This product provides a visual comparison of UAVs used by Russian forces in Ukraine and Iranian UAVs used to attack U.S. and partner interests in the Middle East. Photos of UAV debris and components from Ukraine are consistent with systems showcased at military expos and other venues in the Middle East. This analysis confirms Russia’s use of various Iranian lethal UAVs in its war in Ukraine.
The Story So Far

In mid-2022, Iran provided Russia with unmanned aerial vehicles (UAVs) to sustain Moscow’s ability to attack Ukraine after severely depleting its own stores of precision-guided munitions in the war’s opening months. Since then, Iran has provided Russia with hundreds of one-way attack UAVs for its war in Ukraine. Ample evidence of such transfers has been provided to the public, but Iran continues to deny these UAVs were Iranian in origin. The U.S. Defense Intelligence Agency (DIA) has collected actual debris from attacks in Ukraine and the Middle East that we have presented in the following pages to clearly prove Iran’s support to Russia.

- JUL 2022: Russian delegation visits Iran to examine Iranian UAVs
- SEP 2022: First use of Iranian UAVs by Russian military forces to attack Ukraine
- MAY 2023: National Security Council highlights deepening Iran-Russia military cooperation
- JUN 2023: White House announces Iran is helping Russia establish a UAV production facility
- AUG 2023: Recovered UAVs are displayed at DIA to offer undeniable proof that UAVs found in the Middle East and Ukraine share a common point of origin: Iran
Shahed-131 (Geran-1) One-Way Attack UAV Comparison

The Iranian-origin Shahed-131, renamed Geran-1 by the Russians, has a delta-wing body shape similar to the Shahed-136 (Geran-2), but the vertical stabilizers extend only above the body. Recovered components in Ukraine and the Middle East appear to be very similar; some components even fractured in the same manner after impact. ¹²
In August 2023, DIA publicly displayed debris from the Shahed-131s (Geran-1s) used in Ukraine in fall 2022 side by side with a Shahed-131 recovered in Iraq in 2021. The systems are the same size and shape and were built using similar materials and subcomponents. The Shahed-131s (Geran-1s) from Ukraine and the Shahed-131 from Iraq also share the same honeycomb-like structure within the airframe.
A Clear Iranian Connection

On 28 September 2022, Iran conducted and then publicly claimed a missile and UAV attack against the Kurds in northern Iraq, enabling DIA to remove doubt about the origin of the UAVs recovered from the strike. The UAVs recovered from Iraq were Shahed-131s, which match Shahed-131s (Geran-1s) recovered in Ukraine in fall 2022. Nearly identical UAV components appearing at the same time in two separate conflicts thousands of miles apart, with Iran publicly claiming responsibility for one of the UAVs, leads to the conclusion that both of these systems are Iranian in origin.
**Shahed-131 Wing Stabilizers**

The wing stabilizers on the Shahed-131 (Geran-1) recovered in Ukraine are consistent with the wing stabilizers on the Shahed-131 recovered from an Iranian-claimed attack in Iraq. Notably, both wing stabilizers have the nearly identical material resembling a honeycomb on the inside of the stabilizer.
Recovered Shahed-131 (Geran-1) Engine

The Shahed-131 (Geran-1) engines recovered in Ukraine are nearly identical to engines recovered from the September 2022 Iranian-claimed attack in Iraq.

Selected points of comparison:
- Wooden propeller
- Crank shaft
- Hex screw
- Distinctive housing feature
- Engine mount

Source: U.S. Government
**Recovered Shahed-131 (Geran-1) Components**

Shahed-131 (Geran-1) UAV components recovered from debris in Ukraine are consistent with Shahed-131 components recovered from the September 2022 Iranian-claimed attack in Iraq.¹

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**Ukraine**

- **Recovered in Kyiv, Ukraine, October 2022**

**Middle East**

- **Recovered after Iranian-claimed attack in Iraq, September 2022**

**Similar components:**
- Rotary engine
- Wing stabilizer
- Compartment cover
- Engine throttle body
- Relay board
- Processing module case cover
- Processing module case

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¹ Source: Ukrainian War Crimes Prosecutors

Source: U.S. Government
**Shahed-136 (Geran-2) One-Way Attack UAV Comparison**

The Iranian-origin Shahed-136, renamed Geran-2 by the Russians, has a distinctive shape, with a delta-wing body and vertical stabilizers extending above and below the body, as displayed in Iranian press and military expos. Iran used Shahed-136 UAVs in the 2021 attack against the merchant vessel Mercer Street and has also transferred this system to the Huthis in Yemen. The Huthis have not used this system in an attack to date but have displayed it publicly. The images circulating in open press of UAVs in Ukraine clearly show the features of the Shahed-136’s delta-wing body and vertical stabilizers.14

**Selected points of comparison:**
- Engine
- Wing stabilizer
- Air data collection
- Fuselage
- Nose cone
Shahed-136 (Geran-2) Wing Stabilizer

Shahed-136 (Geran-2) wing stabilizers recovered in Ukraine are consistent with the size, shape, and markings of the Shahed-136 wing stabilizers observed or recovered in the Middle East.\textsuperscript{7,8}

Selected points of comparison:
- Stabilizer shape
- Serial number
- Winglet
- Edge of delta wing

Source:
- Shahed-136 (Geran-2) wing stabilizer recovered in Ukraine, October 2022
- Shahed-136 (Geran-2) wing stabilizer recovered in Ukraine, September 2022
- Shahed-136 UAVs preparing for launch from truck platform during IRGC Aerospace Force exercise in Iran, December 2021
- Shahed-136 wing stabilizer recovered from the attack on the merchant vessel Pacific Zircon, November 2022
Shahed-136 (Geran-2) Engine

Shahed-136 (Geran-2) engines recovered in Ukraine appear to be Iranian-produced MADO-550 engines, the same engine model used in the Shahed-136.\textsuperscript{9}

Selected points of comparison:
- Ring gear
- Starter
- Exhaust
- Heat sink and ignition components

Shahed-136 (Geran-2) engine recovered in Ukraine, October 2022

MADO-550 engine displayed at the Iranian National Aerospace Exhibition, October 2014

Source: Ukrainska Pravda

Source: Iranian Military Forum
The Iranian-origin Mohajer 6 has been displayed publicly in Iran and Iraq, and it can be easily identified by its distinctive tail, as well as by the attached surveillance equipment and guided munitions. In October, Ukraine captured a mostly intact Mohajer 6 from the Black Sea, and it appears to be indistinguishable from the Mohajer 6 systems photographed in Iran and Iraq. Components recovered from the wreckage display very similar markings to those observed in Iran.13

Mohajer 6 Multirole UAV Comparison

Selected points of comparison:
- Horizontal stabilizer
- Serial number
- Landing gear wheel
- Surveillance equipment

Mohajer 6 recovered from the Black Sea, October 2022

Mohajer 6 displayed in Iran, February 2018

Guided munition recovered from Mohajer 6, October 2022

Iranian guided munition displayed at a military expo, August 2022
Source Endnotes


5 ARTICLE, ORYX; MAR 2021; HOUTHI REBELS UNVEIL HOST OF WEAPONRY; URL: HTTPS://WWW.ORYXSPIOENKOP.COM/2021/03/HOUTHI-REBELS-UNVEIL-HOST-OF-WEAPONRY.HTML.

6 UNITED STATES INSTITUTE OF PEACE – THE IRAN PRIMER; 06 AUG 2021; CENTCOM: IRAN BEHIND DRONE ATTACK ON TANKER; URL: HTTPS://IRANPRIMER.USIP.ORG/BLOG/2021/AUG/10/CENTCOM-IRAN-BEHIND-DRONE-ATTACK-TANKER.

7 ARTICLE, MEHR NEWS; APR 2022; TITLE UNKNOWN.

8 UNITED STATES INSTITUTE OF PEACE – THE IRAN PRIMER; 06 AUG 2021; CENTCOM: IRAN BEHIND DRONE ATTACK ON TANKER; URL: HTTPS://IRANPRIMER.USIP.ORG/BLOG/2021/AUG/10/CENTCOM-IRAN-BEHIND-DRONE-ATTACK-TANKER.

9 ARTICLE, USKOWI ON IRAN; 25 NOV 2014; TAKEAWAYS FROM IRANIAN NATIONAL AEROSPACE EXHIBITION 2014; URL: HTTPS://WWW.USKOWIONIRAN.COM/2014/11/TAKEAWAYS-FROM-IRANIAN-NATIONAL.&amp;#65278;HTML.

10 ARTICLE, USKOWI ON IRAN; 25 NOV 2014; TAKEAWAYS FROM IRANIAN NATIONAL AEROSPACE EXHIBITION 2014; URL: HTTPS://WWW.USKOWIONIRAN.COM/2014/11/TAKEAWAYS-FROM-IRANIAN-NATIONAL.&amp;#65278;HTML.

11 ARTICLE, JANES DEFENCE WEEKLY; JEREMY BINNIE; 13 JUL 2022; CUT-PRICE CAPABILITY: THE PROLIFERATION OF IRANIAN UAVS.

