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Intelligence and Terrorism Information Center
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Hamas's military buildup in the Gaza Strip
(Updated April 2008)



Pictures from the surfer forum of the Hamas Website

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Overview

1. The Israeli disengagement from the Gaza Strip in August 2005 created **a new situation which accelerated the establishment of an area fully controlled by Hamas**. It was quick to use its increased military power to make political capital in internal Palestinian affairs. It won the Palestinian Legislative Council elections in January 2006 and formed the government the following March. In June 2007 Hamas carried out a putsch in the Gaza Strip, neutralized Fatah and the Palestinian Authority's military and political power and set up a radical Muslim entity in the Gaza Strip, nicknamed Hamastan. The new entity, **supported and aided by Iran and Syria**, directs its own internal and foreign affairs, conducts a terrorist campaign against Israel and has divorced itself from the PA in Judea and Samaria, led by Abu Mazen and Fatah.



Destroying Fatah and PA symbols after the Hamas putsch in the Gaza Strip: Hamas operatives stepping on a picture of Abu Mazen (Ibrahim Abu Mustafa for Reuters, June 15, 2007).

2. Since the disengagement, and particularly during the past year, **Hamas has accelerated its military buildup**. The process is nurtured by a number of factors.

i) **The many difficulties faced by Hamas since it came to power, especially since its takeover of the Gaza Strip**: Hamas has been forced to struggle with a series of difficulties which include its political isolation, economic blockade, IDF activities, internal subversion, political competition with Fatah, and the unending propaganda war waged against it by Fatah and Abu Mazen's PA. All of the above have given it a sense of being menaced and present it with continual challenges, requiring it to form military-security systems which will ensure its rule in the Gaza Strip and protect it from its many enemies, internal and external.

ii) **The need to find a response to the IDF's counterterrorist activities in the Gaza Strip alongside its fear that Israel will reconquer the Strip or parts of it:** The scenario of an IDF takeover resurfaces every time Palestinian terrorism escalates and along with it increased IDF counterterrorist activities. To that can be added

Hamas's continual need to deal with the IDF's intensive activities in the Gaza Strip, including the targeted killings of terrorist operatives, attacks on bases and facilities and land activities in the northern and southern Gaza strip.

iii) **Hezbollah's success** in providing an asymmetric response to the IDF's might during the second Lebanon war made it a **role model for Hamas**. The second Lebanon war and the results of the constant rocket fire at Sderot and the western Negev population centers made it clear that rockets were strategically important with regard to Israeli civilians' vulnerability. The lessons of the second Lebanon war also illustrated the importance of having a **strong military force** which could stand fast and survive to protect Hamas's control of the Gaza Strip, like the military force Hezbollah established in south Lebanon.

3. With all of the above in mind, Hamas is **advancing its military buildup** based on two main systems: the **internal security system,** at the center of which is the **Executive Force**, its main security arm for controlling the Gaza Strip; and its **military-terrorist system**, at the center of which are the **Izzedine al-Qassam Brigades**, which deal with planning and carrying out attacks against Israel and defending the Gaza Strip from within. The operatives of the internal security system and of the other Palestinian terrorist organizations would integrate into the Izzedine al-Qassam Brigades' program for defense should the IDF enter the Gaza Strip.

4. **Hamas's military buildup includes**:

i) Increasing the size of its forces, which today are estimated at 20,000 armed operatives directly subordinate to Hamas or who can be integrated into its forces in an emergency;

ii) Reorganizing its forces into semi-military formations;

iii) Carrying out large-scale training operations both in the Gaza Strip and beyond, primarily in Iran and Syria;

iv) Supplying advanced weapons, especially improved rockets (which can reach Ashqelon and beyond) and advanced anti-tank weapons of the types used by Hezbollah (such as Konkurs and Sagger missiles);

v) Improving command and control of the forces deployed throughout the Strip;

vi) Preparing the ground for defense, including underground systems for fighting and concealment throughout the Strip;

vii) Developing powerful IEDs and placing them near roads (such as the Shawaz self-made EFP) and various locations where fighting against the IDF is expected.

5. **Hamas's military buildup is at its height and in our assessment its full implementation will take a number of years**. However, some of its components are

basically ripe so that they increase the threat to the IDF and to Israel's civilian population in the western Negev. Threats include **improved capabilities to carry out complex terrorist attacks such as mass-casualty attacks and the abductions of soldiers and civilians**; an increase in the scope, accuracy, range and force of rocket fire into Israel; increasing the threat of anti-tank weapons to Israel's tanks and armored vehicles and to IDF soldiers; improved survival capabilities of Hamas forces waging most of the fighting from the densely populated areas of the Gaza Strip.

6. The military buildup is led by Hamas headquarters in Syria and relies on Iranian and Syrian support and on funds which come from Iran, the Arab-Muslim world, and even from the West. Iranian and Syrian support for Hamas's military buildup is manifested in transferring theoretical and technical knowhow, their supplies of weapons and equipment, and the training they give Hamas operatives in Iran and Syria. Weapons, money and operatives originating in Iran and Syria are smuggled into the Gaza Strip through a vast system of tunnels (and through the Rafah Crossing), exploiting the helplessness and inefficiency of the Egyptian security forces, which avoid taking effective security measures to cut off the lifeline connecting Hamas and the other terrorist organizations to the countries sponsoring and supporting them.

Part 1: Description of Hamas's military buildup in the Gaza Strip

Offensive and defensive systems

1. Hamas's military infrastructure is composed of offensive and defensive systems **which satisfy a number of the movement's basic needs**:

i) **The realization of Hamas's jihadist identity by constant terrorist activity against Israel**, manifested, since the disengagement of August 2005, **by intensive rocket and mortar fire** (more than in the past) at western Negev population centers (one of the lessons learned from Hezbollah in Lebanon). At the same time Hamas attempted, with partial success, to carry out a number of attacks using other types of methods, such as suicide bombing attacks and abductions (for example, Gilad Shalit), light weapon and anti-tank fire, laying IEDs, etc.

ii) **Coping with IDF activity in the Gaza Strip**, which became intensive especially along the border to prevent rocket fire, deal with abduction attempts and to prevent the establishment of Hamas intelligence networks. The IDF's activity heightened Hamas's sense of being threatened by an Israeli conquest of the Gaza Strip, fully or partially. **Such scenarios of both fighting limited to a specific geographic area and limited in time** (such as Operation Hot Winter during the most recent escalation, February 27-March 3, 2008), and **an extensive Israeli attack to reconquer the Gaza Strip** can be carried out. Hamas considers the full conquest of the Gaza Strip as **the main threat,** and with that in mind is promoting its military buildup.

iii) **Coping with the internal threats in the Gaza Strip**: The threats come from supporters of Abu Mazen (and Fatah) and from other groups, such as the local clans and radical Islamic networks linked to the global jihad, which are unwilling to accept Hamas authority. The strength of such opponents decreased during the past year but they are still an obstacle to Hamas's desire for complete rule of the Gaza Strip. At the same time, the Hamas government has to provide a response growing crime and the personal security needs of the residents of the Gaza Strip.

2. Hamas's military capabilities arrayed against Israel, both offensively and defensively, are based on the **Izzedine al-Qassam Brigades**, the organization's military-terrorist wing. The Brigades are currently in the process of a fast military buildup with the objective of turning into semi-military army with capabilities to both defend the Gaza Strip and continue initiating terrorist attacks against Israel as dictated by Hamas strategy.

3. The distinction between the two is **not sharply defined**. During an escalation with Israel the internal security forces are supposed to join the fighting against the IDF, as least with logistic and intelligence support. In the scenario of broader and more lengthy fighting, some of the internal security forces are supposed to reinforce the Izzedine al-Qassam Brigades fighting units and confront the IDF, even at the expense of weakening their capabilities to deal with the necessities of internal security. In effect, many Hamas operatives apparently play **two roles** by serving in the internal security forces and, at least in emergency situations, are integrated into the Izzedine al-Qassam Brigades as well.

Concept of defense of the Gaza Strip

4. **Hamas's perception of defending the Gaza Strip provides an asymmetric response to the IDF's military supremacy and its technological superiority**. It does that in a variety of ways: through the use of advanced weapons which were successfully used by Hezbollah in Lebanon (IEDs and anti-tank missiles); by causing large numbers of casualties to IDF forces through fighting in densely-populated built-up areas; by improving concealment tactics to preserve Hamas forces; by exhausting the Israeli home front with massive rocket attacks while the IDF is fighting inside the Gaza Strip, and if possible, at the same time carrying out suicide bombing attacks by infiltrating terrorists through the Sinai and Judea and Samaria borders; and by making extensive use of the Palestinian, Arab and international media to gain sympathy for the Palestinian cause and at the same time to limit Israel's freedom of action.

5. **That perception reflects an understanding of the relative forces between Hamas (and its supporters) and the IDF's capabilities**. Hamas is well aware of **the inequality between the sides**, which gives each side advantages and disadvantages.

i) **On the one hand**, Hamas is aware of the IDF's clear military superiority in the number of forces, protection, weapons, and air and intelligence capabilities. As a result, Hamas is aware that it will be difficult for it to stop an IDF advance and to prevent it from operating in open areas.

ii) **On the other hand, if the IDF remains in the Gaza Strip in static deployment and for an extended period of time**, Hamas is liable to have the advantage. It would wage a guerilla war of attrition, especially in **densely populated built-up areas**. According to the classic logic of asymmetric warfare, the IDF would lose its superiority, suffer many losses and harm, even if not deliberately, Palestinian civilians in a way that would lead to internal-Israeli, Arab and international pressure for the IDF to withdraw from the Gaza Strip.

6. **With that in mind Hamas developed a defensive concept according to which it would refrain from using its full military potential during the first stages of the fighting**, reduce engaging the IDF in open areas and channel the fighting into densely-populated built-up areas. Its **objective** would be **to exhaust** the IDF forces and cause its soldiers as much bloodshed as possible while continuing its attacks on the Israeli home front with rocket fire (according to the Hezbollah model in the second Lebanon war). At the same time it would preserve the survival capabilities of its operatives and military infrastructure. All of the above **would enable Hamas to represent itself as having "defeated" the IDF when it withdrew from the Gaza Strip, again, according to Hezbollah's model after the second Lebanon war**.

7. To exhaust the IDF forces and cause as many casualties as possible Hamas would seek to wage a fiercer, more determined war the deeper into the Gaza Strip the IDF advanced. **Hamas fighting is expected to include** firing light weapons at Israeli forces, including from inside houses and roofs; digging traps in the ground at the entrances to cities and along main routes; using IEDs, mines, car bombs and camouflaged IEDs; dispatching male and female suicide bombers; the extensive use of anti-tank weapons; using civilians as human shields for terrorist operatives who are fighting from within their midst.

8. One of Hamas's tactics will be the use of suicide bombers as weapons in their guerilla campaign against the IDF. The movement has scores of explosive belts ready and apparently an established unit of suicide bombers.[1] It is also possible that other Palestinian terrorist organizations have the same plan if the IDF enters the Gaza Strip. In past fighting in the Gaza Strip there were attempts to use suicide bombers to attack IDF forces. For example, during Operation Autumn Clouds (November 6, 2006) a female suicide bomber dispatched by the Palestinian Islamic Jihad tried to attack an IDF force south of Beit Hanoun. She blew herself up near the force and slightly wounded one soldier.

Differences between the conditions in the Gaza Strip and Lebanon

9. Hezbollah, which acquired a great deal of experience in its years of fighting the IDF in Lebanon, **serves as a model for Hamas's military buildup and for the other terrorist organizations operating in the Gaza Strip**. However, there are a number of basic differences between the conditions in Lebanon and those in the Gaza Strip, and Hamas has taken them into consideration.

[1] On March 24, 2008, the Izzedine al-Qassam Brigades Website posted the biography of Nur al-Din Jundia, a Hamas operative killed by the IDF on March 20, 2008. He was described as being a member of the suicide bombing unit.

i) **Topography**: The Gaza Strip is small and its area is defined, while Lebanon has depth from which the terrorist organizations can operate and gives them a much longer breathing space; south Lebanon, where the hard core of Hezbollah's infrastructure is located, is mountainous and forested, while the Gaza Strip is flat and exposed. On the other hand, the Gaza Strip has **continuous, densely populated areas** which are advantageous for a defending force and difficult for regular army forces to operate in.

ii) **Access to external support**: Hezbollah enjoys massive support from Iran and Syria and easy access to supplies of weapons, which pass over the long wide-open border between Lebanon and Syria. Hamas also relies on Iranian and Syrian support, but it is more difficult to transport weapons into the Gaza Strip because of its relative distance from sources of external support and tight Israeli inspection (and not-so-tight Egyptian inspection) along the border. Thus Hamas had to develop its own weapons manufacturing capabilities, bolstered by an extended system of weapons smuggling. That was done to give it capabilities to fight Israel under blockade conditions (although the Gaza Strip is not hermetically sealed), while Hezbollah receives all the standard weapons it needs from Iran and Syria.

iii) **Support from the population and local focal points of power**: Hezbollah has a determined opposition against it within the Lebanese government, the Christian camp and other sectarian groups, and it has to take them into consideration when fighting Israel. **Hamas**, on the other hand, succeeded in subduing Fatah and the Palestinian Authority security forces after its putsch in June 2007, and it enjoys much support within the Strip. That enables it to accelerate its military buildup with a great degree of freedom of action and to implement its own independent terrorist policy without bowing to meaningful internal political restraints (even when that policy, for example the rocket fire into Israel, harms Gaza Strip residents). Popular support also provides Hamas with almost unending sources of manpower for its ranks.

Part 2: Hamas control of the Gaza Strip

The Hamas leadership in the Gaza Strip

1. The Hamas leadership in the Gaza Strip includes the institutions and individuals responsible for the day-to-day management of the movement and for making its strategic decisions. Most of the leadership's members do not play roles in the Hamas government, although they are closely linked to its senior members (headed by Ismail Haniya).

2. The Hamas leadership in the Gaza Strip (the political bureau) directs **the movement's four main divisions**: **the military wing** (the Izzedine al-Qassam Brigades), **the internal security forces** (centering around the Executive Force), **the Hamas government** and its **broad civilian infrastructure** (the *da'wah* network).

3. Since the establishment of the Hamas government in March 2006, and even more so since the putsch in June 2007, the **Hamas leadership in the Gaza Strip has increased its power at the expense of the "external" leadership in Damascus**. Currently the Gaza Strip leadership makes the important decisions regarding Hamas management in the Strip. At the same time, the leadership in Damascus plays a central role in Hamas's military buildup because it has easy access to available supplies from Syria, Iran and Hezbollah.

Strength of the overall military forces in the Gaza Strip.

4. The military force commanded by Hamas rests on the **Izzedine al-Qassam Brigades**, its military-terrorist wing. In our assessment, it has **more than 10,000 operatives.** That figure may be larger because of Hamas's intense recruiting process carried out since it took over the Gaza Strip. It can be expected that the operatives will reinforce the Izzedine al-Qassam Brigades in an emergency situation with the IDF, while routinely the regular hard core is composed of **a several hundred skilled operatives**. It is currently commanded by **Ahmed Ja'abari**.[2]

5. A considerable number of the operatives expected to reinforce for the Izzedine al-Qassam Brigades normally serve in the **internal security forces**. Those forces, centering around the **Executive Force**, today number around **10,000 operatives**, most of them either Hamas

[2] The status of **Muhammad Deif**, the commander of the Izzedine al-Qassam Brigades, who was badly wounded, is unclear. The Hamas media still refer to him as "the general commander of the Izzedine al-Qassam Brigades."

members or sympathizers. Thus the total number of Izzedine al-Qassam Brigades and internal security force operatives controlled by Hamas is, in our estimation, about **15,000**.[3]

6. About **3,000-4,000 operatives** belonging to the other Palestinian terrorist organizations operating in the Gaza Strip can be added to the strength of the Hamas forces. At least some of them may join the Izzedine al-Qassam Brigades in an emergency situation and accept its orders to fight the IDF. Thus the entire strength Hamas has at its command in the Gaza Strip is **about 20,000 armed men** of varying degrees of skill and professionalism.

Hamas's military wing (the Izzedine al-Qassam Brigades)



7. In the past few years, especially since the disengagement, Hamas's military-terrorist infrastructure has gradually transformed itself into **a hierarchical structure with semi-military patterns of action**. That change means the unification of local terrorist groups throughout the Gaza Strip into one military wing with an orderly structure which has adopted military components both in its commanding and directing the forces and support systems (manufacturing, acquiring and smuggling weapons, etc.). However, it is not a classical military organization, and under fire Hamas can be expected **to employ the principles of asymmetric warfare**: the directing of small fighting units (platoons and squads); focusing on hit and run attacks; blending in with and disappearing into the civilian population, while making extensive use of civilians as human shields, etc.

8. Hamas's military wing includes territorial brigades and designated units. It is deployed in a number of territorial brigades throughout the Gaza Strip, **each of which has more than 1,000 operatives**. Each brigade has a number of battalions and each battalion has several companies. Each company has three platoons composed of three combat teams (all of which have anti-tank, fighters, saboteurs and medics).

9. The brigades are deployed as follows:

i) A brigade in **northern sector**, commanded by **Ahmed Ghandour**.

ii) The **Gaza City sector**, which apparently has two brigades commanded by **Ahmed Ja'abari**.

iii) A brigade in the **central sector**, commanded by **Ayman Nawfal** (today detained by the Egyptians).

[3] In an interview with the London Sunday Times on March 9, 2008, a senior Hamas terrorist operative said that the Izzedine al-Qassam Brigades had **15,000** operatives. In our assessment, that figure also includes members of the internal security forces.

iv) A brigade in the **southern sector**, which apparently has two brigades (in accordance with geographical conditions), one in **Khan Yunis**, commanded by **Muhammad Sinwar**, and the other in Rafah, commanded by **Ra'ed al-Atar**.

10. Ordinarily, as noted above, the Izzedine al-Qassam Brigades has a few hundred skilled operatives. They carry out attacks against civilian targets in Israel (firing rockets and mortar shells) and against military targets bordering the Gaza Strip (firing mortar shells, light weapons fire, planting IEDs, attempts to kill and abduct soldiers in Israeli territory).

11. **Hamas's terrorist policy** is characterized by **treading a fine line** to defuse the tension between its governmental duties on the one hand and its belligerent jihadist identity and faith in attacks as the means of achieving its strategic objectives on the other. That means the **controlled use of terrorism** (including rocket fire) to achieve its goals seeking, at least for the time being, to avoid an overall confrontation with the IDF in the Gaza Strip. At the same time, Hamas deals with planning for an IDF attempt to conquer – fully or partially – the Gaza Strip by building up a military force as part of its emergency defense plan.



Camouflaged operatives of the Izzedine al-Qassam Brigades' al-Nusseirat battalion. Left: Camouflaged infantry operative. Right: Sniper with a Russian Dragunov sniper assault rifle fitted with a telescopic sight (PALDF forum, March 12-15, 2008).



Insignia of the Izzedine al-Qassam Brigades' anti-aircraft unit (YouTube, from the Izzedine al-Qassam Brigades information bureau, January 11, 2008.

Internal security

Overview

12. Hamas's internal security forces number **10,000 operatives**, about 6,000 of whom are police, many of them **former members of the Executive Force**.

13. In addition to the police there are the following units:

i) The **rapid response force** (an élite police force)

ii) The **security and protection force**, responsible for guarding important people and institutions.

iii) **National security** (about 400 operatives)

iv) **Internal security** (about 200 operatives)

v) **Coastal security** (about 200 operatives)

vi) **Civil defense** (about 400 operatives)

14. A short description of the various forces and units follow:

The Police Force (formerly the Executive Force)

15. The Executive Force (currently integrated into the police force) was established in April 2006. That was done because Hamas wanted to take control of the security forces in the Gaza Strip away from Abu Mazen and Fatah and to create an effective force which it could use for policing functions and to oppress Hamas's enemies. The Executive Force was subordinate to the interior ministry and became one of Hamas's most important tools for controlling the Gaza Strip. It was widely deployed during the confrontations with Fatah and played a central role in the Hamas putsch in the Gaza Strip in June 2007.

16. There are **6,000 policemen**, most of them Hamas operatives and some of them operatives of other Palestinian terrorist organizations. They are armed with Kalashnikov or M-16 assault rifles, hand grenades and a variety of anti-tank weapons. They wear uniforms and their salaries are paid by the interior ministry. When the Executive Force and police were combined, those who refused to join the new force were assigned to the **rapid response force**, which works alongside the police and helps deal with events on the ground.

17. Once the two forces had been combined, **General Tawfiq Ja'aber** was appointed police chief and his deputy was **Jamal al-Jarah**, commander of the Executive Force. Jamal al-Jarah was born in the Jabaliya refugee camp in 1965 and began his career as an operative in the Hamas security service in the Gaza Strip. In 1996 he was detained by the Palestinian security forces for a relatively long time. After his release he continued planning and executing attacks against Israel. He escaped an IDF targeted killing on December 30, 2003.







Hamas's Executive Force, its main arm of control in the Gaza Strip.

18. Since its establishment the police force **has been improving its capabilities**, expanding its deployment and increasing the scope of its activities in enforcing order. The police force is divided into five districts: the northern Gaza Strip, Gaza City, the central camps, Khan Yunis and Rafah. It keeps order, disperses demonstrations and deals with criminal activities. However, it must be taken into consideration that should there be a broad, continued IDF incursion into the Gaza Strip, its operatives and those of the other internal security forces would be extensively integrated into the ranks of the Izzedine al-Qassam Brigades fighters at the expense of performing their other internal security duties.



Police vehicle (Al-Aqsa TV, January 24, 2008).



Hamas Executive Force operatives shouldering a home-made Al-Yassin anti-tank missile launcher (www.palissue.com, June 13, 2007).

Coastal security (naval police)

19. Coastal security was established in the summer of 2007 following a reorganization of the PA's naval force. It keeps order on the Gaza Strip beaches and carries out routine security missions along the coastline. It has about **200 operatives**.

20. Coastal security has weapons which belonged to the Palestinian security forces, including various types of boats. Its members carry light arms. In addition to keeping order, the coast guard has been involved in shooting at Israeli Navy patrol boats and can be expected to engage them if the IDF enters the Gaza Strip.





Left: Coastal security inflatable rubber dinghy. Right: Coastal security flag.

Internal security service

21. The internal security service was established by Hamas in August 2007. It has about **200 operatives** and is subordinate to the Hamas government's interior ministry. It replaces the Palestinian preventive security service which operated in the Gaza Strip before the Hamas putsch. Its deals with collaborators and gathers information on individuals suspected of anti-Hamas activities and is responsible for interrogating detainees.

Civil defense

22. The force is responsible for civil defense throughout the Gaza Strip. It has about **400 operatives** and is subordinate to the Izzedine al-Qassam Brigades. It runs 18 civil defense stations, 14 of which are operative. It has 25 fire engines, four rescue vehicles and six ambulances (Al-Risala, March 18, 2008).



Civil defense operatives (Al-Risala, March 18, 2008).

Other security units

23. There are two other units operating in the Gaza Strip

i) **Security and protection**: Responsible for responsible for guarding important Hamas people and institutions.

ii) **National security**: After Hamas took over the Gaza Strip it renewed the activities of the national security unit. Its **400 operatives** are deployed mainly along the Philadelphi route. They are responsible for routine security along the border and controlling smuggling. Some of them were formerly Fatah operatives; the others belong to Hamas.

Other Terrorist Organization Operating in the Gaza Strip

Overview

24. Hamas's offensive and defensive military systems are based on Izzedine al-Qassam Brigades operatives and those belonging to the Hamas-controlled internal security forces. There are other terrorist organizations operating in the Gaza Strip with a total of an estimated **3,000-4,000 operatives**. Most of the other organizations work in close collaboration with Hamas, which Hamas considers important. Especially conspicuous is the operation collaboration between Hamas and the Popular Resistance Committees and the Army of Islam.

25. Hamas exploits its control of the Gaza Strip and its military strength to control the other terrorist organizations, primarily by supporting them. There are two main reasons: **routinely**, it enables Hamas to camouflage its involvement in attacks against Israel and reduce harm to

its own operatives; beyond routine situations, **during an escalation** it can integrate them as additional manpower to support its fighting against the IDF. In emergencies Hamas seeks to subordinate them to its authority and to use a **joint war room** to command them.[4]

26. The smaller Palestinian terrorist organizations operating in the Gaza Strip are the following:

The Palestinian Islamic Jihad



27. The second most important terrorist organization operating in the Gaza Strip. It has **1,000 operatives**, including a hard core of several dozen. Most of its activities center around Gaza City and Rafah, but it is active throughout the Gaza Strip.

28. The PIJ favors terrorism as the sole means of achieving its goals (the destruction of the State of Israel). Unlike Hamas, **it does not have the governmental responsibilities**, and under routine circumstances is the most active terrorist organization attacking Israel. Its leadership is based in **Syria.** Its activities are directed and financed by **Iran**, and it is inspired by **Hezbollah**. Its civilian infrastructure (*da'wah*) is limited, and mostly supports its terrorist activities.

29. Unlike Hamas, the PIJ focuses on carrying out routine attacks against Israel, paying relatively little attention to a military buildup for defending the Gaza Strip. Its routine activities include firing rockets and mortar shells and carrying out attacks both along the Israel-Gaza border and penetrating into Israeli territory. Its operational capabilities are relatively high and it has been responsible for a substantial number of the routine attacks originating in the Gaza Strip, especially rocket launches at civilian Israeli targets.

30. With regard to its military buildup, it focuses on **improving its technological rocket launching capabilities**, particularly increased range. Its goal is to fire its rockets as deeply as possible within Israel territory, or to move its squads deeper into the Gaza Strip to hinder the IDF in its attacks on its rocket launching squads.

[4] From an interview with Abu Obeida, Izzedine al-Qassam Brigades spokesman, about Hamas defense plans in the case of a possible Israeli invasion (Al-Hayat, December 27, 2007).

The Popular Resistance Committees

31. The **PRC** have **several hundred operatives** with a hard core of a few dozen. The organization has two large factions and several smaller ones. Its military-terrorist wing is the **Salah al-Din Brigades**, which has high operational capabilities and a large number of various weapons.

32. The PRC's attacks include firing rockets and mortar shells, attacks near the border fence and attempted mass-casualty attacks and abductions on the Israeli side of the border (for example, the abduction of Gilad Shalit). Sometimes Hamas subcontracts the PRC for its own attacks and moreover, many of the PRC's networks actually serve as Hamas proxies. The organization manufactures its own weapons, although on a smaller scale than Hamas and the PIJ.

Fatah/Al-Aqsa Martyrs Brigades groups

33. Even though Hamas took over the Gaza Strip, a few Fatah groups, **with a total membership of several hundred operatives**, continue their activity with Hamas approval. Most of the groups' activities take place in the northern Gaza Strip. Their activities are supported by other terrorist organizations (usually Hamas and the PIJ) both operationally and financially.

34. The groups operate according to local and personal interest, have many commanders and in effect **do not function as an organization with a regular, hierarchical structure**. Their operatives have various types of weapons including light arms, anti-tank weapons and homemade rockets. Al-Aqsa Martyrs Brigades operatives routinely launch rockets, plant IEDs, attempt to infiltrate into Israel, sometimes in collaboration with other organizations.

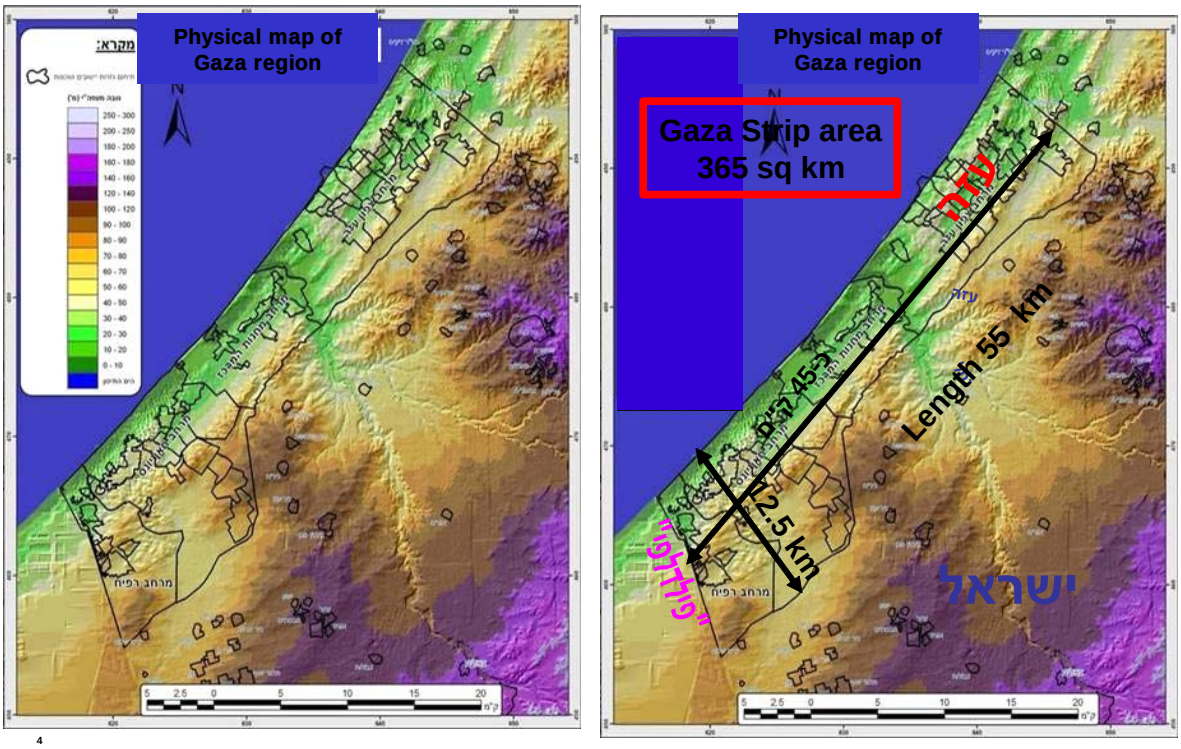
The Army of Islam

35. The Army of Islam was established in 2006 after its operatives split from the PRC. It is **headed by Mumtaz Dughmush**. Publicly, its ideology is similar to that of the global jihad. In practice, however, it retains its Palestinian character and focuses on familiar forms of terrorist activities against Israel. The organization first came to public

attention when it collaborated with Hamas and the PRC in the abduction of Gilad Shalit in June 2006.

36. Most of its operatives come from the **Dughmush clan,** a large clan in the Gaza Strip affiliated with Fatah and many of its members are involved in criminal activities such as drug dealing, auto theft and extortion. Over the years the organization's operatives carried out a number of internal Palestinian attacks including the murder of Mussa Arafat, IED attacks and abducting foreign nationals inside the Gaza Strip. Since the Hamas putsch the organization has returned to attacking Israel, apparently as part of its integration into the new internal Gaza Strip order and because it is in Hamas's interest to prevent internal anarchy.

Part 3: The Physical Infrastructure of the Gaza Strip

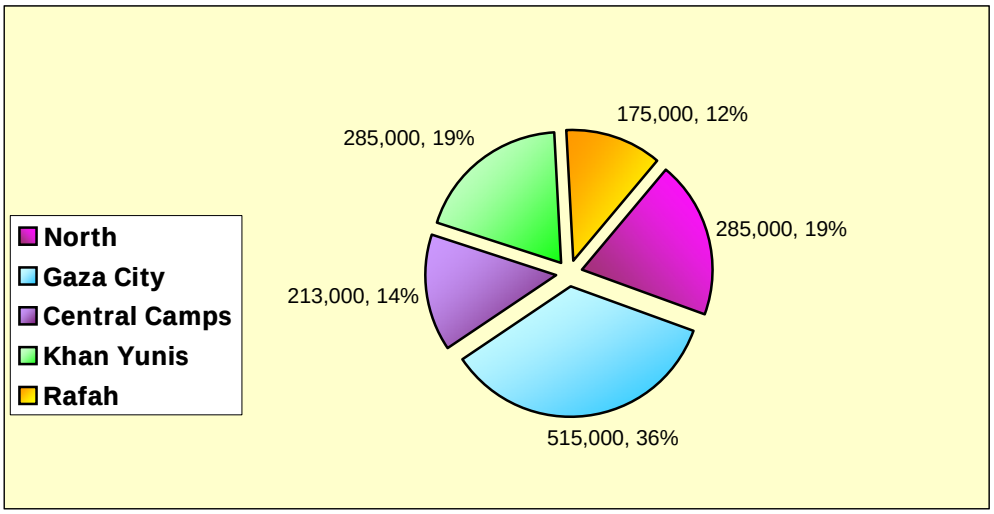


Physical map of the Gaza Strip

Basic geographic and demographic data

1. The area of the Gaza Strip is **365 square kilometers** and it is one of the most densely populated areas on earth. Its population is **1,400,000**, 65.5% of whom are refugees. Some 960,000 residents (73%) live in large urban settlements. Natural population increase is 3.8% annually, with an average of six children per married woman. Children under 15 make up 48.8% of the population. Unemployment stands at 54%, and between 60% and 70% of the population live below the poverty line. Most of the labor force is employed in the services (60%), industry (25%) and agriculture (10%).

2. The economic conditions of the Gaza Strip residents are harsh, especially since the Palestinian terrorist campaign began (the "second intifada," which began in September 2000). Their difficulties were exacerbated following the isolation of the Gaza Strip and the economic and political boycotts imposed by the international community on the Hamas government and the radical Islamic entity created in the Gaza Strip. As a result, a considerable number of Gaza inhabitants are dependent on external aid and support from Islamic funds and foundations abroad, international aid organizations and the financial aid provided by Iran to the Hamas government. The aid is delivered to the Gaza Strip through the border crossings with Israel and the Rafah Crossing into Egypt, which are the Gazans' lifelines.



3. Hamas's military wing is deployed throughout the Strip. **Their deployment and significance for Hamas and the other terrorist organizations is as follows**:

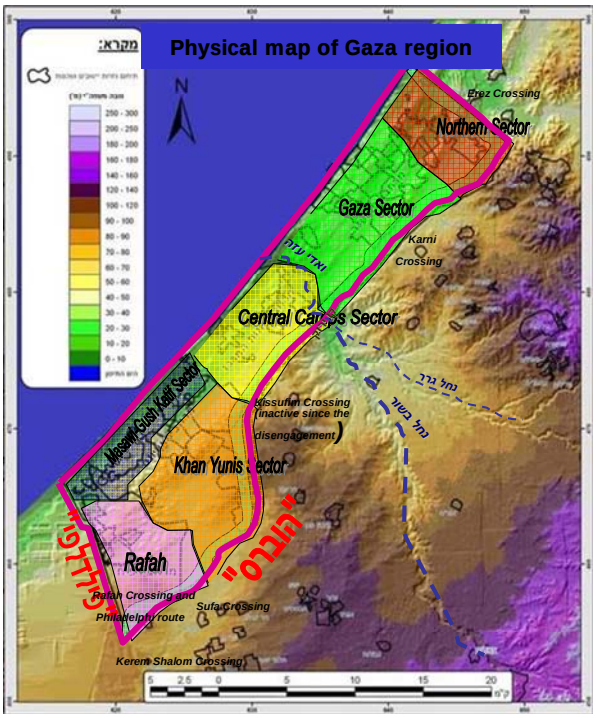
i) **The Gaza City sector**, the Gaza Strip's "capital," is the nerve center. It is a densely populated area with 450,000 residents, and the location of government facilities and

Hamas's military center. **The heads of Hamas are based in Gaza City and many operational, organizational and government centers are located there**.

ii) **The northern sector** is mostly agricultural. The northeastern outskirts of Gaza City, mainly the areas of Beit Hanoun, Beit Lahia and Al-Atatra **serve as the main launching sites for rocket attacks against Sderot, Ashqelon and western Negev population centers**. The region of **Jabaliya** is the terrorist organizations' nerve center in the northern Gaza Strip and provides the sector of the northern Gaza Strip with depth for the regions from which rockets are launched.

iii) **The central camps sector** has a population of 200,000 and is Gaza City's back yard. There are four large refugee camps, the city of Dir al-Balah and a number of small agricultural settlements. The sector serves are the logistic rear for Gaza City as well as the local operational infrastructure which is supposed to protect the sector and carry out attacks.

iv) The southern sector has a population of 250,000 and has three subdivisions: the Khan Yunis region, the Rafah region and along the coast, the region of Mawasi and the ruins of the former Israeli settlements of Gush Katif. **The southern region of the Gaza Strip serves as the almost exclusive connecting route to the outside and along it pass weapons, money and terrorist operatives**. From this region terrorist operatives leave the Gaza Strip to infiltrate into Israel through the Israeli-Egyptian border in the Sinai or for training in Syria and Iran.



Underground Network

"**Our defense plan is based, to a great extent, on rockets which have not yet been used and on a network of ditches and tunnels dug under a large area of the [Gaza] Strip. The [Israeli] army will be surprised when it sees fighters coming up out of the ground and engaging it with unexpected equipment and weapons**..."[5]

4. **One of the main components of Hamas's military buildup** is a **vast underground network** which includes a network of tunnels dug under various regions of the Gaza Strip for attack and defense. The network is intended to create a threat to IDF forces operating in the Gaza Strip, to neutralize some of the IDF's capability to damage the Hamas infrastructure and to give Hamas's military wing an operational breathing space during prolonged, extensive fighting.

5. Hezbollah's underground fortification system in south Lebanon inspired Hamas and the other terrorist organizations, and they adapted Hezbollah's experience to the Gaza Strip's unique physical conditions. Within the underground network is a well-developed system of tunnels which have been used by Hamas and other terrorist organizations for a variety of purposes:

i) **The tunnels are the terrorist organizations' main conduit for smuggling weapons into the Gaza Strip**. In the Rafah region and along the Philadelphi route there is a vast network of tunnels through which pass terrorist operatives, weapons, goods and equipment from Egypt into and out of the Gaza Strip. They became more important when the Rafah Crossing into Egypt and the crossings into Israel were closed after the Hamas military takeover of the Gaza Strip.





Tunnels for smuggling terrorist operatives and weapons from Egypt into the Gaza Strip (IDF Spokesman, November 1, 2007

[5] Interview with Abu Obeida, Izzedine al-Qassam Brigades spokesman (Al-Hayat, December 17, 2007).





Tunnels for smuggling terrorist operatives and weapons from Egypt into the Gaza Strip (IDF Spokesman, November 1, 2007

ii) **There are tunnels which have been designated for terrorist attacks against IDF posts and villages near the border fence**. The tunnels provide the element of surprise and enable the terrorists to penetrate into Israel territory and then to return safely to the Gaza Strip. Such an attack was carried out on June 25, 2006, against an IDF post near the Sufa Crossing, during which two IDF soldiers were killed and Gilad Shalit was abducted. In August 2007 the IDF exposed a tunnel shaft inside a greenhouse growing tomatoes about 700 meters from the northern Gaza Strip border fence. A generator sunk into the ground was also uncovered, as was equipment used to dig tunnels.[6]



Generator and digging equipment near the tunnel shaft. The generator was sunk into the ground to muffle noise and make its discovery difficult (IDF Spokesman's Website, August 16).



A tunnel shaft was exposed by the Israeli security forces in the northern Gaza Strip. It was 3.5 meters (11.5 feet) deep and had been dug inside a house standing 700 meters (about 4/10 of a mile) from the security fence. It was apparently intended to be used to enable a terrorist squad to infiltrate into Israeli territory (IDF Spokesman, April 8).

[6] For further information see our August 19, 2007 Bulletin entitled "An IDF activity in the northern Gaza Strip exposed a tunnel shaft hidden in a hothouse, apparently dug to carry out a terrorist attack in Israel" at http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/ct_160807e.htm.

iii) **There are tunnels dug as bait for IDF forces operating in the Gaza Strip**. They are dug fairly obviously with the intention of having Israeli security forces find them during actions in the Gaza Strip. As the soldiers investigate and search the area they are attacked with IEDs and shot at. Such an attack was carried out along the main north-south route of the Gaza Strip on September 12, 2006, when terrorists shot light arms at IDF forces, killing one soldier. **Camouflaged IEDs** were found in the region of the tunnel and were to have been detonated when the soldiers uncovered the tunnel.

iv) **There are tunnels dug as safe passages for terrorist operatives in battle zones**. They are dug between buildings and have a variety of purposes: escape, concealment, hiding weapons and surprising IDF forces.

v) **There are many camouflaged concrete firing positions**.



Entrance and tunnel exposed by IDF forces in the house of a wanted Fatah terrorist during an IDF action in the Gaza Strip (September 19, 2007).

Part 4: Upgrading weapons possessed by Hamas and other terrorist organizations

Sources of weapons

1. As part of its military buildup project, Hamas is making an effort supplement its **independently-produced weapons and ammunition with standard equipmen**t. Hamas grants great importance to **artillery** (rockets and mortars), **anti-tank weapons and IEDs** for use against the IDF's infantry and armored combat vehicles (since those types of weapons proved themselves in Hezbollah's fighting against the IDF on the Lebanese scene).

2. The weapons and ammunition smuggled into the Gaza Strip are usually obtained from three major sources:

i. **Iran and Syria, either directly or through Hezbollah**: They are smuggled to Sinai and from there to the Gaza Strip through the extensive network of tunnels. The breach of the border fence between the Gaza Strip and Egypt allowed Hamas and other terrorist organizations in the Gaza Strip to smuggle considerable amounts of weapons, including artillery rockets and anti-tank weapons.

ii. **Arms dealers**: They are smuggled to Sinai (or purchased there) and are then smuggled into the Gaza Strip through the network of tunnels.

iii. **Independent production**: These weapons, which include improved Qassam artillery rockets and other types of rockets, are manufactured in lathe shops and workshops in the Gaza Strip. The raw materials are smuggled into the Gaza Strip from Egypt and Israel, and include chemicals, metal parts and other substances used for the production of weapons and ammunition.



On February 6, 2007, Israeli security forces operating at the Erez crossing apprehended 'Amer Muhammad Mustafa Zaq, a metal dealer from the Gaza Strip. He customarily sold pipes and other metal parts to terrorist operatives and lathe shop owners in the Gaza Strip, who then used for manufacturing rockets.

3. **Exceptionally, Hamas obtained large quantities of weapons after it took over the security services of the Palestinian Authority** in June 2007. Some of the weapons were advanced items which Hamas had not possessed before (it would have taken Hamas months or even years to smuggle them through the tunnels). The weapons seized by Hamas include the following:

i. **Several dozens of long-range 122mm rockets (Grad)**: Some of them may have been fired at Ashkelon during the round of escalation that started in late February 2008.

ii. **Anti-tank weapons:** Dozens of anti-tank missiles (including Sagger missiles) and thousands of RPG rockets.

iii. **Anti-aircraft weapons:** Anti-aircraft missiles and a few dozens of various anti-aircraft machineguns.



Anti-aircraft weapons in the hands of Hamas. The Izzedine al-Qassam Brigades' information department posted the picture on YouTube (December 6, 2007).



Anti-aircraft machinegun in the hands of a Hamas operative (Al-Aqsa TV, December 24, 2007)

iv. **Machine guns**: Following the putsch in the Gaza Strip, Hamas seized a large quantity of machine guns. Consequently, its military wing began to introduce them as standard weapons for its squads, and as the main weapons for designated units (such as aerial defense and firing at Israeli Navy vessels from the beach).

v. **Small arms**: Tens of thousands of rifles.

vi. **Ammunition**: Millions of bullets.

vii. **Explosives**: Dozens of tons of explosives.

viii. **Patrol ships, inflatable rubber dinghies and diving equipment** which belonged to the Palestinian naval police. The equipment is the basis for the coast guard unit established by Hamas, but could also be used for naval terrorist attacks.

ix. **Intelligence**: Various types of listening equipment.





PA weapons seized by Hamas: 14.5mm anti-aircraft machine guns (Al-Aqsa TV, December 24, 2007).

4. **The implications of Hamas's equipping itself with advanced weapons as part of its military buildup:**

i. **Artillery rockets and mortar shells:** The range of Hamas's independently-produced rockets is over 12 km (7 ½ miles). The standard rockets and mortars smuggled into the Gaza Strip **extend the threat to Israel's civilian population to a range of about 20 km (12 ½ miles)** (Ashkelon, Netivot) and increase the threat to IDF forces operating near and inside the Gaza Strip.

ii. **Anti-tank weapons:** Advanced standard anti-tank systems have been smuggled into the Gaza Strip. Hamas is also making efforts to improve the quality of its independently-produced anti-tank rockets to increase their range, armor piercing capabilities and precision. **That improves Hamas's ability to hit IDF forces from the outskirts of urban territory and to wage anti-tank warfare at night.**

iii. **IEDs:** Hamas is making efforts to increase the armor piercing capabilities of its IEDs, **which would improve its ability to inflict multiple casualties on IDF forces and to penetrate IDF armored combat vehicles (ACVs).**

iv. **Anti-aircraft weapons:** The presence of advanced anti-aircraft weapons in the Gaza Strip **might jeopardize Israeli aircraft** operating in the Gaza Strip region.



14.5mm anti-aircraft machinegun. The Izzedine al-Qassam Brigades information department posted the picture on YouTube (January 11, 2008).



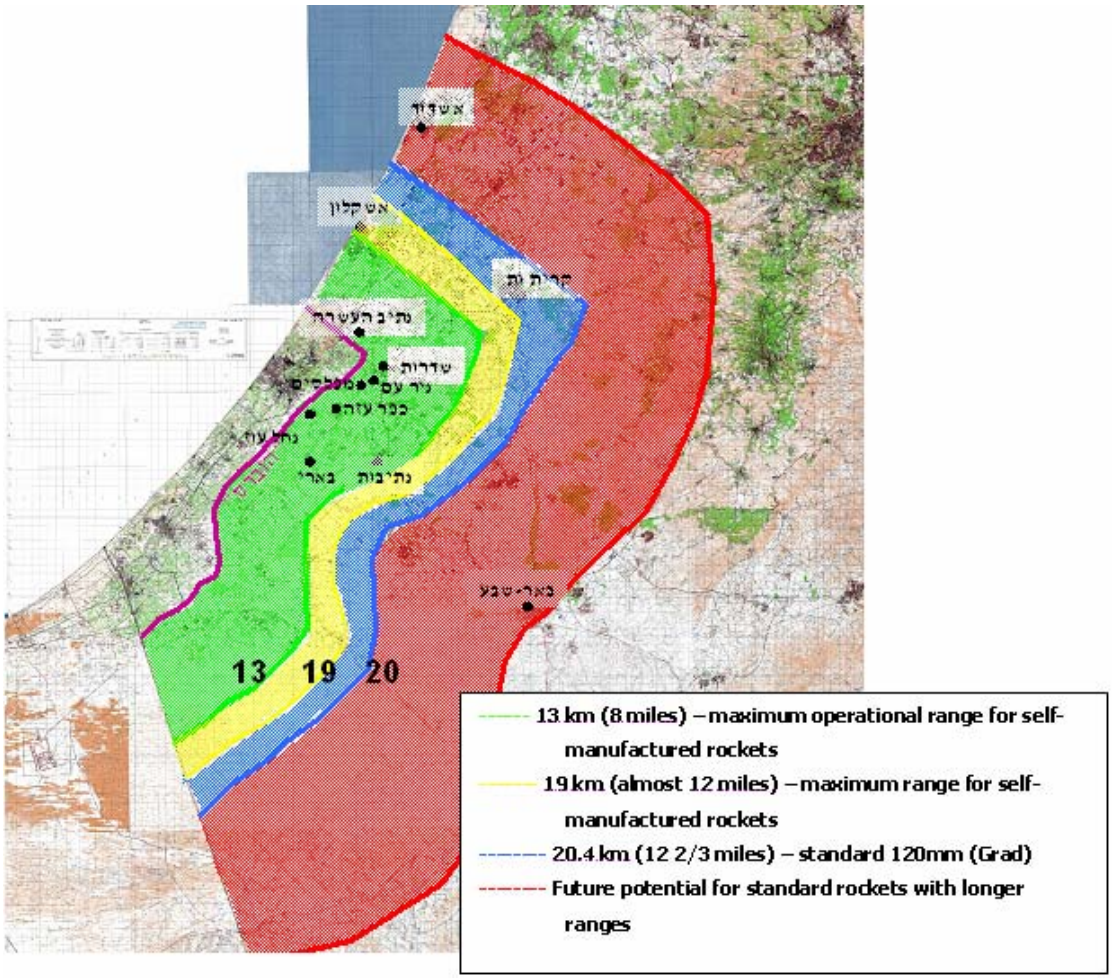
14.5mm anti-aircraft machinegun hidden under a green net (Al-Aqsa TV, December 24, 2007)

v. **Night-vision equipment**: Advanced night-vision equipment considerably improves the ability of Hamas and the other terrorist organizations to combat IDF forces at night.

5. Some of the weapons held by Hamas are the following:.

Rockets and mortars

Israeli population centers in the range of the rockets



6. For Hamas and the other terrorist organizations, firing rockets and mortar shells is an asymmetrical, simple, readily available and cheap solution to Israel's military superiority. While it does have problems and shortcomings, they believe that **it allows them to continually disrupt the life of the civilian population within the rockets' range over prolonged periods of time.** It would destabilize social structure, bypass the security buffer zone built by Israel along the Gaza Strip, and create a kind of balance of terror that would make it difficult for Israel to carry out counter-terrorism activities. The rockets are launched from densely-populated areas, sometimes near residential buildings and in some cases from rooftops and schoolyards, and Palestinian civilians are used as human shields.

7. In Hamas's view, rockets and mortars will also be important if the IDF enters the Gaza Strip and engages Hamas in a limited or extended confrontation. In such a case, Hamas would seek to **preserve its ability to fire at Israel** (mainly at urban centers such as Ashkelon and Sderot) from launching sites deep within the Gaza Strip. **That strategic concept was inspired by Hezbollah's tactics in Lebanon,** which Hamas considers to

have been successful in the last confrontation with Israel. In copying Hezbollah's rocket launching capabilities, Hamas and the other terrorist organizations are supported by **Iran and Syria,** which provide them with know-how, training and standard rockets.

8. **Hamas's rocket supply is based on several hundred** independently-produced **Qassam rockets,** with diameters ranging from 90 mm to 115 mm **and ranges of 9-13 km (6-8 miles).** The Hamas military wing has several **independently-produced** longer-range rockets which can reach **19 km** (almost 12 miles). Hamas also possesses dozens of standard long-range Grad rockets (122mm), **with a range of up to 20.4 km (12 2/3 miles),** smuggled into the Gaza Strip or confiscated from the Palestinian Authority security services following the Hamas takeover of the Gaza Strip. The breach of Rafah Crossing in January 2008 increased the number of standard rockets, **and perhaps even a number of rockets for ranges longer than 20.4 km.**



A PIJ vehicle carrying four rocket launchers



Qassam-1 rockets



Illustration: Vehicle-mounted rocket launcher



Center: Grad rocket fired on December 28, 2007 at the Israeli Police storehouse in Sderot; lying on the shelves are independently produced rockets

9. In addition, **Hamas possesses hundreds of mortar shells, both independently-produced and standard, which were smuggled into the Gaza Strip.** Hamas is responsible for most of the "routine" mortar fire, as opposed to Qassam rockets, which it only launches during escalations. The mortar shelling is aimed at villages and outposts situated near the border fence as well as IDF forces operating inside the Gaza Strip.

10. As part of its military buildup, Hamas is working to **improve its artillery capabilities.** Some of the improvements introduced during the past year **can already be seen on the ground** and were brought into play in the latest rounds of escalation:

i. **Improved range**: As early as the May 2007 escalation it was clear that rocket range had increased. In the late February 2008 escalation, 122mm Grad rockets hit **northern Ashkelon** (Hamas threatened to increase the range to include the city of **Ashdod**).

ii. **Precision**: Precision **has been improved** through the use of technical upgrades and as a result of the technical experience acquired by the rocket and mortar operators.

iii. **Increased use of hidden launch sites** (another tactic learned from Hezbollah): Launch sites are hidden in vegetation or between houses. In the February escalation, subterranean launchers were found in the northern Gaza Strip for the first time, usually activated by a delay system.

11. **The assistance provided by Iran to Hamas** and other Palestinian terrorist organizations allows them to improve their military capabilities, both by **arming themselves with standard rockets and standard mortar shells smuggled into the Gaza Strip,** and to receive the technological assistance necessary to create improved rockets with longer ranges. That was recently reflected in the terrorist organizations' use of **Iranian-made mortar shells**:

i. On February 24, **a standard 120mm mortar shell** was fired from the Gaza Strip. Examination of the remains showed that it was probably an **Iranian-made** mortar shell (a copy of one produced by Israel Military Industries in the 1970s). **The mortar shell is equipped with an auxiliary engine which increases its range from six to ten kilometers (almost 4 to 6 ¼ miles).**

ii. On February 29, a mortar shell landed **near Sufa, an IDF outpost** in the southern Gaza Strip. Examination of the remains showed that it was a **standard 120mm HE Iranian mortar shell** manufactured in 2006. Its warhead is **more destructive** than that of an improvised rocket of the same weight.



120 mm Iranian mortar shell with an auxiliary rocket engine



120 mm Iranian HE mortar shell



Remains of the mortar shell fired from the Gaza Strip



Section of the tail of the mortar shell fired from the Gaza Strip



Tail of a 120 mm mortar shell from the second Lebanon war

12. During the course of the latest escalation (late February-early March 2008), a significant number of standard 122 mm rockets (at least 18) were fired by Hamas on Ashkelon. **The difference** between them and the Grad rockets used till then is that their engine is made up of four 50cm sections. That feature is highly unusual and does not exist in rockets produced by countries which manufacture the same models. The technological effort put into the new development was designed, in our assessment, to make it easier for the terrorist organizations to smuggle the rockets into the Gaza Strip by dismantling the sections. There are several Middle Eastern countries producing such rockets, including **Iran,** Syria, and Egypt. The considerable assistance provided by Iran to terrorist organizations, including smuggling weapons and ammunition to the Gaza Strip, would lead to the conclusion that Iran was responsible for their manufacture.

12. The Palestinian Islamic Jihad also attempts to improve its rocket-launching capabilities. In the latest round of escalation, the PIJ launched an independently-produced 175 mm rocket with a longer range for the first time. **It is a step up in the threat posed by independently-produced rockets and increases their destructive ability.**



175 mm rocket

14.**Launching tactics:** The rockets are usually launched from **open sites or urban areas** (such as courtyards, alleys, ruined houses). Sometimes, **Palestinian civilians are used as human shields to allow the perpetrators greater chances of survival.** Thus most rockets are launched near fast access and escape routes.

15.The terrorist organizations' **preferred launch sites** are in the **northern Gaza Strip.** Those areas are in close geographical proximity to major population centers in the western Negev, mainly the cities of Sderot (the terrorist organizations' preferred target) and Ashkelon (which was intensively shelled during the last escalation). Increasing the rockets' range means that it will be possible to launch them from **deep inside the Gaza Strip,** from densely populated areas, to make it difficult for the IDF to carry out counterterrorist activities.

The (routine) launch sites in the northern Gaza Strip



The (routine) launch sites in the southern Gaza Strip



Anti-tank weapons

16.In the last several years there has been an increase in the significance ascribed by Hamas and other terrorist organizations to anti-tank weapons in fighting the IDF. That is also the result of the successful use made by Hezbollah of advanced anti-tank missiles against IDF forces in the second Lebanon war.

17.The second Lebanon war accelerated Hamas's stockpiling of advanced anti-tank weapons. There are many hundred to several thousand independently-produced **Al-Yassin** rockets (a reconstruction of the PG-2 rocket). The Hamas's arsenal also includes hundreds of **PG-2 and PG-7** anti-tank rocket launchers and several dozen advanced anti-tank missiles of various types, including **Konkurs** (AF-5) and **Saggers.** Hamas and the other terrorist organizations are trying to **increase their arsenal of anti-tank weapons.**

RPG-7 anti-tank rocket launcher manufactured by Russia and other countries, including Egypt



Technical specifications:

a. **Launcher length:** 950 mm
b. **Launcher diameter:** 40 mm
c. **Launcher weight:** 6 kg (13.2 lbs)
d. **Warhead:** hollow charge (85 mm in diameter)
e. **Effective range:** stationary target 350 m; moving target 300 m
f. **Maximum range:** 800-900 m
g. **Armor piercing capability:** 300 mm of stee

Russian-made Sagger missile[7]



Technical specifications:

a. **Warhead diameter:** 125 mm

[7] At the display of seized materials at the Intelligence and Terrorism Information Center there is one of the Sagger missiles seized on board the Karine-A. The Iranians scratched off the Iranian army emblem which was embedded in the missile.

b. **Missile length:** 86.4 cm

c. **Armor piercing capability:** 450 mm of armored steel

d. **Minimum range:** 500 m

e. **Maximum range:** 3,000 m

Russian-made Konkurs missile

Technical specifications:

a.**Armor piercing capability:** 600 mm of steel; 800 mm after reactive plating[8]

b. **Maximum day range:** 4,000 m

c. **Maximum night range:** 2,500 m



Konkurs missile inside the launch container



Konkurs launcher (seized in Lebanon)

18. In our assessment, when the border between the Gaza Strip and Egypt was breached, more weapons and ammunition were smuggled into the Gaza Strip, some of which might be more advanced than those currently in the Gaza Strip, including missiles and rockets with Tandem warheads.[9] Thanks to their greater range (from hundreds of meters to several kilometers), armor piercing capabilities, precision and destructive effect, the advanced anti-

[8] **Reactive plating** is a technology developed after 1967. It is an armor which reacts to an impact in such a way as to reduce damage to the vehicle fitted with the plating. Usually, reactive plating contains units of propellant explosives installed on the outside of the vehicle and explode on impact, making anti-tank weapons less effective.

[9] Two-stage hollow warhead.

tank missiles pose a greater threat to the IDF's ACVs and infantry, and buildings in civilian areas or on IDF bases.

Explosives and IEDs

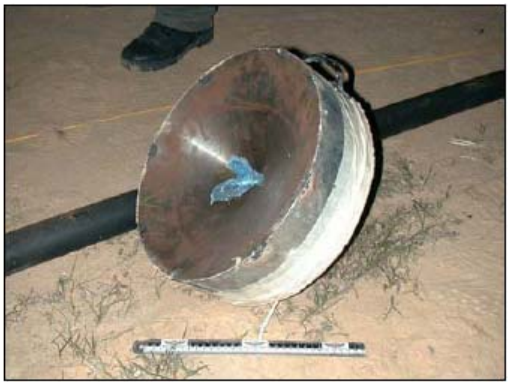
19. Since the Hamas putsch in the Gaza Strip, it has smuggled significant amounts of high quality explosives and raw materials for manufacturing explosives into the Gaza Strip. According to a report issued by the Israel Security Agency, between the takeover of the Gaza Strip in June 2007 and early 2008, Hamas smuggled in **at least 80 tons of explosives,** more than half the amount of explosives smuggled to the Gaza Strip since the disengagement.[10] That has resulted in the improvement of the performance of IEDs as well as the artillery and anti-tank rocket warheads in the possession of Hamas and the other terrorist organizations.

20. Hamas also tries to imitate Hezbollah in its use of **IEDs: roadside charges and powerful underbelly charges.** Those IEDs are placed near or under roads to disrupt the IDF's combat maneuvers and take a heavy toll in human lives and weapons. Such IEDs can also be expected to be hidden in houses or other locations where the IDF is likely to carry out its activities. A prominent example was the explosion of a booby trapped house during activities conducted by the IDF in Beit Lahiya (August 1, 2007).

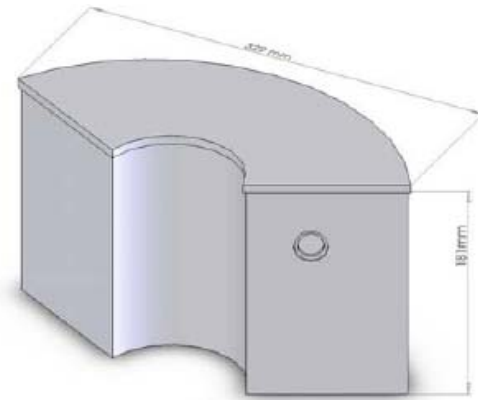
21. Hamas has in its possession a variety of charges, explosives, and detonation systems for use in a future confrontation:

i. **IEDs:** Hamas has a series of IEDs, including **fragmentation charges, shaped charges, and underbelly charges.** Those IEDs are designed to be used against IDF's exposed infantry and ACVs. They will be placed at the sides of roads, outside and inside cities. Hamas is independently developing shaped charges called **Shawaz** (Arabic for "flame"), with higher armor piercing capabilities than the charges produced by other Palestinian terrorist organizations. That is both the result of improved production quality and the use of more energetic explosives, based on know-how provided by Iran and Hezbollah.

[10] From a report published by the Israel Security Agency: "Summary of 2007—Data and Trends in Palestinian Terrorism."

Various models of plate charges exposed in the Gaza Strip in recent years

Claymore charge independently produced by Hamas, seized near a tunnel entrance (September 2006)




Fragmentation charges produced by Hamas, seized near a tunnel entrance (September 2006)

ii. **Detonation system:** to activate the IEDs, Hamas makes use of various systems, some controlled by the operator (wireless or wired detonation systems) and some triggered by the victim.



A wireless detonation system based on a cellular telephone, for a chain detonation of up to four IEDs

iii. **Target-designated explosives:** Alongside the usual IEDs possessed by Hamas, there are also target-designated explosives for special tasks, such as a thrown charge with a grenade mechanism (which Hamas used in the abduction of IDF soldier Gilad Shalit). Other IEDs Hamas is likely to use are explosive break-in devices, such as a Bangalore torpedo, to overcome the border fence or the fence surrounding an IDF outpost or a population center.



Hezbollah operative holding a Bangalore torpedo while attacking an outpost of the South Lebanese Army



Thrown IED with a grenade mechanism

22. Hamas (and the other terrorist organizations) now have **hundreds of anti-ACV charges** (plate, hollow, and underbelly) and **anti-infantry charges** (plate and peripheral fragmentation charge, Claymore). Shaped charges (Shawaz) have also been developed, but have yet to be implemented on a large scale.

Other weapons, ammunition and military equipment

23. Following the Hamas takeover of the Palestinian security services, the rifle stockpile of the military wing increased **from thousands to tens of thousands** (including millions of bullets). Hamas now has sufficient amounts of small arms to increase the number of Hamas operatives in its military and security apparatuses.

24. Hamas and the other terrorist organizations have several units of **SA-7 shoulder missiles,** which have not been used so far (Hamas's entire air defense has so far consisted of firing machineguns and small arms at aircraft). There are also **dozens of** standard and improvised **sniper rifles, heavy machine guns also used for anti-aircraft fire, recoilless guns, binoculars and some night vision equipment.**



Heavy 12.7 mm machinegun which could also be used for anti-aircraft fire (Izzedine al-Qassam Brigades Forum, September 17, 2007)



Heavy 12.7 mm machinegun used by a Hamas operative for anti-aircraft fire (Al-Aqsa TV, December 23, 2007)

Part 5: Systems for manufacturing, developing and smuggling weapons

Self-manufacture systems

1.Hamas has in its disposal **an infrastructure for independent weapons and ammunition manufacture,** as well as for storage and delivery to combatants. The infrastructure includes several dozen operatives organized into professional work groups. Several dozen production sites are based in the Gaza Strip inside densely populated civilian areas. Weapons and ammunition are manufactured for offensive and defensive needs, and for carrying out terrorist attacks.

2.Over the past year Hamas operatives continued their efforts to independently produce a considerable portion of the weapons and ammunition they require for their terrorist activities, to reduce their dependence on smuggling. Hamas and other terrorist organizations have independent production capabilities.



A workshop for manufacturing weapons and ammunition located inside a densely populated civilian area in the Rafah neighborhood of Shaboura. The workshop was attacked by the IDF.

3. Since it is situated in the heart of civilian areas, the production facilities expose the residents to risks due to attacks by Israel and to "work accidents." Thus, for example, on December 29, 2007, two "engineers" engaged in the manufacture of weapons were killed when a powerful IED exploded inside a residential building in the Gaza City neighborhood of Zaytoun. The explosion caused injuries to civilians and considerable damage to the building.

4. Key among the weapons produced in the Gaza Strip are:

i. **Anti-tank weapons,** including Hamas's manufacture of **Al-Yassin-type** anti-tank rockets (and launchers), a reproduction of the Russian **PG-2** anti-tank rockets.



Hamas-made Al-Yassin rockets. Maximum range: about 250 m.
Estimated armor piercing capability: up to 200 mm of steel.





Right: A production line of Al-Yassin anti-tank rockets.
Left: terrorist operatives training with Al-Yassin rockets.

ii. **Various IEDs, some of which may contain standard explosives:**

1) **Hezbollah's use of powerful IEDs in the second Lebanon war,** such as the incident in which IDF soldiers Eldad Regev and Ehud Goldwasser were abducted and a tank was destroyed, is an example that Hamas seeks to follow. Notable in this context are shaped charges independently produced by Hamas (called **Shawaz),** with higher armor piercing capabilities than IEDs used by other Palestinian terrorist organizations. That is a result both of improvements in the quality of IEDs and of using more powerful explosives based on technological know-how provided by Iran and/or Hezbollah.

2) In the last months of 2006 such devices were exposed and operated on four occasions: two IEDs were found as part of an elaborate system uncovered on September 12, 2006 near the main road of the Gaza Strip; during Operation Autumn Clouds (October 31-November 26, 2006) four such IEDs were used

against IDF forces in the town of Beit Hanoun. Hamas claimed responsibility for the incidents.



The *Shawaz* series of IEDs on the first page of the chapter titled "Engineering Corps" (from a booklet published by the Izzedine al-Qassam Brigades dealing with theories of military studies).



A *Shawaz* shaped charge independently produced by Hamas exposed on September 12, 2006. Estimated armor piercing capability: more than 200 mm of steel.

iii. **.Producing artillery rockets for various ranges and manufacturing mortars and mortar shells:**[11]

1) As the terrorist organizations' spearhead, Hamas **has capabilities for producing a considerable variety of Qassam-class rockets for ranges of up to 13 km** and of improved rockets **for ranges of up to 19 km. In our assessment Hamas currently has several hundred rockets.**

2) Hamas's manufacturing facilities **constantly strive to improve rocket range** and the shelf life of independently produced rockets.

3) **The Palestinian Islamic Jihad** also independently produces rockets (**Al-Quds**) with characteristics similar to those of Hamas.

Weapons smuggling systems

5. Hamas and the other terrorist organizations obtain weapons and ammunition from various sources, some from Iran and Lebanon, and some from other countries, such as Sudan. In addition, the terrorist organizations acquire weapons and ammunition from Bedouins in the Sinai desert and from arms dealers operating outside the Gaza Strip. The weapons and the raw materials needed for independent manufacture are transported to the Gaza Strip by a

[11] For further information see our December 19, 2007 Bulletin entitled "Rocket threat from the Gaza Strip, 2000-2007" at http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/rocket_threat_e.htm.

network of smugglers from the Egyptian border, a lifeline for Hamas and the other terrorist organizations.

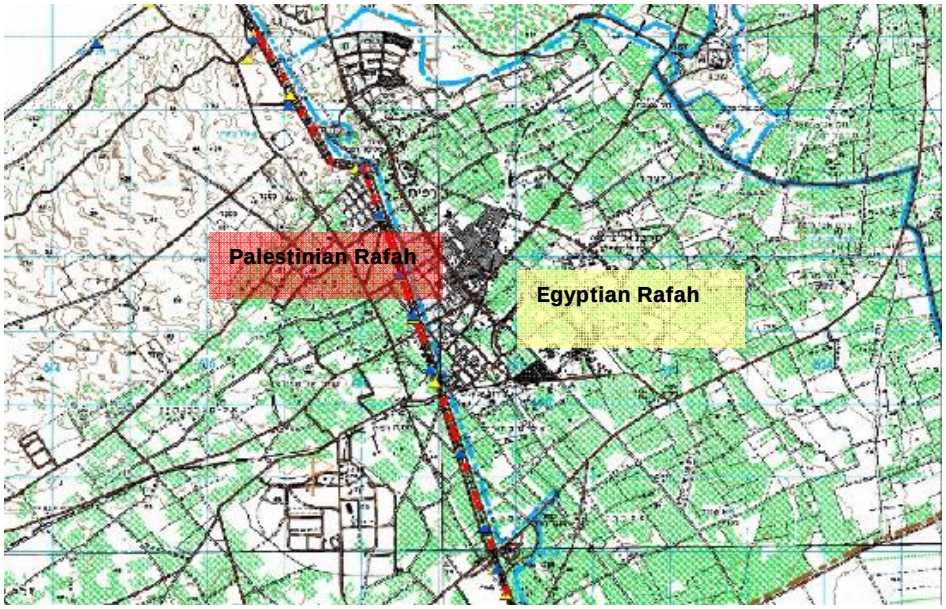
6. **Since the IDF's withdrawal from the Gaza Strip as part of the Israeli disengagement (September 2005), there has been a dramatic increase in weapons smuggling from Egypt into the Gaza Strip through the Philadelphi route.** The IDF forces operating along the Egyptian border were first replaced by Palestinian security forces belonging to Fatah. Now, following the Hamas putsch of the Gaza Strip, its members patrol the border to facilitate weapons smuggling. The presence of Hamas forces and the ineffectiveness of the Egyptian security forces have left the border between the Gaza Strip and Egypt **wide open**, making it possible to carry out extensive smuggle activities with relative ease.

7. The **main** method of smuggling used by the terrorist organizations is the **network of tunnels** dug from Rafah to Sinai in the Rafah region and along Philadelphi road. The smuggling takes place through **scores of subterranean tunnels** connecting the Gaza Strip to Egypt. The extent of the tunnel network was demonstrated during IDF's activity in the Kerem Shalom region (October 30, 2007), in which eight tunnel entrances were located and destroyed.

8. The tunnels are used to smuggle weapons, military equipment, raw materials for independent weapons and ammunition manufacture and even funds (tens of millions of dollars).[12] Anti-tank missiles, standard 122 mm Grad rockets, dozens of tons of standard explosives, mines, anti-tank launchers, rifles and bullets have been smuggled into the Gaza Strip. In addition, the tunnels are used to smuggle terrorists from the Gaza Strip into Israel through the Israeli-Egyptian border.[13] The breach of the border fence at Rafah (January 22-February 3) reduced dependence on the tunnel network for a short time and allowed a massive influx vehicles laden with weapons and ammunition into the Gaza Strip.

[12] Hamas is noted for its use of tunnels for smuggling funds. For example, in 2007, the military wing of Hamas received a significant portion of its budget, estimated at **tens of millions of dollars,** through the tunnels. The funds helped Hamas's military buildup in the Gaza Strip ("Summary of 2007: Information and Trends in Palestinian Terrorism," a report issued by the Israel Security Agency).

[13] For example, on July 3, 2007, Israeli security forces prevented a suicide bombing attack meant to be carried out in Beersheba when they detained a suicide bomber armed with an explosive belt. During interrogation the terrorist admitted that he had infiltrated Israeli territory from Sinai and the Gaza Strip. He had been instructed to locate a crowded place and carry out the attack there.



9. **Another smuggling method is the use of border crossings between Israel and the Gaza Strip, under cover of commercial or humanitarian equipment.** That results in the absurd situation in which much of the raw materials used in the manufacture of the rockets and explosives used to attack Israelis originate in Israel (for example, **potassium nitrate** and sugar are the two basic substances used to create propellants for IEDs and rockets).[14] The use of potassium nitrate is therefore forbidden in Judea, Samaria, and the Gaza Strip; accordingly, the terrorist organizations attempt to smuggle it in by various ways and means.[15]



In late 2007, security forces at one of the crossings in Judea and Samaria stopped a truck containing six tons of potassium nitrate. That substance was sent to terrorist operatives and was concealed in sacks of sugar sent as assistance by the European Union (IDF Spokesman, December 29, 2007).

[14] In the past year, the Israeli security forces carried out special activities to prevent the transport of substances used as raw materials for the production of explosives into Judea, Samaria, and the Gaza Strip. Seized in raids carried out in the past year on five factories in Judea and Samaria were substances that are illegal to transport into Palestinian territory.

[15] For example, Egyptian security forces recently arrested in Rafah Mehdi Salim Abu Freij, residing near the border. Found in his house were over a half a ton of explosives and 1.2 tons of potassium. According to the detainee, those substances had been smuggled into the Gaza Strip through tunnels (Jerusalem Post, December 26, 2007).

10. The terrorist organizations operating in the Gaza Strip take advantage of the fact that Israel grants entry permits to Gaza Strip residents out of special humanitarian concerns (for example, life-saving treatments at hospitals). This is done in several ways, mainly by purchasing a fake medical authorization to undergo medical treatment in hospitals in Israel, Judea and Samaria, or elsewhere in the world. Israeli security forces are aware of several doctors and administrative workers in Gaza Strip hospitals who issue authorizations in exchange for bribe.[16]

11. Most of the weapons smuggling into the Gaza Strip is done by **independent smugglers and traders driven by financial motives.** At times, there is no particular buyer before the smuggling, and the smuggled goods are sold on the open market to the highest bidder. Some of the weapons smuggling activity is carried out on demand for a particular organization (mostly Hamas). **Following the Hamas takeover of the Gaza Strip, Hamas has tightened its control over the weapons smuggling system from Sinai into the Gaza Strip.**

12.The **funds** necessary for the acquisition of weapons (and the military buildup process in general) are introduced by Hamas into the Gaza Strip in covert ways, mostly through money changers and traders in the Arab world. Terrorist organizations also make extensive use of the tunnels to smuggle large sums of money, up to tens of millions of dollars on each run.



Hamas knocks down the border fence between the Gaza Strip and Egypt
(Ma'an News Agency, January 23, 2008)

[16] From the ISA's "Summary of 2007: Information and Trends in Palestinian Terrorism." Two potential female suicide bombers were detained at the Erez Crossing in May 2007. They had been given an authentic entry permit to Israel, based on false medical information. The two were planning to carry out a double suicide bombing attack in Tel-Aviv and Netanya.

Part 6: Training in the Gaza Strip and abroad (Iran, Syria and Lebanon)

1. Hamas's military buildup also includes training and qualification to increase the professional skills of operatives from all levels and in all occupations. Hamas has a core of several hundred highly-trained operatives who have undergone basic and advanced military training, specializing in such areas as anti-tank weapons, small arms, machineguns, sabotage, etc. Those operatives have acquired fighting skills that allow them to engage in personal combat, squad combat and possibly in larger-scale battles as well.



The Izzedine al-Qassam Brigades training in the use of mortars (Al-Aqsa TV, February 14, 2007)



The Izzedine al-Qassam Brigades train in the use of RPG-7 anti-tank weapons (Filastin al-Mubashir Website, December 10, 2007)

2. Operatives belonging to the Hamas military wing undergo intensive, systematic training **in the Gaza Strip,** which includes **elementary training** (fitness, rifle shooting and field training) an advanced **professional training** in sniping, anti-tank warfare, intelligence and artillery. Elementary training is held **in the Gaza Strip** and taught by local instructors (some of whom were trained abroad). The advanced professional training is given **abroad: in Iran, Syria, and Lebanon** (through Hezbollah). At the same time, **operatives of the internal security services** (the Executive Force, the police, etc.) also undergo basic and advanced training in the Gaza Strip and elsewhere (Iran and Syria), preparing them to serve in Hamas's military wing in an emergency.

3. Following the Hamas putsch in the Gaza Strip, as part of the acceleration of its military buildup, Hamas operatives were sent to training courses in Iran and Syria. The operatives were smuggled back into the Gaza Strip and transferred the know-how and skills they had acquired to operatives belonging to the Hamas's operative wing and internal security services.

In 2007, Hamas undertook the most extensive and significant training effort in the history of its military wing in order to improve its operative capabilities.

4.On March 9, 2008, the British Sunday Times published an interview by reporter Marie Colvin with a senior Izzedine al-Qassam Brigades operative in the Gaza Strip, who did not identify himself by name (even though his description appears in the article). The interviewee shed light on the training undergone by Hamas operatives outside of the Gaza Strip:[17]

i. **Hundreds of Hamas terrorist operatives have trained and are training in Iran**: The Iranian Revolutionary Guards have been training them in Tehran for more than two years, ever since Israel withdrew from the Gaza Strip in August 2005 (i.e., since the disengagement). **So far 150 have finished their training. An additional 150 are currently there**, improving their fighting skills. Some of them will return as fighters and others, who are not fit to fight, will join Hamas's "research unit."

ii. **The route to Iran**: Hamas operatives leave the Gaza Strip and enter Egypt, from there they fly to Syria and from there to Tehran. Entering and leaving Tehran they are permitted not to have [their passports] stamped, for security reasons.[18]

iii. **Length and location of training**: Hamas operatives train for periods lasting **between 45 days and six months**. The training takes place at a closed military base under difficult conditions and is supervised by Revolutionary Guards. The operatives are allowed off base only once a week, and even then only in a group and accompanied by Iranian security personnel.

iv. **Training subjects**: Hamas operatives undergo training in **tactical warfare and weapons operation** and return to the Gaza Strip with the skills they acquired in advanced technology, rocket launching, detonating explosive charges, sniping and other military tactics, **similar to those used by Hezbollah**.

v. **So far seven groups of Hamas operatives have been sent to Iran**. The best students in each group remain in Iran for longer periods, participate in advanced courses and return to the Gaza Strip to serve as **instructors**.

vi. **Training in Syria**: Hamas operatives from the Gaza Strip are also sent to **Syria** for basic training. So far **600 Hamas terrorist operatives** have been trained in Syria by instructors who learned their techniques in Iran. **There are currently 62 terrorist operatives training in Syria**.

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[17] For further information see our March 17 Bulletin entitled "Senior Hamas operative figure tells London Sunday Times' Gaza Strip correspondent about Iranian and Syria military aid" at http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/hamas_160308e.htm.

[18] That was also the case in the past with Hezbollah operatives who left for training in Iran. For example, Hussein Ali Suleiman, a Hezbollah terrorist operative captured in the second Lebanon war, said that he had trained in Iran with a group of 40-50 Hezbollah operatives from Lebanon. He said that the men in his group avoided having their passports stamped in Syria and Iran to hide the fact that they had gone to Iran for training.









Izzedine al-Qassam Brigades training in the Nusseirat refugee camp for a possible IDF operation (Radio Al-Aqsa Website, January 12, 2008)





Participants of the police course (Al-Aqsa TV, February 2, 2008)

Part 7: The lessons Hamas learned from the most recent round of escalation

1. The latest round of escalation in the Gaza Strip (February 27-March 4) was the most intense confrontation between Hamas and Israel since the movement took over the Gaza Strip in June 2007.

2. Between February 28 and March 3, 2008, **207 rockets landed in Israeli territory,** most of them launched by Hamas. The preferred target was (as usual) the city of **Sderot** (which was hit by some 100 rockets); **however, it was the first time that Ashkelon and its immediate vicinity was also intensively targeted** (Hamas fired 18 standard 122 mm Grad rockets). The daily average was about 30 rockets. Hamas also fired standard 120 mm mortars.



Rockets fired at Israel from civilian areas in Beit Lahiya
(February 27, 2008, courtesy of Israeli Channel 10 TV)

3. The large number of rockets Hamas launched in several days indicates **that it possesses a significant rocket arsenal.** Of particular note is the **relatively large arsenal of standard 122 mm Grad rockets,** which for the first time allowed Hamas **to continuously and systematically fire on the city of Ashkelon** (120,000 residents).

4. However, Hamas was surprised by Israel's reaction, mainly by the ground operation in the northern Gaza Strip ("Hot Winter") in which some 70 terrorist operatives and the terrorist infrastructure were hit. Accordingly, Hamas and the other terrorist organizations were unable to carry out mass casualty attacks against the IDF. In addition, the IDF struck major locations, disrupting the production and transportation activities and resulted in the loss of operatives and infrastructure.

5. **Politically,** Hamas was able to emphasize its ability to dictate the internal Palestinian and Israeli-Palestinian agendas, particularly in view of Abu Mazen's statement that the political negotiations with Israel had been put on hold. Of particular note was Hamas's success (joined

by Abu Mazen's Palestinian Authority) in the **battle for hearts and minds:** Hamas and the Palestinian Authority waged a media campaign which emphasized the casualties caused to civilians, mainly children, while totally ignoring the rocket fire on Israel and the fact that most of those killed (about 130) were terrorist operatives.

6. The campaign made extensive use of terms like "holocaust" and "massacre," comparing the Holocaust of the Jewish people to the "holocaust" of the Palestinians in Gaza. The campaign did not obtain significant media attention in the West, but it had considerable influence among the Palestinians and in the Arab and Muslim world (one of the causes was the massive support given to the Palestinian campaign by the popular Al-Jazeera TV channel). The campaign's success again demonstrated to Hamas the importance of **developing its media capabilities** (to which the movement allocates considerable resources) **and has again shown that the battle for hearts and minds could play a significant role in any future confrontation in the Gaza Strip.**

7. In the latest escalation, Hamas made **extensive use of the civilian population as human shields,**[19] usually receiving the population's support. That was reflected by fighting in densely-populated urban areas, with Hamas operatives dressed in civilian clothes to blend into the population. In some cases, civilians helped Hamas by gathering in sites where IDF attacks were expected, in order to serve as human shields.



A Hamas poster issued during the last round of escalation, titled "Death is coming." The photograph features armed Hamas operatives dressed in military uniform and looking like regular soldiers

8. **Summary:** Hamas could learn both positive and negative lessons from the last round of escalation. On the positive side, it succeeded in consistently and systematically launching

[19] For further information see our March 6 Bulletin entitled "During the last round of escalation in the Gaza Strip the terrorist organizations again made extensive use of Palestinian civilians as human shields" at http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/human_s_e.htm.

rockets at Israel, extending the rockets' range to Ashkelon, and it had victories in the battle for hearts and minds. On the negative side, the escalation demonstrated the existence of preparedness gaps in Hamas's combat system and the toll taken by a large-scale confrontation with Israel.[20] **The calm that has settled on the Gaza Strip will allow Hamas to continue its military buildup** while repairing the damage and overcoming the weak spots which became apparent during the latest round of escalation.

[20] Izz al-Din al-Qassam Brigades spokesman Abu Obeida gave an interview several months before the escalation, saying that upon entering the Gaza Strip, the IDF would encounter trained warriors and new combat tactics, guided and coordinated by a joint operations room. "The Israeli army will not be able to tell where its tanks were hit from and where rockets were launched at its soldiers from," he said (Al-Hayat, December 17, 2007). **In retrospect, it seems that his statement was rather exaggerated.**