

Clone Wars: Why Iran Will Copy Captured U.S. Global Hawk Drone

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As noted by [Forbes earlier this week](#), Iran is has retrieved much of the wreckage of the RQ-4A Global Hawk it shot down last year and is piecing the unmanned aircraft back together. This is partly a propaganda exercise, and partly about intelligence gathering on the Global Hawk's capabilities. However, the main aim is likely to be providing Iran's burgeoning drone industry with the information to build a Frankenstein-like clone from the remains. This prediction is based on a consistent pattern of Iranian drone development. They may not be good at original designs, but Iran is the world leader at copying its enemy's drones.



The shot-down RQ-4A has largely been reconstructed in Iran. US NAVY AND IRANIAN STATE MEDIA

When Iran claimed to have captured a Boeing 0.0% BA-made Scan Eagle in 2012 , the Pentagon initially denied that one of their drones was missing. However, pictures and other evidence indicated that the Iranians had an unmanned aircraft with ten-foot wingspan which matched the U.S. Navy's Scan Eagle.

The Scan Eagle was originally designed to track shoals of fish, but its long endurance – twenty hours – and ability to carry powerful cameras and other payloads made it popular with the military. In 2013 Iran unveiled the Yasir, an exact pirate copy of the Scan Eagle. They even gave one to a visiting Russian Air Force official. The Yasir has been widely distributed to Iran-backed militants, and has been used by Lebanese Hezbollah militants, Shia militia in Iraq and Iran-backed factions in Syria. U.S. Scan Eagles are unarmed, in 2015 a senior Iranian commander told reporters that the Yasir had been converted into a suicide drone.



The Iranian Yasir is a direct copy of the U.S. ScanEagle drone TASNIM NEWS AGENCY

Israel has also inadvertently contributed to Iran's drone technology. When the [Shahed-129](#) was unveiled in 2012, some noted similarities to the US MQ-1 Predator. It is a large drone able to carry eight missiles. However, analysts believe that its design can be traced back to a crashed [Israeli Hermes 450 drone](#) — two were apparently lost over Iran in the 1990s.

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The Shahed-129 was an ambitious development because of the lack of suitable engines. But in 2012 Iranian company MADO cloned engines made by German company Limbach. [Germany has charged two men](#) with illegally exporting engines to Iran which [were then reverse engineered](#). The results power the Shahed-129, which has a wingspan of fifty feet and a claimed mission time of twenty-four hours, similar to the Predator.

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The most ambitious Iranian pirating exercise has been reverse-engineering an [RQ-170 Sentinel](#) stealth spy drone captured in 2011. The [circumstances of the capture are unclear](#): the Iranians claim they hacked the drone's control system, the U.S. say it was lost to a technical fault. In any case, it was recovered virtually intact and the Iranians lost no time in analyzing and copying the highly classified design.



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Since then a hangar containing at least ten flying-wing drones resembling the Sentinel has been displayed, but these may be mockups rather than real aircraft. It is doubtful how successfully the stealth properties of the original could be replicated .





The Saeqah is a copy of the U.S. RQ-170 Sentinel stealth drone. Whether these are real drones or ... [+] SEPHANEWS

According to Iranian sources there are at [least three versions of the Sentinel clone](#), which is known as Saeqeh (Thunderbolt): two with piston engines and a larger jet-powered version. Some are reportedly capable of carrying bombs or missiles. The original Sentinel has a wingspan of 85 feet, an Iranian copy [shot down over Israel in 2018](#) was more like 20 feet across, according to an analysis of wreckage photographs by intelligence site Bellingcat.

History indicates that having learned all they can from the reassembled carcass of the Global Hawk, Iran will seek to make another Frankenstein copy. This is not an obvious move, as the Hawk is [a long-range strategic reconnaissance drone](#) with a range of over 12,000 nautical miles, and Iran's interests lie close home. They do not need a long-range, unarmed scout. However, it is notable that in all the previous instances, Iran has weaponized their versions of previously unnamed reconnaissance drones. The Global Hawk has a payload of 3,000 pounds: not much for a bomber, more than enough for a weapon of mass destruction.

There was considerable concern earlier this year when Iran tested a [missile with a range of a thousand miles](#). An Iranian Hawk, even if it does not match the reach of the original, could still have potentially transatlantic range. This would be a significant strategic development.

As the technology has fallen into their lap, it would be surprising if the Iranians did not repeat their previous efforts and produce their own long-range strategic drone.

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