

POWERING THE HOUTHIS

FRONTLINE PERSPECTIVE

# ANALYSING HOUTH MISSILE COMPONENTS

May 2026

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## ABBREVIATIONS

<b>CAR</b>	Conflict Armament Research	<b>NRF</b>	National Resistance Force
<b>CHPL</b>	Common High Priority List	<b>UAV</b>	Uncrewed aerial vehicle
<b>IED</b>	Improvised explosive device	<b>UUV</b>	Uncrewed underwater vehicle
<b>MANPADS</b>	Man-portable air defence system		

## METHODOLOGY

CAR field investigation teams document illicit weapons, ammunition, and related materiel in conflict-affected locations and trace their supply sources. The teams inspect weapons in a variety of situations—whether recovered by state security forces, surrendered at the cessation of hostilities, cached, or held by insurgent forces. They document all items photographically, date and geo-reference the documentation, and incorporate contextual interview data gathered from the forces in control of the items at the time of documentation. CAR also contracts local data collectors whom it has trained to support data gathering in sensitive locations.

CAR occasionally uses information and photographs from social media as background information but does not base its investigations on them, since the provenance of such data is often difficult to verify. Moreover, open-source information does not always provide the detailed physical elements—notably external and internal markings—required to trace weapons and ammunition.

CAR traces only a portion of the items it documents in the field. This traced materiel is usually of particular significance to CAR investigations. If numerous individual items were to be traced, an excessive burden would need to be placed on the national governments and manufacturing companies concerned.

Furthermore, some of the documented items are untraceable. For example, most loose small-calibre ammunition lacks the lot numbers required to identify it in production, sales, and export records.

Similarly, records pertaining to the production, sale, and export of many older weapons are no longer available. CAR supplements formal weapon tracing by analysing physical evidence gathered from the weapons themselves and from related materiel; obtaining government, commercial, transport, and other documents; and interviewing individuals with knowledge or experience of the equipment transfers under scrutiny.

CAR retains all documents, interview notes, emails, recordings, photographs, and other data obtained from third parties in a secure, encrypted format. Wherever relevant, CAR publications refer to these items as being ‘on file’. To protect its sources, CAR refrains from publishing all details about them and the circumstances under which it acquired certain items. CAR’s sources provide all such items willingly and with full knowledge of their use by CAR. CAR does not undertake undercover work or use other clandestine investigation methods. For privacy reasons, CAR publications do not refer to private individuals by name, except in the case of well-known public officials.

Unless otherwise specified, no reference to the names of countries of manufacture, manufacturing companies, intermediary parties, distributors, or intended end users implies illegality or wrongdoing on the part of the named entity. CAR would like to acknowledge the cooperation of the governments, companies, and individuals whose responses to CAR’s trace requests and provision of other information have been critical in its ongoing investigations.



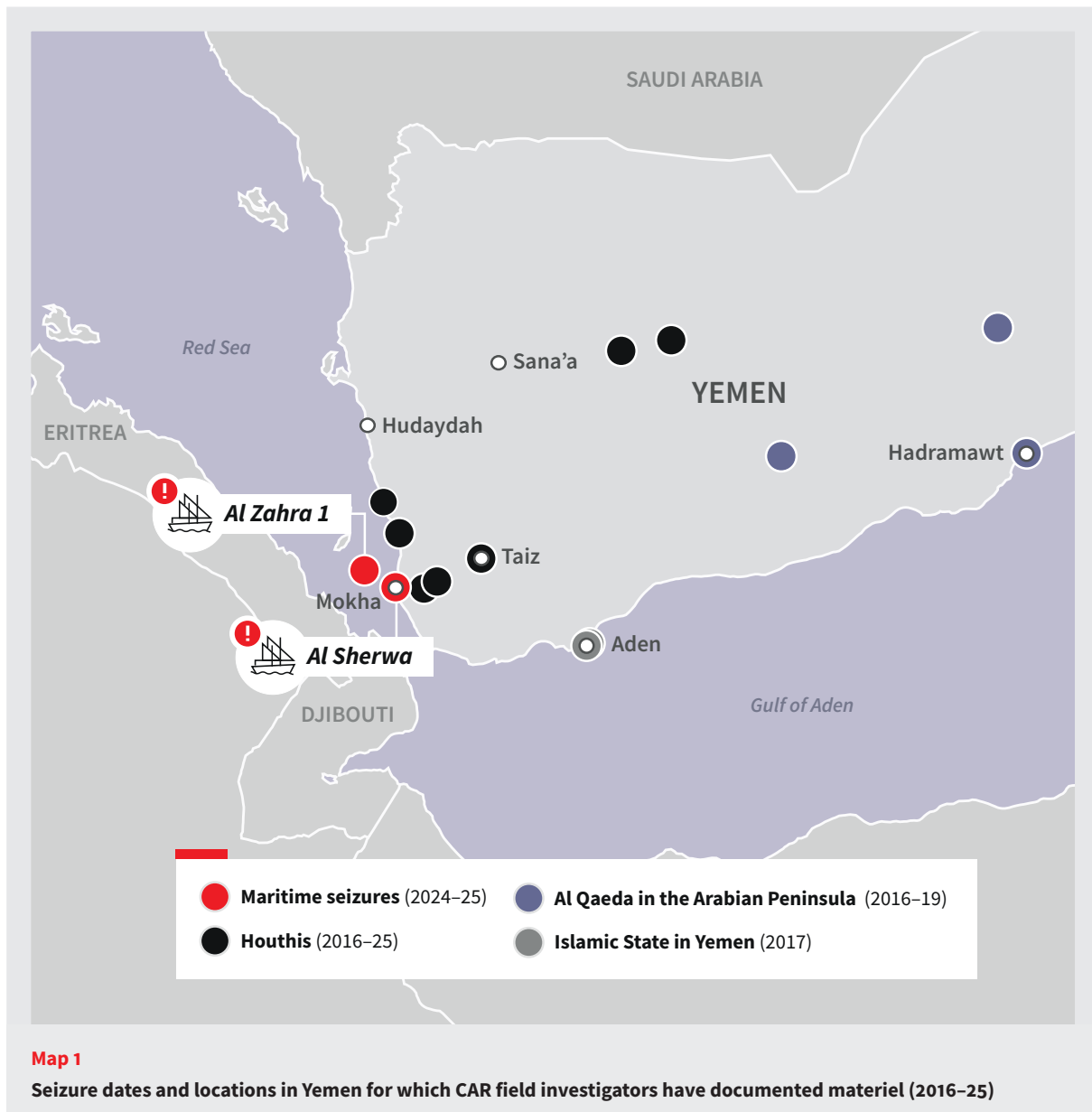
*The materiel recovered aboard the Al Sherwa had been concealed inside industrial machinery.*

## INTRODUCTION

### TRACKING THE HOUTHII THREAT

Over the past decade, Conflict Armament Research (CAR) has actively tracked the evolution of technical capabilities available to Ansar Allah ('Houthi') forces. CAR field investigators have worked with partner authorities in Yemen and the wider Gulf region since 2016 to document weapons, ammunition, uncrewed systems, and improvised explosive devices (IEDs) developed or acquired by the Houthis (see Map 1). The Houthis have been subject to a targeted United Nations Security Council arms embargo since April 2015 (UN, n.d.).<sup>1</sup>

As discussed in Box 1 (see page 5), the Houthi threat has evolved rapidly in the ten years that CAR has been working in Yemen and across the Gulf region (CAR, 2020). The group's arsenal now includes an array of advanced missiles and uncrewed aerial vehicles (UAVs) that pose a direct threat to shipping, critical infrastructure, and populated areas in the wider region. CAR investigators have documented more than 800 missile and UAV components recovered in recent maritime seizures in the Red Sea. Collectively, these items provide critical insight into the composition



and nature of advanced conventional weapon systems—like missiles and UAVs—in Houthi possession. These components—largely electronics such as antennas, engines, navigation systems, and microprocessors—can often be used in a range of both civilian and military products and are often broadly referred to in international policy fora as ‘dual-use’.<sup>2</sup> CAR’s research has shown that many of these components are commercially available and widely found on the open market (CAR, 2025 b).

This Frontline Perspective examines the missiles and UAVs available to the Houthis in Yemen, as identified through CAR’s analysis of documented components. It provides evidence of a continuing supply of Iranian-origin materiel to the Houthis in Yemen and explores the nature of the multipurpose components on which these missiles rely.

### BOX 1 — CAR IN YEMEN

CAR has documented a wide array of military materiel in Yemen, recovered not only from Houthi forces but also Al-Qaeda in the Arabian Peninsula and Islamic State in Yemen. CAR has documented small arms and light weapons recovered from all three groups, including anti-tank guided weapons, Chinese and Russian man-portable air defence systems (MANPADS), and AM-50 99 mm anti-materiel rifles (CAR, 2021). In addition, CAR has documented more than 7,500 ammunition units, including anti-personnel and anti-vehicle landmines (CAR, 2018).

CAR’s reporting from Yemen has highlighted new and evolving Houthi threats to regional security, including the introduction of IEDs camouflaged to resemble natural rocks (CAR, 2018, pictured right), the increasing advancement in UAV technology (CAR, 2020), and the use of a water-borne IED (CAR, 2017). In March 2025, CAR investigators uncovered evidence that Houthi forces appeared to be attempting to use hydrogen to power their uncrewed systems, an alarming evolution if confirmed and the first time any non-state armed group in the world has sought to use such technology (CAR, 2025a).

Since CAR began field operations in Yemen in 2016, it has submitted more than 220 trace requests and formal requests for information on weapon components documented in the country, including 157 for items that form part of the 2024–25 Red Sea seizures. CAR has submitted these requests to entities headquartered in 23 countries and territories. To date, CAR has received responses to one-third of these requests (73 responses, a 33 per cent response rate).

CAR continues to collaborate with manufacturers, distributors, and other transfer intermediaries to identify the onward source of supply and how these items—many of which are commercially available and can be used in both military and civilian products—ended up embedded in Houthi missiles and UAVs.



## A SEIZURE OF UNPRECEDENTED SCOPE

Between August 2024 and June 2025, the National Resistance Force (NRF)—a Yemeni military coalition based in the Red Sea port of Mokha—interdicted several illicit shipments destined for Houthi forces. CAR investigators documented materiel seized in two of these seizures and received data from local partners for three others (see Table 1). Among them was the interdiction of the *Al Sherwa* dhow on 25 June 2025 (see Figure 1), which the US Central Command described as the largest in NRF history (US Central Command, 2025).

A CAR field investigation team deployed to document a sample of the cargo aboard the vessel and encountered a scale and scope of weaponry unprecedented in CAR’s previous investigations in the region, including:

- advanced anti-ship and surface-to-air missiles, including models previously not observed by CAR in Houthi stockpiles;
- component modules for ballistic missiles and UAVs;
- air-defence missiles, including MANPADS; and
- items relevant for military training and intelligence investigations.

The materiel recovered aboard the *Al Sherwa* had been concealed inside industrial machinery. Some items were found stashed inside vehicle batteries and air compressor tanks that had been cut open and rewelded closed (CAR, 2025c).

**Table 1**  
Maritime shipment seizures of materiel destined for Houthi-controlled ports, August 2024–June 2025

Interdiction date	Vessel	Cargo
3 August 2024	<i>Al Zahra 1</i>	Commercial off-the-shelf UAVs; components and fuel cells for uncrewed systems; UAV electronic countermeasure and detection systems (CAR, 2025a)
12 February 2025	<i>Zaid</i>	Urea fertiliser
24 February 2025	<i>Al Ishak</i>	Sodium nitrate
30 March 2025	<i>Al Muhit</i>	Detonating cord and electric detonators
16 April 2025	<i>Al Gariya</i>	Detonating cord and electric detonators
25 June 2025	<i>Al Sherwa</i>	Missiles, including warheads and seekers; components for missiles and uncrewed systems; items relevant for military training and intelligence investigations (CAR, 2025c)

**Note:** Highlighting indicates that CAR investigators physically documented and seized materiel.



**Figure 1**

**NRF interdiction of the *Al Sherwa* dhow on 25 June 2025. CAR investigators inspected a recovered sample of the cargo on 27–29 July 2025.**

Source: © US Central Command

Transfer documentation accompanying the cargo described the shipment as containing agricultural machinery and fertiliser.

Covert shipping methods are typical of such seizures. In several cases the shipment was accompanied by falsified shipping manifests. According to NRF authorities, the materiel recovered aboard the *Al Zahra 1*—a sample of which CAR investigators documented in November 2024 (CAR, 2025a)—had been hidden in a cargo of more than 15,000 kg of biuret (a urea by-product) and 9,000 kg of ammonium nitrate fertiliser. While fertiliser is a common trading commodity on dhows in the Red Sea, the discovery of this material alongside missile and UAV components suggests that it may have been intended as a precursor for homemade explosives.<sup>3</sup>

**INVESTIGATORS  
RECORDED COMPONENTS  
LINKED TO AT LEAST A  
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HOUSHI POSSESSION**

## EVOLVING THREAT CAPABILITY

The Houthi missile threat has grown rapidly since CAR began operating in Yemen. When the Houthis first acquired this capability in their 2014 capture of Yemeni government stockpiles of anti-ship missiles, their holdings were mostly antiquated Soviet-era systems (Hinz, 2024).

CAR's inspection of components recovered in the June 2025 *Al Sherwa* seizure alone link to at least a dozen weapon systems, including ten missile types. Anti-ship, surface-to-air, and ballistic missiles are among these weapons, demonstrating that the Houthis now possess a range of advanced offensive capabilities (see Table 2).

CAR has identified these systems by analysing the labels on their components. As discussed in the next section, these labels refer to model designations used by Iran. Determining equivalent Houthi designations is not always possible given that the Houthis have not publicly acknowledged this external supply.

Investigators recorded components linked to Iranian-origin missiles not previously observed by CAR in Houthi possession (CAR, 2025c). One recent system is the Ghadr-380 anti-ship cruise missile, which was officially unveiled in Iran in February 2025 (AFP, 2025).<sup>4</sup> There is little confirmed public evidence of the capabilities of the Ghadr-380, but Iranian sources claim that it has an effective range of more than 1,000 km (Weichert, 2025).

**Table 2**  
Missile and UAV systems documented by CAR in July 2025

System designation	Houthi designation (if known)	Type	Components documented (2025)
Ghadir	Al-Mandab 2	Anti-ship cruise missile	98
Ghadr-110	Sejil	Anti-ship cruise missile	37
Ghadr-380	Sayyad	Anti-ship cruise missile	11
Rezvan/Qiam	Burkan-3/Zulfiqar	Ballistic missile	52
358	Saqr	Surface-to-air missile	62
Kowsar-200		Surface-to-air missile	40
Ghaem-118		Surface-to-air missile	19
Taer	Barq series	Surface-to-air missile	31
351 (Paveh)	Quds series	Surface-to-surface missile	89
Sayyad	Sammad	One-way attack UAV	5
Shahed-107		One-way attack UAV	8

**Note:** In addition to the components listed in this table, CAR has documented more than 350 items that it has not yet linked to a specific missile or UAV system. Missile designations are drawn from Barrie (2023); Hinz (2024; 2025); Mitzer and Oliemans (2021); and USDIA (2024b).

## ASSEMBLY LABELS

Many of the components recovered in the *Al Sherwa* seizure feature distinctive labels. These labels include Iranian model designations, an indication—despite public denials—that Iran-linked supply networks continue to support the shipment of these components to the Houthis (CAR, 2025c).

This report presents the first public analysis of these labels, which—to CAR’s awareness—were first observed in a maritime seizure carried out by UK forces in 2023.

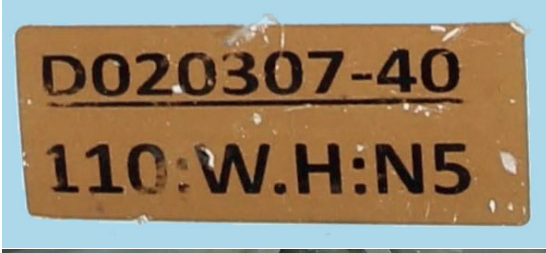

Initial analysis shows that these labels follow standardised patterns and probably constitute instructions designed to guide the Houthis in assembling advanced weapons. This observation is informed in large part by the total absence of such labels on any of the hundreds of complete Iranian-origin systems that CAR has documented elsewhere in its global operations since 2023, including in Ukraine. CAR continues to investigate the code details contained on these labels, parts of which appear to be sequencing codes that may relate to production, inventory, or assembly information.

### COLOUR CODING

In analysing the June 2025 seizure, CAR observed labels in six different colours. Each colour appears to relate to a distinct type of weapon.

Blue labels, for example, reference surface-to-surface missile systems; gold labels relate to anti-ship systems; and green labels represent air defence systems (see Table 3).

**Table 3**  
Selected colour-coded component labels

Label colour	Missile type	Example	Notes
Blue	Surface-to-surface		Navigation system associated with a 351 surface-to-surface cruise missile (with the Houthi designation ‘Quds’)
Gold	Anti-ship		Warhead associated with a Ghadr-110 anti-ship cruise missile (with the Houthi designation ‘Sejil’)
Green	Air defense		Fuze associated with a 358 surface-to-air missile (with the Houthi designation ‘Saqr’)

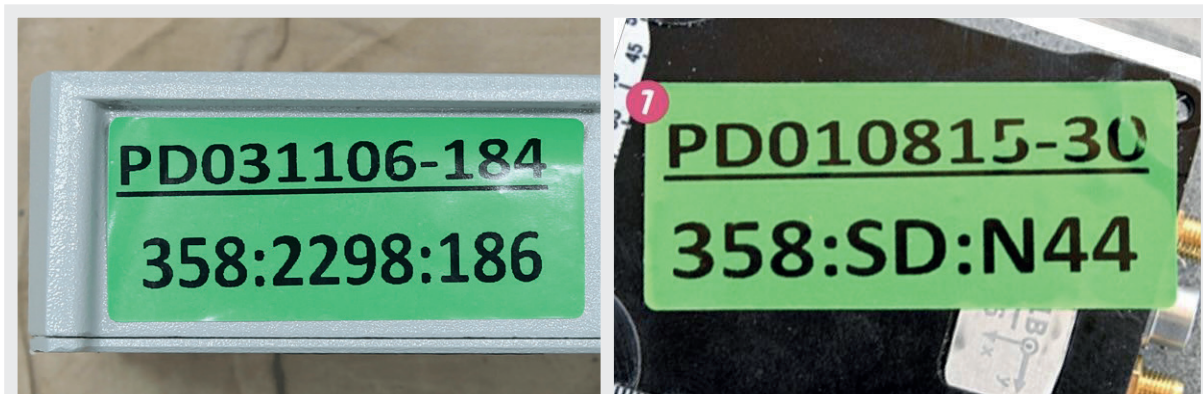
## MODEL DESIGNATION

The first part of the bottom row of marks on each label is almost certainly a model designation. These designations are not used by the Houthis, but rather by Iran. This is the case across the codes that CAR was able to identify in the June 2025 shipment.

For example, CAR investigators documented components with serialised labels that contained the code '358' (see Figure 2). This number refers to a loitering surface-to-air missile known as 358, developed in Iran (Barrie, 2023). The 358 missile was first observed in its nearly fully assembled form in maritime seizures in 2019 (USCC, 2020). The Houthi designation for this missile ('Saqr') is not present on any of the '358' labels that CAR has observed. This example illustrates how the

Houthis are still reliant on external supply sources and may indicate that they face limitations in terms of domestic industrial capacity, particularly with respect to the construction of advanced missiles and UAVs.

CAR has corroborated this pattern through comparison with previous maritime seizures carried out by international naval forces. On 28 January 2024, for instance, US forces seized a large number of missile components on a vessel in the Arabian Sea. These components include inertial navigation systems and air data modules with green labels, indicating association with a surface-to-air missile. These labels all share the same start code format of '358' (USDIA, 2024a, Figure 2).



**Figure 2**

Left: A '358' sticker documented by CAR on an air data module in June 2025. Right: A '358' sticker on material recovered by US forces in January 2024.

© USDIA (right)



Cargo recovery of materiel seized aboard the Al Zahra 1 in 2024.



**Figure 3**

**Left:** A label on the inertial navigation system associated with a Rezvan surface-to-surface ballistic missile, documented by CAR in Yemen in July 2025. **Right:** A label on the nose cone of a Rezvan seized by the HMS *Lancaster* in February 2023.

Likewise, CAR documented 52 components marked with the code 'RZ' (see Figure 3). This code almost certainly relates to the Rezvan ballistic missile, referred to by the Houthis as the 'Burkan-3'. The Houthis first used this missile in 2019 in an attack against Saudi Arabia and subsequently in attempted attacks against Israel. US intelligence analysts have demonstrated that the payload, fins, and other features of the Houthis' Burkan-3 are identical to those of the Rezvan (USDIA, 2024b). Cross-referencing with previous maritime seizures—in this case, carried out by the British Royal Navy ship HMS *Lancaster* in February 2023—further affirms CAR's assessment (NAVCENT, 2023).

**THE MISSILE MODEL DESIGNATIONS DOCUMENTED BY CAR ARE NOT USED BY THE HOUTHIS, BUT RATHER BY IRAN**

## MODULE TYPE DESIGNATION

The second subsection of the bottom line is an alphanumeric code that refers to the specific missile module. CAR has identified dozens of variants of this code and has determined the meaning of at least 15, including the following:

<b>ACT</b>	Actuator
<b>CBL</b>	Cable
<b>ENG</b>	Engine
<b>GPS</b>	GPS module
<b>INS</b>	Inertial navigation system
<b>L.F_MJ2</b>	Laser fuze MJ2
<b>STBL</b>	Stabiliser
<b>W.H</b>	Warhead

Figure 3 shows a code (NOK\_GRAF) whose meaning CAR has yet to determine. As the label is affixed to the nose cone of a missile, it is possible that it refers to the material type, i.e. graphite tip.

Collectively, these labels are a window into the nature and extent of Iranian support to the Houthis. They provide at least three types of insight.

First, they reveal a high degree of organisation. To CAR's knowledge, the labels are specific to pre-assembly shipments of materiel intended for the Houthis and have not been observed in any other context. They contain multiple codes that appear to be serialised, most likely to support assembly by the Houthis in Yemen.

Second, the labels speak to the breadth and variety of weapon systems available to the Houthis. These include weapons that Iran did not publicly disclose until 2025, such as the Ghaem-118 surface-to-air missile. It is possible that some of the codes that CAR has yet to decipher relate to weapon systems that have not yet been publicly displayed.

Third, as noted above, the codes suggest that the Houthis face limitations in terms of their capacity to produce these weapon systems independently. While a large number of the documented components did not feature labels—and therefore could be replacements for weapons that the Houthis already possess—the fact that so many appear to be intended as 'assembly kits' suggests that external support remains a key enabling factor in the Houthis' ability to sustain operations in Yemen and the wider region.



*The interior of the Al Zahra 1 cargo hold.*

## BOX 2 — LABELS INDICATING UNDERWATER WEAPON COMPONENTS

Among the components that CAR documented in the June 2025 maritime seizure were several items with gold-coloured (i.e. anti-ship) labels marked 'SAGH' and 'QAS'. Documented components include two- and three-bladed marine propellers (see Figure 4).

Consultations with maritime security experts indicate that these components are highly likely to be intended for underwater use, as part of one-way attack uncrewed underwater vehicles (UUV), or loitering torpedoes.



**Figure 4**  
Propellers with gold 'SAGH' and 'QAS' labels, documented by CAR in June 2025.

On 28 January 2024, US Coast Guard Cutter *Clarence Sutphin Jr* seized a large number of components aboard a trading vessel in the Arabian Sea (USCC, 2024).

The seized shipment included at least one propeller and three gold-colour labels on components that the US Central Command assessed to be for UUVs (Covert Shores, 2024). These items are highlighted in Figure 5.



**Figure 5**  
Materiel recovered by the US Coast Guard on 28 January 2024, including components for UUVs (highlighted).

© US Central Command

# INSIDE THE MISSILES

## FOREIGN TECHNOLOGY

CAR field investigators documented more than 800 missile and UAV components in the June 2025 *Al Sherwa* seizure. These were branded with the marks of companies headquartered in at least 16 countries and territories: Austria, China, France, Germany, Iran, Ireland, Italy, Japan, the Netherlands, the Republic of Korea, the Russian Federation, Switzerland, Taiwan, Ukraine, the United Kingdom, and the United States.

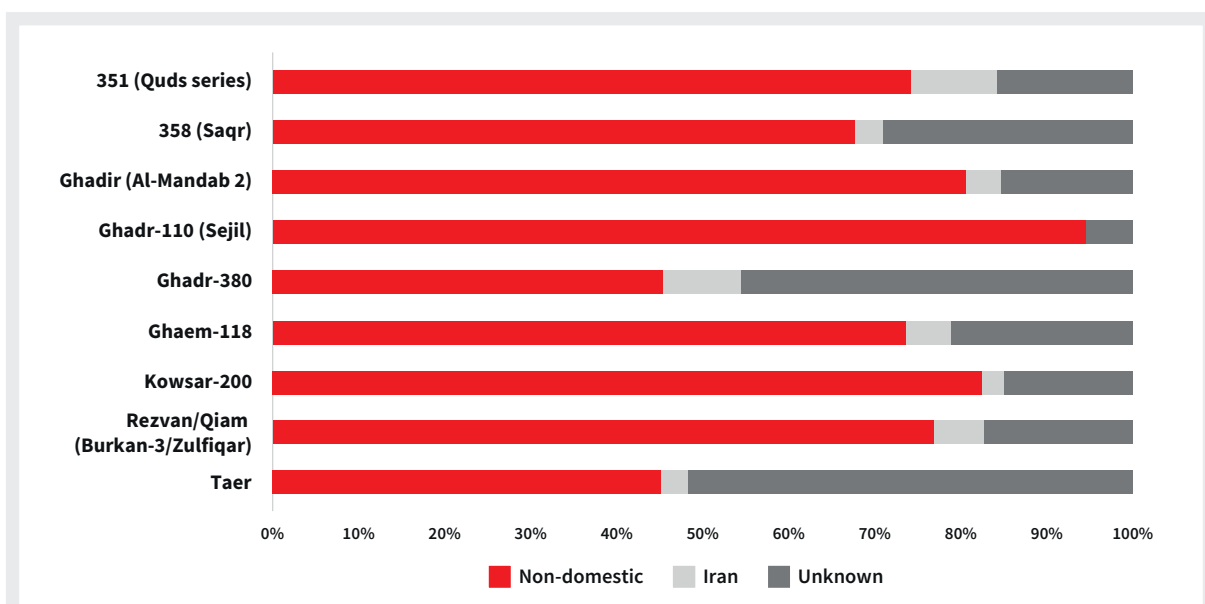
Two factors complicate efforts to determine a country of production for components. First, many components bear the names of companies that design them, rather than the plants that produce them, which may be located in other countries. Second, CAR has established through formal tracing that some components used in documented weapon systems are counterfeit. CAR is conducting tracing operations for these components to confirm their provenance and identify their onward transfer supply chains.

Only 5 per cent of the documented missile and UAV components in the seizure can be linked to Iranian production. Iran’s high dependency on non-domestic technology affirms a trend long evidenced by CAR’s global component investigations. In relation to Iranian weapon

production, CAR first recognised this dependency in November 2022, when its field investigation team physically documented a Shahed-131, two Shahed-136, and one Mohajer-6 UAVs (CAR, 2022).<sup>5</sup> A 2025 analysis of 1,400 Shahed-136-pattern UAV components documented by CAR in Ukraine showed that all but 15 were manufactured outside Iran (CAR and David Hayes, 2025).

CAR identified 98 components linked to the Al-Mandab 2, the Houthi designation for the Ghadir anti-ship cruise missile. At least 94 of these components were produced outside Iran, including electronic integrated circuits manufactured in Germany, the Netherlands, the Republic of Korea, Switzerland, and the United States. CAR identified 67 unique component models linked to the Al-Mandab 2, bearing the brands of at least 20 manufacturers in nine countries. This trend was broadly consistent across all the missiles that CAR identified in the *Al Sherwa* 2025 seizure (see Figure 6).

At the time of writing, CAR was able to identify the date of production of only 14 per cent of the components documented in the June 2025 maritime seizure. Since the formal tracing process allows original manufacturers to validate or



**Figure 6**  
Proportion of missile components manufactured outside Iran, as identified in the June 2025 *Al Sherwa* seizure.

elaborate on component dating, this proportion is likely to increase. Of the components whose visible markings permitted CAR to determine a date of production, almost all (94 per cent) were produced since 2020, and 38 per cent were produced in 2023 or 2024.

These components span four different missiles: the Ghadir (Al-Mandab 2), the 351 (Quds series),

the 358 (Saqr), and the Ghadr-110 (Sejil). All the Al-Mandab 2 and Sejil components for which CAR could visually determine a year of production were produced between 2020 and 2023. These findings indicate that the Houthis are receiving modern systems—rather than old systems from historic stockpiles—and suggest that their procurement networks are facilitated by a short, active, and persistent supply chain.

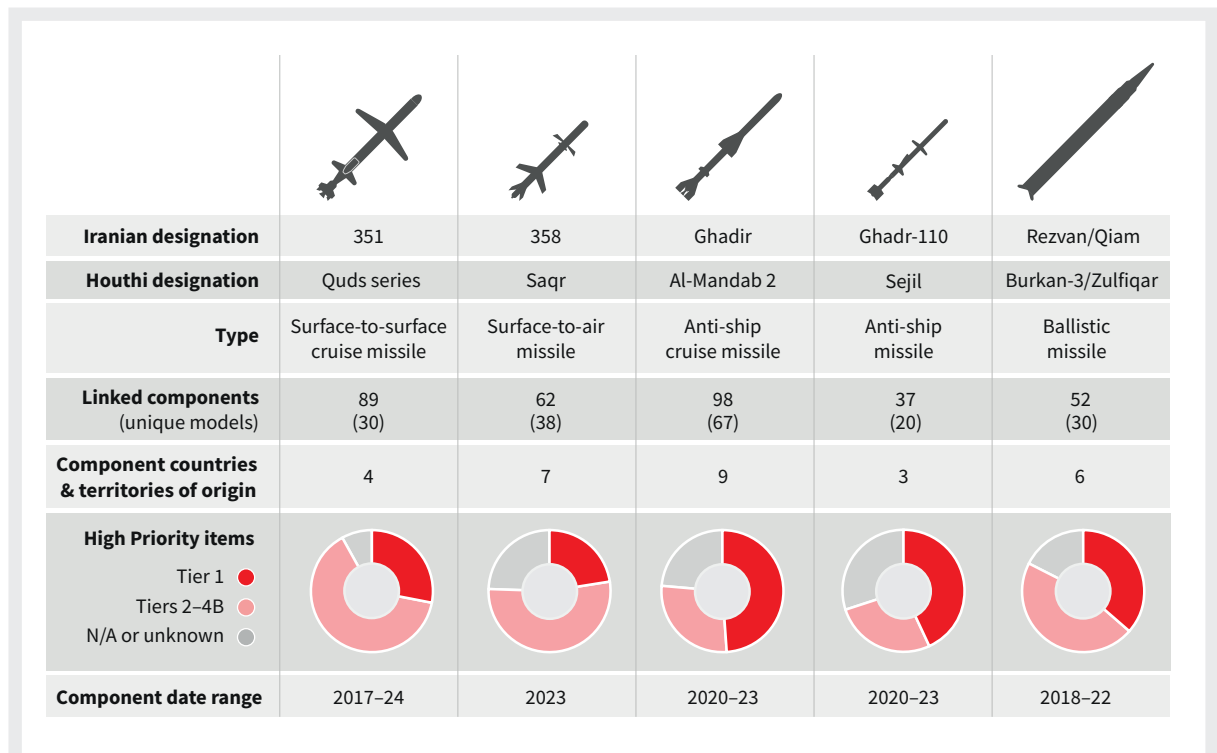
## HIGH-PRIORITY COMPONENTS

CAR has found that most of the documented components in Houthi missiles and UAVs are ‘high-priority’ items that would fall under the Common High Priority List, or CHPL (European Commission, 2024). The CHPL lists 50 tariff lines, organised into four tiers.

The G7—Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States—and the European Union first issued the CHPL to help assess items critical to the Russian Federation’s weapon development in relation to the conflict in Ukraine. CAR has applied the CHPL to other advanced conventional weapons

documented by its field teams, an exercise that clearly demonstrates that the CHPL is applicable to weapons produced by a range of other actors, including Iran and North Korea. It is therefore an effective and relevant reference guide for export and trade control tools more broadly and can help assess risks of dual-use and other sensitive goods and technologies from being diverted for military purposes.

CAR conducted a comparative analysis of components linked to five key missile systems identified in the June 2025 *Al Sherwa* seizure (see Figure 7):



**Figure 7**  
A comparison of five key Houthi missile systems.

- the 351 (Quds series) surface-to-surface cruise missile;
- the 358 (Saqr) surface-to-air missile;
- the Ghadir (Al-Mandab 2) anti-ship cruise missile;
- the Ghadr-110 (Sejil) anti-ship cruise missile; and
- the Rezvan/Qiam (Burkan-3/Zulfiqar) ballistic missile.

CAR found that these weapon systems contain high proportions of ‘high-priority’ components.<sup>6</sup> Almost half of the documented components linked to the Al-Mandab 2, for example, would be microelectronics covered by Tier 1 of the CHPL—the category deemed especially sensitive for trade controls. This tier covers integrated circuits, such as processors, controllers, converters, logic circuits, and amplifiers. The Sejil contained a similarly high proportion of Tier 1 components. CAR identified 43 per cent of all the components it linked to the Sejil as top-tier components.

CAR’s field evidence consistently demonstrates that many of the components recovered among missile and UAV remnants are covered by the CHPL. Before the CHPL was introduced, many of the components that the list seeks to address were not considered a priority focus for strategic export controls.

The CHPL helps direct targeted regulatory attention to components that, while serving multiple purposes, have been shown to play a key role in advanced conventional weapon production (CAR, 2025c).

Table 5 (see page 17) is a summary of the Tier 1 component types that CAR investigators identified in the *Al Zahra 1* and *Al Sherwa* seizures. These fall under four specific customs codes: 8542.31, 8542.32, 8542.33, and 8543.39. In total, CAR determined that almost one-third (30 per cent) of the components documented in these two seizures fall under one of these four codes.



Seized materiel from the June 2025 Al Zahra 1 seizure assembled and displayed for documentation.

**Table 5**  
**Tier 1 components identified in the *Al Zahra 1* and *Al Sherwa* seizures, by weapon system**

System	Countries and territories of incorporation	Amplifier	Interface	Logic	Memory	Microelectronics	Sensor	Voltage converter	Others*
351 (Quds series)	Taiwan	0	12	3	6	3	0	0	1
	United States								
358 (Saqr)	China	1	6	2	3	0	0	0	1
	United States								
Ghadir (Al-Mandab 2)	Germany	3	28	4	5	6	0	1	0
	Netherlands								
	Republic of Korea								
	Switzerland								
	United States								
Ghadr-380	Switzerland	0	0	0	0	1	0	0	0
Ghadr-110 (Sejil)	United States	0	5	2	3	2	0	0	4
Ghaem-118	Netherlands	0	2	1	0	1	0	1	0
	United States								
Kowsar-200	Switzerland	0	6	1	1	4	0	0	0
	United States								
Rased	United States	0	0	0	0	1	0	0	0
Rezvan (Burkan-3)	Germany	3	6	4	5	1	0	0	0
	Switzerland								
	United States								
Taer	Switzerland	0	2	1	0	0	0	2	1
	United States								
Not identified	Austria	9	51	2	5	22	1	1	16
	China								
	Italy								
	Japan								
	Netherlands								
	Switzerland								
	United Kingdom								
United States									
<b>Total</b>		<b>16</b>	<b>118</b>	<b>20</b>	<b>28</b>	<b>41</b>	<b>1</b>	<b>5</b>	<b>23</b>

Note: \*Other items include digital synthesizers, high-side drivers, and digital isolators.

## CONCLUSION

CAR's field investigations in Yemen provide a uniquely granular data set on the technologies enabling and sustaining Houthi missile and UAV production. CAR's analysis—derived from physical documentations verified by field investigators—therefore provides national regulators, enforcement bodies, and policymakers with authoritative evidence on which to inform their assessments of the Houthi threat.

CAR's evidence shows that as of June 2025, the Houthis were being supplied with new missiles, some of which had only just been publicly disclosed. These weapons span a significant array of threat capabilities, including advanced anti-ship missiles, as well as large missile systems with a range capable of threatening neighbouring countries.

These missiles were not supplied in assembled form. Rather, they were packaged and labelled with codes indicating which components belonged to what missile system. The analysis indicates that assembly of these components requires a degree of domestic industrial capability, suggesting that the Houthis maintain a corresponding level of technical and material expertise.

As this Frontline Perspective details, while the Houthis have declared these missiles to be locally produced, the identification of Iranian missile

## AS MUCH AS THE HOUTHIS DEPEND ON IRANIAN-ORIGIN WEAPONS, CAR'S INVESTIGATIONS SHOW THAT IRAN ITSELF DEPENDS ON CRITICAL FOREIGN TECHNOLOGY TO SUSTAIN ITS PRODUCTION OF MISSILES AND UAVS

designations on the shipped components implies that Houthi domestic production of those systems is limited and that the group is reliant on external supply. Moreover, as much as the Houthis depend on external supply of Iranian-origin weapons, Iran itself clearly depends on critical foreign technology to sustain its production of missiles and UAVs. This reliance underscores a clear supply chain vulnerability that can only be elaborated through systematic and sustained field documentation.



The Gaem-118 surface-to-air missile (black).

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## ENDNOTES

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- 1 The Houthis were listed ‘pursuant to paragraph 5 of resolution 2624 (2022) as subject to the measures imposed by paragraph 14 of resolution 2216 (2015) (targeted arms embargo)’ (UN, n.d.).
- 2 In November 2025 the United Nations Security Council adopted resolution 2801. Among its provisions, it requested that the Panel of Experts report on the supply or transfer of dual-use components and precursor chemicals to Yemen where they could be used by individuals or entities designated by the Committee. UNSC, S/RES/2801 (2025).
- 3 The co-location of different materiel types is characteristic of transfers facilitated by illicit supply networks in the Gulf and was a focus of CAR’s investigations into the supply to non-state armed groups in Bahrain between 2013 and 2018. CAR, 2025d, pp. 29-32.
- 4 The Houthis previously displayed the Ghadr-380 in a 2023 parade under the designation ‘Sayyad’.
- 5 CAR’s analysis of these UAVs identified 495 components produced by 70 manufacturers, with 82 per cent marked as having been produced in the United States (CAR, 2022)
- 6 This is based on CAR’s independent analysis and should be understood as an indicative assessment, as CAR cannot definitively attribute each component to a corresponding customs code. This challenge is partly reflective of inconsistencies in application of these codes across industry and policymakers.

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