more. It seemed that many officers and officials hold a fatalistic view that Israel will never be dealt with fairly in the international community and media, and that the information campaign is inherently unwinnable. Therefore, they have given up on getting information out effectively.

As a result, while Israel was very effective in demonstrating the legitimacy and necessity of its actions to its internal audience, it was not effective at garnering broader international support for its actions. Furthermore, despite the clear violation of both LOAC cited above and of other international laws (for example, the extrajudicial killings by Hamas of "collaborators" on August 22), Israel was unable to marshal significant international condemnation of Hamas's actions.

Regardless of Israeli perceptions that they face an uphill battle in the information war against Hamas, frustration is not a strategy. Ceding the information domain to Hamas only compounds Israel's problem, as it will any responsible nation confronted with a similar adversary. Like most modern countries, Israel has enormous advantages in the information domain upon which it has yet to capitalize. For example, the IDF did not employ the concept of embedded media extensively. Much of the information provided to the media came from official spokespeople, not men and women actually engaged in the campaign. Our experience is that while official spokespeople are always important to explaining details and context, the stories of the men and women in uniform is what draws the greatest interest from readers and viewers, and has the greatest credibility. The lack of a greater embedded media effort ensured strict control of the IDF message, but may have been a missed opportunity by the IDF. Nor does Israel use its enlisted personnel in a strategic communications role. The IDF could put its "Lone Soldiers" from multiple nations in front of the cameras, and/or utilize Arab or Druze soldiers from the ranks as spokespeople, to demonstrate the diversity of Israeli society. The number of combat cameras deployed – currently one per battalion – or body cameras or other technology could be increased to allow information, such as the ubiquity of booby traps planted by Hamas in civilian residential areas or other LOAC violations, to be conveyed properly.

> **Implication 3:** *The United States increasingly will face enemies that seek to leverage Western institutions, including U.S. media, to conduct information and psychological operations aimed at the U.S. public and intended to restrict decision makers' appetite for kinetic operations.*

Potential adversaries have come to understand they cannot defeat conventional militaries on the battlefield. Even traditional asymmetric tactics, such as terrorism and insurgency, have declined in their efficacy against conventional military superiority. The U.S. military has become more adept at counterinsurgency in the past decade, and Israel's enemies realize they cannot win via terrorism. As a result, our adversaries may have evolved to using what can be termed "Information War" to gain an asymmetric advantage.

Whereas the United States and our allies perceive the information domain as merely a supporting effort in a broader military campaign, weaker states and non-state entities may now think in terms of violence as a supporting effort to their information campaign. As Ayman al-Zawahiri, al-Qaeda's second-in-command, wrote in a 2005 letter to Abu Musab al-Zarqawi, "We are in a battle, and more than half of this battle is taking place in the battlefield of the media."[142] Therefore, we believe it very likely that the U.S. military will face an adversary in the future that seeks to employ Hamas's template of exploiting civilian casualties caused by their own actions to create and propagate a narrative that undermines the legitimacy of U.S. military operations and, by extension, saps the will of the U.S. public and political leaders alike to continue such campaigns.

Liberal democracies cannot win wars without popular support; our values make us sensitive to causing unnecessary suffering to civilian populations. Recent history is replete with examples of how military operations by the United States or its allies have been impacted negatively

by an aversion to collateral damage. For example, the death of three hundred civilians in the bombing of the Al Firdos bunker almost ended the U.S.-led air campaign against Iraq in 1991. It was several days before U.S. commanders were permitted to bomb Baghdad again, and then only for a few high-priority targets.[143] The fear of causing civilian casualties was a significant factor behind the Clinton Administration's decision not to launch missile attacks against Osama bin Laden when he was believed to have been located in Afghanistan in December 1998 and May 1999.

During the fight for Fallujah in April 2004, an Al Jazeera news crew invited into the city by insurgents became the source for pooled video of the battle broadcast throughout the world, transmitting deceptive images from Fallujah's hospital and grossly exaggerating reports of the number of civilian casualties. This led to political pressure from our Iraqi partners to halt the offensive before its culmination, transforming the 1st Marine Expeditionary Force's (MEF) tactical success into a strategic defeat. Conversely, the 1st MEF had nearly two months to shape the strategic environment prior to the Second Battle of Fallujah in November 2004. Over 90 reporters were embedded with the Coalition units deployed to retake the city, and were able to counter enemy propaganda. Finally, Secretary of State Condoleezza Rice reportedly told Israel to cease operations during the 2006 Second Lebanon War because of imagery (and an inconsistent IDF public affairs response) after the destruction of a three-story house in Qana, allegedly by Israeli jets, killed 28 people, half of them children.[144] How collateral damage is presented to a global audience can become a strategic issue.

It is possible Hamas and other terrorist organizations have grasped a new warfare dynamic faster than conventional armies of nation states, and that they also possess an unfair advantage in this realm. Deception, denial, untruthfulness, manipulation, intimidation and threat of violence against their population and media are tools readily available to these adversaries. All of these tools can be used to manipulate the information domain to influence audiences and win the contest of wills. Conversely, the U.S. military and government – and those of our allies – must and will conduct lawful operations, and can rely only on truth as a source of information.

> **Recommendation 3a:** *The U.S. government and military must develop a whole-of-government approach to countering non-state actors' advantages in the information domain that properly apportions responsibility, authority and resources.*

The U.S. government and military must come to grips with the increased importance and use of the information domain in war. They must develop effective countermeasures to this enemy advantage, as it threatens to exploit a strategic vulnerability for the United States and its allies. The first order of business is to establish responsibilities and provide the resources to effectively fight and win in this domain. Similar to Israel, the State Department is responsible for the international audience, but despite the best efforts of many people for more than a decade, it lacks the mission focus and wherewithal to win. On the other hand, the most capable weapons in America's arsenal in this environment reside in the military, but they are prohibited or muted in their use.

Consequently, like the IDF in Gaza, we often underperform in this domain. A whole-of-government approach to this problem is required, with either the *authority and responsibility* given to the military, the *responsibility and resources* given to the State Department or a clear division of responsibilities between the two. In either case, the responsible entity must be held accountable for providing accurate and legally sound information to foreign audiences

in a format and through media that will have the broadest reach and greatest impact. This is a serious issue that must be resolved. The United States must commit itself to winning in this domain while remaining true to our values.

Within the U.S. government, an understanding must be developed that opinion in the information domain is driven by the inextricable link between what we say, the images we provide and – possibly most importantly – what we do. This does not mean resorting to propaganda or allowing the military to influence domestic audiences. Instead, the United States must develop the capability to more effectively spread accurate and legally-sound information about its military operations and diplomatic efforts to foreign audiences. The information domain is global, and the significance of information operations rises as our adversaries become simultaneously more willing to deliberately falsify information, and more capable of reaching worldwide audiences to counter our narrative or achieve their own agendas. The U.S. government must address the issue, develop a consensus on how it will operate and commit to winning back U.S. supremacy in this domain, just as we have sustained supremacy in physical domains of warfare. We do not know whether resurrection of the U.S. Information Agency – an oft-debated idea – is merited. However, we believe the status quo does not serve our nation well.

> **Recommendation 3b:** *Information operations experts need to be involved in strategic and operational planning, operations must be conducted with the "information effect" clearly in mind, and new and better informational tools must be developed.*

Within the U.S. military, recognition that warfare in the information age is significantly different in many respects than in the industrial age is not new. In fact, the military has extensive experience in the last thirteen years trying to adapt to this new reality. The extent of the difference may be underappreciated institutionally, however, and the weapons development for this kind of warfare lagging.

The U.S. military should develop better tools to execute information operations; allow faster transmission of images and information from operators to information specialists; develop simulations and simulators to allow this domain to be exercised; and update doctrine to account for how the information domain can strategically dominate a conflict. Influencing information environments now must be part of strategic decision-making. Not only do information operations experts need to be involved in operational planning, but the idea of "information effect" driven operations deserves further development. Finally, in military planning, it is important to acknowledge that the execution of the current campaign or war also shapes the environment for the next conflict. This concept was brought up to us a number of times by Israelis, but in our experience does not necessarily become part of our military or policy options discussions in the United States.

New technologies that can analyze social media on a large-scale basis and promulgate our message truthfully and broadly – and yet also affordably – are among those that must be developed in this domain. Additionally, the requirement to forensically document enemy actions and get the evidence into the public domain quickly is essential to effectively countering our adversaries' false information. Therefore a wide-area, full-motion video surveillance system that can effectively monitor an enemy's area of operation is critical.

The Role of Technology: Mitigation and Innovation

Although Hamas's main strategy might have been victory in the court of international public opinion through the manipulation of facts and distortion of law, it also confronted Israel in new ways on the physical battlefield. Hamas demonstrated a clear understanding of Israel's military advantages, and deployed tactical and technological innovations to negate those advantages to the highest degree possible. It sought to penetrate Israeli territory not only with rockets and missiles, but from underground tunnels as well as from the sea and air.

> **Observation 4:** *The IDF underappreciated the extent of Hamas's recent tactical and technological innovations, especially tunnel warfare.*

The new combat capabilities that Hamas demonstrated in the 2014 Gaza War presented serious challenges to the IDF, and made the conflict the most costly in terms of IDF casualties since Hamas seized power in Gaza in 2007.[145] Though incursions via naval insertion and UAVs were rebuffed, Israel lacked the technology to detect and quickly destroy the nearly three dozen attack tunnels Hamas had constructed. This forced Israel to launch an improvised ground campaign in Gaza that, while successful in achieving its operational objectives, came at significant cost in terms of IDF casualties.

Hamas attempted to expand the scope of the conflict by infiltrating Israel from the sea and the air, demonstrating an unprecedented, albeit limited, level of "jointness" in its operations. Naval commandos that reportedly trained in Iran with advanced, bubble-free diving equipment, landed near the Israeli town of Zikim just north of Gaza on July 9, 2014, but were detected and killed by the IDF once out of the water.[146] Detection of swimmers below the surface appeared to be beyond IDF capability, and is an area of increasing importance for locations that have underwater avenues of approach.

Similarly, several UAVs attempted to infiltrate Israeli airspace from Gaza, but were not successful. Though one drone allegedly returned from its mission with aerial photographs, the only one to make it into Israel was shot down by a Patriot missile, while the others were shot down over Gaza.[147] The proliferation of UAVs is a trend likely to continue among non-state military forces.

Hamas had more success firing mortars into communities in southern Israel, which often only had fifteen seconds of warning before the rounds impacted. Iron Dome defenses were not designed to intercept mortar or artillery rounds, and Hamas leveraged this gap to their advantage. Indeed, while Hamas's longer-range missiles attracted more headlines, its mortars were arguably more effective, as the mortars actually forced the evacuation of some southern villages.

Undoubtedly, Hamas's most significant tactical innovation since the previous conflict was its use of tunnels to negate Israel's superiority in aerial reconnaissance and airpower. The extensive tunnel network beneath Gaza offered cover and concealment for infrastructure, command functions and commanders, forces, weapons and ammunition, making it extremely difficult, if not impossible, for the Israelis to detect or prevent movement of fighters, supplies, munitions and weapons within the battle space. The tunnels were integral to rocket operations, increasing the challenge for the IDF in finding launch positions and launchers, and enabling launch teams to evade Israeli strikes. This allowed Hamas to continuously launch rockets into Israel and drive Israelis into shelters throughout the duration of the conflict, and provided

increased defensive resiliency by making it more difficult to target a key center of gravity: Hamas's senior operational leadership.

The infiltration tunnels were an extension of this adaptation, and allowed a limited number of Hamas fighters to travel undetected underground until they surfaced in Israeli territory. Hamas had dug 32 offensive tunnels, 15 of which reached into Israel. Each tunnel was tall enough for an adult to stand and wide enough for two men to walk abreast. Each also possessed an internal communications system, and was reinforced by concrete with compartments to store weapons, food and potential hostages. The tunnels reached several hundred meters into Israel, and were capable of serving Hamas in coordinated raids on multiple targets inside Israel.

These tunnels posed a new tactical challenge for the IDF. As one IDF commander noted to us, this ability to flank the IDF from the rear redefined the concept of the front line during the 2014 Gaza War. IDF units sometimes found themselves two kilometers into Gaza destroying the entrance to a tunnel, only to have Hamas special forces emerge from the same tunnel into Israel and threaten Israeli civilians. While the IDF was searching for tunnels west of the border fence with Gaza, Hamas dispatched assault squads through tunnels to its eastern side inside Israeli territory. These squads executed six tunnel-based infiltration operations, in four cases engaging Israeli forces and killing eleven Israeli soldiers from the headquarters of the Brigade 188 commander, the forward command headquarters of a battalion commander at the officers' training school and the guard force of the squad commanders' school at Nahal Oz.[148]

In addition to these tactical challenges, Hamas's attack tunnels also proved difficult to target and destroy. The IDF knew where these attack tunnels began, but did not possess a technology capable of determining where they went or where their exited within Israel. For fifteen years, Israel tried an array of seismologic, magnetic and radar systems to detect Hamas's tunnels, but without success. Because of the tunnels' depth – sometimes descending as far as 30 meters below the surface – the technologies used by U.S. agencies to find smuggling tunnels under the Mexican border were not applicable to the Israeli-Gaza border.[149] Initially, Israel's political leadership sought to neutralize the tunnels through bombing. This proved ineffective, as it obscured the tunnel entrances and failed to destroy the tunnels' branches or the assault teams waiting underground. The inability to detect these tunnels remotely and accurately ultimately required a major ground incursion by the IDF.

Even when the tunnel entrances were secured, other problems delayed and frustrated the operation to destroy the tunnels. A shortage of excavators and drillers meant the tunnels had to be dealt with sequentially rather than simultaneously, thereby prolonging the ground operation. Once on site, robots proved difficult to use, as they lost communications when they advanced 100 meters into the tunnel. Consequently, IDF engineers were sometimes only able to destroy the first or last 200 meters of a tunnel, which could easily be re-excavated by Hamas. Exploding the tunnels was also a challenge, as the air pressure at that depth reduced the effectiveness of various explosives. In certain cases up to 16 tons of Emulsion and sixty mines were needed to destroy a single kilometer of tunnel.[150]

The commitment of IDF ground forces was not desired or originally planned, but they were (and are) the only practical option to deal with the tunnel threat. While successful in accomplishing the ground offensive's stated objective, this came at significant cost. It resulted in the majority of IDF casualties, and increased Gazan civilian casualties by necessitating the use of artillery to support IDF ground units inside Gaza.

Implication 4: *Unconventional adversaries can leverage low-tech solutions to overcome technological advantages enjoyed by conventional militaries.*

It is highly probable that U.S. forces will encounter at least three of Hamas's recent innovations in future conflicts with irregular adversaries: tunnels, underwater infiltration and UAVs. As noted above, adversaries have learned to move into built-up areas to evade U.S. intelligence, surveillance and reconnaissance (ISR) assets and deter strikes with large munitions by exploiting densely-populated civilian areas. As U.S. forces become more adept at engaging targets in built-up areas, the next logical asymmetrical response for irregular forces will be to move underground to tunnels.

There is already evidence that Iran, North Korea and Hezbollah have developed extensive underground command and control facilities for this purpose, with the latter two also believed to be working on tunnels for offensive purposes as well. Thus, just as trench warfare was effective in the early 20th century until effective countermeasures were created, "tunnel warfare" is likely to become more prolific to degrade U.S. dominance in aerial ISR and precision attack. In all areas, but especially urban areas, we should expect the enemy to exploit subterranean tunnels, either existing or newly made, to both defend against and attack U.S. forces. We should also expect their tunneling capability will become even more sophisticated and rapid. Additionally, we should expect underwater infiltration using hard to detect "breathers" and improvised UAV attacks to become part of the repertoire of non-state military organizations.

Recommendation 4a: *Tunnel detection and destruction technology capable of reaching significant depths in a variety of terrain conditions must be rapidly developed to counter the increased use of tunnels.*

Although U.S. urban warfare doctrine – as expressed in Joint Publication 3-06, "Joint Urban Operations" – notes the potential utilization of sewers in urban operations, it does not contemplate the potential for an elaborate network of tunnels such as Hamas developed beneath the Gaza Strip, which in addition to the attack tunnels discussed above is believed to include nearly seventy kilometers of defense and command and control tunnels within Gaza. Neither does it anticipate the rapid construction of tunnels using prefabricated bracing and mechanized equipment that Hamas has practiced. Such a system of underground fortifications may constitute a separate, new "Subterranean Domain" of warfare equivalent to land, sea, air and cyber domains, requiring its own tactical doctrine.[151]

Tunnel detection and destruction technology must be rapidly developed to counter the increased use of tunnels, and ideally should be able to be aerial platform-mounted and reach to significant depths in a variety of environments, including urban terrain. Cooperation between the United States and Israel in the development of the Iron Dome air defense system that played such an important role in the 2014 Gaza War, as well as earlier conflicts, might provide a useful model for the funding, research and development of new technology to better detect tunnels.

The Department of Defense should also conduct extensive testing of thermobaric weapons – which have been used successfully against caves in Afghanistan – against tunnel networks. Further, our own tunneling technology needs to be developed. It will be very difficult to clear or exploit enemy tunnels if U.S. troops can access only their entrances and exits. A tactical tunneling capability to rapidly dig our own entrances into enemy tunnels –

while being protected underground ourselves – can negate the effects of enemy defenses and booby traps.

Cooperation between the United States and Israel on tunnel defense could involve the following agencies:

- U.S. Army Engineer Research and Development Center's (ERDC) Remote Sensing and Geographic Information Systems (RS/GIS) Center;
- ERDC Geospatial Research and Engineering (GRE) program;
- Defense Advanced Research Projects Agency (DARPA);
- National Reconnaissance Office (NRO);
- National Geospatial-Intelligence Agency (NGA);
- National Aeronautics and Space Administration (NASA);
- Air Force Intelligence, Surveillance and Reconnaissance Agency (Air Force ISR Agency or AFISRA); and/or
- U.S. Border Patrol.

Recommendation 4b: *A counter-UAV air defense network needs to be further developed to detect and destroy large numbers of small explosive UAVs utilizing swarming tactics. A combination of tactical defense systems and organizations – including the Navy's Laser Weapons System prototypes – should be examined.*

Though the unmanned aerial systems employed by Hamas during the 2014 Gaza War were relatively primitive – at least two Israeli officers compared them to "model airplanes" – this is unlikely to remain the case for long.[152] Hezbollah has been able to penetrate Israeli airspace on multiple occasions, coming perilously close to key infrastructure sites and major population centers. Because the technologies involved in developing UAVs are cheap and commercially available, it is likely that hybrid adversaries such as ISIS and other al-Qaeda affiliates will acquire this technology in the next decade. We expect to see these UAVs employed for reconnaissance, attack with rockets and bombs or more simply armed with explosives and used in kamikaze-like "suicide" operations.[153] This is the poor man's equivalent of a precision munition that can gather real-time intelligence and strike rapidly.

A counter-UAV air defense network needs to be further developed to account for "swarms" – large numbers of small, explosive UAVs attacking simultaneously and in a coordinated fashion. Although we doubt any non-state group currently has the ability to overwhelm U.S. defenses with swarming tactics, we believe it is a fair assumption that such use of small and cheap attack UAVs is likely to proliferate. U.S. forces must have the ability to detect and destroy large numbers of these systems as they are swarmed against our forces on land and at sea.

Therefore, an examination of the mix and match of tactical air defense systems and organizations may be in order. Not only are Patriot missiles an expensive way to fight a drone, thereby putting the United States on the wrong side of a cost-imposing strategy, but an air defense system armed with a limited number of missiles could easily be overwhelmed by an adversary that employs a swarming strategy. The Army and Marines should examine the feasibility of deploying laser-defense systems – including those recently fielded by the Navy for ship defense – against massed swarms of UAVs.[154]

Recommendation 4c: *The United States needs to continue to refine intelligence collection, targeting procedures and munitions – to include wide-area surveillance and non-lethal technology – for future urban conflicts.*

The United States needs to continue to refine intelligence collection, targeting procedures and munitions for future urban conflicts. The U.S. military cannot target successfully without overwhelming ISR, yet Hamas showed that in dense urban environments overhead surveillance can be defeated simply by using nets over alleyways or other narrow roadways. The U.S. military must develop even better precision weapons in anticipation of non-state entities' use of protected structures and human shields. Moreover, since there is no ideal way to attack targets in buildings, the U.S. military should continue to explore the feasibility of non-lethal technology in urban operations, to include the possibility of delivering these systems from an airborne platform.

Recommendation 4d: *The United States should develop an underwater swimmer detection capability that can be used on a wide area basis to detect underwater infiltration attacks.*

The ability to detect underwater swimmers is a requirement for numerous scenarios and is an area of urgent need. Improvements in "underwater breathers," which do not emit the detectable bubbles of traditional SCUBA gear, can be a formidable threat in a variety of situations. Technology is needed to effectively detect such attempted attacks on a variety of critical targets, including naval ships, port facilities and other critical infrastructure on coastal or river locations.

Recommendation 4e: *Develop and deploy a robust counter-mortar and counter-artillery active protection system to enable the destruction of inbound artillery and mortar rounds, similar to the way Iron Dome counters rockets.*

The Iron Dome system has proven effective in defending against the level of rocket fire Hamas initiated from Gaza. Furthermore, the Phalanx close-in weapon system has proven effective against the close-in missile threat at sea and at ground locations. However, more work is necessary to develop a countermeasure against incoming mortar and artillery fire. While we have the technological know-how to detect the launch and probable point of impact of artillery and rockets, and while we have firing systems like Phalanx, we have not sufficiently paired the two to provide protection from mortars and artillery. Additionally, the Phalanx has certain negative consequences, namely that those rounds that do not strike the incoming projectile have the potential for secondary collateral damage. Therefore, while kinetic solutions with conventional weapons may be a necessary interim measure, some of the research into other types of weapons without the potential for collateral damage (e.g., lasers) should be focused on developing countermeasures for this threat.

APPENDIX I: Gaza Background

The modern Gaza Strip is a narrow enclave of dune-covered plains along the Mediterranean coast, home to 1.8 million people crowded into 140 square miles, and bordered by Egypt to the southwest and Israel to the north and east. Since its founding in 1948, Israel has taken control of Gaza and surrounding areas multiple times. Each time, it subsequently relinquished control as part of a ceasefire or negotiated settlement. Israeli forces first took the region in the 1948 Arab-Israeli War, before ceding the current Gaza Strip to Egypt as part of the 1949 armistice. That same year, Palestinian terrorist groups (*Fedayeen*) with Egyptian military support began systematic raids against Israeli civilians, killing over 400 from 1951-6. Israel retook Gaza as part of its broader operation against Egypt in the 1956 Suez Crisis, before withdrawing and being replaced by Egyptian forces in early 1957.

Israel took control of Gaza again during the 1967 Six-Day War, and began opening a portion of the area to Israeli settlement. The 1978 Camp David Accords between Israel and Egypt did not include Gaza in the land transferred back to Egypt, since that agreement anticipated a future autonomy deal under Palestinian auspices. Significant terrorist attacks on Israel from Gaza – including suicide bombings and abductions of IDF soldiers – resumed with the outbreak of the First Intifada and the founding of Hamas as the Palestinian branch of the Muslim Brotherhood in 1987. After six years of conflict, the IDF withdrew from the 80 percent of Gaza without Israeli settlements as part of the 1993 Oslo agreement between Israel and the Palestinian Liberation Organization (PLO). Attacks from Gaza on Israel – now including rocket attacks – resumed during the Second Intifada (2000-5), immediately after which Israel dismantled settlements, including forcibly removing Israeli settlers, and withdrew unilaterally from the entirety of Gaza.

Shortly after its victory in the January 2006 Palestinian parliamentary elections, Hamas increased the frequency of rocket attacks on Israel and abducted Israeli soldier Gilad Shalit in a cross-border raid via tunnel. Another IDF incursion into Gaza, this time to suppress rockets and secure Shalit's release (Operation Summer Rains, June-November 2006), was followed by another ceasefire. The rate of rocket fire from Gaza actually increased over the following two years, especially after Hamas evicted Fatah during the brutal Battle of Gaza in the Palestinian Civil War (2007). A ceasefire was finally agreed in June 2008, only to be broken when Hamas resumed rocket launches in response to an IDF attack on a tunnel it believed Hamas would use again to abduct Israeli soldiers. Israel launched another partial ground invasion of Gaza in December 2008 (Operation Cast Lead) to degrade Hamas's operational capabilities.

During the subsequent ceasefire (2009-12), Hamas acquired mortar capabilities and rebuilt and improved its rocket arsenal with Iranian and other foreign support. As a result, rocket and mortar attacks on Israel from Gaza escalated abruptly by November 2012, prompting Israel to carry out eight days of airstrikes against launch sites, weapons depots, smuggling tunnels and Hamas's senior operational leadership in Gaza (Operation Pillar of Defense). Many of the rockets launched at Israeli population centers were intercepted by the new Iron Dome missile defense system, enabling Israel to avoid having to undertake another ground operation to search out and destroy components of Hamas's arsenal.

The ensuing ceasefire mostly held until June 2014, when Hamas operatives in the West Bank kidnapped and murdered three Israeli teenagers. This pattern of violence, extending back decades, is inseparable from Hamas's categorical hostility to Israel's existence. The group's founding charter holds that no true Muslim "can abandon [Palestine] or part of it," and that there is "no escape for raising the banner of Jihad" to remove Israel from it.[155] Hamas condones any tactics necessary to contribute to its ultimate goal, including both indiscriminate attacks on Israeli citizens and leveraging Palestinian citizens as martyrs in its self-proclaimed struggle.[156]

APPENDIX II: Status of Forces

<u>Hamas</u>

Hamas at the outset of the 2014 Gaza War was a formidable force of highly-organized and well-equipped combat units disposing of much of the basic weaponry and training of a modern conventional military. Its order of battle in summer 2014 reflected its extensive buildup of key offensive and defensive military capabilities since the 2012 conflict. This took several forms.

First, Hamas rebuilt its rocket arsenal to a level roughly equivalent to that prior to Pillar of Defense. Before the July 2013 removal of Mohamed Morsi's Muslim Brotherhood government in Egypt, Hamas and other military groups in Gaza used cross-border smuggling tunnels in Sinai to replenish their stockpiles from Iran, Libya and elsewhere.[157] Once the successor Egyptian government under General Abdeh Fattah al-Sisi neutralized these tunnels, Hamas and others switched to manufacturing additional rockets using indigenous materials and technicians that had been trained in Iran and Syria, among other places.[158] Through these activities, by summer 2014 Hamas possessed an estimated 6,000 rockets, supplemented by approximately another 4,000-5,000 rockets belonging to Islamic Jihad and other Gaza-based groups.[159] Additionally, these groups possessed several thousand short-range mortars, supplied chiefly by Iran.[160]

Second, Hamas increased the range of its arsenal. It both smuggled and manufactured variants of the short-range (up to 30 miles) Qassam and Grad rockets that form the bulk of its arsenal, allowing it to target the major Israeli population centers of Ashdod, Ashkelon and Beersheba.[161] Simultaneously, Hamas and Islamic Jihad built increasing numbers of Fajr-5-type rockets, based on Iranian-provided technology, that allowed it to first target Tel Aviv and Jerusalem during Pillar of Defense. Many of these medium-range rockets (up to 50 miles) were more accurate than those fired in 2012.[162] Hamas also smuggled dozens of longer-range (up to 70 miles) M-302 rockets from Syria that enabled it to begin targeting Israel as far north as Haifa for the first time.[163] In addition, Hamas launched domestically-manufactured armed unmanned aerial vehicles (UAVs) against Israel for the first time since the 1990s.[164]

Third, Hamas constructed an extensive and sophisticated network of offensive tunnels and underground launchers, both within Gaza and extending into Israel. Many of these tunnels were large enough to transport military supplies and personnel behind Israeli lines, and also deep enough to severely hamper detection or, failing that, neutralization by Israeli forces.[165] The sophisticated and rapid construction of these tunnels was facilitated by Hamas's use of improvised tunneling machines and manufactured preformed components for walls and ceilings.

Finally, Hamas improved its overall defensive capabilities. In addition to maintaining dozens of air defense systems supplied from Iran and Libya via Sudan and Sinai – primarily mobile antiaircraft artillery (AAA) units, surface-to-air missiles (SAM) and antitank guided missiles (ATGM) – it significantly improved its passive defenses.[166] Alongside the expansion of its offensive tunnels, Hamas constructed widespread underground command and control, weapons storage and other logistical facilities. Most of these, as well as rocket launch sites, were embedded throughout much of Gaza's dense urban environment, including in: hospitals, schools, religious sites, apartment complexes and other civilian buildings.

Hamas's weaponry and infrastructure were at the disposal of its military organization: the Qassam Brigades.[167] The Qassam Brigades were divided into traditional military formations of six regiments; each was responsible for a sector of the Gazan front with Israel, and several

were grouped together under regional commanders.[168] The average regiment was a combined-arms unit consisting primarily of infantry (85 percent of total manpower) armed mainly with assault rifles, grenade launchers and sniper rifles, in conjunction with: artillery, made up mainly of well-trained rocket and mortar teams; air defense, focused on manning AAA and SAM sites; armor, tasked with countering IDF armor; special forces, used for infiltration behind Israeli lines; engineers, which built and maintained tunnels; as well as intelligence and other units.[169] Before the closure of Gaza's smuggling tunnels, foreign fighters from the Middle East and further abroad helped fill out the ranks of these units.[170]
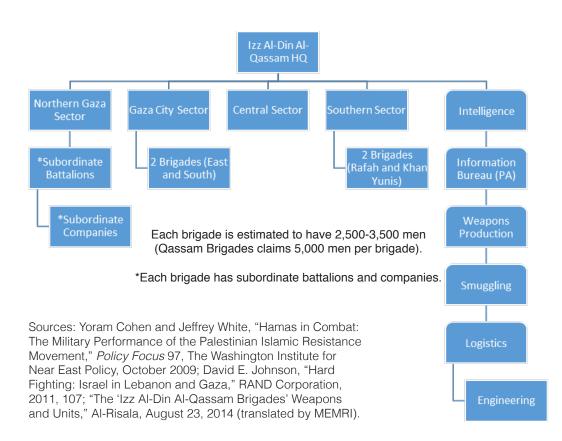
Each brigade is estimated to have 2,500-3,500 men (Qassam Brigades claims 5,000 men per brigade).

*Each brigade has subordinate battalions and companies.

Sources: Yoram Cohen and Jeffrey White, "Hamas in Combat: The Military Performance of the Palestinian Islamic Resistance Movement," *Policy Focus* 97, The Washington Institute for Near East Policy, October 2009; David E. Johnson, "Hard Fighting: Israel in Lebanon and Gaza," RAND Corporation, 2011, 107; "The 'Izz Al-Din Al-Qassam Brigades' Weapons and Units," Al-Risala, August 23, 2014 (translated by MEMRI).

Figure 2: *Hamas Qassam Brigades Table of Organization*

Israel

The IDF activated a major portion of its ground combat forces, reinforced by air, naval, support and special forces for Operation Protection Edge. The IDF surrounded the Gaza Strip's northern and eastern land borders with ten infantry, armored and paratroop brigades. Its foremost infantry and armor units with previous combat experience in the West Bank, Second Lebanon War or Operation Cast Lead (the 1st "Golani" and 933rd "Nahal" infantry and 401st armored brigades) were among these, and were earmarked for any potential ground offensive into Gaza.[171] Of the ten brigades, six were deployed from central or northern Israel, including all three of its active armored combat brigades. Furthermore, these six brigades included the three that formed the core of Northern Command's armored units (36th Armored Division) tasked with defending Israel's northern borders – an area of relative quiet with Hezbollah and the Syrian military tied down in the Syrian Civil War[172] Once in the theater of operations, these were reinforced by combat infantry and territorial units from Southern Command – including the northern and southern Gaza territorial brigades – most of which were deployed along the border to guard Israeli territory and forces against infiltration from tunnels.[173] Finally, the IDF called up more than 80,000 reservists during the conflict, both to allow its frontline ground maneuver brigades to deploy around Gaza and to provide IDF commanders the ability to sustain major ground combat operations there if necessary.[174]

At the outset of the conflict, each of the three active IDF armored brigades contained three armor battalions organized around Israeli-made Merkava main battle tanks (roughly 20-30 per battalion), supported by combat engineer, reconnaissance and counter-armor units. Combat infantry brigades – each consisting of approximately 3,000-4,000 soldiers – were organized around three infantry battalions (each equipped with armored personnel carriers) with similar supporting units.[175] Artillery units utilizing self-propelled howitzers and precision-guided missiles were deployed to the front line to provide fire support for the infantry and armor brigades, and for combat engineer units.[176]

Prior to the 2014 Gaza War, Israel had six deployed batteries of the Iron Dome air defense system to intercept rockets launched from Gaza toward major Israeli population centers.[177] Five of these batteries were used during Operation Pillar of Defense, when the system intercepted 420 rockets in its first significant action.[178] Israel rushed three more into service at the onset of hostilities in summer 2014, reflecting in part the magnified threat to Israel civilians posed by improvements and growth in Hamas's arsenal since the end of 2012.[179]

APPENDIX III: The Law of Armed Conflict

One of the asymmetries that irregular forces seek to exploit against their conventional opponents – especially if that opponent is a liberal democracy – is commitment to rule of law. States that respect their own citizens' rights and rule of law generally demand that their armed forces conduct operations in accordance with all applicable domestic and international law. This is rarely the case among guerillas, insurgents, and terrorists armed groups. Irregular fighters frequently perceive exploitation of the presence of civilians as a tactic that will provide functional immunity from law-committed militaries. However, these tactics are emboldened by widespread misunderstanding of law of armed conflict (what was known historically as the laws and customs of war); a misunderstanding built upon the false assumption that the law prohibits the infliction of civilian casualties. Though international law does seek to protect civilians by requiring armed forces to take measures to mitigate civilian risk during hostilities, the danger to civilians inevitably will be exacerbated by existing misconceptions among warring parties as well as the media, observers and the international public about which laws govern conduct in conflict, the content of those laws and how they are to be applied.

International Law and the Limitation on Violence: The Complex Relationship between Human Rights Law and Law of Armed Conflict

The law that developed – through treaties, such as the Geneva Conventions, general principles and customary law – to regulate the use of military force during conflict and mitigate the suffering produced by conflict is referred to as the Law of Armed Conflict (LOAC), also commonly known as International Humanitarian Law (IHL). This specialized body of law is distinct and separate from the more general legal regime known as International Human Rights Law (IHRL), which provides protections to all humans against arbitrary government power during both peace and war.

International Human Rights Law and the Law of Armed Conflict are two distinct branches of international law. However, both play some protective role during armed conflict. It may seem intuitive or appropriate that the broader canon of IHRL, such as the international human "right to life," would be applicable to and govern all situations, to include prohibiting infliction of civilian casualties during armed conflicts. However, this type of generalized invocation of IHRL reflects a fundamental misunderstanding of international law at best. At worst, it represents a deliberate effort to neuter the authority provided by international law to armed forces to leverage military power during armed conflict to impose their will on their opponents. Nevertheless, it is gaining traction among legal scholars and currency among the international community.

However, this does not mean IHRL plays no role in assessing the legality of conduct during armed conflict. To be certain, some international law experts believe LOAC is the exclusive source of applicable international law during armed conflict, and that accordingly IHRL has no relevance in such situations. However, this is not the majority understanding of the relationship between these two branches of international law. Instead, during the past several decades, there has been an increasing recognition that certain fundamental human rights obligations continue to apply to states, and to their armed forces, even during armed conflict. Under this approach, IHRL is seen as complementary to LOAC, with "core" or "fundamental" human rights norms – most notably the prohibition against arbitrary deprivation of life or liberty – applying even during armed conflict.

Unfortunately, this complementary application of both IHRL and LOAC to armed conflicts has led to an increasingly common demand that armed forces comply with all peacetime human rights standards. Thus, for example, advocates for expansive application of human rights norms assert that military forces must use the minimum necessary force to disable members of organized enemy groups, essentially imposing a law enforcement use-of-force paradigm on combatants that completely countermands the dictates of military necessity during armed conflict, and undermines the careful balance between necessity and humanity inherent in LOAC. These advocates fail to acknowledge that the norms of IHRL they invoke were developed to regulate government actors during peacetime and are utterly ill-suited to the regulation of hostilities during armed conflict.

Moreover, such an interpretation produces a fundamental distortion, replacing the proper complementarity of these two sources of law with a privileged position for the constraints and norms of IHRL, even during armed conflict. This legal reasoning is invalid. While it may indeed be true that the IHRL prohibition against arbitrary deprivations of life and liberty apply during armed conflict, this does not justify the extension of peacetime based IHRL standards for assessing *what amounts* to an arbitrary deprivation to the armed conflict environment.

In fact, a fundamental principle for the interpretation of international law states that, when two legal codes compete to regulate the same action, the more specific law takes precedent over the more general one. Commonly referred to as *lex specialis* – from its statement in Latin as "*lex specialis derogat legi generali*," or "specialized law overrules general law" – this principle has been recognized since the earliest attempts to understand international law. Hugo Grotius, the founder of modern international law, argued in his writing on the laws of war that:

> Among agreements which are equal…that should be given preference which is most specific and approaches most nearly to the subject in hand, for special provisions are ordinarily more effective than those that are general.[180]

This principle and its application to conflict was given even clearer articulation in the International Court of Justice's Advisory Opinion on the legality of the use of nuclear weapons in war. Considering whether the IHRL protections against the arbitrary deprivation of life should apply during conflict and by the source of applicable law that determines whether loss of life is in fact arbitrary, the Court found that:

> The test of what is an arbitrary deprivation of life, however, then falls to be determined by the applicable *lex specialis*, namely, the law applicable in armed conflict which is designed to regulate the conduct of hostilities. Thus whether a particular loss of life, through the use of a certain weapon in warfare, is to be considered an arbitrary deprivation of life contrary to [IHRL], can only be decided by reference to the law applicable in armed conflict and not deduced from the terms of the Covenant itself.[181]

As a result, the Court clearly ruled that any consideration of what actions are or are not lawfully permitted during armed conflict are regulated by LOAC:

> [T]he Court concludes that the most directly relevant applicable law governing the question of which it was seised, is that relating to the use of force enshrined in the United Nations Charter and the law applicable in armed conflict which regulates the conduct of hostilities, together with any specific treaties on nuclear weapons that the Court might determine to be relevant.[182]

Thus, it is LOAC regulatory framework, and not a peacetime IHRL framework, that defines what is or is not lawful military action during armed conflict. For example, whether a death caused during an attack is unlawful, and therefore arbitrary, is not to be judged based on peacetime IHRL standards, but instead pursuant to LOAC – the set of rules developed specifically to regulate the conduct of hostilities and the use of combat power during armed conflict.

However, even among those who recognize it is LOAC, not IHRL, that defines the legality of military actions in armed conflict, there often persists a misunderstanding of the content of LOAC. Though some international officials and media commentators reflexively, albeit erroneously, label any civilian death a "war crime," LOAC does not prohibit outright any and all civilian casualties.[183] Instead, it strikes a balance between military necessity and humanitarian protection. In fact, it is an unfortunate reality of both war and international law that LOAC tolerates the infliction of harm to civilians and destruction of civilian property during armed conflict, prohibiting such harm only when it is inflicted deliberately, or when it is assessed as an excessive incidental consequence of a deliberate attack on a lawful target.

Jus ad Bellum

International law comprises two legal frameworks applicable to war and the use of military force. First, the *jus ad bellum* determines when a nation can lawfully resort to the use of military force within the constraints of the U.N. Charter framework and established legal principles. Although Article 2(4) of the U.N. Charter establishes a presumptive prohibition against the use or threat of force by one state against another, the U.N. Charter and customary international law recognize three situations where this presumption is rebuted 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 (Article 42) 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 first 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 measure necessary to maintain international peace and security."[184]

International law establishes three requirements a state must satisfy when using force in response to an armed attack. First, the requirement of necessity allows the use of force only when there do not exist adequate non-forceful options to 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 and the use of force in response – possibly to be measured by comparing casualty figures between the two sides – but rather that the measure of counterforce used is proportionate to the needs and goals of repelling the original attack. Hence, the force used in response may be significantly greater than that used in the original attack if it is necessary to stop or defeat the original attack.

Finally, the requirement of *imminence* separates self-defense from unlawful retaliation, such as in cases when a state uses force in anticipatory self-defense or long after an attack is over – but not in response to an ongoing attack.[185]

The second legal regime applicable to war and the use of military force is the *jus in bello*, which regulates the actual conduct of hostilities. Originally known as the law of war, today it is more commonly referenced as the "law of armed conflict" (LOAC). These regulatory norms are meant to balance the necessity to employ military force to efficiently bring an enemy into prompt submission with the humanitarian interest of mitigating, to the extent feasible, the inevitable suffering produced by armed hostilities. Central to this balance are rules developed to limit to the extent feasible the harmful effects of war to only lawful military targets, and in so doing mitigate, though not eliminate, the risk to civilians and civilian property.

The *jus in bello* is comprised of 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 the application of legal principles, 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 submission of the enemy. 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 therefore unlawful.

The second principle is *humanity*, which prohibits the infliction of suffering that cannot be justified by military necessity. Humanity is most significant in relation to the protection of individuals who do not or no longer actively participate in hostilities, and is the legal foundation for unqualified rules of protection for prisoners of war, detainees, civilians taking no part in hostilities, and the wounded and sick. These protections may not 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. In short, while LOAC generally prohibits the infliction of unnecessary suffering in war, it also implicitly recognizes that both belligerents and civilians will suffer necessary consequences of war.

The third principle is *precaution*. This requires an attacking commander to take all feasible precautions to mitigate risk to civilians and civilian property inherent in the attack. 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.

Fourth, the principle of *distinction* requires military forces to constantly 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; the former are lawful objects of attack unless captured or incapable of fighting as the result of wounds or sickness; the latter are protected from deliberate attack unless and for such time as they directly participate in hostilities. 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: directly participating in hostilities.

Property that is civilian in appearance and nature may also qualify as a lawful military objective when, due to the "nature, location, purpose or use, [the property] 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."[186] Accordingly, deliberately attacking a civilian that has not forfeited protection from attack as the result of direct participation in hostilities, or civilian property that has not been transformed into a military objective, is strictly prohibited. However, pursuant to LOAC, both civilians and civilian property may qualify as lawful military objectives, and when this occurs, they may be deliberately attacked.

Finally, while 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 deliberate object of an attack, 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 to be excessive in relation to the advantage expected to result from the attack. This rule is commonly characterized as the principle of *proportionality*, which prohibits attacks only when the attacking commander reasonably anticipates that the harm to civilians and damage to civilian property will be excessive in relation to the concrete and direct military advantage expected to result from the attack. This 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.

While this rule is characterized one of "proportionality," it does not require a close balance between anticipated risk and gain. Rather, the term "excessive" indicates LOAC requires a more significant imbalance between the anticipated potential for collateral damage and the anticipated military advantage from an attack on a lawful military objective before a commander is prohibited from proceeding.

Moreover, when assessing proportionality, one must separate decisions made *in bello* (during conflict) at the operational level from those made *ad bellum* (heading into conflict) at the strategic level. The targeting decisions made by commanders is an entirely separate branch of law from the decisions of national leaders regarding how much force can justifiably be exercised pursuant to their country's right to self-defense. In the latter 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 IHRL principle of proportionality, the *in bello* principle in no way protects the lawful object of attack, but instead only innocent 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). Thus, the proportionality principle of *jus in bello* does not mean that the 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 they can reasonably expect to occur based on what they know at the time. Ultimately, the risk of collateral damage and/or incidental injury to civilians does not render an attack automatically prohibited and unlawful, and compliance with this rule cannot be assessed by focusing on the effects of an attack (casualties), but must be based by considering the situation that confronted the commander when the attack decision was made.

Indeed, rendering civilians entirely and always inviolable during war would create a moral hazard by incentivizing their exploitation. If the necessity, distinction, proportionality and precaution principles are all satisfied in the target decision-making process, the nominated target qualifies as a lawful object of attack. While civilian casualties resulting from a strike on such a lawful target may be inevitable and are always tragic, inflicting such casualties does not automatically indicate a LOAC violation.

Moreover, adherence to these principles must be judged on what is known at the time of the decision to strike a target, not on the ultimate attack effects – what is best understood as a "contextual reasonableness" assessment. The touchstone of LOAC compliance is reasonableness based on the information available to a commander: the reasonableness of the judgment that the target qualified as a lawful military objective; the reasonableness of the judgment that all feasible precautions had been utilized; and the reasonableness of the judgment that the risk to civilians and their property was not excessive in relation to the anticipated military advantage. Therefore LOAC does not condone a post-hoc effects-based critique.[187]

This balance between protecting civilians and facilitating the effective execution of military operations, even when they place civilians at risk, is central to LOAC and reveals the logical relationship between military necessity and humanity. Thus, while LOAC does not disable the ability of a military force to attack an enemy that seeks to exploit the presence of civilians for tactical advantage, it does complicate such action. This, coupled with the knowledge that the international community will gravitate towards "effects-based condemnation" whenever an attack does in fact produce civilian casualties, is exploited by actors such as Hamas and fundamentally undermines the logic of the law. In short, LOAC's balance between necessity and humanity can function ideally only when both parties to a conflict endeavor to mitigate civilian risk, which is rarely the case with conflicts such as the 2014 Gaza War.

Additional LOAC protections for civilians in the case of irregular conflicts come from its customary application to all organized armed groups, even those belonging to non-state actors. Not only does LOAC disincentivize unconventional adversaries from hiding among civilians, but it burdens them with the same restrictions on targeting or risking the injury of civilians as govern the conduct of their conventional opponents.

While military professionals are knowledgeable in these principles and in the rational relationship between LOAC and the nature of military operations in armed conflict, the media and general public are not. This asymmetry in understanding and application of LOAC creates strategic opportunities that unconventional adversaries can exploit by ignoring LOAC's requirements themselves, while demanding an invalid interpretation of it for their opponents.

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