Seized At Sea: *Iranian Weapons Smuggled to the Houthis*
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This product provides a visual comparison of Iranian weapons and weapon components interdicted in transit to the Houthis in Yemen on 11 and 28 January 2024. Photographs of missiles displayed by the Iranians—as well as debris acquired from previous Houthi attacks, compared with those of the interdicted materiel—strongly indicate their Iranian origin. Between 2015 and 2024, the United States and its partners have interdicted at least 20 Iranian smuggling vessels, seizing ballistic, cruise, and surface-to-air missile (SAM) components, antitank guided missiles (ATGMs), unmanned aerial vehicles (UAVs), and thousands of assault rifles, rocket components, and other illicit weapons destined for the Houthis. The Houthis probably have used Iran-supplied weapons to conduct more than 100 attacks against land-based targets in Israel, Saudi Arabia, the United Arab Emirates, and Yemen and dozens of attacks targeting ships in the Red Sea and Gulf of Aden.1,2

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Information cutoff date: 30 April, 2024

Cover images: USCENTCOM Intercepts Iranian Weapons Shipment Intended for Houthis


DIA_F_255LQ_A

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Since 2015, Iran’s Islamic Revolutionary Guard Corps-Qods Force (IRGC-QF) has been smuggling weapons and weapon components to the Houthis, which has enabled the advancement of the Houthis’ military capabilities. As of 30 April 2024, the Houthis have used Iran-supplied ballistic and cruise missiles to conduct at least 100 attacks against land-based targets in Israel, Saudi Arabia, the United Arab Emirates, and Yemen and at least 56 attacks targeting ships in the Red Sea and Gulf of Aden. Between 2015 and 2024, the United States and its partners have interdicted at least 20 Iranian smuggling vessels, seizing ballistic, cruise, SAM missile components, ATGMs, UAVs, and thousands of assault rifles, rocket components, and other illicit weapons destined for the Houthis. This graphic is focused on Iran’s provision of missiles and missile components to the Houthis because they represent the most technically sophisticated weapons Iran is providing the Houthis.  

### Iranian Smuggling Enables Houthi Attack Campaign

**Date**

- 27 Sep 2015
- 20 Mar 2016
- 25 Nov 2017
- 9 Feb 2018
- 24 Jun 2019
- 6-7 May 2020
- Jan-Feb 2021
- 8 Nov 2022
- 1 Dec 2022
- 15 Jan 2023
- 23 Feb 2023
- 11 Jan 2024
- 28 Jan 2024

**Interdiction Force**

- Royal Australian Navy
- French Navy
- U.S. Navy
- Royal Saudi Navy Force
- U.S. Navy
- UK Royal Navy
- U.S. Navy
- U.S. Navy
- French Navy
- U.S. Navy
- UK Royal Navy
- U.S. Coast Guard
- U.S. Navy

**Missiles & Missile Components**

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<td>150x</td>
<td>21x</td>
<td>12+</td>
<td>70t</td>
<td>2,100kg</td>
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<td>200 packages containing MRBM components, ATGM launcher assemblies, SAM components, and other illicit material</td>
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- 3 sets of missile guidance components
- 9 ATGMs
- 21 Dehlavieh ATGMs
- 5 nearly fully assembled Iran-produced 358 SAMs
- 150 Dehlavieh ATGM launchers
- 3 Iran-produced 358 SAMs
- 21 ATGMs
- Dozens of Russian-origin ATGMs
- Iran-produced 358 SAMs
- 351 land attack cruise missiles (LACMs)
- 21 ATGMs
- 70 tons of ammonium perchlorate, commonly used to make rocket and missile fuel as well as explosives
- 100 tons of urea fertilizer
- 2,100 kilograms of propellant for launching rocket-propelled grenades
- 23 ATGMs
- Dehlavieh ATGMs
- Medium-range ballistic missile (MRBM) components
- Propulsion, guidance systems, and warheads for MRBMs and antiship cruise missiles (ASCMs)
- 200 packages containing MRBM components, ATGM launcher assemblies, SAM components, and other illicit material

**Legend:**

- ATGM
- Guidance System
- LACM
- MRBM
- SAM
- Warhead
In January, U.S. forces conducted two operations to impede Iranian smuggling of lethal aid from Iran to the Houthis. On 11 January, the U.S. Navy conducted a nighttime raid of an Iranian dhow traveling near the coast of Somalia, resulting in the seizure of various components for ballistic and cruise missiles. On 28 January, a forward-deployed U.S. Coast Guard vessel interdicted a dhow operating in the Arabian Sea, again seizing components for Iranian-origin ballistic and antitank guided missiles.
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The interdicted materiel shares key identifiable features with Iranian antiship cruise missiles, including the stabilizer fin (1), rocket booster (2), air-intake cabin (3), and nose cone (4).

The Iranian Tolu-4 turbojet engine, used in the Noor ASCM, has unique features—including the compressor stage (5) and stator (6)—that are consistent with engine debris recovered from the 11 December 2023 Houthi attack on the M/T Strinda.

Iran and Houthi Antiship Cruise Missile Comparison

Iran has developed the Noor family of antiship cruise missiles.

Photos: Tasnim News

The Noor family of missiles uses the Tolu-4 engine, which Iran displayed at the International Air and Space Show in Russia in 2017.

Photos: Fors News

On 11 December 2023 the Norwegian-flagged M/T Strinda (left) was attacked by a Houthi cruise missile (right).

Photos: Youtube

The turbojet engine debris recovered from the M/V Strinda are consistent with the Iranian Tolu-4 from the Noor ASCM.

Photos: USCENTCOM
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Since 2017, the Houthis have used Burkan missiles, the Houthi name for the Iranian Qiam. The Houthis have launched the Burkan-3 missile against several countries in the region. Burkan debris recovered following a 2017 Houthi strike in Saudi Arabia features markings (1) and fuel ports (2) that are consistent with an Iranian Qiam variant. 25

Qiam/Burkan Ballistic Missile Comparison

Comparison of markings and fuel ports on Houthi (Burkan) debris recovered in Saudi Arabia (right) and Iranian Qiam ballistic missile (left)

Photos: U.S. Government
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Qiam/Burkan-Ballistic Missile Engine Comparison

Iranian Qiam engines seized from an Iranian smuggler on 11 January near the coast of Somalia are consistent with Houthi Burkan-2H engines recovered from a 2017 Houthi attack in Saudi Arabia. The combustion chamber (1), nozzle (2), and turbopumps (3) of the engines interdicted in January 2024 match the physical characteristics shown with the engine recovered in Saudi Arabia. 26 27

Photos: DVIDS

Qiam engine from 11 January 2024 interdiction
Photos: USCENTCOM & U.S. Government

Burkan/Qiam engine debris recovered after a 4 November 2017 Houthi attack against King Khalid International Airport in Saudi Arabia
Photos: DVIDS

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358 (Saqr) Surface-to-Air Missile Comparison

The Houthis’ Saqr surface-to-air missile (SAM) exhibits nearly identical features to a missile interdicted on a dhow headed to Yemen in 2020 as the Iranian 358 SAM displayed for Russian officials in Tehran in September 2023. The Saqr and 358 both have distinctive features, which include front-mounted fins (1) and rear-mounted fins (2) in an X-shaped orientation and the engine (3). The Houthis have used the Saqr to attack U.S. UAVs in Yemen. In addition to the Houthis, Iran proliferated the 358 to partners and proxies in Iraq and Lebanon. 28
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Interdicted Components of the Iranian 358 Surface-to-Air Missile

A large number of inertial navigation systems and air data computers interdicted on January 2024 have the label 358 (1), which is associated with the Iranian 358 surface-to-air defense missile system. 21
Dehlavieh Antitank Guided Missile Comparison

The Dehlavieh-2 is an Iranian-developed copy of the Russian Kornet-EM antitank guided missile (ATGM). The system has an extended range of 8 kilometers and an improved warhead capability. The interdiction on 28 January captured, for the first time, the Dehlavieh and Dehlavieh-2 launchers. The characteristics of these captured launchers—including the missile rail (1), sight head (2), traversing unit (3), joining fixture (4), and tripod legs (5)—are consistent with the Dehlavieh ATGM system displayed in Iran.

Photos: Mashreghnews.ir

The Iranian Dehlavieh has English markings compared to the Russian Kornet-EM, which has Cyrillic markings.

Photos: USCENTCOM

Cyrillic markings on Russian Kornet-E launcher. Photos: U.S. Government

Photos: USCENTCOM

English markings, commonly used by Iran on the Dehlavieh, interdicted being smuggled from Iran to Yemen.

Photos: USCENTCOM
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Sources

1. USCENTCOM; 15 FEB 24; CENTCOM INTERCEPTS IRANIAN WEAPONS SHIPMENT INTENDED FOR HOUTHIS; HTTPS://WWW.CENTCOM.MIL/
2. WASHINGTON INSTITUTE; ACCESSED 16 APR 24; TRACKING MARITIME ATTACKS MIDDLE EAST 2019; HTTPS://WWW.WASHINGTONINSTITUTE.ORG/POLICY-ANALYSIS/TRACKING-MARITIME-ATTACKS-MIDDLE-EAST-2019
3. CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES; JUN 20; THE MILITARY WAR IN YEMEN.
4. USCENTCOM; 06 SEP 18; JASON DUNHAM COUNTS 2,521 AK-47s; HTTPS://WWW.CUSNC.NAVY.MIL/MEDIA/NEWS/DISPLAY/ARTICLE/1621512
5. DOJ; 07 DEC 21; UNITED STATES PREVAILS IN ACTIONS TO SEIZE AND FORFEIT IRANIAN TERROR GROUP’S MISSILES AND PETROLEUM; HTTPS://WWW.JUSTICE.GOV/OPA/PR/UNITED-STATES-PREVAILS-ACTIONS-SEIZE-AND-FOREFIT-IRANIAN-TERROR-GROUP’S-MISSILES-AND-PETROLEUM
6. NAVY.MIL; 08 MAY 21; US NAVY DESTROYER SUPPORTS UK SEIZURE OF IRANIAN MISSILES IN NORTH ARABIAN SEA; HTTPS://WWW.NAVY.MIL/PRESS-OFFICE/NEWS-STORIES/ARTICLE/3200684
7. NAVY.MIL; 07 JUL 22; NAVY DESTROYER SUPPORTS UK SEIZURE OF IRANIAN MISSILES IN SULTAN MOHAMMED ALI STRAIT; HTTPS://WWW.NAVY.MIL/PRESS-OFFICE/NEWS-STORIES/ARTICLE/3205821
8. USCENTCOM; 15 MAY 22; US NAVY DESTROYER SUPPORTS UK SEIZURE OF IRANIAN MISSILES IN NORTH ARABIAN SEA; HTTPS://WWW.CUSNC.NAVY.MIL/MEDIA/NEWS/DISPLAY/ARTICLE/3205821
9. USCENTCOM; 15 NOV 22; U.S. NAVAL FORCES INTERCEPT EXPLOSIVE MATERIAL BOUND FOR YEMEN; HTTPS://WWW.CUSNC.NAVY.MIL/MEDIA/NEWS/DISPLAY/ARTICLE/3203228
10. USCENTCOM; 03 DEC 22; U.S. SEIZES 1.1 MILLION ROUNDS OF AMMUNITION, OTHER ILLEGAL WEAPONS IN GULF OF OMAN; HTTPS://WWW.NAVY.MIL/PRESS-OFFICE/NEWS-STORIES/ARTICLE/3253024
11. USCENTCOM; 01 FEB 23; U.S. CENTRAL COMMAND SUPPORTS PARTNER FORCES IN MAJOR IRANIAN WEAPONS SEIZURE; HTTPS://WWW.CENTCOM.MIL/
12. WALL STREET JOURNAL; 01 FEB 23; FRENCH FORCES SEIZE IRANIAN-SUPPLIED WEAPONS BOUND FOR YEMEN; HTTPS://WWW.WSJ.COM/ARTICLES/FRENCH-FORCES-SEIZE-IRANIAN-SUPPLIED-WEAPONS-BOUND-FOR-YEMEN-1657242819
14. USCENTCOM; 16 JAN 24; (U) USCENTCOM SEIZES IRANIAN ADVANCED CONVENTIONAL WEAPONS BOUND FOR HOUTHIS; HTTPS://WWW.CENTCOM.MIL/
15. USCENTCOM; 06 SEP 18; JASON DUNHAM COUNTS 2,521 AK-47s; HTTPS://WWW.CUSNC.NAVY.MIL/MEDIA/NEWS/DISPLAY/ARTICLE/1621512
16. DOJ; 07 DEC 21; UNITED STATES PREVAILS IN ACTIONS TO SEIZE AND FORFEIT IRANIAN TERROR GROUP’S MISSILES AND PETROLEUM; HTTPS://WWW.JUSTICE.GOV/OPA/PR/UNITED-STATES-PREVAILS-ACTIONS-SEIZE-AND-FOREFIT-IRANIAN-TERROR-GROUP’S-MISSILES-AND-PETROLEUM
17. IRAN DEFENSE MINISTRY; 17 AUGUST 2017; IRAN: DEFENSE MINISTRY, AEROSPACE COMPANIES PRESENT ‘ACHIEVEMENTS’ AT MAK'S EXHIBITION IN RUSSIA; HTTPS://WWW.FARSNEWS.COM
18. THE ROYAL UNITED SERVICES INSTITUTE FOR DEFENCE AND SECURITY STUDIES (RUSIA); 10 JAN 2024; SECURING THE RED SEA: HOW CAN HOUTHI MARITIME STRIKES BE COUNTERED; HTTPS://WWW.RUSI.ORG/EXPLORE-OUR-RESEARCH/PUBLICATIONS/COMMENTARY/SECURING-RED-SEA-HOW-CAN-HOUTHI-MARITIME-STRIKES-BE-COUNTERED
20. DIA; FEBRUARY 2024; IRAN ENABLING HOUTHIS ATTACKS ACROSS THE MIDDLE EAST; HTTPS://WWW.DIA.AMAAS79.MIL/NEWS-FEATURES/ARTICLES/TWITTER-COMMENTS/HOUTHI-ATTACKS-ACROSS-THE-MIDDLE-EAST
22. TWITTER; U.S. CENTRAL COMMAND SEIZES IRANIAN ADVANCED CONVENTIONAL WEAPONS BOUND FOR HOUTHIS; 11 JAN 2024.
23. (U) USGI INSPECTION PHOTOS; 10 APR 2024; QUM EJEALEH AND TURBOPUMP EQUIPMENT ACQUIRED DURING JANUARY 2024 USGI INTERDICTION, WITH PHOTOS TAKEN DURING USGI INSPECTION.
24. DIA; FEBRUARY 2024; IRAN ENABLING HOUTHIS ATTACKS ACROSS THE MIDDLE EAST; HTTPS://WWW.DIA.AMAAS79.MIL/NEWS-FEATURES/ARTICLES/TWITTER-COMMENTS/HOUTHI-ATTACKS-ACROSS-THE-MIDDLE-EAST
25. US interdiction photos; U.S. CENTRAL COMMAND; 8 MAR 2024.