

# Overview



# PRECISELY WRONG

Gaza Civilians Killed by Israeli Drone-Launched Missiles



The corner of the 'Allaw family house where 10-year old Mu'min 'Allaw was killed by an IDF drone-launched missile on January 5, 2009. The al-Habbash family home can be seen two blocks away.

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An Israeli-made Heron UCAV (unmanned combat aerial vehicle). A gimbal camera is seen underneath the aircraft's nose.  
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## During the recent fighting in Gaza from December 27, 2008, to January 18, 2009, the Israel Defense Forces (IDF) killed dozens of Palestinian civilians with one of the most precise weapons in its arsenal: missiles launched from an unmanned combat aerial vehicle (UCAV)—the latter more commonly known as a drone. Alongside weapons that affect large areas, such as high explosive artillery and artillery-fired white phosphorous, Israeli forces in Gaza used drones in precisely targeted attacks that killed and wounded civilians.

Military experts around the world have extolled drone-launched missiles as weapons with pinpoint accuracy, which can minimize civilian casualties. Their use is rapidly expanding, for example by the United States in Afghanistan and Pakistan, in part because the use of drones places no friendly military personnel directly at risk.

But as Human Rights Watch's investigation in Gaza demonstrates, drones, much like sniper rifles, are only as good at sparing civilians as the care taken by the people who operate them. The accuracy and concentrated blast radius of the missile can reduce civilian casualties, but in Gaza, Israel's targeting choices led to the loss of many civilian lives.

The total number of Gazan civilians killed by drone-launched missiles remains unclear. Israeli and Palestinian human rights organizations—B'Tselem, the Palestinian Centre for Human Rights, and the Al-Mezan Center for Human Rights—together reported 42 drone attacks that killed 87 civilians.<sup>1</sup> Amnesty International told the media that it documented 48 civilian deaths from drones, and this does not represent the full number.<sup>2</sup>

This report focuses on six Israeli drone strikes, which in total killed 29 civilians, eight of them children. It is based on interviews with victims and witnesses, investigations of the attack sites, IDF and media reports on the fighting, and in one case IDF video footage of the attack. Human Rights Watch determined that in all of these attacks the Israeli military directed their strikes on individuals who were all found to be civilians. In none of the cases did Human Rights Watch find evidence that Palestinian fighters were present in the

immediate area of the attack at the time. None of the targets were moving quickly or leaving the area, so the drone operators would have had time to determine whether they were observing civilians or combatants, and to hold fire if they were not able to tell the difference.

In the incidents investigated by Human Rights Watch, Israeli forces either failed to take all feasible precautions to verify that the targets were combatants, apparently setting an unacceptably low threshold for conducting attacks, or they failed to distinguish between combatants and civilians and to target only the former. As a result, these attacks violated international humanitarian law (the laws of war).

The technological capabilities of drones and drone-launched missiles make the violations even more egregious. Israeli drones are equipped with high-resolution cameras and advanced sensors, which allow drone operators

to view objects on the ground in detail during both day and night. One Israeli drone operator who flew missions in Gaza during the recent fighting told an Israeli military journal that he was able to discern clothing colors, a large radio, and a weapon. In addition, the missile launched from a drone carries its own cameras that allow the operator to observe the target from the moment of firing to impact. If doubts arise about a target after a missile has been launched, the drone operator can remotely divert the weapon elsewhere. With these advanced visual capabilities, drone operators who exercised the proper degree of care should have been able to tell the difference between legitimate targets and civilians.

Typically in modern militaries, drones have at least one ground-based pilot to fly the aircraft and an operator who uses the sensors to scan for targets. Military lawyers may be consulted to help determine whether targets are legitimate. Because of the slow speed of the drones and their long flight time (up to 24 hours), they can loiter over the battlefield for hours at a time with no danger to the pilot or operator, allowing for targeting decisions based more on observation from a distance. Although Human Rights Watch does not know the IDF's exact procedures, these are generally accepted best practices.

Despite these technological capabilities, the six cases documented here indicate that the IDF repeatedly failed to verify that its targets constituted military objectives. Although drone-launched missiles are known to have killed Palestinian fighters in other attacks (sometimes along with high numbers of civilians), the attacks investigated here were all far from



A fragment found by Human Rights Watch researchers that had been embedded in a light post across the street from the UNRWA-sponsored Gaza City Technical College. Human Rights Watch found dozens of these small Tungsten cubes or square holes left by them at every site of a drone attack.

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areas where fighting between Israeli and Palestinian forces was taking place, and multiple witnesses said that no Palestinian fighters were in the vicinity at the time.<sup>3</sup> As such, the drone operator would have had time to assess the legitimacy of the target without placing Israeli soldiers on the ground at greater risk.

In one daytime attack on December 27, the first day of the Israeli offensive, an IDF drone-launched missile hit a group of students who were waiting for a bus in central Gaza City, across the street from the headquarters of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), killing nine students, two of them women, and three other civilians. The IDF has failed to explain why it targeted the group on a crowded central street with no known military activity in the area at the time.

Two days later, a drone-launched missile struck a truck outside a metal shop east of Jabalya refugee camp in northern Gaza, killing nine civilians, three of them children. The IDF promptly distributed video footage of the attack (probably taken by a camera on the drone) and claimed that the men were loading Grad rockets onto the truck. The IDF video raises doubts that the target constituted a military objective—doubts that should have guided the drone operator to hold fire. Specifically, the video shows men loading onto the open-

backed truck cylindrical objects that were significantly shorter than Grad rockets (which, at nearly three meters, are taller than a man and longer than the width of the Mercedes-Benz 410 truck onto which the cylinders were loaded crossways). On-site research revealed that the objects were actually oxygen tanks. The IDF eventually conceded this fact, but said that four of the eight men killed were “ Hamas operatives ”—a claim not borne out by the evidence.

In another case, on the night of January 5, a drone-launched missile hit the Asma elementary school in Gaza City run by the UN, which at the time was housing about 400 displaced persons. The missile killed three young men from the Sultan family while they were using the school’s bathroom, with no evidence of military activity in the area at the time. The school had lighted signs, and the UN had provided the IDF with the GPS coordinates of all its schools and facilities.

The remaining three attacks detailed in this report hit children, ranging in age from eight to sixteen, who were playing on rooftops in residential neighborhoods, killing six and wounding six. Human Rights Watch found no evidence that the children were participating in hostilities, such as by acting as artillery spotters for Hamas, relaying IDF troop locations for attack, or trying to launch a rocket from the roof. Instead, these three attacks all took place in the first days of the IDF’s ground operation, before Israeli forces approached Gaza City’s central neighborhoods, so spotters to direct fire would not have been required. Human Rights Watch also found no evidence of militant activity in these areas, including rooftop rocket fire, at the time of the attacks. Again, the visual capabilities of the drones and missiles should have made clear the absence of weapons on the roofs and that the targets were playing children. Absent a legitimate military target, the drone operator should not have fired.

Human Rights Watch inspected all the attack sites covered in this report. In all cases, the impact mark of the missile and the fragmentation pattern were consistent with the Israeli-produced Spike missile, which has a concentrated blast and spreads tiny cube-shaped fragments up to 20 meters away.<sup>4</sup> Other commonly used weapons, such as anti-tank Hellfire and



Adib Mundhir al-Rayyis holds his x-ray to the light. On the top left is a piece of cubic-Tungsten shrapnel from an Israeli missile. Adib's legs also contain shrapnel which will all have to be eventually removed.

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TOW missiles fired from attack helicopters, do not leave such a pattern. Human Rights Watch also found circuit boards and other missile parts consistent with the Spike. Some of the wounded civilians showed impact marks from the cubic fragments, and in one case x-rays showed metal cubes lodged in the leg and chest of a victim. Victims and witnesses also spoke of hearing the distinctive buzz of the overhead drone—what Palestinians call a zannana—prior to an attack.

All six of the attacks happened in densely populated areas, including in central Gaza City. Five of the attacks took place during the day, when civilians were shopping, returning from school, or engaged in other ordinary activities, which they

most likely would not have done had Palestinian fighters been in the area at the time, either shooting rockets into Israel or engaging Israeli forces.

This report does not examine the drone attack with the highest number of casualties during the Israeli offensive: the December 27 strike on the police headquarters in Gaza City that killed about 40 people, including several dozen police cadets at their graduation ceremony. Human Rights Watch's limited time in Gaza prevented a full investigation to determine how many of those killed were policemen performing civil functions, and therefore not valid military targets, and how many were involved in military operations, or whether the police academy served a military function that rendered it a legitimate military target.<sup>5</sup>

On March 12, 2009, Human Rights Watch submitted to the IDF a list of detailed questions about Israel's use of drones and drone-launched missiles, including specific questions about the cases in this report. As of June 3, the IDF had not replied.



A burned oxygen canister sits among the debris of an attack by an IDF drone in Jabaliya; the IDF initially claimed that the canisters were Grad rockets. Grad rockets are 2.87m long while this oxygen canister is 1.62m long. Nine civilians were killed when an IDF drone-launched missile struck the truck on which they were loading the oxygen canisters on December 29, 2008.

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The questions to the IDF are provided as an appendix to the report. The IDF also repeatedly declined to meet Human Rights Watch to discuss the cases in this report, as well as other matters related to the conduct of both Israeli and Hamas forces during the offensive, which the IDF named Operation Cast Lead.

In public statements, Israeli officials have countered allegations of unlawful civilian deaths by claiming that the IDF had warned Gaza's civilian population in advance by dropping leaflets, making telephone calls, and breaking into local radio and television broadcasts.<sup>6</sup> International humanitarian law encourages armed forces to provide advance warnings of an attack when circumstances permit, but the warnings must be "effective." In Gaza, the IDF's warnings were too vague, often addressed generally to the "inhabitants of the area." Leaflets were dropped from high altitudes and scattered over wide areas; many Gaza residents told Human Rights Watch that they disregarded the leaflets because they were so common and widely dispersed. In addition, the warnings often did not instruct civilians on what steps to take or where to find safety after fleeing their homes. With the beginning of the ground offensive on January 3, the IDF warned residents to "move to city centers," but then some city centers, such as in Gaza City, Beit Layiha, and Jabalya, came under attack, as two of the

incidents documented in this report show. Ultimately, Gaza residents had no safe place to flee, given the closure of Gaza's borders, enforced mostly by Israel but also by Egypt in the south. Finally, even after warnings have been issued, international humanitarian law requires attacking forces to take all feasible precautions to avoid loss of civilian life and property. Just because an attacking force has issued an effective warning does not mean it can disregard its obligations to civilians; attacking forces may not assume that all

persons remaining in an area after a warning has been issued are legitimate targets for attack.

The Israeli government is obligated under international law to investigate serious violations of the laws of war. Individuals who have committed violations of the laws of war with criminal intent—that is, intentionally or recklessly—are responsible for war crimes. The laws of war governing unmanned aerial drones such as those used by the IDF treat them the same as other weapons systems. Military or civilian personnel found responsible for committing or ordering unlawful drone attacks should be disciplined or prosecuted as appropriate.

In addition, given the repeated civilian casualties from drone-launched missiles during the recent fighting, the IDF should conduct a more general investigation into the weapon's use and take all necessary measures to ensure that factors specifically related to the drones or missiles deployed are not contributing to civilian casualties or laws-of-war violations. Taking into account the weapon's highly discriminate nature, the inquiry should investigate every mission involving drone-launched missiles in which civilians were wounded or killed, including a review and analysis of the gun-camera video of each attack.

So far, the IDF has shown no willingness to examine objectively its actions during Operation Cast Lead. On April 22, it released the results of an internal investigation, which concluded that IDF forces "operated in accordance with international law" throughout the fighting and that "a very small number" of "unavoidable" incidents occurred due to "intelligence or operational errors."



Muhammad al-Habbash holds the photos of his daughter Shaza and niece Isra, both killed by an Israeli drone-launched missile on January 4, 2009.

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Because of the repeated failure by Israel and Hamas to investigate impartially alleged violations of the laws of war by their own forces, Human Rights Watch called for an independent and impartial international investigation into violations by both sides during the fighting in Gaza and southern Israel. On January 12, the United Nations Human Rights Council voted to investigate violations only by Israel against Palestinians—a decision Human Rights Watch criticized as one-sided.<sup>7</sup> But subsequent negotiations created a highly respected investigation team with a balanced mandate “to investigate all violations of International Human Rights Law and International Humanitarian Law that might have been committed at any time in the context of the military



Muhammad al-Habbash holds the remnants of his daughter’s jeans, shredded by cubic fragments from an Israeli missile. She was killed on January 4, 2009.

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operations that were conducted in Gaza during the period 27 December 2008 to 18 January 2009, whether before, during or after.”<sup>8</sup> The investigation will be headed by Justice Richard Goldstone from South Africa, former chief prosecutor of the international war crimes tribunals for the former Yugoslavia and Rwanda. Israel has not officially indicated whether it will cooperate with Justice Goldstone's investigation, but officials quoted in the media have indicated that it will not. Hamas has said that it will cooperate.

Both Israel and Hamas should cooperate fully with the Goldstone commission. Regarding drone-launched missiles, Israel should provide the video footage and other documentation of its attacks in which civilians were wounded or died. Both the Israeli-manufactured Hermes and Heron drones that Israel used in Gaza have devices that record everything viewed by the drone operator and would shed light on IDF compliance with the laws of war in the attacks that resulted in civilian deaths.

Nehru al-Rayyis holds a mourning poster of his two sons and their cousin, all killed by an IDF drone-launched missile on December 27, 2008. They had been outside near a UN bus stop where nine students were also killed in the blast.

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Ahmad Abdallah Samour stands in front of his metal shop in Jabaliya where an IDF drone-launched Spike missile killed nine civilians on December 29, 2008. They had been loading oxygen canisters onto the truck when the missile struck; the IDF initially claimed they had been moving Grad rockets.

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Looking out from the rooftop of the al-Habbash family; an Israeli missile exploded on this corner of the building, killing two and injuring 4.

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<sup>1</sup> See the websites of B'Tselem (<http://www.btselem.org/English/>), the Palestinian Centre for Human Rights (<http://www.pchrgaza.org/>), and Al-Mezan Center for Human Rights (<http://www.mezan.org/en/>).

<sup>2</sup> Amnesty International was cited in a video produced by the Guardian. See “Cut to Pieces: the Family Drinking Tea in a Compound,” <http://www.guardian.co.uk/world/series/gaza-war-crimes-investigation> (accessed April 26, 2009). Amnesty International also published a blog entry on Israel’s use of drone-launched missiles. See Amnesty International Livewire, “Faulty Intelligence, Wanton Recklessness, or a Combination of the Two,” February 1, 2009, <http://livewire.amnesty.org/2009/02/02/faulty-intelligence-wanton-recklessness-or-a-combination-of-the-two/> (accessed April 29, 2009). Amnesty International subsequently sent Human Rights Watch the names of 58 civilians whom it believes had been killed by drones.

<sup>3</sup> In one case researched by Human Rights Watch, a drone-launched missile hit the Ibrahim al-Maqadema Mosque in Jabalya during afternoon prayer on January 3, killing two members of Hamas’s armed wing and 13 civilians, four of them children. At least 25 civilians were wounded.

<sup>4</sup> The IDF possibly used the Nimrod missile or AGM-114K2A “Hellfire 2” missile; however, unless radically modified, the Nimrod is too heavy for some of Israel’s drones. Also, Human Rights Watch found no Hellfire debris at any of the sites investigated for this report.

<sup>5</sup> Under the laws of war, police and police stations are presumptively civilian unless the police are regular fighters or taking a direct part in the hostilities, or the police station was being used for military purposes, such as storing combat weapons. To date, Israel has not provided any evidence to justify the attack.

<sup>6</sup> To view and listen to the various warnings issued by the IDF, see the Israel Ministry of Foreign Affairs website, [http://www.mfa.gov.il/MFA/Government/Communiques/2009/IDF\\_warns\\_Gaza\\_population\\_7-Jan-2009.htm](http://www.mfa.gov.il/MFA/Government/Communiques/2009/IDF_warns_Gaza_population_7-Jan-2009.htm) (accessed April 6, 2009).

<sup>7</sup> Human Rights Watch, “UN Human Rights Council Approves Gaza Inquiry,” January 13, 2009, <http://www.hrw.org/en/news/2009/01/13/un-human-rights-council-approves-gaza-inquiry>.

<sup>8</sup> United Nations Fact Finding Mission on the Gaza Conflict, “Public Advance Notice,” May 25, 2009, [http://www2.ohchr.org/english/bodies/hrcouncil/specialsession/9/docs/Public\\_Advance\\_Notice.pdf](http://www2.ohchr.org/english/bodies/hrcouncil/specialsession/9/docs/Public_Advance_Notice.pdf) (accessed May 31, 2009).

# METHODOLOGY

During major military operations in Gaza from December 27, 2008, to January 18, 2009, Israel banned access to Gaza for all media and human rights monitors. Access via Rafah on the Egypt-Gaza border was also blocked by Egypt. Unable to enter Gaza, Human Rights Watch researchers spent time on the Israeli side of the 1948 armistice line with northern Gaza. On January 9, 10, and 15, researchers observed IDF drones deployed over northern Gaza.

Human Rights Watch researchers entered Gaza via the Rafah border crossing on January 21 and spent the next 14 days investigating the conduct of the conflict by both sides, and the resultant harm to civilians and civilian objects. During this period, in addition to other research, they documented the six separate missile strikes by IDF drones reported here, which altogether killed 29 civilians. Human Rights Watch researchers conducted 25 interviews with surviving victims and witnesses of these attacks, as well as with doctors who treated victims.

Whenever possible, Human Rights Watch interviewed Palestinian victims and witnesses privately and individually, collecting detailed information to corroborate their claims. Information was cross-checked with accounts of the fighting made available by the IDF or reported in the media. Names of victims were also checked against a published list of deaths from Hamas's Al-Qassam Brigades to help determine whether any of those killed were combatants rather than civilians.<sup>9</sup>

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<sup>9</sup> The list of dead from the Al-Qassam Brigades is at <http://www.alqassam.ps/arabic/statistics2.php?id=2009-01> (accessed May 14, 2009).





Locations of Israeli drone strikes covered in this report. All locations based on GPS coordinates taken at the scene by Human Rights Watch.  
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