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Letter dated 18 May 2023 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the Secretary-General and the President of the Security Council

On 23 February 2023, in the Gulf of Oman, HMS *Lancaster* seized components for medium-range ballistic missiles that the United Kingdom assesses were being smuggled from Iran to the Houthis. The transfer of such missiles to the Houthis violates the arms embargo set out in paragraph 14 of Security Council resolution 2216 (2015) and the prohibition on the transfer of such items from Iran set out in paragraph 4 (a) of annex B to Council resolution 2231 (2015).

Separately, the Armed Forces of Ukraine have loaned the United Kingdom two examples of Iranian one-way attack unmanned aerial vehicles (Shahed-131 and Shahed-136) recovered from the battlefield in Ukraine. Both weapon systems have characteristics that indicate that their export from Iran was in violation of paragraph 4 (a) of annex B to Security Council resolution 2231 (2015).

We invited the Security Council resolution 2231 (2015) Secretariat team to visit the United Kingdom in May to inspect this evidence relating to violations of resolution 2231 (2015), following the previous visit in October 2022.

As the team has not been able to visit the United Kingdom in time for the upcoming mandated report of the Secretary-General on the implementation of Security Council resolution 2231 (2015), we wanted to share a document setting out the relevant evidence (see annex). We will also be extending invitations to Council members to visit London to see the evidence.

We look forward to welcoming the Security Council resolution 2231 (2015) Secretariat team to the United Kingdom to consider all evidence of violations of resolution 2231 (2015) ahead of the next report.

I would be grateful if you could circulate the present letter and its annex as a document of the Council.

(Signed) Barbara Woodward





Annex to the letter dated 18 May 2023 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the Secretary-General and the President of the Security Council



UK PRESENTATION OF EVIDENCE OF UNSCR 2231 VIOLATIONS





17 May 2023

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OVERVIEW

a. On 12th October 2022 the United Nations Security Council Resolution (UNSCR) 2231 Secretariat team visited the United Kingdom (UK) to inspect the items seized by HMS MONTROSE in the Gulf of Oman in January and February 2022. The seizure included turbojet engines and other components for the Iranian 'Project 351' land attack cruise missiles – the weapon type which had been used in attacks on the Kingdom of Saudi Arabia and the United Arab Emirates. The Iranian transfer of this weapon system violated UNSCR 2231.

b. The UK has since identified further evidence of Iranian weapons proliferation that warrants inspection by the UNSCR 2231 Secretariat team; there are two specific packs of evidence:

(1) On 23rd February 2023, in the Gulf of Oman, HMS LANCASTER seized components for medium range ballistic missiles that the UK assesses were being smuggled from Iran to the Houthis.

 (2) The Armed Forces of Ukraine have loaned the UK two examples of Iranian one-way attack uncrewed aerial vehicles (UAVs) (Shahed-131 and Shahed-136) recovered from the battlefield in Ukraine.

c. In both cases these weapons systems fall within S/2015/546 and thus their transfer violates paragraph 4(a) of Annex B to UNSCR 2231, which requires advance Security Council approval for the supply, sale or transfer of these items. This report provides an overview of these two evidence packs.

1. EVIDENCE FROM HMS LANCASTER MARITIME INTERDICTION IN THE GULF OF OMAN

i. INTRODUCTION

a. On 23 February 2023, whilst on routine maritime security patrols, Royal Navy frigate HMS LANCASTER seized weapons from a vessel travelling south from Iran. A United States fixed-wing intelligence surveillance and reconnaissance (ISR) platform initially detected the smuggling vessel travelling during the night at high speed in international waters south of Iran. The vessel was also tracked by HMS LANCASTER's Wildcat helicopter. The smugglers, both of whom identified as Iranian nationals, initially ignored hails from the Royal Navy and attempted to navigate to Iranian territorial waters but were apprehended before they could do so. A team of Royal Marines stopped and boarded the vessel in order to verify its flag status in accordance with international law. They discovered suspicious packages which were recovered to HMS LANCASTER.



Figure 1: Overview of HMS LANCASTER interdiction

b. Initial inspection revealed that the packages included Iranian versions of the Russian 9M133 Kornet anti-tank guided missiles (ATGM), known in Iran as 'Dehlavieh', and medium-range ballistic missile (MRBM) components, suspected to be from the Iranian 'Qiam' series of missiles.

c. The UK assesses that the transfer of the entire consignment is in violation of the arms embargo on the Houthis under UNSCR 2216 and that the transfer of the MRBM components is also in violation of paragraph 4(a) of Annex B to UNSCR 2231. The UK hosted the representative of the UN Panel of Experts pursuant to UNSCR 2216 in early May 2023 so that they could conduct their own inspection of the materiel. The following section of this report will provide the UK's current understanding of the parts of the consignment that are assessed to be in violation of UNSCR 2231. The items are now undergoing technical assessment, and further findings will be shared with the UN and partners when available.



Figure 2: Weapons seized from HMS LANCASTER's interdiction

ii. MEDIUM-RANGE BALLISTIC MISSILE COMPONENTS

Background

a. There are a variety of Iranian ballistic missiles in the 'Qiam' series, including the 'Rezvan', also known as the 'Borkan-3' or 'Zolfaghar'. First launched in 2019, the 'Rezvan' is a liquid-fuelled medium-range ballistic missile (MRBM) with a maximum range of approx. 1,400km. Transfer of the 'Rezvan' MRBM from Iran is in violation of paragraph 4(a) of Annex B to UNSCR 2231¹.

b. The 'Rezvan' was publicly displayed by Iran in September 2022 during an annual parade of the armed forces.² The Houthis also operate a variety of 'Qiam' ballistic missiles, including the 'Rezvan'. Due to serial numbers and markings on the components in the UK's possession, the UK assesses that the components recovered by HMS LANCASTER belong to the 'Rezvan' type of MRBM.





Figure 3: Medium-range ballistic missiles on display in Iran during an annual parade

¹ This is specified in the parameters mentioned in S/2015/546

² Iran unveils new medium-range ballistic missile during parade: State TV | Al Arabiya English

Components recovered by HMS LANCASTER

c. The components recovered by HMS LANCASTER include chemical batteries, graphite jet vanes and re-entry vehicle nose tips, estimated to be sufficient for at least four missiles. A full inventory and images of the MRBM components recovered by HMS LANCASTER are provided below.

Item	Quantity
Batteries	4
Jet vanes	16
Nose cones	6
Active navigation satellite antenna	1
Inertial navigation system	1

Table 1: Inventory of MRBM components recovered by HMS LANCASTER





Figure 4: Inertial navigation system components



Figure 6: Jet vane



Figure 5: Nose cone

2. EVIDENCE FROM UKRAINE

i. INTRODUCTION

a. The UK assesses that Iran has transferred more than 400 attack UAVs to Russia.

Open-source reporting indicates that Iran continues to supply UAVs to Russia, primarily of the Shahed variety.



Figure 7: Shahed-136 silhouette prior to impact in Ukraine (Source: Getty Images via New York Times, October 2022)

b. The Armed Forces of Ukraine have recovered several examples of the systems transferred from Iran to Russia: Shahed-131, Shahed-136 and Mohajer-6. These have been inspected in Kyiv by Conflict Armament Research analysts and reported in their subsequent open-source publication³. In April 2023 the Armed Forces of Ukraine loaned the UK examples of Iranian weapons used by Russia. The following pages provide an overview of the two systems currently loaned to the UK.

ii. SHAHED-131 ONE-WAY ATTACK UAV

Background

a. The Shahed-131 is an Iranian designed and produced 'one-way attack' uncrewed aerial vehicle. The system was first shown by Iran at an Iranian defence exhibition in 2015. It has since been used in the Middle East, notably in attacks against oil refineries in the Kingdom of Saudi Arabia in September 2019. The system has been exported to Russia and used in the course of their invasion of Ukraine since September 2022. Within Russia, the Shahed-131 is given the name 'Geran-1'.

³ "Dissecting Iranian Drones Employed by Russia in Ukraine" dated November 2022



Figure 8: Iranian defence exhibition (2015) with the Shahed-131 shown in background

Discussion

b. The Shahed-131 is a delta wing system powered by a Wankel internal combustion engine. It has a nose-mounted warhead and can be pre-programmed, using a GNSS-INS navigation system to attack stationary targets of a known location. The navigation system is designed to be resistant to jamming and spoofing countermeasures, using a controlled reception pattern antenna (CRPA) combined with internal processing to disregard jamming or spoofing signals.

Analysis

c. The Shahed-131 has been recovered from attacks, with many examples available in open-press reporting. The US Defence Intelligence Agency (DIA) produced a visual comparison of Shahed-131s recovered in Ukraine and those recovered in the Middle East⁴.

d. At the time of this report, the Ukrainian-recovered parts of the Shahed-131 loaned to the UK are being analysed. Initial UK assessment is that the UAV is Iranian; markings found on wing stabilizers are consistent with components found in Shahed-131 recovered in the Middle East. Transfer of the Shahed-131 from Iran is in violation of paragraph 4(a) of Annex B to UNSCR 2231 because its range exceeds 300km⁵.

⁴ DIA Iranian UAVs in Ukraine-A Visual Comparison.pdf

 $^{^{\}rm 5}$ This is specified in the parameters mentioned in S/2015/546

Recovered Shahed-131 (Geran-1) Components

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



Figure 9: Shahed-131 component comparison produced by US DIA



Figure 10: Shahed-131 system recovered from Ukraine with highlighted wing stabilizer markings



Figure 11: Shahed-131 debris shown in KSA (2019) with highlighted wing stabilizers

Additional imagery of Shahed-131 components in UK possession⁶



⁶ Blue barcodes on components have been added by the UK for cataloguing purposes













iii. SHAHED-136 ONE-WAY ATTACK UAV

Background

a. The Shahed-136 is an Iranian designed and produced 'one-way attack' uncrewed aerial vehicle (UAV). The system was first observed in Yemen in September 2020 and was subsequently unveiled by the Houthis as the 'Wa'id' in March 2021. Iran has since displayed the system on several occasions, most recently in May 2023, as shown in Figure 12 below.



Figure 12: Shahed-136 on display in May 2023

b. Iran also demonstrated the use of multiple Shahed-136 systems at the same time, seen during the December 2021 NOBLE PROPHET 17 exercises. The Shahed-136 has been used in the Middle East, notably in attacks against Gulf shipping. In late 2022, the system was first seen being used by Russia in their invasion of Ukraine and has since been used on multiple occasions.



Figure 13: Multiple Shahed-136s being used in exercises in Iran

Discussion

c. The Shahed-136 is a larger variation of the Shahed-131, incorporating the same delta wing design, but powered by a MADO-550 4-cylinder piston engine. The MADO appears to be a copy of a German-manufactured Limbach-550E. Like the -131, the system features a nose-mounted warhead and can be pre-programmed, using a hardened GNSS-INS navigation system to attack stationary targets of known location. As with the -131, the navigation system is designed to be resistant to jamming and spoofing measures.

d. These systems have also been seen to be used in attacks against commercial ships in the Gulf of Oman. This indicates a development in their ability to target moving vessels. Attacking a moving target requires a seeker able to lock onto a target and/or an operator in the loop with a real time sensor feed. Notably, debris from the MV CAMPO SQUARE attack in February 2023 has included an IRIDIUM satellite phone sim card, highlighting a potential for the system to be controlled beyond line of sight.

e. The -136 has a range of up to 2500km with a warhead weight of approximately 40kg. Transfer of the Shahed-136 from Iran is in violation of paragraph 4(a) of Annex B to UNSCR 2231 because its range exceeds 300km.⁷

Analysis

f. Ukraine has loaned the UK the remains of a Shahed-136 airframe shot down over Ukraine (see Figure 15). This includes internal flight and navigation systems. At the time of this report, these components are being analysed. Initial UK assessment is that this UAV is an Iranian Shahed-136.

g. Other examples of the system have been recovered and can be viewed in open press reporting. The US Defence Intelligence Agency (DIA) produced a visual comparison of Shahed-136 operated in Ukraine and the Middle East.⁸ This work is compared to the current UK evidence in Figures 14 - 17.

 $^{^{7}}$ This is specified in the parameters mentioned in $\ensuremath{\text{S}/\text{2015/546}}$

⁸ DIA_Iranian_UAVs_in_Ukraine-A_Visual_Comparison.pdf



Figure 14: Shahed-136 wing stabilizer comparison produced by US DIA



Figure 15: Shahed-136 system loaned to the UK by Ukraine with highlighted wing stabilizer

Shahed-136 (Geran-2) Engine

Shahed-136 (Geran-2) engines recovered in Ukraine appear to be Iranian produced MD-550 engines, the same engine model used in the Shahed-136.⁶



Figure 16: Shahed-136 engine component comparison produced by US DIA



Figure 17: Shahed-136 system loaned to the UK by Ukraine with highlighted engine components

Additional imagery of Shahed-136 components recovered by Ukraine currently loaned to the UK⁹













⁹ Blue barcodes on components have been added by the UK for cataloguing purposes

