Congressional Testimony

Hezbollah's Growing Threat Against U.S. National Security Interests in the Middle East

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Chair Ros-Lehtinen, Ranking Member Deutch, I'd like to thank you for the opportunity to testify before the Middle East and North Africa Subcommittee.

The Syrian uprising constitutes one of the greatest challenges that Iran and Hezbollah have faced in decades. The collapse of the Assad regime would have, in the words of then-Commander of U.S. Central Command General James Mattis, dealt Iran "the biggest strategic setback in 25 years." It would have cut Iran's only land bridge to Lebanon, and deprived Hezbollah of its strategic depth.

Unfortunately, the situation in Syria has resulted in the opposite effect. While many, perhaps most, observers have tended to view Syria as a bloody quagmire that will erode Iranian ambitions, Tehran has deftly exploited the conflict, turning the strategic challenge it faces into an opportunity to expand its influence throughout the region.

In doing so, Iran has followed a well-developed template. It is building up Shiite militias, which it recruits from around the Greater Middle East, on the model of Hezbollah. This means it places the militias under the operational command of the Iranian Revolutionary Guard Corps (IRGC), and demands from them full allegiance to the Iranian regional project. The template goes back to the earliest days of the Islamic Revolution, but in recent years Iran has expanded its use to an extent never-before seen, with the biggest growth being in Iraq. Hezbollah, however, is the crown jewel of this region-wide network, with nodes in Syria, the Arab Gulf states, and, of course, Yemen.

This is arguably the most significant and most under-appreciated development in the region over the past five years. Iran's expansionist drive, through its legion of Shiite militias based on the model of Hezbollah and often trained by the group, has not been opposed by the U.S. If anything, Washington has effectively acquiesced to it, viewing it as a means to affect a new regional "equilibrium."

This has forced traditional U.S. regional allies – from Israel to Saudi Arabia – to look for measures to try and stop this emerging shift in the regional balance of power, which directly impacts their national security interests.

Although the effects are region-wide, this Iranian strategy has played out most consequentially in Syria. Five years into the uprising against the Assad regime, Iran and Hezbollah have secured their core interests in Syria. Hezbollah has taken significant losses at the tactical level but those have been offset by significant gains: Hezbollah is now better equipped and more operationally experienced than ever before.

The first-order priority for Hezbollah and Iran was to secure Assad's rule in Damascus and Western Syria. Maintaining control over key real estate in order to ensure territorial contiguity with Lebanon was essential. In fact, the Iran-Assad-Hezbollah axis showed a willingness to forgo ancillary territory relatively early in the conflict in order to secure the corridor between what might be called Assadistan and Hezbollahstan. Specifically, Hezbollah and Iran were determined to hold the areas adjacent to Lebanon's eastern border and secure the routes to Damascus. This is essential for safeguarding arms transfers from Iran to Lebanon, as well as for

protecting weapons storage depots on Syrian soil. Hezbollah is now reportedly also working to ethnically cleanse these areas.

The campaign to create the security corridor has ensured that Hezbollah's supply lines have remained open and uninterrupted. In fact, shipments into Lebanon from Syria may have even accelerated, and they may have included the transfer of certain strategic weapons systems that were kept on Syrian soil, as evident from the list of reported Israeli airstrikes over the last three years.

As part of its effort to secure the border, Hezbollah deepened its partnership with the Lebanese Armed Forces (LAF), whose cooperation has been vital – and not only on the Syrian front. As Hezbollah began to face backlash in the form of car bombs in Beirut over its involvement in Syria in 2013, it looked to the LAF for support in protecting its domestic flank.

The partnership between the LAF and Hezbollah has grown to such an extent that it is now meaningful to speak of the LAF as an auxiliary force in Hezbollah's war effort. Indeed, in explaining the recent decision by Saudi Arabia to pull its $3 billion grant to the LAF, Saudi columnist Abdul Rahman al-Rashed wrote, "Hezbollah has started to use the army as its auxiliary in the war against the Syrians, which protects its lines and borders."

In certain instances, LAF troops and Hezbollah forces have deployed troops jointly, such as during street battles with the followers of a minor Sunni cleric in Sidon in 2013. The LAF routinely raids Syrian refugee camps and Sunni cities in Lebanon, rounding up Sunni men and often detaining them without charges. In a number of cases, it has arrested defected Syrian officers in the Free Syrian Army, either handing them back to the Assad regime, or, in some cases, delivering them to Hezbollah, which then uses them in prisoner swaps with the Syrian rebels.

The LAF-Hezbollah synergy is broadly recognized in the region, with strategic implications that have been only dimly perceived in the United States. The Saudis, as I noted above, have reacted by withdrawing their aid to the LAF – and they are by no means alone. The Israelis have no choice to but expect that if war should break out between them and Hezbollah, the LAF will come to the direct aid of the latter. The Israel Defense Forces (IDF) have therefore warned that in the next war, they will certainly target the LAF. In contrast to the policies of Israel and Saudi Arabia, the U.S. is not making its aid to the LAF contingent on it severing its operational ties with Hezbollah – a policy which many in the Middle East see as facilitating the partnership between the two.

Hezbollah's influence in Lebanon is by no means limited to its partnership with the LAF. Hezbollah exploits the weak and dysfunctional Lebanese state in order to advance its interests. It exerts direct influence over, for example, the Lebanese customs authority and the financial auditor's office in order to protect its criminal enterprises, and uses Lebanese territory for the training of Shiite militias in the Iranian network. As Lebanon's Interior Minister observed earlier this month, Lebanon is now the IRGC's "external operations room for training and sending fighters all over the world." Through Hezbollah, Iran has made the Lebanese state complicit in its activities.

In his address to the United Nations General Assembly last October, Israeli Prime Minister Benjamin Netanyahu revealed that despite Israel's interdiction efforts, and in violation of UNSCR 1701, Iran had managed to bring advanced weapons systems into Lebanon, specifically the Russian-made Yakhont anti-ship cruise missiles, SA-22 (Pantsyr-S1) air defense system, and precision-guided surface-to-surface missiles – which presumably includes the upgraded Iranian Fateh-110 missiles with integrated GPS navigation.[1]

The Yakhont and the precision-guided missiles pose serious threats to Israel because they are capable of hitting strategic installations and targets deep inside the country as well as offshore. These advanced systems are, of course, in addition to the estimated 100,000 rockets and missiles that Hezbollah has already stored in Lebanon – mainly in civilian areas. When one considers that Hezbollah has the capability to rain down 1,500 rockets a day on Israel, it becomes clear that civilian casualties in the next war will be much higher on both sides than in any of the previous wars.

IDF officers believe that Hezbollah has amassed valuable tactical experience in Syria. The military capabilities of the Syrian opposition do not compare to those of the IDF; nevertheless, Hezbollah's units are mastering the use of diverse weapons systems, in both urban and rural settings. Over the past year, this experience has included working together with the Russian military, which has introduced new weapons systems and combined arms operations to the Syrian theater. In fact, Hezbollah, Iranian, and Russian officers have worked together on planning operations, and a joint operations room was reportedly also established in Iraq last year.

Iran and Hezbollah clearly intend to leverage their success in Syria to change the balance of power with Israel. Specifically, they have set their sights on expanding into the Golan Heights, and on linking it to the south Lebanon front. They signaled the importance they attached to this effort by sending a group of high-ranking Iranian and Hezbollah officers on a mission to Quneitra in January 2015. The Israelis destroyed that particular group, but we can be certain that they will resume their push there at a later date.

Iran and Hezbollah have invested in local Syrian communities to create a Syrian franchise of Hezbollah. Besides developing Alawite militias, they have also invested in Syria's Shiite and Druze communities. The Druze, by virtue of their concentration in southern Syria, are particularly attractive as potential partners. Hezbollah has cultivated recruits from the Druze of Quneitra and has used them in a number of attacks in the Golan over the past couple of years. In addition to recruitment to Syrian Hezbollah or other Shiite militias in Quneitra, there have also been some efforts with the Druze of Suwayda province near the Jordanian border.

As a result, the IDF is preparing for offensive incursions by Hezbollah into northern Israel in the next conflict. For Israel, Hezbollah's use of Lebanon as an Iranian forward missile base, its expansion into Syria with an aim to link the Golan to Lebanon, and the prospect of this reality

[1] See the included annex, prepared by my colleagues Patrick Megahan and David Daoud for FDD's Military Edge project, for information regarding Hezbollah's estimated inventory of weapons and recent Israeli strikes against Hezbollah weapons shipments.

soon getting an Iranian nuclear umbrella, creates an unacceptable situation which, under the right circumstances, could easily trigger a major conflict.

It is hardly surprising, then, that Israeli officials have been loudly voicing the position that any settlement in Syria cannot leave Iran and Hezbollah in a position of dominance, and certainly not anywhere near the Golan. Unfortunately, this position is directly at odds with current U.S. policy. President Obama has stated that any solution in Syria must respect and protect so-called Iranian "equities" in Syria. When one actually spells out what these "equities" are – namely preserving the Syrian bridge to Hezbollah in Lebanon – it becomes clear that U.S. policy in Syria inadvertently complicates Israel's security challenge.

It also complicates the challenges of other critical U.S. allies, such as Jordan and Saudi Arabia. Indeed, Hezbollah's expansion has also spurred a Saudi-led campaign targeting the group, culminating in its designation as a terrorist organization by the Gulf Cooperation Council and the Arab League. The Saudis have also announced measures to freeze the accounts of any citizen or expatriate suspected of belonging to or supporting Hezbollah. Supporters would be prosecuted, jailed, and deported. Bahrain and the United Arab Emirates have followed suit, deporting a number of Lebanese expatriates with connections to Hezbollah.

There is talk – or perhaps a threat – that the Saudis might go after not just Shiite supporters, but also Christian businessmen who support the group or are part of its financial schemes, and who are seen as weak links because of their financial interests in the Gulf. The potential impact of Saudi measures against Hezbollah could be significant if followed through. However, as noted earlier regarding Hezbollah's relationship with the LAF, the Saudis have come to recognize that the Lebanese state itself is in Hezbollah's grip.

This is a bleak picture, but there are steps that Congress can take to help steer U.S. policy in the right direction.

First, Congress should push the administration on the implementation of H.R. 2297, targeting Hezbollah's criminal and financial activities. It's important not to be dissuaded by the argument that pushing too hard would break Lebanon's economy. It is critical to realize that Hezbollah's position in the Lebanese state and economy increasingly resembles that of the IRGC in the Iranian state. Moreover, it would be worthwhile to use the Arab League and Gulf Cooperation Council designation of Hezbollah to encourage the European Union to follow their lead in designating all of Hezbollah as a terrorist organization.

Second, security assistance to the LAF should be, at a minimum, reviewed. Although the Obama administration is said to be unhappy with the Saudi decision to suspend its aid to the LAF, it is a sound decision and should push the U.S. to reconsider its own policies. The United States cannot, under the pretext of combating Sunni jihadism, align with Iranian assets and Iranian-dominated "state institutions." Using this pretext, the U.S. has looked the other way from, if not condoned, the partnership between the LAF and Hezbollah. The result has been that U.S. military support and intelligence sharing has helped Hezbollah, if only indirectly.

Finally and more broadly, the United States must conduct comprehensive realignment in the Middle East away from Iran and back towards its traditional allies. The place to begin that realignment is Syria. Instead of pushing for an endgame in Syria which preserves so-called Iranian "equities," or which creates cantons that function as Iranian protectorates, the United States should be working with its allies to impose severe costs on Hezbollah for its Syrian adventure.

Obviously, the White House holds the keys to such a realignment, but Congress can certainly help. It can, for example, hold the administration to its promise to "push back" against Iranian regional expansionism. Our Israeli, Jordanian, and Saudi allies have voiced their deep concerns about how a Syrian endgame that leaves Iran entrenched in Syria threatens their security. The U.S. response should not be to tell them to "share the region" with Iran. Rather, it should be to help them roll back the threat posed by Iran and Hezbollah.

Appendix:

Hezbollah's Arsenal – March 2016

Prepared by Project on Military Edge:
A Project of the Foundation for Defense of Democracies

Indirect Fire Munitions/Long Range Rockets and Missiles

As of November 2015, the IDF assessed Hezbollah has a stockpile of 150,000 "rockets and missiles."[2] This is up from 100,000 estimated last May and five times the number believed to have been in their inventory in 2006 – of which nearly 4,000 rockets were fired into Israel.[3] The specifics to how the IDF classifies "rockets and missiles" is fairly broad and could range from short-range mortars to long range surface-to-surface guided ballistic missiles such as the Iranian-made Fateh-110. Indirect fire weapons that Hezbollah is believe to possess include:

- Mortars
  - 81mm – 4.9 km range; 4.05 kg warhead[4]
  - 120mm – 6 km range; 13 kg warhead[5]
- Unguided rockets
  - 107mm Type-63 – 8.5 km range; 5-7 kg warhead[6]

[2] Avi Issacharoff, "Israel raises Hezbollah rocket estimated to 150,000," *The Times of Israel*, November 12, 2015, (http://www.timesofisrael.com/israel-raises-hezbollah-rocket-estimate-to-150000/).
[3] "Hezbollah hiding 100,000 missiles that can hit north, army says," *The Associated Press*, May 13, 2015. (http://www.timesofisrael.com/hezbollah-hiding-100000-missiles-that-can-hit-north-army-says/); William M. Arkin, *Divining Victory: Airpower in the 2006 Israel-Hezbollah War*, (Maxwell Air Force Base: Air University Press, 2011), page 32. (https://books.google.com/books?id=Q-NiAwAAQBAJ&pg=PA32&lpg=PA32&dq=Falaq-2+hezbollah&source=bl&ots=pXYudkXcZT&sig=C6HFV727pWCsBO53n4DQDSNjB2Q&hl=en&sa=X&ei=6PafVY2_MMex-QHVopzoAg&ved=0CEIQ6AEwBg#v=onepage&q=Falaq-2%20hezbollah&f=false); "Middle East crisis: Facts and figures," *BBC* (UK), August 31, 2006. (http://news.bbc.co.uk/2/hi/middle_east/5257128.stm)
[4] Galen Wright, "Mortar Artillery," *The Arkenstone*, April 4, 2011. (http://thearkenstone.blogspot.com/2011/04/mortar-artillery.html)
[5] Galen Wright, "Mortar Artillery," *The Arkenstone*, April 4, 2011. (http://thearkenstone.blogspot.com/2011/04/mortar-artillery.html)

  - 122mm Grad/Katyusha – 20-40 km range; 10-60 kg warhead[7]
  - 240mm Fajr 3 – 43 km range; 90 kg warhead[8]
  - 240mm Falaq-1 – 10 km range; 50 kg warhead[9]
  - 333mm Fajr 5 – 75 km range; 175 kg warhead[10]
  - 333mm Falaq-2 – 10 km range; 120 kg warhead[11]
  - 302mm Khaibar – 100-212 km range; 175 kg warhead[12]
  - 610mm Zelzal-2 – 250 km range; 600 kg warhead[13]
- Guided ballistic missiles*
  - Fateh-110/M600 – 200-300 km range; 500-650 kg warhead; Made by Iran and Syria[14]
  - Scud C – 600 km range; 600-700 kg warhead; Made by USSR, North Korea, China, Iran, and Syria[15]
  - Scud D – 700 km range; 500 kg warhead; North Korean-made; sold to Syria[16]

*Claimed, but never seen in Hezbollah's possession and difficult to conceal given their size.

As Hezbollah's most feared weapon, indirect fire munitions – such as unguided rockets, mortars, and guided missiles – carry significant benefit for a group which lacks the manpower and resources of its rivals. At low cost, Hezbollah has amassed a large amount of firepower that can be rapidly deployed and reach deep into Israeli territory. On the other hand, the rockets lack the accuracy of conventional artillery systems (only 23 percent landed in populated areas in 2006) and hold almost no tactical military advantage.[17] In part, Hezbollah is forced to stock large numbers of rockets to improve the chance of striking targets and overwhelming defensive systems like Iron Dome. But strategically, they allow the group to strike deep into Israeli territory, having a profound psychological impact without losing fighters on direct assaults into Israeli territory.

While cheap for Hezbollah, its rocket and missile arsenal place a substantial financial burden on Israel even before they fire a shot. To protect civilian and military infrastructure, Israel is forced to invest in

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[6] *Jane's Weapon Systems*, 19th Edition, 1988-1989, (Coulsdon, United Kingdom: Jane's Information Group, 1988), page 116.
[7] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), Page 125.
[8] Patrick Megahan, "240mm Fajr 3," *Military Edge*, January 2014. (http://militaryedge.org/armaments/fajr-3/)
[9] N.R. Jenzen-Jones, Yuri Lyamin, and Galen Wright, "Iranian Falaq-1 and Falaq-2 Rockets in Syria," ARES, May 2014. (http://www.armamentresearch.com/wp-content/uploads/2014/01/ARES-Research-Report-No.-2-Iranian-Falaq-1-Falaq-2-Rockets-in-Syria.pdf)
[10] Patrick Megahan, "333mm Fajr 5 (M-75)," *Military Edge*, January 2014. (http://militaryedge.org/armaments/fajr-5/)
[11] William M. Arkin, *Divining Victory: Airpower in the 2006 Israel-Hezbollah War*, (Maxwell Air Force Base: Air University Press, 2011), page 32. (https://books.google.com/books?id=Q-NiAwAAQBAJ&pg=PA32&lpg=PA32&dq=Falaq-2+hezbollah&source=bl&ots=pXYudkXcZT&sig=C6HFV727pWCsBO53n4DQDSNjB2Q&hl=en&sa=X&ei=6PafVY2_MMex-QHVopzoAg&ved=0CEIQ6AEwBg#v=onepage&q=Falaq-2%20hezbollah&f=false)
[12] Patrick Megahan, "302mm Khaibar (M-302)," *Military Edge*, March 2014. (http://militaryedge.org/armaments/302mm-khaibar/)
[13] Patrick Megahan, "610mm Zelzal-2," *Military Edge*, January 2014. (http://militaryedge.org/armaments/zelzal-2/)
[14] Patrick Megahan, "Fateh-110/M-600," *Military Edge*, January 2014. (http://militaryedge.org/armaments/fateh-110m600/)
[15] Charles P. Vick, "Hwasong 6 / Scud-C – North Korea," *Federation of American Scientists*, February 17, 2015. (http://fas.org/nuke/guide/dprk/missile/hwasong-6.htm)
[16] Jeremy Binnie, "IDF Corroborates Hizbullah 'Scud-D' Claims," *IHS Jane's 360*, March 2, 2015. (http://www.janes.com/article/49668/idf-corroborates-hizbullah-scud-d-claims)
[17] Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah*, (Santa Monica: Rand Corporation, 2011), page 145.

expensive countermeasures (Iron Dome, Patriot, and David Sling) and the hardening of key facilities and infrastructure. And once they are put into action, the persistent bombardment on the Israeli homeland causes significant disruption of daily life and thus the nation's economy. In 2006, it is estimated that the sustained rocket attacks by Hezbollah cost the Israeli economy $5.5 billion.[18]

While the larger, longer-range projectiles are often cited for the need to invest heavily in missile defense, during the 2006 war, 95 percent of the 4,338 rockets that landed in Israel were classified as shorter-range Katyushas. In fact, much of the group's larger missile systems were quickly taken out by the Israel Air Force (as many as 60 percent in the first five days of the war), while their shorter-range rockets were able to maintain a sustained rate of fire of about 116 launches per day.[19] Because of their size, preparation to fire the larger missiles requires more time, exposing the crews to aerial surveillance which can quickly be used to target the system before a launch. It is unclear if Hezbollah fighters would be able to effectively utilize such weapons or rely on foreign advisors to launch, raising the potential risks to the group's sponsors (as has been the case in Syria and Iraq where senior Iranian officers have been killed).

Guided Anti-Tank Missiles

Beginning during the 2006 war in Lebanon, Hezbollah has dramatically increased the effectiveness of its ground units with the use of guided anti-tank missiles (ATGMs). In that conflict, the majority of IDF casualties reportedly came from the use of anti-tank missiles and rockets.[20] It is believed that ATGMs were used to even bring down a low-flying Israeli CH-53 helicopter during the ground invasion of southern Lebanon.[21] More recently, in the cross-border attack in January 2015, ATGMs were used to target an IDF border patrol, killing two and wounding seven.[22] The quantity of Hezbollah's ATGM inventory is unknown but estimates suggest several hundred missiles given the frequency of their use and the proliferation of such systems in neighboring Syria. ATGMs known to be in Hezbollah's arsenal include:

- AT-3 Sagger – 3,000 m range; wire-guided; introduced 1961; Soviet-made; sold to Iran, Libya, Syria[23]
- AT-4 Spigot – 2,000 m range; wire-guided; introduced 1972; Soviet-made; sold to Iran, Libya, Syria[24]
- AT-5 Spandrel – 4,000 m range; wire-guided; introduced 1977; Soviet-made (Iran produces a copy); sold to Syria and Turkey[25]
- Metis-M (AT-13) – 1,500 m range; wire-guided; introduced 1992; Russian-made; sold to Syria[26]

[18] Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah*, (Santa Monica: Rand Corporation, 2011), page 146.
[19] Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah*, (Santa Monica: Rand Corporation, 2011), page 145.
[20] Ze'ev Schiff, "Hezbollah anti-tank fire causing most IDF casualties in Lebanon," Haaretz, August 6, 2006. (http://www.haaretz.com/news/hezbollah-anti-tank-fire-causing-most-idf-casualties-in-lebanon-1.194528)
[21] Benjamin S. Lambeth, Air Operations in Israel's War Against Hezbollah, (Santa Monica: Rand Corporation, 2011), page 129.
[22] Jodi Rudoren and Anne Barnard, "Hezbollah Kills 2 Israeli Soldiers Near Lebanon," *The New York Times*, January 28, 2015. (http://www.nytimes.com/2015/01/29/world/middleeast/israel-lebanon-hezbollah-missile-attack.html?_r=0)
[23] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), Page 103.
[24] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), Page 104.
[25] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), Page 104.

- AT-14 Kornet – 5,000 m range; laser-guided; introduced 1994; Russian-made (Iran claims to produces a copy); sold to Syria and Turkey[27]
- Milan – 2,000 m range; wire-guided; introduced 1972; French-made; sold to Lebanon and Syria[28]
- TOW – 3,750 m range; wire-guided; introduced 1970; American-made (Iran produces a copy called the Toophan); sold to Iran (pre-1979), Turkey, Lebanon, Syrian rebels[29]

This list does not include unguided anti-tank rockets such as RPG-7s and RPG-29s which require firing at targets at closer ranges to be accurate and tend to be more abundant.

ATGMs, like indirect fire weapons, allow fighters to target adversaries at range but with increased accuracy and the ability to penetrate armor and hardened defenses. The development of active protective systems like Trophy allows IDF forces to neutralize incoming missiles when fired at vehicles. But, like saturated rocket attacks which could overwhelm systems like Iron Dome, volleys of ATGMs on a single vehicle equipped with Trophy could negate the system. Hezbollah has already demonstrated this tactic when targeting IDF convoys.

Anti-Ship Guided Missiles

In the 2006 war in Lebanon, Hezbollah caught the Israeli Navy by surprise when it launched two C-802 anti-ship missiles (AShMs) at an Israeli warship patrolling near the Lebanese coast. One of the missiles struck the Israeli ship, which did not deploy any countermeasures to thwart the attack, killing four sailors. Meanwhile, the second missile struck and sank a Cambodian merchant ship nearby.[30] Members of the IRGC-Quds Force are believed to have assisted in the launching of the missiles while Lebanese shore-based radar stations were allegedly used to locate the ship.[31] Since then, reports suggest advanced P-800 Yakhont AShMs were supplied by Syria to Hezbollah.[32] These missiles have more sophisticated guidance systems and reach supersonic speeds, making them harder to intercept. While these systems demonstrate some of the most sophisticated weapons in Hezbollah's arsenal, their numbers are believed to be fairly low.

- C-802 Saccade – 120 km range; Mach 0.9; Chinese-made, Iran copied and renamed the 'Noor'[33]
- P-800 Yakhont – 120 km range; Mach 1.7; Russian-made, sold to Syria[34]

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[26] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), Page 105.
[27] "Kornet (AT-14)," *Federation of American Scientists*, June 19, 1999. (http://fas.org/man/dod-101/sys/land/row/at-14.htm)
[28] *Jane's Weapon Systems*, 19th Edition, 1988-1989, (Coulsdon, United Kingdom: Jane's Information Group, 1988), page 142.
[29] "M-220 Tube-launched, Optically tracked, Wire-guided missile (TOW)," *Federation of American Scientists*, February 22, 2000. (http://fas.org/man/dod-101/sys/land/tow.htm)
[30] Mark Mazzetti and Thom Shanker, "Arming of Hezbollah Reveals U.S. and Israeli Blind Spots," *The New York Times*, July 19, 2006. (http://www.nytimes.com/2006/07/19/world/middleeast/19missile.html?pagewanted=print&_r=0)
[31] William M. Arkin, *Divining Victory: Airpower in the 2006 Israel-Hezbollah War*, (Maxwell Air Force Base: Air University Press, 2011), page 94. (https://books.google.com/books?id=Q-NiAwAAQBAJ&pg=PA32&lpg=PA32&dq=Falaq-2+hezbollah&source=bl&ots=pXYudkXcZT&sig=C6HFV727pWCsBO53n4DQDSNjB2Q&hl=en&sa=X&ei=6PafVY2_MMex-QHVopzoAg&ved=0CEIQ6AEwBg#v=onepage&q=Falaq-2%20hezbollah&f=false)
[32] Patrick Megahan, "Russian Yakhont Missiles in Hezbollah's Hands," *Military Edge*, January 4, 2014. (http://militaryedge.org/analysis-articles/russian-yakhont-missiles-hezbollahs-hands/)
[33] "C-802 / YJ-2 / Ying Ji-802," *Federation of American Scientists*, February 17, 2000. (https://www.fas.org/man/dod-101/sys/missile/row/c-802.htm)

Drones

Hezbollah first started acquired low-tech drones from Iran in 2002. In 2004, Hezbollah is first believed to have flown an Iranian-made Mirsad-1 drone into Israeli airspace, followed by a second flight in 2005. Both flights appeared to be unarmed reconnaissance missions which reached as far as 18 miles into Israel and evaded Israeli defenses. During the 2006 war, Hezbollah is believed to have flown three Iranian-produced Ababil-2 drones armed with 40-50 kilograms of explosives on board. Israeli aircraft managed to intercept them before they reached their targets. Two more drones are reported to have crossed into Israeli airspace, with one reaching as far as Dimona in southern Israel in 2012. Hezbollah has claimed to have sent armed drones into Syria to fight rebel groups there, but video of the alleged strikes appears questionable.[35]

Hezbollah's drones are principally used for surveillance and are typically not armed with any sophisticated guided weapons. If such drones did exist in the terror group's possession, they would have to be much larger than the unmanned aerial vehicles it has used in the past in order to support a heavily payload of missiles and targeting systems. However, reports suggest Iran is attempting to equip Hezbollah with smaller suicide drones.[36] This would allow the group to accurately reach targets deep inside Israel. Drones believed to currently be in Hezbollah's inventory include:

- Mirsad-1 (Mohajer-4) – 30 km estimated range; 6,500 ft max altitude; unarmed[37]
- Ababil-2 – 100 km range; 9,800 ft max altitude; optionally armed w/ 30kg warhead[38]
- Ayoub – 250 km estimated range; unknown max altitude; unarmed[39]

Surface-to-Air Missiles

Little is known about Hezbollah's arsenal of surface-to-air missile (SAM) systems since there is no confirmed reports of the group using them in combat. During the 2006 war, some Israeli helicopter crews did report attempts to down their aircraft by SA-18 man portable air defense systems, or MANPADS.[40] Nevertheless, Hezbollah and its supporters in Iran and Syria have made numerous efforts to smuggle missiles into Lebanon. It is likely that significant quantities of MANPADS have reached the terror group because of their small size and abundance in the region. Beyond the SA-18s, other systems likely include Russian-made SA-7s from Libya and Iranian copies of Chinese QW-1s.[41] These systems have relatively

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[34] Patrick Megahan, "P-800 Yakhont (SS-N-26 Strobile)," *Military Edge*, January 2014. (http://militaryedge.org/armaments/p-800ss-n-26-yakhont/)
[35] "Watch: Hezbollah uses drones against Syrian rebels," *The Jerusalem Post* (Israel), September 21, 2014. (http://www.jpost.com/Middle-East/Watch-Hezbollah-uses-drones-against-Syrian-rebels-375986)
[36] "'Iran helping Hamas, Hezbollah build fleet of suicide drones,'" *The Jerusalem Post* (Israel), April 9, 2015. (http://www.jpost.com/Middle-East/Iran-helping-Hamas-Hezbollah-build-fleet-of-suicide-drones-396673)
[37] Milton Hoenig, "Hezbollah and the Use of Drones as a Weapon of Terrorism," *Federation of American Scientists*, June 5, 2014. (http://fas.org/pir-pubs/hezbollah-use-drones-weapon-terrorism/)
[38] Galen Wright, "Ababil UAV," *The Arkenstone*, February 5, 2011. (http://thearkenstone.blogspot.com/2011/02/ababil-uav.html)
[39] Milton Hoenig, "Hezbollah and the Use of Drones as a Weapon of Terrorism," *Federation of American Scientists*, June 5, 2014. (http://fas.org/pir-pubs/hezbollah-use-drones-weapon-terrorism/)
[40] Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah*, (Santa Monica: Rand Corporation, 2011), page 75.
[41] Michelle Nichols, "Shoulder-launched anti-aircraft missiles flow abroad from Libya: U.N.," *Reuters*, March 11, 2014. (http://www.reuters.com/article/2014/03/11/us-libya-crisis-un-idUSBREA2A1MY20140311); "Iran to send missiles to Hizbullah," *Ynet News* (Israel), August 6, 2006. (http://www.ynetnews.com/articles/0,7340,L-3286926,00.html)

short ranges and are easily thwarted by modern countermeasures but do still pose a threat to low flying fixed-wing aircraft, drones, and helicopters.

Israel has been vigilant to prevent larger, more sophisticated systems from reaching Hezbollah from Syria. Multiple airstrikes have been conducted inside of Syria targeting weapon convoys believed destined for Hezbollah. SA-8 and SA-17 SAMs are believed to have been part of these convoys.[42] Both systems are highly mobile and would represent a significant threat to military and commercial aircraft as the downing of Malaysian Airlines flight 17 demonstrated in July 2014.

- SA-7 – 5,500 m range; 4,500 m max altitude; Infrared guided MANPADS; Soviet-made; sold to Libya, Sudan, Syria, and Iran[43]
- QW-1 – 5,000 m range; 4,000 m max altitude; infrared guided MANPADS; Chinese-made (Iran copied and renamed 'Misagh-1')[44]
- SA-18 – 5,200 m range; 3,500 m max altitude; infrared guided MANPADS; Russian-made; Sold to Syria[45]
- SA-8 – 15 km range; 12,000 m max altitude; radar guided; Soviet-made; sold to Syria[46]
- SA-17 – 50 km range; 25,000 m max altitude; radar guided; Soviet-made; sold to Syria[47]
- SA-22 (Pantsir S1) – 20 km range; 15,000 m max altitude; radar guided; Russian-made; sold to Syria[48]

Nevertheless, there are major challenges to using large sophisticated SAMs like the SA-8, SA-17, and potentially the newer SA-22, which would limit their use by Hezbollah in a future conflict. Specifically, this would include concealing such large equipment from Israeli surveillance and avoiding detection when in use. SAMs using radar become extremely vulnerable when turned on because the radar signal they emit can be detected by military aircraft which can then hone-in on the source. Hezbollah would have to employ methods similar to how it launches rockets, where they quickly break cover, fire, and relocate before retaliatory strikes occur. But unlike the low-tech rockets which utilize crude improvised launchers, the crew, radars, and launchers would need to survive return fire to be used again. Sufficient cover, such as multiple warehouses that the vehicles could relocate to for concealment, would be required.

Israeli Strikes in Syria

As the Syrian Civil War rages, Israel has conducted a number of sporadic strikes inside the war-torn country. These strikes are to enforce Israel's so-called "red line" in Syria, which includes transfers of sophisticated weapon systems to Hezbollah in Lebanon and threats along its border.

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[42] Roi Kais, "US confirms: Israel attacked Syrian missile base," *Ynet News* (Israel), October 31, 2013. (http://www.ynetnews.com/articles/0,7340,L-4448123,00.html)
[43] Threat Support Directorate, U.S. Army Training and Doctrine Command, *OPFOR: Worldwide Equipment Guide*, (Ft. Leavenworth, KS, 1999), page 141.
[44] John Pike, "QW-1," *Federation of American Scientists*, August 10, 1999. (http://fas.org/man/dod-101/sys/missile/row/qw-1.htm)
[45] John Pike, "SA-18 Grouse," *Federation of American Scientists*, October 16, 1999. (http://fas.org/man/dod-101/sys/missile/row/sa-18.htm)
[46] "SA-8 Gecko," *Federation of American Scientists*, February 4, 2000. (http://fas.org/man/dod-101/sys/missile/row/sa-8.htm)
[47] Dr. Carlo Kopp, "NIIP 9K37/9K37M1/9K317 Buk M1/M2 Self Propelled Air Defence System / SA-11/17 Gadfly/Grizzly," *Air Power Australia*, July 2009. (http://www.ausairpower.net/APA-9K37-Buk.html)
[48] "Pantsir-S1," *KBP Instrument Design Bureau*, September 8, 2014. (http://www.kbptula.ru/en/productions/air-defense-weapon-systems/pantsir-s1)

Below is a timeline of reported strikes inside Syria:[49]

- **February 17, 2016** – Jabal Al-Manea: Three missiles struck a Syrian Army munitions warehouse located near the road to Deraa. It's unclear whether the weapons targeted were meant for Hezbollah. No casualties are reported.

- **February 8, 2016** – 155th Brigade Missile Base: Israeli jets are believed to have struck Scud missile warehouses on the outskirts of Damascus – likely the 155th Brigade missile base. No casualties are reported.

- **December 19, 2015** – Jarmana: An apartment building housing mid-level Hezbollah operative Samir Quntar, who also reportedly served as a commander in the Popular Resistance Committees, is struck. Nine others are killed, including Farhan Al-Shaalan (commander of the Syrian Resistance to Liberate the Golan) and Taysir Al-Na'su.

- **December 4, 2015** – Al-Qutayfah: Hezbollah and Syrian Army positions, including a truck carrying a Scud missile at the 155th Brigade Base is targeted. No casualties are reported.

- **November 29, 2015** – Ra's Al-Ayn, Assal Al-Ward, and Al-Jibba: Hezbollah positions, observation points, and Kornet missile warehouses are targeted. An unknown number of Hezbollah fighters and Syrian soldiers were killed.

- **November 26, 2015** – Fleita: Three strikes on Hezbollah positions on hillside forcing a withdraw to Fleita. No casualties are reported.

- **November 24, 2015** – Qara, Ras Al-Ma'arah, and Fleita: Unspecified Hezbollah and Syrian regime positions were targeted. As many as eight Hezbollah fighters and five Syrian soldiers were killed, dozens wounded.

- **November 11, 2015** – Outskirts of Damascus International Airport: Hezbollah facility believed to be host offices and warehouses is targeted. No casualties are reported.

- **October 31, 2015** – Qalamoun Mountains: Two strikes on Hezbollah and Syrian army targets, including a weapons convoy destined for Hezbollah. No casualties are reported.

- **October 30, 2015** – Al-Qutayfah: Warehouses holding Scud missiles belonging to the 155th Brigade that were believed destined for Hezbollah is targeted. No casualties are reported.

- **October 30, 2015** – Ina'ash: A military installation believed to host Hezbollah is targeted. No casualties are reported.

- **August 20/21, 2015** – Al-Kawm: The Syrian Army's 90th Brigade's base is struck. Five soldiers or paramilitary fighters loyal to Assad as well as two others are killed. Israel claims four Palestinian members of Islamic Jihad were killed. Islamic Jihad denies it lost any members.

- **August 20/21, 2015** – Khan Al-Sheikh: The Syrian Army's 68th Brigade base is struck but the intended target is unknown. Five soldiers or paramilitary fighters loyal to Assad as well as two others are killed.

[49] David Daoud and Patrick Megahan, "Tracker: Israeli Strikes in Syria," *Military Edge*, February 18, 2016. (http://militaryedge.org/analysis-articles/tracker-israeli-strikes-syria/)

- **July 29, 2015** – Hader: A four-wheeled drive vehicle containing two Hezbollah members and three Syrians is targeted.

- **April 27, 2015** – Majdal Shams: Four Syrians attempting to plant IEDs by border fence are killed.

- **April 27, 2015** – 155th Brigade Missile Base: A missile base belonging to the 155th Brigade, which was believed to be transferring Scud missiles to Hezbollah, is targeted. Israel denied conducting the strike. An unknown number of unidentified dead and wound are reported.

- **April 25, 2015** – Qalamoun Mountains: An artillery and missile installation which contained mid-ranged missiles belonging to the Syrian Army's 155th and 65th Brigades is believed to have been targeted. No casualties are reported.

- **January 28, 2015** – Golan Heights: Syrian military outposts are targeted in response to rocket fire landing in the Israeli-controlled areas of the Golan Heights. No casualties are reported.

- **January 24/25, 2015** – Latakia: Sophisticated missile equipment, including Russian-made SA-3 (S-125 Pechora-2M) surface-to-air missiles believed destined for Hezbollah, is targeted. No casualties are reported.

- **January 18, 2015** – Mazraat Amal: A convoy carrying senior Hezbollah members and an IRGC general who were planning a cross-border attack on Israel is struck. Seven individuals were identified as being killed: "Jawad" Jihad Mughniyeh, field commander "Abu Issa" Mohammad Issa, "Sayyed Abbas" Abbas Ibrahim Hijazi, "Kazem" Mohammad Ali Hassan Abu Al Hassan, "Daniel" Ghazi Ali Dawi, "Ihab" Ali Hassan Ibrahim, and IRGC Brigadier General Momammad Ali Allahdadi. Some sources claimed six unidentified Iranians were also killed.

- **December 7, 2014** – Damascus International Airport: A military facility connected to the airport which serves as a depot for newly-arrived weapons is struck. Three Hezbollah members are believed killed.

- **December 7, 2014** – Al-Dimas: Weapons depots and hangars in and around a small airfield are targeted. Unclear if weapons belong to Syrian government or Hezbollah. Three Hezbollah members are believed killed.

- **July 15, 2014** – Baath City: Three strikes in the Quneitra area hit a Syrian military base belonging to the 90th Brigade and several other army posts. Between four and 12 people are killed.

- **June 22/23, 2014** – Quneitra: Nine Syrian military positions, including the headquarters of the 90th Brigade, two tanks, and an artillery position, are targeted in response to an attack killing Israeli-Arab child. Ten Syrian soldiers are believed killed.

- **March 19, 2014** – Nouriyeh: A Syrian Army headquarters, artillery batteries, and a training camp are targeted in response to a roadside bomb attack on IDF vehicle. Syrian Army claims one soldier was killed, seven wounded.

- **February 25, 2014** – Yabroud, Zabadani, and Qalamoun: A Hezbollah artillery position was targeted. Five members of Hezbollah, including group commander Abu Jamil Younes, are believed killed.

- **February 24, 2014** – Nabi Sheet: A suspected Hezbollah "missile base" or weapons convoy carrying unspecified missiles across the border is targeted. Several Hezbollah fighters are killed.

- **October 31/November 1, 2013** – Jableh: Sophisticated missile equipment, including Russian-made SA-3 (S-125 Pechora-2M) surface-to-air missiles believed destined for Hezbollah, is targeted. No casualties are reported.

- **October 30, 2013** – Ain Shikak: A strategic missile battery housing unspecified long-range Russian-made missiles or a shipment of SA-8 (9K33 Osa) surface-to-air missile systems destined for Hezbollah is believed to have been targeted. No casualties are reported.

- **July 5, 2013** – Latakia Port: A warehouse containing 50 Russian-made P-800 Yakhont anti-ship missiles is targeted, fearing the missiles could be transferred to Hezbollah. Several Syrian troops are killed and wounded.

- **May 5, 2013** – Al-Hamah: The 104th and 105th Brigades of the Syrian Republican Guard as well as an ammunition warehouse belonging to the 14th Special Forces Division are targeted. Several dead and injured are reported.

- **May 5, 2013** – Mt. Qasioun: Syrian Republican Guard artillery emplacements are struck. Several dead and injured are reported.

- **May 5, 2013** – Al-Dimas, Qadsiya, Al-Saboura, and Jamraya: SA-17 (Buk-M2E) medium-range surface-to-air missile system or unspecified surface-to-surface missiles are believed to be targeted en route to Hezbollah. Several are reported dead and injured.

- **May 2/3, 2013** – Damascus International Airport: A warehouse containing Iranian-made Fateh-110 and Scud D surface-to-surface missiles destined for Hezbollah is believed to have been targeted. No casualties are reported.

- **January 30, 2013** – Jamraya: A convoy carrying arms to Hezbollah, including a SA-17 (Buk-M2E) medium-range surface-to-air missile battery, is believed to have been targeted. Senior IRGC commander Hussam Hush Nawis (aka Hassan Shateri) is killed.