

Global Insurgents and their Weapons

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Insurgent groups around the world - al-Qaeda in Iraqi, the Taliban in Afghanistan, the Shabab in Somalia, Hamas and Hezbollah in the Palestinian territories - have waged a global jihad using a variety of deadly and unconventional weapons. These are the suicide bomber, the Improvised Explosive Device (IED), the Explosive Formed Penetrator (EFP), the Rocket Propelled Grenade (RPG), and the mortar, to name a few. Such weapons are not designed to win battles but to inflict casualties, produce dramatic photographs, and generally affect the western public's perception of the war.

Insurgents have no choice. Even well-armed and experienced insurgent groups are no match for competently lead regular forces. For example, during the last two days of the 2nd Lebanon War, Hezbollah lost more than 200 fighters in several fierce battles with the Israel Defense Forces (IDF).¹ January 2008 saw the Iraqi Army defeat a Shia end-of-times cult in a massive battle for Najaf, killing more than 250 fighters. During their 2007 occupation of Somalia the Ethiopian army routinely annihilated Shabab forces in and around Mogadishu.² Turning to unconventional weapons was the only alternative for outgunned insurgents.

Easily the most famous weapon to come out of the current war is the Improvised Explosive Device, or IED. An IED is a mine, artillery shell, or some other kind of explosive wired for a timed or manual detonation. They have proven an extremely effective weapon, causing a steady stream of American casualties, resulting in more than 1,800 deaths by May 2009.³ 2006 saw the introduction of a deadly new version of the IED called the Explosive Formed Penetrator. The EFP features a metal slug projected at high speeds which is capable of penetrating armor at a distance of up to 100 meters.⁴ Though prominent in Iraq, Taliban and al-Qaeda forces in Afghanistan have become increasingly reliant on IEDs and EFPs as the war has grown worse. These weapons have accounted for 75% of Coalition casualties.⁵ IEDs and EFPs can be activated by infrared, wireless, or wired remote control.

Not all insurgent weapons are improvised; in fact, many come from foreign-owned arms manufacturers. This is especially true in the war against Israel. One of the most important insurgent weapons used against Israel in Gaza and Lebanon is the Anti-Tank Guided Missile (ATGM.) Both Hezbollah and Hamas rely heavily upon Russian made sappers, spigots, and kornet ATGMs. Hezbollah also employs the RPG-29, featuring a duel warhead capable of penetrating armor. During the 2006 Lebanon war, Hezbollah fighters fired thousands of sappers, using them to great effectiveness against IDF vehicles. Hezbollah destroyed or damaged 24 Israeli tanks in 2006, a development previously not expected by IDF planners.⁶ Hezbollah fighters also used ATGMs as mobile artillery, firing them at advancing infantry or Israeli occupied buildings.

Hezbollah has also amassed a huge stockpile of unguided rockets. The most prominent of these is the Katyusha. Fired from a metal cylinder, Katyushas have a range of about 25 kilometers, far enough to hit the Israeli port city of Haifa from their launch sites in southern Lebanon. Hezbollah's Katyushas are purchased from Russian and Chinese stockpiles via Iran and Syria. Other rockets in Hezbollah's arsenal include the Fajir 3 and Fajir 5, with ranges of 50 and 75 kilometers respectively--both manufactured by Iran. The Fajir carries a 200-pound

warhead. During the height of the 2006 war, Hezbollah was able to fire a few hundred rockets per day at Israel despite the IDF's massive effort to destroy them. Since the war, Hezbollah has replenished its arsenal of rockets⁷.

The Qassam Rocket, manufactured in local small workshops throughout the Gaza Strip, is the preferred weapon of Hamas. Qassam rockets are simple metal tubes with four stabilizing wings and a warhead. Throughout much of this decade they have been a constant nuisance in southern Israel. More than 1,700 Qassams were fired at Israel in 2008 alone, though they have killed few. In that sense, their value is purely political. By keeping up a steady barrage of rockets against Israel, Hamas can claim they are waging war against the 'Zionist Entity', portraying themselves as the true defenders of the Palestinian people. Early versions of the Qassam had a range of 5 or 6 kilometers, but Palestinian engineers have gradually increased the range to as far as 40 kilometers, putting cities like Beersheba and Sderot in the line of fire. The warhead has also increased in size from 0.5 kilograms, in the Qassam-1, to 12 kilograms in the Qassam-3.⁸ During Operation Cast Lead, destroying Qassam stores, launchers, crews, and workshops was a top priority of Israel planners.⁹

In Afghanistan and Pakistan, Taliban weapons come from a myriad of sources. Ironically, though not surprisingly, thousands of rifles meant for the fledgling Afghan National Army (ANA) have found their way to the Taliban. The General Accounting Office has been unable to track an estimated 87,000 rifles of the more than 240,000 given to the ANA. Other items feared to have fallen into Taliban hands are mortars, machine guns, and night vision goggles.¹⁰ Other Taliban weapon sources are Central Asian Republics like Uzbekistan and Tajikistan, both of whom are sitting on large stockpiles of Soviet-era weapons and have ties with Afghanistan's Uzbek and Tajik minorities.¹¹ The Taliban still receives weapons and supplies through the Pakistani Inter Services Intelligence (ISI), which, of course, founded the Taliban in the 1990s. Importantly, ISI operatives visit Islamic madrasas in Pakistan and recruit fighters for the jihad. These operations are conducted by a shadow-like unit in the ISI known as S-Wing.¹² Despite their extensive meddling, Pakistan is not the most troublesome state actor in the war.

That title belongs to Iran. Through a variety of state military, para-military, and intelligence units, Iran funnels weapons and advisors to all of the above mentioned jihadist groups, making that nation the most important facilitator of terrorism today. Through a special unit called Quds (Jerusalem) Force, a part of the Revolutionary Guard, Iran operates terrorist training camps in Lebanon, Syria, and Sudan among other locations. There are also several camps in Iran proper. Through a subunit of Quds Force called the Ramazan Corps, Iran ships weapons into Iraq via bases in the border cities of Afhaz and Merhan.¹³ Without a doubt, the biggest beneficiary of Iranian weapons was Moqtada Al-a-Sadr and his army, the Jindi al-Mahdi. Al-a-Sadr's forces were badly defeated in April of 2008 during the Battle of Basra. Iran, of course, is heavily vested in Hezbollah, training fighters in Lebanon, Syria and Iran, supplying weapons, advisors, and sending commandoes to fight alongside them. In recent years, the Iranians have also developed close ties with Hamas, supplying weapons and even training an elite group of Hamas commandos--the Iranian Unit-- that the Israelis utterly wiped out during Operation Cast Lead. A major conduit for Iranian arms to Hamas runs through Sudan. Israeli Air Force jets bombed a convoy loaded with weapons destined for Hamas, via the Sinai.¹⁴

Syria is also an important terrorist supporting state. As Syria occupied parts of Lebanon for nearly 30 years, that nation still has strong ties to terror groups in the country. Syria hosts terror training camps for Hezbollah and other groups such as the Popular Front for the Liberation of Palestine. Hezbollah fighters also train and serve with the Syrian army. The regime of Bashir

Assad also supplies Hezbollah with 220 mm rockets.¹⁵ Syria's border with Iraq has long been a preferred entryway into the campaign for foreign jihadi, but Syria is more than a training ground and transfer point. The Council of Foreign Relations notes that Syrian agents are most likely behind the assassination of former Lebanese Prime Minister Rafik Hariri.¹⁶ Most ominously, in 2007, Syria concluded a mutual defense pact with Iran which is funding Syrian arms purchases.¹⁷ Interestingly, having seen the chaos wrought by Hezbollah in 2006, the Syrian army is moving away from conventional warfare in favor of small unit guerilla tactics. New commando units are in training while old ones are being beefed up. The Syrians are also acquiring large stockpiles of short- and medium-range ballistic missiles.¹⁸ Syria is also the main route through which Iranian weapons reach Hezbollah.

Another insurgent arms supplier, though far less conspicuous, is China, with the vast majority of their weapons going to Afghanistan. Before the war started China already had strong ties with the Taliban. Chinese corporations installed telephone lines throughout Afghanistan and helped rebuild the country's electrical grid. Chinese interests also provided the Taliban with humanitarian aid.¹⁹ Chinese military advisors trained Taliban fighters before the war and went so far as to provide the regime with SA-7 Surface-to-Air Missiles (SAMs).²⁰ More recently Chinese weapons, including rifles, land mines, SAMs, and RPGs, have been found in captured Taliban arms caches. Coalition intelligence believes the weapons were not coming directly from China; rather, they were being smuggled into the country from Iran, a buyer of Chinese arms. Chinese weapons are also coming in through Pakistan, a revival of a Cold War-era pipeline that saw the Pakistani ISI deliver Chinese weapons to the Afghan resistance.²¹

The preponderance of IEDs in Iraq and Afghanistan forced the U.S. Army and Marines to accelerate the fledgling Mine Resistance Ambush Protected (MRAP) program. The MRAP has an armor plated, V shaped hull on a raised chassis. These come in three versions. The Category I--for urban terrain--carries six passengers; the Category II--for convoy escort--carries nine; and the Category III--weighing a whopping 22 tons--is specially armored for mine clearance duty. As of 2008, more than 20,000 MRAPs were in service or on order.²² Long term, the MRAP may simply be a bridge vehicle as the army has recently announced plans to develop a new platform vehicle for urban and counterinsurgency warfare.²³

Not surprisingly, the Israelis are leading the way in countermeasures research and development. Because they lost so many tanks during the Second Lebanon War, the Israelis have accelerated their research into designing a system to protect their vehicles. The result is the Trophy Active Protection System. Through a special radar affixed to the vehicle, the Trophy detects an incoming missile, tracks, and then targets it. When targeted, a 'kill mechanism' is fired and intercepts the missile, destroying it before impact. A kill mechanism will be mounted on each end of a vehicle. The actual mechanism is classified, though *Jane's Defence Weekly* says it operates along similar lines as an explosive formed penetrator. Tests indicate that the Trophy will not endanger troops nearby the targeted vehicle, estimating that less than 1% would be wounded. The Trophy will be mounted on all new Israeli Mk IV Merkeva tanks.²⁴

For all their success with the Trophy System, the Israelis have yet to develop a feasible defense against incoming Katyusha and Qassam Rockets. One problem is that these weapons travel very short distances, making them hard to acquire and track (the Israelis already operate the Arrow 2 Anti-Ballistic Missile). Another problem is cost. Insurgent short-range rockets are very cheap to manufacture, while any countermeasure would represent the technological cutting edge, requiring hundreds of millions of dollars in research and development.

So far, the Israelis' best effort is the Iron Dome System. The Iron Dome uses radar to detect and track incoming targets and launches a small, specially designed missile, called the Tamir, to intercept it.²⁵ Even this is only partially effective as Iron Dome needs a warning of at least 4 kilometers before it can track an incoming target.²⁶ Because each Tamir Missile costs upwards of \$50,000, Iron Dome will distinguish between incoming targets which will hit populated areas and those that will not. The Israelis plan to deploy Iron Dome beginning in 2010.

Another important Israeli innovation against insurgent weaponry is the Joint Improvised Explosive Device Neutralizer (JIN). These are microwave transmitters which jam UHF, VHF, and cellular signals; however, current JINs are not effective against infrared signals, which can penetrate the jamming field, nor can they stop wired detonators. The JIN is currently manufactured by two Israeli firms, Elisra which sells a mobile JIN antenna, and Netline, which manufactures a larger version for installation in vehicles.²⁷

Insurgent weapons are not part of the conventional battlefield per se. The loss of one American Stryker or one Israeli Merkeva tank does not affect the strategic situation. There are thousands more to take their place. Rather, the weapons of the jihadist insurgent are meant to dominate the media battlespace, to shape a narrative beneficial to them. The site of a blown-out Stryker or smoldering Merkeva tank on western television is a tremendous propaganda victory. In many cases, merely firing these weapons is of great benefit. In Somalia, Shabab makes a point of shelling the presidential compound. During the Iraqi Army's Operation Knight's Charge, Mahdi forces risked life and limb to maintain a steady trickle of mortar attacks against the so-called Baghdad 'Green Zone'. This was done simply to prove that they could still do so.

The war has pitted the field innovations of the various insurgent groups against the technological countermeasures developed by the best minds in the West. The result has been technological wonders once thought to be the stuff of science fiction. Those innovations will be necessary so long as nations like Iran, Syria, and Sudan support the jihadists. No doubt insurgent forces throughout the world will have new surprises for western armies. Short of all-out war with these nations--not entirely unlikely between Israeli and Syria or Israel and Iran--the deadly status quo will continue.

¹ For example, see the battle for Wadi Suluki. Katz, Yaacov. Jerusalem Post, 29 August, 2006. For most of the war the Israelis dragged their feet, hoping air power and pinprick raids would destroy Hezbollah. The final few days saw a mad dash to the Litani River on the part of the IDF. A massive hammer strike early in the war would have crippled Hezbollah.

² *Ethiopian Army Frees Area Controlled by Insurgents in Somalia*. Nazret.com, 30 March 2007. Though it is not generally known, the Ethiopian army is well trained, led, and equipped, with a proud military tradition.

³ www.icasualties.org

⁴ Hurst, Steven. *Officials: Iran Behind Advanced, Lethal IED*, *Army Times*, Sunday, 11 February 2007

⁵ Vanden Brook, Tom. IEDs now cause 75% of Afghanistan Casualties. USA Today, Saturday, 4 April 2009

⁶ McGregor, Andrew. *Hezbollah's Creative Tactical Use of Anti-Tank Weaponry*, Jamestown Foundation, Terrorist Focus, Vol, 3, no. 32

⁷ *Hezbollah's Rocket Force*. BBC 18 July 2006 and also Gambell, Gary C. *Hezbollah's Strategic Rocket Arsenal*. Middle East Intelligence Bulletin, Vol. IV, no. 11

⁸ www.globalsecurity.com. See Qassam entry

⁹ Adams, Stephen. *Chinese Weapons Reaching the Taliban*. London Telegraph, 5 September 2007

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