

## **Iranian drones striking energy targets in Yemen and Ukraine**

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While the world's attention is focused on the Iranian-made drone attacks conducted by Russia against infrastructure and energy targets in Ukraine, the Houthis, Iran's allies, are conducting attacks against energy targets in Yemen. The drone strikes against energy targets in both Ukraine and Yemen began in October 2022.

The drones supplied by Iran to its ally Russia, and the Houthi rebels in Yemen are wreaking havoc, damaging critical energy infrastructures and jeopardizing the world's energy security.

Since October 2022, the Iran-backed Houthis launched 3 drone attacks on oil terminals in Hadramout and Shabwa in an effort to halt tankers from delivering the nation's oil exports from the government-controlled territories to the global market.

Rashad Al-Alimi, head of Yemen's Presidential Leadership Council, said that: "Yemen's internationally-recognized government is on the verge of bankruptcy after Houthi attacks on oil facilities in southern Yemen halted all oil exports".<sup>1</sup>

The Houthis have been trying for a long time to take control of Yemen's oil exports and the current attempt is part of an ongoing policy to force the legitimate government in Yemen to share oil revenues with the Houthi rebels.

President of the European Commission Ursula von der Leyen warned on November 18, 2022 that "Iran's weapons proliferation is a threat to Europe. Tehran is teaming up with its biggest ally, Russia, to undermine our global order by providing weapons such as drones. Several Gulf countries have been warning for years about the risk that Iran feeds rogue

nations around the world with drones,” von der Leyen told the Manama Dialogue conference in Bahrain.

*“It took us too long to understand a very simple fact that while we work to prevent Iran from developing nuclear weapons, we must also focus on other forms of weapon's proliferation, from drones to ballistic missiles. It is a security risk not just for the Middle East, but for us all.” she added.*<sup>2</sup>

### **The Houthi drone attacks**

**On October 19, 2022**, exports from al Nashima oil facility in Shabwah governorate, stopped after a Houthi drone attack. The pause in exports caused a stop in oil production at Jannah Hunt oil field on October 27 after fuel storage at al Nashima reached capacity.

The incident was the first major escalation since the Iran-aligned Houthis and the Saudi-backed government failed to renew a U.N.-brokered truce in October 2022.

**On October 21, 2022**, the Houthi Movement launched two explosive-laden drones targeting an oil tanker in al Dabba Port, Hadramawt governorate, eastern Yemen. The attack did not cause any damage. The Hadramawt governor said the Houthis launched the two drones from the Ma'rib-al Jawf governorate border in northern Yemen. The oil tanker Nissos was scheduled to load 2 million barrels of crude from the terminal.<sup>3</sup>

The Houthi movement said it carried out a warning attack to prevent the vessel from "smuggling" crude oil from the port. "We renew our warning to all companies to fully comply with the decisions of the authorities in Sanaa and shun away from any contribution to the looting of Yemeni resources," a statement from the Houthi armed forces said.<sup>4</sup>

**On November 9, 2022**, Yemen's foreign ministry said in a statement that the Houthis launched a drone attack on the southern port of Qena in province of Shabwa, when an oil tanker was offloading fuel. The oil tanker stopped unloading its oil and left the port after the attack. The attack may have injured two Indian workers at the port but another source reported that the attack caused no casualties.<sup>5</sup>

### **Yemen's internationally recognized government response**

During a meeting in Riyadh with the ambassadors of the EU, China, France, Russia, the UK and the US to Yemen, Rashad Al-Alimi, head of the Presidential Leadership Council, warned that the Houthi attacks would exacerbate the already dire humanitarian situation by fueling hunger, as thousands of public servants would not be paid and the government would be unable to fund food imports.<sup>6</sup>

Although it had previously threatened to withdraw from the Stockholm Agreement and the most recent truce, both of which were mediated by the UN, the Yemeni government decided not to resume military operations this time to punish the Houthis for the attacks. Instead, it asked envoys to support a package of economic measures to pressure the Houthis to stop their attacks.

United Nations special envoy Hans Grundberg said he would continue to push for an extended and expanded deal between the warring parties, both under intense international pressure to come to an agreement.<sup>7</sup>

### **The Iranian drones**

Iran has developed a large domestic arms industry in the face of international sanctions and embargoes that had barred it from importing weapons, including drones and missiles.

Iran's air force is weak and most of its jets are decades old and difficult to maintain. Producing drones and missiles is seen as a cheaper way for the Iranian military and Revolutionary Guards Corps.

Iran and the regional forces it back have increasingly relied in recent years on drones in Yemen, Syria and Iraq, where it has spread its influence through proxies.<sup>8</sup>

The Islamic Republic's drones are used for surveillance and can be used for attacks, either by dropping munitions or as so-called "kamikaze drones" that fly into a target and blow themselves up.

## **The Iranian drones in service of Russia**

Facing economic sanctions and limits on its supply chains due to its invasion of Ukraine, Russia is turning to Iran as a key partner and supplier of weapons.

Russia had recently obtained hundreds of Iranian drones (Mohajer-6 and Shahed-series) capable of being used in its war against Ukraine. Russia also gains valuable lessons from Iran's own use of these drones via their multiple proxies across the Middle East.

Iran has admitted that it sent drones to Russia but insisted they were supplied to its ally before Moscow's invasion of Ukraine.<sup>9</sup>

Russia initially used the drones to attack Ukrainian military hardware on the front lines, but in the second half of September 2022 it began using them for attacks on infrastructure in Odesa, Mykolaiv and Kharkiv regions.

In October - November 2022 Ukraine has been hit by waves of attacks by Shahed-136\131 suicide drones targeting civilians and energy infrastructure.

Ukraine's state grid operator Ukrenergo said on November 18, 2022 that "The enemy has already carried out six large-scale missile attacks: October 10, October 11, October 17, October 31, November 11 and November 15."<sup>10</sup>

Ukrainian Prime Minister Denys Shmyhal said that: "Unfortunately, Russia continues to carry out drone and missile strikes on Ukraine's civilian and critical infrastructure and almost half of our energy system is disabled."<sup>11</sup>

### **The Shahed-136**

The Shahed-136 renamed Geranium 2 in Russian service, is a loitering munition that fly into a target and blow itself up.

This drone has a delta-wing shape. Maximum speed is around 185 km/h. Exact range of this drone is unknown, though various estimates range from 1000 km to 2500 km. Flight ceiling is up to 4 km.<sup>12</sup>

The Shahed 136 packs a high explosive fragmentation warhead. It weights around 36 to 50 kg.

The drone is launched from a rack, which holds 5 of these drones. The rack can be installed on a truck. The Shahed 136 is launched nearly horizontally and uses a rocket-assisted take off.

The drone has got no remote control. Instead, it has a simple inertial navigation system with consumer-grade GPS system to strike its target.

### **The Shahed 131**

The Shahed-131 is an earlier version of Shahed-136, but with a similar principle of operation and, most likely, maximally unified in all main components, primarily electronics. The layout and aerodynamic solution are also identical. The Shahed-131 renamed Geranium 1 in Russian service.

The Shahed-131 is slightly smaller than the Shahed-136, the wingspan is 2.2 m against 2.5 m, the length is 2.6 m against 3.5 m. The take-off weight is estimated at 135 kg against 200 kg. The size of the high-explosive warhead with preformed Shahed-131 fragmentation is estimated at 10-15 kg. The flight range is estimated to be up to 900 km.<sup>13</sup>

### **Summary**

*Yemen's internationally recognized government is on the verge of bankruptcy after Houthi attacks on oil facilities in southern Yemen halted all oil exports.*

The U.S. Energy Information Administration (EIA) estimates Yemen has proven oil reserves of around 3 billion barrels, but Yemen's oil output has almost collapsed since 2014.<sup>14</sup>

Oil exports are one of the few sources of income left for the Yemeni government since the war in the country began in 2014. *The population in Yemen is in constant danger of the humanitarian crisis and hunger, and any damage to the state's income could further endanger the already difficult humanitarian situation.*

The Houthis have been trying for a long time to take control of Yemen's oil exports and the to force the legitimate government in Yemen to share oil revenues with the Houthi rebels. The Houthis want to send a message to the world that they control Yemeni ports and that all transactions must be done with their authorization.

*Israel and the Gulf states have been claiming for years that the Iranian threat to the security of the region and the world is not limited only to the development of nuclear weapons, but that Iran is undermining the stability and security of the countries of the region and beyond through support for terrorist organizations and the distribution of advanced weapons such as drones and missiles.*

In the past, these warnings were not accepted by the US and Europe, and only now, when drones from Iran are destroying Ukraine's energy infrastructure, *the West is beginning to realize the full extent of Iran's threat to world security.*

The US and the European countries must understand that only severe sanctions and the threat of military measures, if necessary, will deter Iran from continuing to support terrorist activities and the distribution of advanced weapons in order to harm the interests of the US and its allies.

## Notes

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<sup>1</sup> Houthi attacks on oil infrastructure ‘driving Yemen’s government into bankruptcy’, Arab news, November 15, 2022.

<sup>2</sup> Iran weapons expansion is risk ‘to us all’: EU chief warns, Al Arabiya, November 18, 2022.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Saudi Arabia condemns Houthis for targeting civilian and vital facilities in Yemen, Arab news, November 10, 2022.

<sup>6</sup> Houthi attacks on oil infrastructure ‘driving Yemen’s government into bankruptcy’, Arab news, November 15, 2022.

<sup>7</sup> Yemeni government forces intercept Houthi drones attacking southern oil terminal, Reuters, October 22, 2022.

<sup>8</sup> ‘Kamikaze drones’: what are the weapons Russia is using in Ukraine? Al Arabiya, October 18, 2022.

<sup>9</sup> Iran weapons expansion is risk ‘to us all’: EU chief warns, Al Arabiya, November 18, 2022.

<sup>10</sup> Kyiv may face ‘complete shutdown,’ half Ukraine’s energy system disabled by strikes, Reuters, November 18, 2022.

<sup>11</sup> Ibid.

<sup>12</sup> Not Only Shahed-136: a Detailed Study of Another Iranian Shahed-131 Kamikaze Drone Used by Russia, Defense express, September 24, 2022.

<sup>13</sup> Ibid.

<sup>14</sup> Yemeni government forces intercept Houthi drones attacking southern oil terminal, Reuters, October 22, 2022.