Iran’s Failed Kill Shot Leaves it Vulnerable

Rather than a proportional show of force that ostensibly counts as a U.S.-Israeli “win” and an opportunity to de-escalate, the Iranian regime made a maximum effort to inflict serious damage on Israel last weekend by firing massive barrages of long-range ballistic missiles. Before Tehran used them in combat for the first time this past weekend, these missiles threatened a potentially devastating second-strike capability intended to deter costly U.S. or Israeli military action. With Tehran’s stocks of these weapons now significantly but temporarily depleted, the United States and Israel have a window of opportunity to exploit this vulnerability, reinforce deterrence, and choke off Iran’s ability to reconstitute these arsenals by targeting its missile production, proliferation, and launch capabilities.

What Happened?

- On April 13-14, the Iranian regime and its proxies launched mass barrages for a total of over 300 projectiles, including approximately 170 one-way attack drones, 120 medium-range ballistic missiles (MRBM), and 30 land-attack cruise missiles (LACM) at Israel, primarily from Iranian territory with minor additional attacks from Iraq, Syria, Lebanon, and Yemen.

- During a JINSA webinar on April 15, Gen Kenneth F. McKenzie, USMC (ret.), the former commander of U.S. Central Command (CENTCOM) and JINSA’s Hertog Distinguished Fellow noted that “Iran expended the vast majority” of its missiles capable of reaching Israel. “If tonight, Iran had to generate an attack on Israel, I am not certain they would be able to pull enough ballistic missiles together to do that.”
Why Is It Important?

- Iran’s significant expenditure of MRBM in last weekend’s attack—its first-ever combat use of such missiles, which had served a second-strike capability to deter major U.S. or Israeli military action—strongly suggests the regime made maximum effort to inflict serious damage on Israel, despite efforts by the regime and others to portray the attack as proportional or de-escalatory. Consequently, there is now a window of opportunity for Israel and the United States to exploit Tehran’s degraded ability to conduct similar long-range strikes in the near-to-mid-term.

» As White House spokesperson John Kirby stated bluntly on April 15, “let’s be straight. Given the scale of this attack, Iran’s intent was clearly to cause significant destruction and casualties. Iranian leaders launched so many missiles and other munitions because they knew that many were going to be defeated, but the aim was to get as many as of them through Israel’s defenses as possible.”

» These missiles are an evolving capability in the regime’s years-long efforts to encircle Israel, U.S. bases, and Arab partners around the Middle East with a “ring of fire” of increasingly powerful, precise, and long-range swarms of various projectiles.

- In combining MRBMs, LACMs, and one-way attack drones, Iran modeled its strike package on Russian attacks that have caused significant damage in Ukraine, and which create opportunities to learn and adapt for more effective strikes in the future.

» In light of the Iranian regime’s currently degraded MRBM stockpiles, there is now a window of opportunity to effectively choke off or otherwise neutralize the regime’s ability to reconstitute and upgrade these arsenals.

» At the same time, the regime retains significant capacity to threaten much of the Middle East, including U.S. military installations, with its large arsenals of sophisticated short-range ballistic missiles (SRBM), LACMs, and attack drones—like it did against Saudi energy facilities in 2019 and against U.S. forces in Iraq in 2020.

- Moreover, Hezbollah in Lebanon remains the regime’s ultimate “insurance policy” to threaten Israel with 150,000 projectiles, including growing numbers of precision munitions, that can range all of Israel and likely overwhelm its defenses by firing an estimated 6,000 or more projectiles per day at the outset of a major conflict—and with less early warning than the Iranian regime provided on April 13-14.

- The Iranian regime used a combination of MRBM types featuring different munitions, precision capabilities, and launch processes to maximize both its chances of evading Israel’s sophisticated defenses, and the destruction caused by any missiles impacting on target.

» It reportedly fired three MRBM types capable of reaching Israel from Iranian territory: Emad (1,800 km range), Ghadr (1,600 km) and Kheibar Shekan (1,450 km).

- The Emad and Ghadr carry 750 kg payloads, making them among the largest missiles in Tehran’s arsenal and indicating the Iranian regime sought to inflict substantial damage in its attack. By comparison, the Kheibar Shekan has a smaller 600 kg payload, Iran’s LACMs have even smaller payloads of 200-400 kg, and its Shahed one-way attack drones have payload of only 40 kg.

- The Kheibar Shekan is solid-fueled, enabling a faster and less detectable launch process than that for the liquid-fueled Emad and Ghadr.

- The Emad and Kheibar Shekan have maneuverable reentry vehicles (MARV), enabling them to alter trajectory in their terminal phase and potentially evade defenses.
Since ballistic missile warheads have much higher terminal velocity than cruise missiles or attack drones, their kinetic energy upon impact is greater, too.

Additionally, Iran sought to further increase the chances of overcoming Israel’s active defenses by preceding its MRBM barrages with volleys of one-way attack drones and LACMs, such that all these projectiles would have the same “time on target.”

However, reports that roughly half of all MRBMs used in the attack failed on launch or in flight suggest these missiles are less developed than the regime’s SRBMs, which it has refined and updated appreciably by using them repeatedly in combat since 2017.

The high failure rate is not surprising given the low standards for quality control in Iranian weapons manufacturing. While Iranian officials may have learned lessons about why their systems failed during the attack, unless the regime can fix its weapons production problems, it may struggle to leverage the knowledge it learned during the attack into building more capable platforms.

It is also possible that cyber and/or other non-kinetic operations may have disrupted some of these MRBMs in their boost and/or midcourse phases.

Commendable and concerted joint efforts by Israel, the United States, Britain, Jordan, France, and others intercepted roughly 99 percent of all projectiles headed to Israel on April 13-14, including intercepting all of the roughly 200 drones and LACMs before they reached Israeli airspace, according to the IDF Spokesperson. The United States and regional partners, including Saudi Arabia, also provided early warning assistance to Israel.

By comparison, of the MRBMs that did not fail on launch or in flight, eight percent evaded these defenses and struck Israel’s Nevatim airbase in the Negev, underscoring the vital role of Israeli and partner defenses in preventing a much larger disaster.
What Should the United States Do Next?

- The United States should assist Israel to exploit Iran’s degraded ability to target the region with MRBMs, as part of a larger shared effort to reestablish deterrence against Tehran.
  » This should include assisting with intelligence, cyber, and refueling operations for strikes against Iranian weapons-manufacturing sites, air and naval bases, missile launchers, and ports and associated facilities for proliferating such weapons around the region.
  » The Biden administration should frame these efforts broadly as vital countermeasures against Tehran’s demonstrated intent to inflict maximal damage and intimidate the region, rather than narrowly as a defensive success supposedly justifying an immediate *de facto* ceasefire, since doing so will signal to Iran that it can comfortably rebuild its MRBM arsenal and resume trying to coerce Israel and the rest of the Middle East with impunity.
    - Misreading Iran’s intent in this fashion inadvertently reinforces and legitimizes Tehran’s disingenuous portrayal of its game-changing attack as a “reciprocal” and “proportional” opportunity for de-escalation.
  » U.S. messaging also should emphasize and publicize the extent to which any future Iranian attempt to threaten or use such missiles would be highly vulnerable to timely detection and even “left of launch” interdiction and interruption.
- U.S. Cyber Command (CYBERCOM) should work with partners to infiltrate networks at Iranian missile and drone facilities and associated assets, in order to disable or degrade the production or transportation of weapons, as well as to acquire valuable intelligence about Iran’s evolving MRBM capabilities, production infrastructure, and proliferation networks.
- As part of its ongoing diplomacy with the Group of Seven, the Biden administration must work with Britain, France, and Germany to “snap back” UN Security Council (UNSC) sanctions on Iran’s development and proliferation of missiles, drones, and conventional weapons.
  » Reinstituting these arms embargoes will be crucial for disrupting Iran’s ability to reconstitute and refine its MRBMs and other arsenals used in last weekend’s attack, as well as its ability to acquire advanced Russian-made systems to defend missile production, storage, proliferation, and launch infrastructure.
    - Such UNSC sanctions could benefit U.S.-led efforts to counter Iranian aggression in the Middle East as well as Russian aggression in Ukraine, since these UNSC sanctions would target Tehran’s in-kind trade with Moscow—whereby Iran is set to receive Su-35 combat aircraft, air defense radars, and other systems in exchange for providing Russia with one-way attack drones and potentially ballistic missiles.
    - These measures also would target Tehran’s illicit proliferation networks with China and North Korea that has helped it first develop its ballistic missile fleet years ago.
  » The Biden administration also must concertedly enforce U.S. sanctions on Iran’s oil exports and other primary sources of regime revenue, as these illicit income streams have played major roles in funding the marked growth of Iran’s domestic weapons-manufacturing capabilities in recent years.