

EMPLOYMENT OF AIR POWER IN THE ISRAEL-HAMAS CONFLICT AND THE ASYMMETRIC WARFARE PARADIGM

K VINOTH VANYA

Future wars will not be defined by a binary state, but by an ongoing continuum of operations.

– Air Marshal Ashutosh Dixit, AVSM, VSM, VM
Chief of Integrated Staff, HQ IDS

BACKGROUND

On October 7, 2023, a large-scale surprise attack against Israel was launched by Hamas, with a barrage of thousands of rockets from Gaza, combined with ground, air and maritime incursions into Israeli territory. The attacks resulted in Israel engaging in simultaneous conflicts across multiple fronts: against Hamas in the Gaza Strip, Hezbollah along the Lebanese border, the Houthi forces operating from Yemen, and the Iranian-backed militias based in Syria and Iraq. Furthermore, Israel also faced confrontations with Iran during 2024 and 2025, marking a significant escalation in the regional security environment. The history of Israel is complex with

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religious and political narratives. In 1948, David Ben-Gurion, a Zionist statesman and a political leader who later became the first prime minister of Israel, declared Israel an independent sovereign state after the United Nations Special Committee on Palestine (UNSCOP) recommended the establishment of two separate states, Jewish and Arab, in the region of Palestine.

However, the leadership of the Palestinian Arabs and the surrounding Arab states rejected the plan and almost immediately began to attack the Jewish areas to seize the entire territory. Israel has been engaged in hostilities with its Arab neighbours since then. Israel has not only fought inter-state wars but has also been caught up in asymmetrical wars and counter-insurgency campaigns involving non-state actors regularly.

Hamas stands for “Harakat al-Muqawamah al-Islamiyya”, which translates to “Islamic Resistance Movement” in English. It is a Palestinian militant group and political organisation founded in 1987. Hamas has two wings—a military wing, known as the Izz ad-Din al-Qassam Brigades, and a political wing that governs the Gaza Strip.¹ Over the years, since the First Intifada (Palestinian uprising against Israel in 1987-93, multiple wars have been fought between the Israel Defence Forces (IDF) and Hamas, Hezbollah and Islamic Jihad that have had external support from countries like Iran, Syria and Lebanon.² Israel unilaterally withdrew from Gaza in 2005 as part of its “Disengagement Plan”, after which Hamas took over the Gaza Strip in 2007 and forcibly ousted its rivals, Fatah (the former Palestinian Liberation Organisation movement, which is now in the West Bank). Israel’s

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1. Kali Robinson and Will Mellow, “What Is Hamas?” Council on Foreign Relations, October 6, 2025, www.cfr.org/background/what-hamas. Accessed on October 17, 2025.
 2. Noga Tarnopolsky and Rick Noack, “Hezbollah Steps Up Attacks, IDF Says, Fueling Fears of Wider Conflict,” *The Washington Post*, October 22, 2023, www.washingtonpost.com/world/2023/10/22/israel-gaza-war-hezbollah-iran/. Accessed on October 17, 2025.

withdrawal did not end violence, and rocket attacks on Israeli cities intensified, leading to multiple military operations. Hamas' innovation provides an example of how sub-state groups can reach strategic parity with their superiors by countering complexity with simplicity.³

The wars have been termed as the Gaza Wars with the Israel Defence Forces (IDF) carrying out numerous military operations in 2008-09 (Operation Cast Lead), 2012 (Operation Pillar of Defence), 2014 (Operation Protective Edge), 2021 (Operation Guardian of Walls), 2023 (Operation Iron Swords). In 2024 and 2025, the Israeli Air Force carried out operations beyond its borders to achieve Israeli objectives in Syria, Yemen, Iran and Lebanon. The idea of "technological regression"⁴—that weaker actors can deliberately adopt simpler, low-tech, and decentralised methods to counter sophisticated air systems—is a major challenge to the traditional military and can be seen with Israel leveraging its superior air power, while Hamas and other non-state actors rely on rockets, tunnels, and urban guerrilla tactics in achieving their aims.

METHODS EMPLOYED BY HAMAS TO CHALLENGE ISRAELI AIR FORCE

Israel has faced not only state adversaries but a persistent array of non-state militant groups. Over the past two decades, Hamas, Palestinian Islamic Jihad, Hezbollah in Lebanon and Houthis in Yemen have conducted hybrid warfare that blurs traditional frontlines. The sustained operational capacity of Hamas, despite devastating losses and Israeli superiority, illustrates that

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3. Jacob Davies, *How the Weak Deter the Strong: Airpower, Technological Regression and the Coercion Balance in the Gaza Strip*, Durham Middle East Paper No. 101 (Durham: Institute for Middle Eastern and Islamic Studies, Durham University, 2020).

4. Ibid.

the 21st century face of warfare is a contest of innovation, adaptation, and perception. The following factors have played a key role in the sustenance of their objectives:

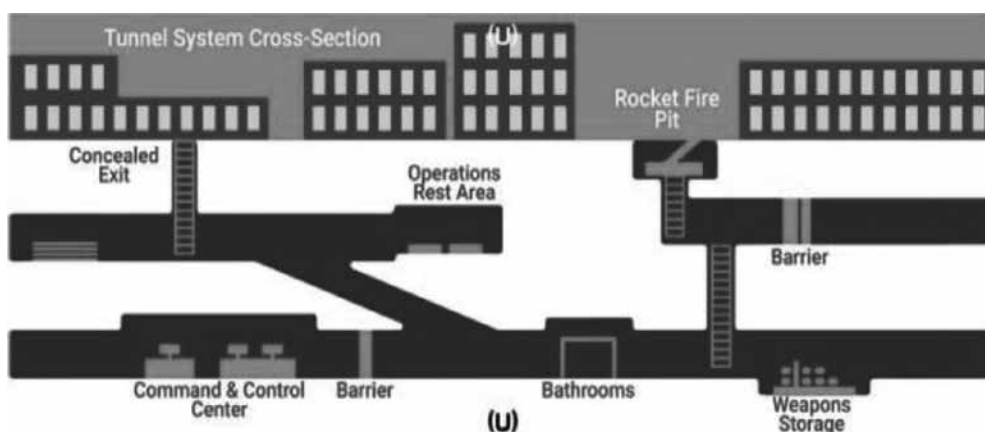
- (a) **Subterranean Network:** The strategic deployment of tunnels in warfare is not a new tactic, with its prominence arising in the Vietnam War from 1955 to 1975. Before the 2023 Gaza War, the number of tunnels in Gaza was estimated to be 1,300, spanning a total length of 500 (kilometres) km. After the war, Israel estimates the tunnels to stretch between 560–725 km. The depth of these tunnels is estimated to range between 20–30 metres (m) underground, and some even reach depths of 40–50 m.⁵ Regardless of their size, Hamas had successfully developed an advanced tunnel network over the past decade. This intricate network extended both within Gaza and beyond its borders, fundamentally transforming the dynamics of the battlefield by strategically leveraging the underground space as a crucial operational tool. It was realised that aerial bombardment alone could not solve the issue, and the Israeli Army had to carry out joint ground operations to neutralise the tunnels. The network of tunnels at Gaza had evolved into “tactical” and “strategic” tunnels to include multiple entrances and exits, control rooms equipped with electricity, ventilation systems, internal communication networks, medical facilities, and storage areas stocked with fuel and food sufficient for several months.⁶ Modern tunnel warfare is dually asymmetric, as, on the one hand, conventional defence forces enjoy military and air superiority, yet lack the experience to deal with underground risks. On the other hand, smaller, less-equipped non-state actors succeed in shifting the battleground in their favour through tunnel tactics. Israel has strategically relied on aerial bombardment, predominantly using bunker busters and thermobaric bombs to maximise tunnel destruction.

5. Majd Abuamer, “Gaza’s Subterranean Warfare: Palestinian Resistance—Tunnels vs. Israel’s Military Strategy,” *Studies in Conflict & Terrorism*, May 5, 2024.

6. Ibid.

However, these strikes only contributed to the destruction of shallow-depth tunnels.

Fig 1: Tunnel System Cross-Section⁷



- (b) **Weapon Systems:** Hamas sustained its ongoing military operations against Israel by using a mix of locally manufactured weapons and foreign-supplied arms. Despite heavy losses, Hamas has preserved a significant portion of its firepower and organisational structure through underground networks and decentralised production.⁸ The weapons of the non-state actors were no match for Israel's forces, but they were able to cause damage to cities and produce a psychological impact on the civilian population. The organisation, besides rockets, also employed Global Positioning System (GPS)-guided unmanned suicide vessels and drones. The short-range weapons had posed a challenge to the IDF forces, as non-state actors often pursued a "shoot and scoot" strategy. Long-range rockets like the Zelzal, meaning "earthquake" in Farsi, though unguided, have remained a threat as a terror weapon and for causing destruction. The low-cost projectiles had been successful in saturating the Air Defence

7. https://www.army.mil/article/288356/subterranean_operations

8. <https://en.abna24.com/news/1741990/Israeli-media-Hamas-military-capabilities-remain-intact>

(AD) systems of Israel, as seen in the October 2023 attacks. Some of the aerial weapons and platforms used by the non-state actors, as seen in the conflict, were⁹:

Table 1: Known Weapons with Hamas and Hezbollah

Sl No	Type	Name	Range/ Remarks
HEZBOLLAH			
01	SHORT-RANGE ROCKETS	KATYUSHAS	12-20 miles
02	MEDIUM-RANGE ROCKETS	FAJR 3, FAJR 5	27 miles, 47 miles
03	LONG-RANGE ROCKETS	ZELZAL 1, ZELZAL 2	60-75, 130 miles
04	SYRIAN-SUPPLIED ROCKETS	220 mm, 302 mm	43, 71 miles
05	UAV/DRONES	ABABIL, SHAHEED 136	-
06	SAM	SA 18 IR SAM, SA 8	Not Known
HAMAS			
07	LONG-RANGE ROCKETS	R-160	90 -100 miles
08	MEDIUM RANGE	M 75	47 miles
09	SHORT RANGE	QASAMS, KATYUSHAS, GRAD	2-17 km, 12 miles
10	MANPADS	STRELA 7	3-5 km
11	UAV/DRONES	SHEHBAB	SUICIDE DRONE

- (c) **Hamas' Exploitation of Urban Warfare:** The Israeli Air Force faced one of the most complex operational dilemmas in modern warfare, conducting precision strikes in densely populated civilian zones such as Gaza, while Hamas systematically embedded its forces among these

9. Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah: Learning from Lebanon and Getting It Right in Gaza* (Santa Monica, CA: RAND Corporation, 2011).

same structures. The challenge was in balancing necessity against humanitarian constraints in an environment wherein Hamas had turned Gaza's urban density into a strategic shield.¹⁰ Although the Israeli Air Force depended heavily on precision-guided munitions, Artificial Intelligence (AI)-assisted target identification and continuous aerial surveillance, it struggled to clearly differentiate Hamas command centres from civilian facilities—a vulnerability that Hamas skilfully exploited. Many air strikes, therefore, required real-time judgments that weighed the military value of the target against potential collateral damage. According to UN reports, Israeli strikes on so-called dual-use sites had frequently levelled entire residential blocks while attempting to neutralise underground militants or tunnel networks, resulting in extensive destruction. These outcomes carried significant psychological and diplomatic repercussions, as civilian casualties—though unintended—eroded Israel's international legitimacy. As a result, Israel's campaign often alternated between precision bombardment and siege warfare, with diminishing returns against a highly adaptive urban insurgency.

- (d) **Saturation of Air Defence:** The AD systems of Israel post 2011 consisted of the Iron Dome, David's Sling and Arrow 2 and 3 systems. The USA had also deployed the THAAD (Terminal High Altitude Area Defence) systems during the conflict post-2023. Israel's multi-layered AD system is comprehensive and formidable, but Hamas was successful in saturating the Iron Dome on October 7, 2023, and subsequent days by firing several thousand missiles and rockets. Israel had fewer than a thousand interceptors in the field ready to counter them. Iain Boyd, in an article in 2023, writes that "even if the Iron Dome was 100% effective against the incoming threats, there was a very large number of Hamas missiles that made their way to Israeli cities. The missiles fired by Hamas cost about \$600 each, and so they are about 100 times less

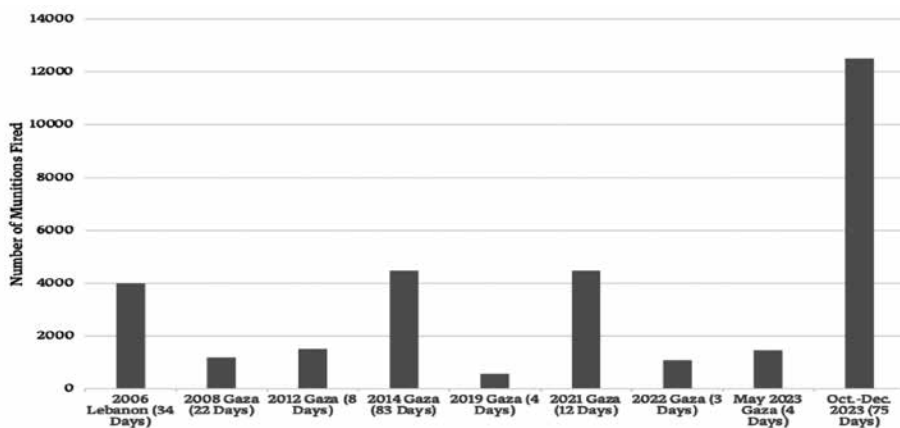
10. https://www.army.mil/article/288356/subterranean_operations_israeli_defense_force_lessons

Israel accelerated the design and deployment of the Iron Beam laser defence system post-2023 due to the unprecedented scale and frequency of rocket, drone, and mortar attacks.

expensive than the Iron Dome interceptors. The total cost to Israel of firing all of its interceptors is around \$48 million. If Hamas fired 5,000 missiles, the cost would be only \$3million. Hamas accumulated over time a large number of relatively inexpensive missiles.” Following this, the Israeli Air Force’s Iron Beam laser AD system which is in the final stages of becoming

operational¹¹, is a significantly cost-effective solution being developed by Rafael and has made Israel one of the pioneers of developing Directed Energy Weapons (DEWs). Israel accelerated the design and deployment of the Iron Beam laser defence system post-2023 due to the unprecedented scale and frequency of rocket, drone, and mortar attacks. The projectiles fired to disrupt Israel in October 2023 were the highest compared with other conflicts with Hamas from 2008 onwards.¹²

Fig 2: Projectiles Fired at Israel from 2006 to 2023



11 <https://www.armyrecognition.com/news/army-news/2025/report-israels-operational-iron-beam-ushers-in-a-new-era-of-drone-and-rocket-defense>

12 <https://jinsa.org/wp-content/uploads/2023/12/Israels-Operation-Swords-of-Iron-Update-12-29-23-2.pdf>

- (e) **External Support:** External support for Hamas in its conflict with Israel has primarily come from Iran and, to some extent, its regional network of aligned militias and political actors often referred to collectively as the “Axis of Resistance.”¹³ This support has included military technology, financial aid, training, and ideological backing. Hamas’ operations are coordinated within Iran’s multi-front strategy involving Hezbollah (Lebanon), the Shi’ite militias in Iraq, and the Houthis (Yemen). These groups carried out supportive attacks on Israel and US bases in 2023–24, including over 200 drone and missile strikes in Iraq, Syria, and the Red Sea, to divert Israeli and American resources from Gaza. This interconnected network has always exemplified Tehran’s intent to bind Israel in multi-theatre engagements.
- (f) **Unmanned Aircraft Systems:** Hamas had increasingly relied on a range of drones and unmanned systems for surveillance, targeting, and direct attacks against Israel. Hamas’ Al-Qassam Brigades had fielded several categories of drones since 2021, with a major escalation during and after the October 7, 2023, attacks. Commercial quadcopters were used to drop grenades or improvised bombs on IDF observation posts, vehicles, and sensors near the Gaza border. The Mahajir and Shehab drones, adapted Iranian-assisted designs based on the Ababil-2 class Unmanned Aerial Vehicles (UAVs), which were capable of longer-range reconnaissance and kamikaze operations. These fixed-wing drones were often used for strikes deep into Israeli territory, though most were intercepted before reaching targets. Hamas used ISR (Intelligence, Surveillance, Reconnaissance) UAVs both before and during the 2023 attacks. These drones transmitted targeting data and adjusted indirect

13. <https://www.britannica.com/topic/Axis-of-Resistance>

fire salvos (rockets, mortars) to improve accuracy and coordination—functioning as a force multiplier in their combined-arms assault that also included paragliders and rockets. Hamas had also began deploying drone swarms, combining various UAV types equipped with explosives, radio jammers, and decoys. This multi-vector strategy divided the Israeli air defence focus and increased strike effectiveness, even causing operational suspensions at some air bases and damaging sensors.

The rise, endurance, and adaptability of Hamas and other non-state actors operating against Israel revealed profound implications for modern military forces confronting asymmetric warfare. The IDF's experience underscores that even the most advanced defence systems must coexist with flexible doctrines and civic integration. Ultimately, Hamas persistence shows that asymmetric warfare has entered a new era, where determination, improvisation, and narrative control may offset traditional measures of power. For Israel and future militaries alike, victory will depend as much on learning and resilience as on weapons or technology. The wars in Gaza trapped Israel in an asymmetrical conflict with increasingly intense violence, a reality in which Hamas managed to prove the 'paradox of power': Israel's military strength becomes its weakness, while Hamas' military weakness becomes its strength.¹⁴

APPLICATION OF AIR POWER BY ISRAELI AIR FORCE

The Israeli Air Force has been the cornerstone of Israel's strategy to counter this threat. Since 2000, extensive pre-emptive, retaliatory, and strategic strikes targeting Hamas, Hezbollah, Islamic Revolutionary Guard Corps (IRGC) positions in Syria, and Iranian assets, have been executed. Post October 7, 2023, the IDF again sprang into action after Hamas fired around

14. Kobi Michael and Ilana Kwartin, "Considering Operation Protective Edge: Can Declaration of War be Part of a Strategy to Offset the Asymmetry of the Israeli-Hamas Conflict in the Gaza Strip?" *Military and Strategic Affairs*, 7, no. 1, 2015, p. 101.

5,000 rockets in the first few hours of the morning.¹⁵ The primary aim of the Israeli air operations since then was the neutralisation of Hamas' offensive capability while minimising Israeli casualties. The three objectives initially were:

- (a) Destroy rocket launchers, command tunnels, and arsenals.
- (b) Target Hamas' leadership compounds and communication nodes.
- (c) Weaken the group's capacity for long-term warfare by systematically degrading logistical and industrial infrastructure.¹⁶

From 2024 onwards, the operations were extended to conduct air strikes against the Hamas leadership abroad, target Houthi missile and drone sites in Yemen after repeated attacks on Israeli cities, and maintain defensive readiness under the "multi-front threat" doctrine involving Lebanon, Syria, and Iran.¹⁷ Air power was applied both strategically (to shape the battle environment) and tactically (to support IDF troops inside Gaza).¹⁸ Fig 3 below illustrates attacks compiled by ACLED (Armed Conflict Location and Event Data) conducted from October 23 to 24 by Israel and Hamas with its allies.¹⁹

ISRAEL MILITARY DOCTRINE OVERVIEW

In 1950, David Ben-Gurion developed the fundamentals of the Israeli military doctrine, which can be defined as a classic military doctrine. This doctrine comprised three main components: deterrence, early warning and rapid wars with decisive victory, known as the security triad. However, the major security challenge after Israel's independence was the Arab hostility, especially of neighbouring countries such as

15. <https://www.aljazeera.com/news/longform/2023/10/9/israel-hamas-war>. Accessed on October 22, 2025.

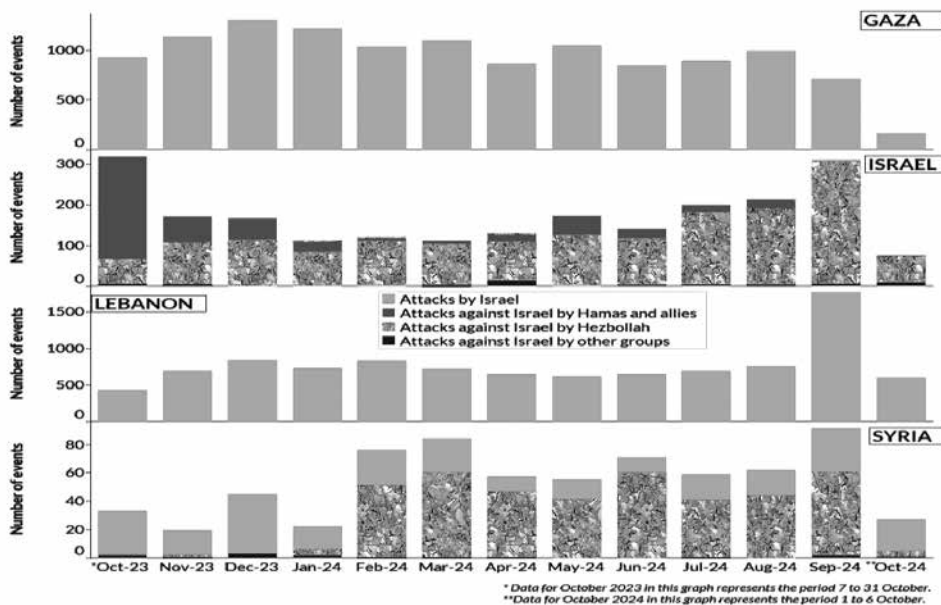
16. <https://www.congress.gov/crs-product/R47828>. Accessed on October 22, 2025.

17. Mukesh Kumar, "Power and Proxies: An Assessment of Israel's Gaza Conflict, Strategy and Capabilities," Indian Council of World Affairs (ICWA), July 2, 2025.

18. <https://www.rusi.org/explore-our-research/publications/occasional-papers/tactical-lessons-israel-defense-forces-operations-gaza-2023>

19. <https://acleddata.com/report/two-years-7-october-israels-forever-wars-across-middle-east>

Fig 3: Strikes from October 23 to 24 Compiled by ACLED (Armed Conflict Location and Event Data)



Egypt, Syria and Jordan.²⁰ This approach was demonstrated in the 1967 Six-Day War, when Israel struck first to neutralise the Egyptian and Syrian Air Forces, securing air superiority within hours. However, the 1973 Yom Kippur War exposed flaws in the over-reliance on deterrence and intelligence assessments, prompting doctrinal reevaluation and the institutionalisation of more flexible and technology-driven planning.²¹

During the late 20th century, Israel's wars transitioned from conventional inter-state battles to asymmetric conflicts. The rise of non-state actors such as Hezbollah and Hamas required a shift from traditional attrition warfare to precision, intelligence-driven operations.²² The Second Lebanon

20. Charles D. Freilich, *Israeli National Security: A New Strategy for an Era of Change* (New York: Oxford University Press, 2018).

21. Efraim Inbar, *Israel's National Security: Issues and Challenges Since the Yom Kippur War* (London: Routledge, 2008).

22. Kholoud Mahmoud, "Evolution of Israeli Military Doctrine: Adaptability in Response to Shifting Strategic Environments," May 20, 2024, <https://www.researchgate.net/publication/380727460>

War (2006) was a doctrinal turning point; the IDF faced criticism for poor coordination between air and ground elements, highlighting the need for integrated multi-domain operations.²³ Subsequent reforms led to an increased emphasis on jointness, rapid manoeuvre, and network-centric warfare, aligning tactical flexibility with strategic restraint. The Dahiya Doctrine also evolved after that, which is a military strategy of asymmetric warfare that legitimises the use of overwhelming, disproportionate force deliberately targeting civilian infrastructure. It was named after a district in Beirut, with the concept that if an attack comes from a civilian area, the whole area can be treated as a military target.²⁴ In the 21st century, the IDF's doctrine has continued to evolve under the influence of technological and geopolitical shifts, and Israel now operates under the "Campaign Between Wars" (Mabam) concept—a continuous, low-intensity strategy aimed at degrading enemy capabilities without provoking full-scale war.²⁵

OVERVIEW OF OPERATIONS BY THE ISRAELI AIR FORCE

- (d) The overview of operations by the Israeli Air Force against Hamas from 2008 till now is given in Table 2:

Table 2: Various Aerial Operations against Hamas by IDF

Operation	Year	BRIEF
CAST LEAD	2008-09	The operation was launched following persistent terrorist activities and a constant missile threat from the Gaza Strip directed at Israeli civilians. The operation involved extensive air strikes against Hamas' infrastructure, underground tunnels and rocket launching sites, followed by a ground invasion.

23. Avi Kober, "The Israel Defense Forces in the Second Lebanon War: Why the Poor Performance?" *Journal of Strategic Studies*, 31, no. 1, 2008.

24. <https://iari.site/2025/07/21/dahiya-doctrine-israels-controversial-military-doctrine/>

25. Freilich, n. 20.

PILLAR OF DEFENCE	2012	The conflict was triggered by Hamas rocket fire, and Israeli air strikes targeted key Hamas military leaders and infrastructure, including rocket sites.
PROTECTIVE EDGE	2014	A 50-day war that began after the abduction and killing of three Israeli teenagers. Air strikes on weapons caches, rocket launchers, tunnels, command centres, and manufacturing facilities were carried out. The majority of interception of rockets was done by the Iron Dome system.
GUARDIAN OF THE WALLS	2021	Air power was used as the backbone of Israel's offensive strategy to project force without a ground presence, minimising its own casualties against Hamas and Islamic Jihad. Integration of advanced intelligence and AI technologies to identify high-value targets and optimise strike effectiveness were executed.
IRON SWORDS	2023	This operation began on October 7, 2023, after Hamas launched a large-scale attack on Israel. The IDF immediately launched extensive air strikes on Hamas-related targets within the Gaza Strip. These included weapon manufacturing plants, rocket launchers, intelligence outposts, and leadership compounds. Targeted drone and missile strikes were launched to go after important Hamas figures, including top leaders and local commanders.
DAY OF REPENTANCE	2024	This was not against Hamas directly but a continuation of extended operations by Israel against its adversaries. Israel's retaliation for the Iranian ballistic missile barrage in October 2024 came in the form of successive packages of aerial strikes directly striking Iran. The 'shadow conflict' came out in the open with these strikes, wherein more than 100 aircraft participated.

RISING LION	2025	Operation Rising Lion was launched to strategically strike the threats from the Iranian regime against the State of Israel. The operation reportedly targeted Iran's nuclear and ballistic missile infrastructure, as well as senior regime figures. In a press briefing, the IDF stated: "200 fighter jets launched an attack overnight and dropped more than 330 munitions. Over 100 targets across Iran were targeted ... including senior figures of the Iranian General Staff and leaders of the nuclear program."
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The air power employment by the Israeli Air Force and noteworthy details are as follows:

- (a) **Kinetic Strikes:** Hamas was using an underground tunnel complex to sustain its operations. The Israeli Air Force was successful to some extent in geolocating the tunnel networks and employed reduced-yield explosives like the 500 lb MK 82 and 2,000 lb Mk 84 bombs to avoid collateral damage. The indigenous 2,000 lb PB 500 A1 LGBs (Laser-Guided Bombs) were also used with a hard target penetration capability against Hamas bunkers. Kinetic strikes were carried out on multiple paramilitary and government facilities. Fighters and attack helicopters struck rocket launch positions, Qassam launchers and storage facilities. The destruction of hundreds of Hamas leaders' homes was one of the key objectives. Eighty-one per cent of the munitions used in Operation Cast Lead against Hamas were precision-guided, compared with only 36 per cent during the Second Lebanon War.²⁶ In the 2024 Operations Day of Repentance, 100 Israeli aircraft consisting of F-35 stealth fighters, F-16 multirole fighters and F-15 fighter bombers, along with aerial refuelling tankers, surveillance and command-and-control aircraft, utilised precise intelligence to carry out coordinated strikes. Tactical routes through Syria and Iraq were taken to target 20-odd dispersed Iranian military sites in key IRGC centres of gravity around Tehran, Esfahan, Shiraz and Karaj using precision long-range weapons from Iraqi airspace. The weapons that were used were

26. Lambeth, n. 9.

AI was developed to identify, prioritise and track suspected members and terrorist hideouts, and this has immense potential to be a game-changer in the future of warfare, as seen in the conflict.

the 'Rampage' long-range, supersonic air-to-ground precision strike missile and the 'Rocks' next-generation extended stand-off air-to-surface missile.²⁷

(b) Targeting and Usage of AI:

Medium-range rocket sites remained a significant threat, and this had made the Israeli Air Force carry out the untested mode of real-time TST (Time Sensitive

Targeting) operations from 2008 onwards. The aircrew in this process quickly learnt about the threat with effective integration of command and control, ISR (Intelligence, Surveillance and Reconnaissance) and strike assets. Pop-up targets of opportunity were neutralised successfully. The whole process was carried out within single-digit minutes²⁸ after the rockets were fired by adversaries, using closely fused UAV imagery, counter-battery radar and precision munitions. Many leaders of Hamas were eliminated along with their support structures through the assistance of AI-based targeting software like 'Gospel', 'Lavendar' and 'Where's Daddy. The 'Gospel' generated suggestions for building and structures of militants, and 'Lavender' identified suspected members of Hamas and other armed groups for assassination. 'Where's Daddy?' was a software that followed the movements of targets by tracking their phones, often to their homes, where their presence is regarded as confirmation of their identity. An air strike followed after that²⁹. AI was developed to identify, prioritise and track suspected members and terrorist hideouts, and this has immense potential to be a game-changer in the future of warfare, as seen in the conflict.

(c) Intelligence Gathering, Space-Based Assets and Updated Air Situation Picture: Air Tasking Orders (ATOs) were generated round the

27. <https://capssindia.org/israeli-air-supremacy-in-middle-east-reasserted/>

28. Lambeth, n. 9.

29. <https://time.com/7202584/gaza-ukraine-ai-warfare/>

clock. Intelligence gathering was done by both on-ground and aerial sorties. AMAN (Israel Military Intelligence) had provided targets and launch sites of rockets and terrorists' centres that were destroyed by the Israeli Air Force successfully. Fourteen-digit strike grid coordinates were provided that could be programmed into a strike aircraft's navigation system and JDAMs (Joint Direct Attack Munitions). The ability to identify launchers, pinpoint their exact locations, and very quickly close the sensor-to-shooter loop was an ability worth mentioning during these operations by the Israeli Air Force. The Gulfstream G-550 was widely used in the conflict, and the latest, Oron (a modified version of the G-550), has been seen as a wide-area persistent surveillance and multi-sensor aircraft in Operation Iron Swords, 2023. A combination of UAVs, drones, imaging systems and reconnaissance satellites formed a part of Israel's surveillance grid. The "Tadiran Spectralink's Givolit data-link system³⁰" enabled the Israeli Air Force aircrews to react quickly to pop-up targets and other rocket launchers by relaying still UAV electro-optical or infrared images directly into the cockpits of the AH-64s. This allowed the pilots to dispatch weapons promptly toward geolocated and validated targets from a safe stand-off distance. Collectively, the OFEQ 5 and EROS A and B satellites provided both AMAN (Military Intelligence) and the Israeli Air Force's Intelligence Directorate with hundreds of quality images each day.³¹ The OFEQ series of satellites played a pivotal role in giving updated air situation pictures, and in September 2025, the OFEQ 19, a radar intelligence satellite with advanced capabilities, was successfully launched by the Israel Aerospace Industries' (IAI's) Missile and Space Systems Division.

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30. Ibid.

31. Lambeth, n. 9.

Heavy reliance on satellite imagery, both before and after attacks and for intelligence gathering was relied upon, wherein Israel's indigenous defence and aerospace industry played a key role.³²

- (d) **UAS: Unmanned Aircraft Systems (UAS)** were skillfully integrated into both independent air operations and joint air-ground operations. Israel has long been a pioneer in this field, and the platforms were extensively utilised for battlefield surveillance and reconnaissance. Notable UAVs were the Elbit Hermes 450 (Zik), Hermes 900, Harop (loitering munition) and IAI Heron (Machatz-1) and Heron TP (Eitan). UAVs were also directly purchased through reservists working in IAI, and modifications were done as per mission requirements. All were assigned IFF (Identification Friend or Foe) transponders and contributed to a common operating picture. A COTS (Commercial Off the Shelf) solution rather than extensive Research and Development (R&D) based solution was relied on by the Israeli Air Force, especially during prolonged operations. One of the most important lessons was that COTS drones of various sizes and shapes were purchased and retrofitted with 3D printed cameras, ammunition and flood lights/ISR (Intelligence, Surveillance, Reconnaissance) cameras. Reservists in various organisations helped in the acquisition process and reduced the time gap so that the Israeli Air Force could employ them as soon as possible. As of 2025, Israel ranks second worldwide in drone defence innovation, reflecting its dominance in unmanned systems and the increasing convergence of combat and counter-drone capabilities.³³
- (e) **Avoidance of Collateral Damage in an Urban Scenario:** Throughout the conflict, military lawyers played a constant and prominent role in target approval. While some were pre-approved, others were taken on a case-by-case basis. Israeli Air Force fighters repeatedly performed show of presence operations by making low supersonic passes and dropping leaflets. Heavy reliance was placed on precision strikes to

32. <https://www.calcalistech.com/ctechnews/article/s1onewsqgl>

33. <https://www.jpost.com/israel-news/defense-news/article-859376>

minimise collateral damage. Many targeting centres were in civilian buildings, and adequate broadcast on TV, dropping of leaflets and telephone calls were also done so that civilians could vacate the area before the attacks. While there were some occasional sources of friction between the military lawyers and the Israeli Air Force regarding targets, the aircrews were highly sensitised to the principle of non-combatant immunity. Many aborted strikes, and many times, due to uncertainty, the LGBs were slewed away from the intended targets by the WSOs (Weapon System Operators) of the F-16I (e.g., Delilah missiles, once aborted, continued to stay in the air and then were released at the target of opportunity. In some cases, the Israeli Air Force delivered a small non-fragmenting precursor munition of low yield (weighing less than 50 lb) into a corner of the roof of a targeted house as a “knock on the door” warning for the occupants to vacate it. An experimental explosive called DIME (Dense Inert Metal Explosives) was used time and again to create a localised blast.³⁴ The complexities in urban operations cannot be underscored, and despite these efforts, massive destruction did occur due to Gaza’s dense population and Hamas’ strategy of locating its assets near or inside civilian areas, including hospitals, schools, and mosques, which led to criticism. These actions have been termed as a violation of International Humanitarian Law and Laws of Armed Conflict by many. Israel has justified this as a part of punitive warfare by saying it has targeted dual-use infrastructure only.³⁵

CONCLUSION

The experience of the Israeli Air Force in operations against Hamas reveals both the strength and limits of air power in modern asymmetric warfare. Hamas operated from within densely populated areas, using tunnels and decentralised networks that complicated targeting. Its increasing reliance

34. Lambeth, n. 9.

35. Camilla Boisen, “Israel’s Punitive War on Palestinians in Gaza.” *World & New World Journal*, September 26, 2024.

on low-cost technologies such as commercial drones, improvised rockets, and non-traditional methods had challenged conventional air power concepts and doctrines. Non-state actors may fight directly or indirectly, with modern warfare techniques of cyber warfare, targeted killings, covert/overt operations, proxy battles, propaganda and psychological warfare through social media. The rise, endurance, and adaptability of Hamas and other non-state actors operating against Israel reveal profound implications for modern military forces confronting asymmetric warfare. Hamas, though vastly outmatched in conventional power, has demonstrated strategic resilience through innovation, decentralised organisation, and careful use of information and technological adaptation. The IDF's experience underscores that even the most advanced defence systems must coexist with flexible doctrine, civic integration, and ethical legitimacy.