

FIRST DRONES, THEN MISSILES:

The Expanding Russia-Iran Arms Nexus

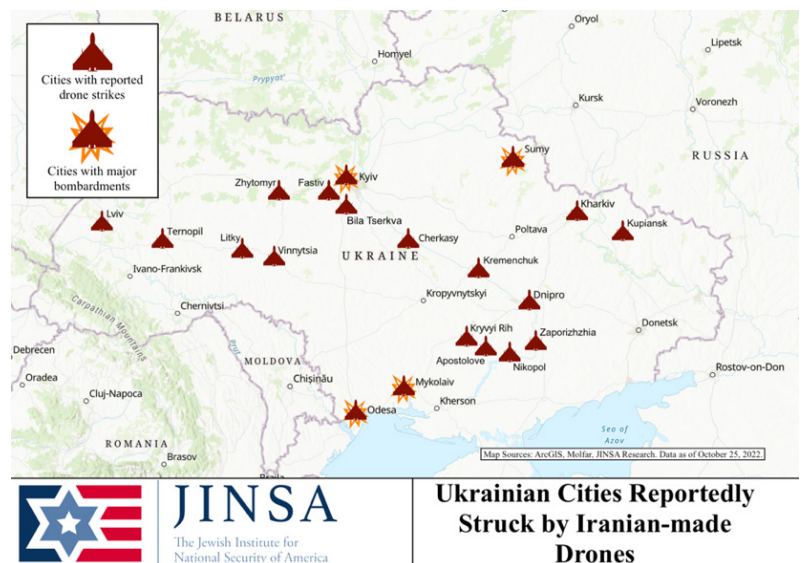
Ari Cicurel
Senior Policy Analyst

N. Nolan Judd
Policy Intern

After deploying Iranian-made unmanned aerial vehicles (UAVs) to devastating effect against Ukraine, Russia is now set to purchase Iranian short-range ballistic missiles—demonstrating growing ties between these two U.S. adversaries. Russia is currently the largest operator of Iranian UAVs anywhere, increasingly using them to target civilian positions away from the frontlines. However, Ukraine has reportedly shot down most of these drones. Ballistic missiles would be more dangerous than UAVs because they carry larger explosive payloads and are harder to defend against. Although Iranian missiles are unlikely to alter the balance of territorial control in Ukraine, they would further enable Russia to devastate Ukraine’s population and infrastructure. The United States needs to bolster Ukraine’s ability to neutralize both UAVs and missiles, push its European counterparts to invoke snapback sanctions against Iran, add new sanctions that can thwart Iran’s ability to manufacture or deliver these deadly weapons, and interdict their transport when possible.

What Happened?

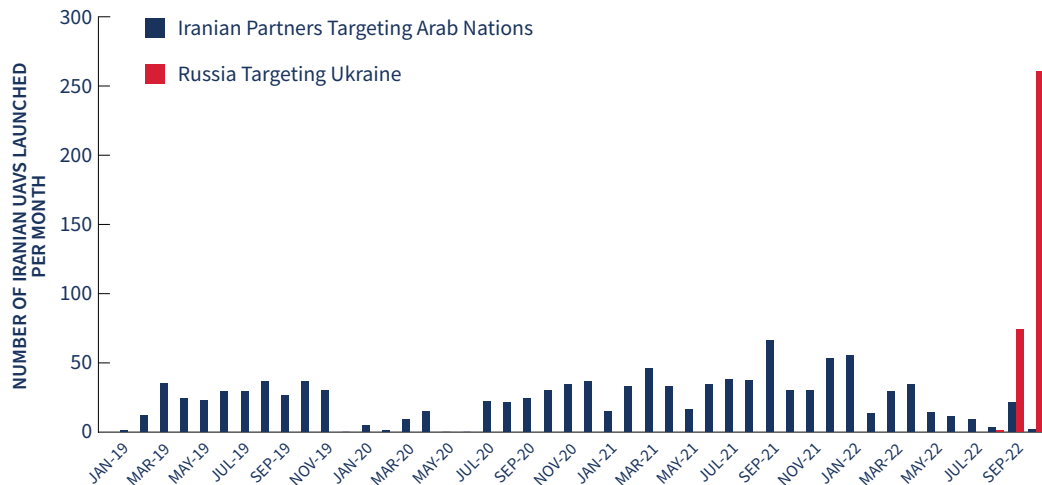
- After [receiving shipments](#) of attack drones from Iran in August, Russia has started to use Shahed model drones to target civilian infrastructure across Ukraine.
- On October 6, Iran sent senior diplomats, a top official in the IRGC, and its Vice President to Russia [reportedly](#) to sign a deal that would provide Russia with more drones and also missiles, namely the Fateh-110 and Zolfaghar short-range ballistic missiles (SRBM).
- On October 20, National Security Council spokesperson John Kirby [confirmed that Iranian soldiers](#) are present in Crimea to assist Russia in using their Iranian-made drones to target Ukrainian positions.



Why Is It Important?

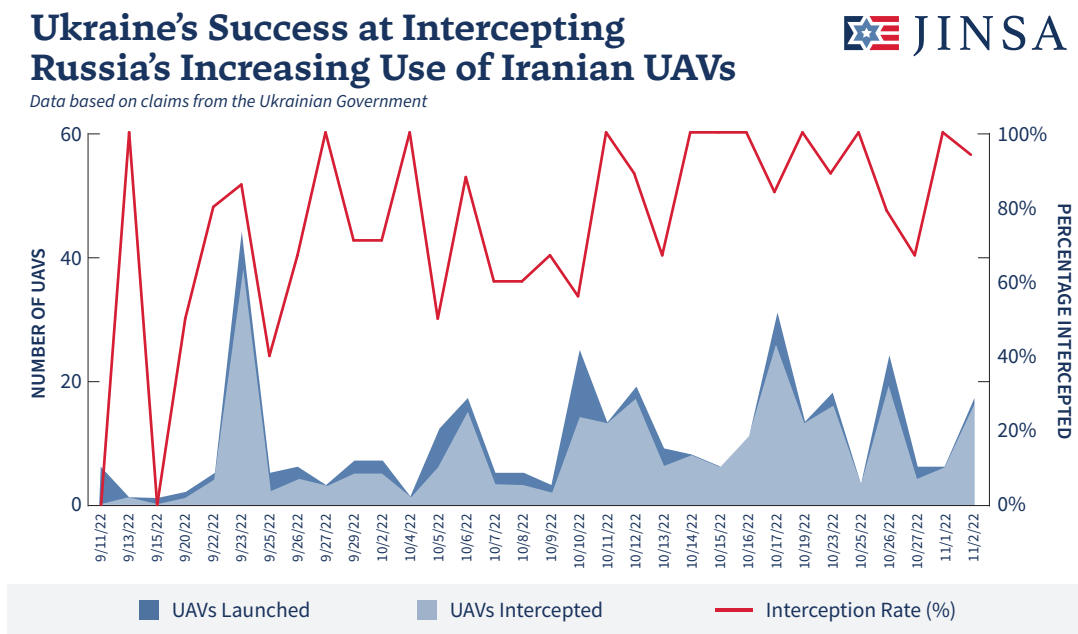
- Russia’s acquisition of Iranian ballistic missiles would be devastating for Ukraine because, compared to the Iranian UAVs Russia has been using for the last three months, these projectiles can carry larger explosives, can inflict damage on a wider area and/or against hardened targets, and are more difficult for Ukraine to defend against.
 - » The acquisition of cheap Iranian UAVs has enabled Russia to expand its targeting of frontline and—increasingly—interior civilian areas in Ukraine. But Ukraine appears capable of downing a significant number of Russian-launched Iranian UAVs.
 - » Russia could now be turning to Iranian ballistic missiles as a more effective weapon, with Iranian UAVs providing intelligence, surveillance, and reconnaissance (ISR), while preserving Russia’s own arsenal of more advanced ballistic missiles for potential use against NATO countries.
 - » The influx of Iranian drones or missiles is not likely to yield changes in territorial control on the ground but can cause large numbers of civilian or military casualties and inflict devastating long-term damage to Ukrainian infrastructure.
- Since it first deployed Iranian UAVs, Russia has become the largest operator of the systems, vastly surpassing any previous recorded use of them according to [JINSA’s Iran Projectile Tracker](#). The highest recorded monthly frequency of Iran-linked UAV attacks was 66 UAVs in September 2021, but Russia already launched over 70 in September and over 230 in October 2022.

Russia Has Become the Largest User of Iranian UAVs



- » Russia has been [launching the drones](#) from three separate Russian positions in Crimea and one in Belarus.
- » Since the [first use](#) of the drones in August, bombardments by the Iran-made Shahed-136 have [killed at least eight civilians](#) and caused severe infrastructure damage.

- » In October, Russia expanded its use of Iranian drones from frontline operations to more strategic strikes [against the Ukrainian population](#).
- Ukraine, however, has proved that it can effectively defend against the Russian-launched Iranian drones and claims to have downed [up to 85 percent](#) of such attacks.
 - » Yuriy Ihnat, Ukraine’s Air Force spokesperson, claimed on October 25 that Ukraine has [intercepted over 300](#) Iranian drones.
 - » The United States is focusing on [further bolstering](#) Ukrainian counter-drone capabilities, making the Iranian UAVs decreasingly useful for Russian forces.



- Russia may now be seeking Iranian ballistic missiles to use as more effective projectiles against Ukraine while using the Iranian-made UAVs it has already acquired for other missions.
 - » Russia may be more capable of striking hardened high-value military targets with Iran’s more complex and accurate ballistic missiles.
 - Unlike the cheap Shahed-136, which has a range of 2,200 km, but is a slow, flying system, the Fateh-110 and Zolfaghar SRMBs are more expensive projectiles that have ranges of 300-500 km and 700 km, respectively.
 - The Fateh-110’s 500 kg and the Zolfaghar’s 600 kg payloads are both significantly larger than the Shahed-136’s 40 kg or even the Shahed-129’s 150 kg payloads. Being able to deliver more massive munitions enables the ballistic missiles to create greater destruction of larger, better defended targets.
 - Iranian ballistic missiles have a proven track record of being able to strike targets, although they are lacking anti-ballistic missile evasion and endgame maneuvering capabilities, making them inferior to Russian Iskandar-M SRBMs.



Fateh-110 SRBM

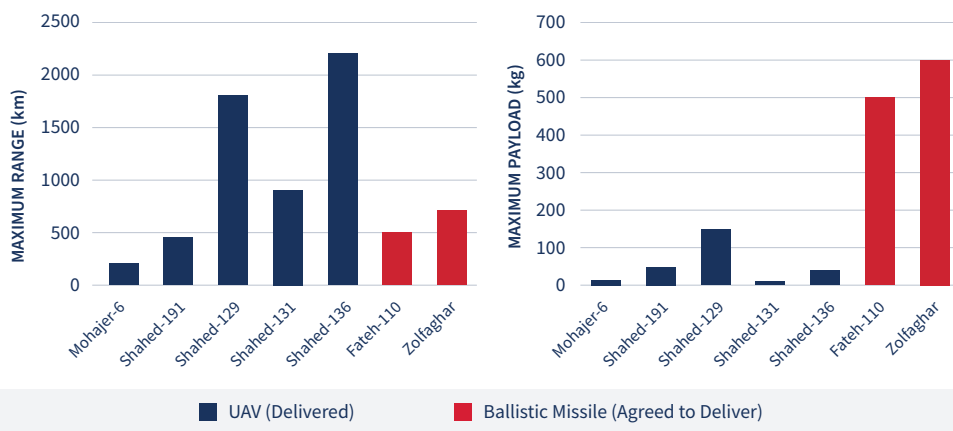


Zolfaghar SRBM

Stijn Mitzer and Joost Oliemans, "The Oryx Handbook Of Iranian Ballistic Missiles And Artillery Rockets," Oryx, October 7, 2022, <https://www.oryxspioenkop.com/2019/10/the-oryx-handbook-of-iranian-ballistic.html>.

- » Russia could then use cheap, expendable Iranian UAVs like the Shaheds to target less defended positions such as Ukrainian civilian locations. Russia can also leverage Iranian drones for a variety of non-kinetic effects, including intelligence, surveillance, and reconnaissance (ISR). Russia may use Iranian UAVs, like the Mohajer-6, to improve its precision targeting for aerial or artillery strikes.
- Ukraine currently lacks effective defenses against ballistic missiles.
 - » According to [Yuriy Ichnat](#), Ukraine has “no effective defense against these missiles,” and added that “it is theoretically possible to shoot them down, but in fact, it is very difficult to do it with the means we have at our disposal. We have anti-air defense, but not anti-missile defense.”
 - » The NASAMS & IRIS-T air defense systems that the United States is providing to Ukraine are capable of neutralizing Russian cruise missiles but are not operationally effective against ballistic missiles.

Munitions Iran Has Sent or Agreed to Deliver to Russia



- Moscow’s request is [further indication](#) that Russia is running low on munitions, unable to replace those it expended or lost during its invasion of Ukraine through domestic production, and likely preserving its own more complex and expensive ballistic missiles for potential conflict with NATO.
 - » Russia’s reliance on other malign actors like Iran for weaponry demonstrates the limitations of Russia’s weapons program and ability to evade sanctions that have severely hampered its manufacturing since its operation in Ukraine began in February.

- » Facing economic hardship and/or in order to maintain deterrence against NATO, Russia is choosing to rely on cheaper Iranian missiles rather than its own arsenal.
 - Iran’s drones and missiles are significantly cheaper than Russia’s platforms and lack its advanced capabilities. [The Shahed-136 costs around \\$20,000](#) per drone, the Fateh-110 costs \$110,000, and the Zolfaghar costs \$150,000. In contrast, one of the Kalibr cruise missiles that Russia has used extensively during its operation in Ukraine costs nearly \$1-6 million. The Kalibr, which is similar to the U.S. Tomahawk missile, can fly at supersonic Mach 2.9 speeds after being launched from ships or submarines. The missile is designed to penetrate air defenses and strike stationary ground targets by flying low along predetermined routes that can be updated in real-time via satellite.
 - Russia has sparingly used the Iskandar-M because it costs \$3 million each and it needs to reserve them for potential conflict with NATO. The Iskandar-M can carry conventional and ballistic missiles and has a maneuverable re-entry vehicle that enables control over the weapon for the duration of its flight to enhance accuracy.
- » Ukraine has said that Russia wants to buy back Russian-produced Iskandar-M ballistic missiles from Iran, further suggesting that it is facing production difficulties but feels the need to maintain advanced missile capabilities.
- It is remarkable that Iran, which is under longer and arguably heavier sanctions than Russia, can produce and transport weapons while Moscow cannot [source necessary parts](#). Iran has been successful at both evading sanctions and developing its indigenous production capabilities.
 - » Tehran’s potential transfer of its knowledge and methods for sanctions evasion to Moscow would significantly degrade the effectiveness of Western sanctions and undermine the ability of these nations to hinder Russia from rearming itself.
 - » U.S. government officials have reportedly [gained access to the wreckage](#) of the drones to gain information on their construction. According to [photos](#) showing the wreckage of Shahed UAVs, the systems include Western components, including engines.
 - » Iran’s sale of missiles to Russia would be a clear violation of [UN Security Council Resolution 2231](#), which established the Joint Comprehensive Plan of Action (JCPOA). Russia is a member of the UN Security Council, a signatory to the JCPOA, and a participant in the negotiations to revive the deal.
 - UNSCR 2231 refers to a document called [S/2015/546](#) in which Category II Item 19 requires UN approval for the transfer of ballistic missiles or UAVs with a range exceeding 300 km. Iran’s Shahed UAVs and ballistic missiles exceed this range and their transfer would, therefore, be a violation of UNSCR 2231.
 - The U.S. State Department has [agreed](#) with prior British and French conclusions that Iran’s transfer of UAVs to Russia violates UNSCR 2231.
 - On November 4, [CNN](#) revealed that U.S. intelligence officials believe Iran is looking to Russia to help it expand its nuclear weapons program and has asked for help in acquiring nuclear materials and nuclear fuel fabrication. In a speech made during a Haaretz conference on October 24, Zelensky suggested that Iran is [receiving assistance with its nuclear program](#) in exchange for supplying Russia with the drones.

- AUG.** • Russia first used the Shahed-136 to destroy an American-supplied M777 howitzer in northern Ukraine.
- Week of SEPT. 11** • Six Shahed-136 drones destroyed Ukrainian equipment near Kharkiv.
- SEPT. 13** • Ukrainian forces in the Kharkiv Oblast announced that they shot down an Iranian-made drone for the first time. The drone appeared to be the Shahed-136.
- SEPT. 28** • Iranian drones struck civilians targets in Odessa and Mykolaiv.
- OCT. 5** • Ukrainian media reported that in Bila Tserkva, a city near Kyiv, several fires appeared after drone attacks.
- OCT. 17** • Eight civilians died in a barrage of Iranian-made drones targeting the Sumy and Kyiv regions of Ukraine.
- OCT. 19** • Russia launched more drone strikes into Mykolaiv.
- OCT. 21** • Ukrainian officials revealed that it had killed 10 Iranian soldiers in two separate strikes amid reports of Iranian personnel being present in Crimea to facilitate Russia's drone attacks.
- OCT. 31** • A massive barrage of missiles and drones struck key infrastructure targets across Ukraine and leaving many in Kyiv without water and electricity.

What Should the United States Do Next?

- The United States should bolster Ukrainian air defense capabilities with a range of systems that can neutralize or degrade the effectiveness of UAVs and ballistic missiles.
 - » Providing additional Stinger missiles, [HAWK interceptors](#), or [quadcopter drones](#) could enable Ukraine to neutralize Russian drones conducting ISR, decreasing Russia's precision targeting.
- The United States should work with its partners to interdict or thwart the transportation of Iranian components or weaponry before Iran sends its munitions to Russia.
- The Biden administration should push for the European signatories to the JCPOA to invoke snapback sanctions on Iran for violating UNSCR 2231.
 - » Russia [would not be able to veto](#) snapback sanctions, despite Biden administration officials claiming otherwise.
- The United States should push Greece to sell its Russian S-300 air defense system to Ukraine and provide it with American-made air defenses to replace it. The Pentagon should also deploy a Destroyer with Aegis air defense capabilities to Crete so that it can bolster NATO deterrence.
- Congress should quickly pass legislation expanding sanctions on Iran's drone program. One such bill, the Stop Iranian Drones Act has [passed the House](#) and the Senate Committee on Foreign Relations [voted in favor of it](#).
- Congress should also require a determination of whether Iranian airlines that transport weaponry to Russia are subject to sanctions.