The Houthi maritime threats in the Red Sea basin

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The commander of the Saudi Royal Navy, Vice Admiral Abdullah bin Sultan al-Sultan stressed as he delivered a speech at the International Maritime Security Symposium (IMSS 2017), the importance of maritime security in the southern Red Sea, strait of Bab al-Mandab and the Gulf of Aden. He commended the role and efforts exerted by the Arab Coalition countries led by the Kingdom to maintain the security of these important water ways and counter the Houthi threat to international maritime traffic.¹

Houthi leader Abdel-Malek al-Houthi has said in September 2017, that his group could target Saudi oil tankers should Saudi Arabia attack Yemen’s main port at Hodeidah. “Today the port of Hodeidah is being threatened and we cannot turn a blind eye to that. If the Saudi regime with a green light from the US attack Hodeidah then we have to take steps that we haven’t taken before. We could target Saudi oil tankers and we could do anything,” he said.²

The Bab al-Mandab strait, which is 25 kilometers wide, is a strategically vital maritime waterway, through which merchant ships in the Gulf of Aden sail to the Red Sea, and then to the Suez Canal and the Mediterranean Sea. It is one of the most crowded waterways for oil transportation in the Middle East and other regions with more than 3.3 million oil barrels per day. This strait is vitally sensitive, not only to all countries bordering the Red Sea, but to the world trade as a whole.³

A civil war is raging in Yemen between the Iran-aligned Houthi movement, backed by troops loyal to former President Ali Abdullah Saleh, and the internationally recognized government of Abd Rabbu Mansour al-Hadi, backed by Saudi Arabia and a coalition of ten countries.

Since 2015, strategic sea trade routes near Yemen have come under increasing threats and vessels near Yemen’s coast have been attacked by Houthi militants. The Houthi rebels control most of Yemen’s Red Sea coastline, although a coalition operation, "Golden Arrow", aimed at liberating the Bab al-Mandab strait, all the west coast of Yemen, including the ports and entire Taiz province, has pushed them away from the strait itself.⁴

The Saudi-led coalition has patrolled the waters off Yemen to enforce a blockade of rebel-held areas since it launched operation "Decisive Storm", a military intervention in support of the government in March 2015.
The Civil War in Yemen has presented several maritime threats to shipping in the strait, including: Anti-ship missiles, mines and explosives boats.

The British government and the Merchant Navy have issued on August 17, 2017, a warning alerting commercial ships of the potentiality of being attacked by remote controlled booby-trapped boats or rocket launchers. The concerned ships involve those passing through Bab-el-Mandeb strait and Gulf of Aden. The statement said: “In previous situations of the sort, attacks were launched via hand grenades, or rocket-propelled grenades. However, the last two attacks involved booby-trapped boats which blew up some distance away from the targeted ship, however the intention was to detonate the hull.”

The attack on oil and gas tankers near Bab al Mandab

The attack on Galicia Spirit gas tanker

Unknown assailants opened fire on the LNG (liquefied natural gas) tanker, Galicia Spirit, on October 25, 2016. The attack on the Galicia Spirit occurred near Perim Island, a few kilometers off the coast of Yemen. The vessel suffered minor damage with no injuries to the crew.

The skiff that engaged in an attack on the Galicia Spirit using small arms was also carrying a substantial amount of explosives. When the skiff was approximately 20m from the vessel, the explosives detonated, destroying the skiff and ending the attack.

An LNG vessel has a double skin, but if the explosives were enough to penetrate the main hull, then it is certainly possible damage would have been done to the inner skin and gas could have escaped and ignited.

The attack on MT MUSKIE in the Bab al-Mandab Strait

Houthi militants attacked on May 31, 2017, the Marshall Islands-flagged oil tanker MT MUSKIE in the Bab al-Mandab Strait. The militants fired RPG – 7, rocket-propelled grenades at the tanker before breaking off their assault. When attacked the vessel was on way to Jeddah in Saudi Arabia.

The Vessel MUSKIE is an oil products tanker built in 2003 and currently sailing under the flag of Marshall Islands. MUSKIE has 221m length overall and beam of 32m. Her gross tonnage is 42771 tons.

The attack occurred near Perim Island, a few kilometers off the coast of Yemen and the site of a lighthouse for ships passing through the Bab al-Mandab. The Perim island has been controlled by Saudi led coalition forces since 2015 when they seized it from Yemeni Houthi rebels.

The president of the revolutionary committee of the Houthi movement denied in a statement that rebel fighters are linked to the attack on a tanker ship near the Yemen coast. Mohamed Ali al-Houthi said the attack is a United States ploy, that his troops have no involvement, and blamed the US-backed Arab coalition for the incident because it occurred in its areas of control.
**Anti-ship missiles**

In September and October 2016, two US warships and a United Arab Emirates vessel contracted to the coalition were targeted by missile fire from rebel-held territory.

In October 2016, the Houthi militants successfully struck a United Arab Emirates vessel with an anti-ship cruise missile in the waters off Yemen's western coast. Later in October, Houthi militants shot missiles at US ships, which the US intercepted. The Houthi movement has denied firing on the USS Mason. Former President Barack Obama launched cruise missile strikes on coastal radar sites in response.

American defense analysts said that after analyzing video footage of the attack a voice can be heard shouting in Arabic: “Allahu akbar [God is great], death to America, death to Israel, a curse on the Jews and victory for Islam.” They added that the attack against the Saudi frigate off the Yemen coast, might have been intended for a US ship.9

The United States has placed a Navy destroyer, the USS Cole, in the vicinity of the Bab al-Mandab Strait off southwestern Yemen to protect waterways from Houthi militia aligned with Iran, amid heightened tension between Washington and Tehran.10

The Saudi-led Coalition in Yemen said on June 14, 2017 that a boat launched a missile targeting a UAE ship off the coast of Yemen. According to the statement, the ship was attacked by a guided missile fired by the Houthi militias after it left the Yemeni port of al-Mokha, a crew member was hurt but it caused no damage to the ship.11

A Houthi military official was quoted as saying by the Houthi-affiliated Saba news agency that “The navy of the army and popular forces targeted a warship belonging to a Saudi-led coalition while it was carrying out hostile acts off Mokha coast of Taiz province.” Al Massira TV, which is also linked to the Houthis, reported that “the navy forces of the national army fired a missile targeting the enemy coalition warship at the Red Sea early morning of Wednesday.”12

**Unmanned, remote-controlled craft filled with explosives**

*The first attack by an unmanned, remote-controlled craft in the Red Sea*

A Saudi frigate has come under attack on January 31, 2017, while it was on patrol west of Yemen’s Hodeida port. One a Houthi boat collided with the rear of the Saudi warship, resulting in the explosion of the boat and a fire at the rear of the ship. The crew was able to extinguish the fire but two members of the ship’s crew were killed in the attack while three others were injured. The Saudi frigate presumed military mission, enforcing a blockade on the nearby Houthi-controlled port of Hodeida.13

However, the Saudis and Iranian and Houthi media disagree on whether a missile or bomb-laden boat carried out the attack. Iranian state media claimed the attack was carried out by Houthi militants in Yemen with a guided missile against a Saudi navy vessel. The Iranian-backed Houthi rebels official news channel, al-Masira, contradicted the Saudi report, quoting a military source as saying the explosion was caused by a guided missile they fired.14
The Houthi-run Saba news agency released a footage claiming to show the attack on the Saudi ship and a statement saying “The targeted Saudi warship was taking part in the aggression against the Yemeni western coastal cities and fishermen.”

The U.S. Navy has now determined the Houthi boat that attacked and hit the Saudi frigate, Al Madinah, on January 30, 2017, in the Red Sea, reported earlier as a suicide boat, was instead carried out by an unmanned, remote-controlled craft filled with explosives. The attack on the frigate appears to be the first confirmed use of the weapon.

The unmanned boat was likely provided to the Houthi rebels by Iranian Revolutionary Guard Corps forces. The U.S. and other countries have intercepted arms shipments from Iran thought to be bound for the Houthi rebels.

_Saudi forces destroyed Houthi unmanned boat, foil terror plot in Jazan_

The security spokesperson of the Saudi Arabian Interior Ministry said on April 25, 2017, that the border guards in Jazan succeeded in foiled a terror plot attempting to blow up a Saudi Aramco oil depot and distribution station using a booby-trapped boat.

The boat was spotted at the time of its launch from one of the small islands in Yemeni waters. The boat’s speed increased to 34 knots when it entered Saudi waters and it was headed to the petroleum products distribution station.

When the border patrols intercepted the boat, it became clear that there were no people on board and that it was controlled by a remote control.

The guards decided to fire at its engines and disable them before the boat could reach its target quickly since the distribution station was only one and a half nautical miles away.

In coordination with the Saudi Royal Navy forces, the inspection of the boat revealed that it was carrying heavy explosive materials. The site was then secured and the threat was dealt with in the sea.

The security spokesperson said: “The Ministry of the Interior only confirmed and declared this terrorist attempt to affirm that the border guards will be in the lookout for such terrorist attempts, to defend the country’s land and sea borders, to prevent any terrorist attempts.” The spokesperson said that the attack is believed to have been carried out by Houthi militias in Yemen.

“We will investigate the attack and find out who stands behind the Houthi militias that are scheming to threaten the security of waterways and marine facilities with booby-trapped boats and sea mines and we will deal with their threats and aggressions accordingly,” the spokesperson said.
**Houthi militias targeted Al-Mocha port with a remote-controlled craft filled with explosives**

The Arab coalition forces in Yemen announced on July 29, 2017, that the Houthi militias targeted Al-Mocha port with a remote-controlled booby-trapped boat.19

The remote-controlled booby-trapped boat, hit a pier near a group of ships where it exploded but causing no losses, said a release issued by the Coalition.20

**Houthi militias targeted a United Arab Emirates military vessel in Al-Mocha port**

Yemeni forces destroyed an explosives-laden boat targeting at Mokha port on August 16, 2017. A source at the port said that the foiled terror attack was initiated by Houthi militias. A large explosion was heard across the port when forces eliminated the threat before it reached the docked ship.21

**The IRGCN’s fast boats**

The IRGCN has concentrated on acquiring and developing small fast boats: patrol boats, commando boats, missile boats, torpedo boats and fast attack craft. Those developments have included at least one unmanned surface craft – the "Ya Mahdi". Alleged to be based on a high-speed British hull, the unmanned fast boat has been in the Iranian inventory since 2010.22

**The "Ya Mahdi" unmanned surface craft**

According to a 2015 U.S. Army assessment on threats from unmanned craft, “utilizing suicide drones is an asymmetric strategy which both allows Iran to compete on an uneven playing field and poses a risk by allowing operators to pick and choose targets of opportunity.” The asymmetric advantage the Iranians have provided the Houthi’s have been instrumental in extending the conflict.23

The Iranian Revolutionary Guard Corps Navy’s "Ya Mahdi" (a reference to Shia Islam’s 12th Imam) unmanned surface vessel was first publicly described in 2010 as a remotely controlled fast attack craft. During the Guard Corps exercise "The Great Prophet 5" held that April in the Straits of Hormuz, IRGCN commander Ali Reza Tangsiri said that "since the boat has high speed, it is less detectable by radar." Some reports say that the vessel is based on the civilian Bladerunner 51 speed boat, of which manned variants serve with the IRGCN. The boat is reportedly capable of firing missiles (others say unguided rockets).24
The threat of naval mines

Since January 2017, the Saudi-led coalition forces discovered and dismantled naval mines that were set by Houthis and militias allied to former Yemeni President Ali Abdullah Saleh near Yemen coastline in the Red Sea and the Bab al Mandab strait.

A report issued by the US Office of Naval Intelligence ONI, in March 2017, warned merchant ships from the dangers of mines in Bab al-Mandeb near the Mokha port entrance.

Sea mines are one of the oldest weapons in the naval inventory, are often the cheapest and most available weapons. Sea-mines are not only cheap and deadly, they are also difficult to find even with modern equipment.

The naval mines near Yemen, which are believed to have been sourced from Iran, appear to be of the floating type with contact detonators. Although they appear basic, they are a significant threat to merchant shipping using the busy Red Sea shipping lanes.

In January 2017, several naval mines were found by forces allied with the internationally-recognized government of Yemen seized control of the strategic Red Sea port near Mokha.

On February 4, 2017, the US Maritime Administration (MARAD) warned that Houthi rebels were suspected of having placed mines in the vicinity of Mokha harbor.

In March 2017, Saudi navy forces confirmed they have dismantled several naval mines deployed by Houthi militias near the southwestern port city of Mokha aimed at targeting international shipping boats in the Red Sea.

On March 8, 2017, the Royal Saudi Navy identified two minefields off the coast of Midi district, Hajjah governorate, after a fishing boat detonated a mine killing eight civilians. Yemeni media aligned with the Hadi administration claimed that the naval mines were Iranian-made. Major General Ahmed Al-Assiri, the spokesman for the Saudi Arabian military, stated the following: “Just a few days ago there was an incident where a fishing boat hit a mine off the Yemeni shores. Seven innocent fishermen were killed in this incident. This signifies the threat of these mines which needs to be addressed.”

In March 10, 2017, two sailors lost their lives and eight other were wounded when a Yemeni Coast Guard vessel hit a naval mine in the Red Sea.

On March 25, 2017, Major General Ahmed al-Assiri, the spokesperson for the Saudi-led coalition, disclosed that Royal Saudi Navy vessels were carrying out “constant” mine-sweeping operations along Yemeni shores and that they had found several naval mines near Mokha.

On March 25, 2017, Royal Saudi Navy and Yemeni Navy engineers cleared mines in the vicinity of Al Hudaydah.

In April 2017, the Yemeni Coast Guard warned the shipping community of the possible dangers in the navigational channel following reports that Houthi rebels had placed a number of naval mines in the vicinity. The Yemen Coast Guard Chief, Major General Khalid Al-Ghommal, confirmed that the authorities were provided with the information on the mines.
On May 1, 2017, a naval mine detonated against a fishing boat, killing one fisherman, in northern Al Hudaydah governorate. The chairman of the Yemeni National Association for Mine Action, Taher al-Mikhlafi, stated that the naval mine was an Iranian acoustic naval mine.

In May 8, 2017, the spokesman for the Arab coalition announced that it monitored and dismantled naval mines near the strategic Midi port in Yemen, which was retaken from the Houthi militias by legal forces several months ago, and was used for weapons smuggling from Iran. The statement declared by the coalition leadership highlighted the type of the mines deployed by the coup. After the results of the experiments, it became apparent it was primitively manufactured.30

On July 10, 2017, coalition forces discovered a naval mine southwest of the Midi port. The Yemeni national army dismantled the mine without causing any damages.31

On September 2, 2017, maritime forces thwarted Houthis’ attempt to plant naval mines on the Red Sea coasts and blew up their boat killing five Houthi mines’ experts.32

On September 4, 2017, a five-man team of mine-planting experts were killed on board a military boat belonging to the Houthi militias while trying to plant mines off the coast of Midi. The naval forces spotted the boat’s movements as it approached one of the islands in the sea, where naval forces of the National Army forces were present. They destroyed the boat with a missile and killed all members of the engineering team on board.33

On September 17, 2017, Yemeni military naval force located a network of naval mines planted by rebels dozens of miles away towards the island of Gharab and took some mines to the coast to blow them up.34

*Operation "Naval Arrow"

Yemen’s legitimate forces launched an operation codenamed "Naval Arrow" on April 16, 2017, in an effort to remove naval mines which they say was planted by Houthi militias at the Midi front, northwest of the Hajjah governorate. 35

The mines, which are believed to have been sourced from Iran and which are used in old-fashioned submarines, threaten fishermen and residents of islands near the coasts of Midi. They also threaten international navigation in the Bab al-Mandeb Strait.36

**The Iranian naval forces**

Iran has two independent naval forces with parallel chains of command. The conventional navy is called the Islamic Republic of Iran Navy (IRIN). The second is the naval wing of the Revolutionary Guards (IRGCN). The two navies have overlapping functions and areas of responsibility, but they are distinct in terms of how they are trained and equipped- and more importantly also in how they fight.

Iranian naval doctrine has been geared to asymmetrical warfare against the US or any other advance naval power. Iran will combine swarming attacks of fast boats, mine laying operations and shore-launched missiles to try to damage or destroy as many U.S. ships as possible. It seeks to harass and potentially cause enough casualties to compel a withdrawal from the Persian Gulf and northern Indian Ocean, where Iran seeks to be the predominant influence.
The IRGC, responsible for the costal defense of Iran in the Persian Gulf, has developed a variety of small attack craft based on commercial boats. The speedboat has been a central component to Iran’s naval strategy. Iran has reorganized its naval forces to give operational control of the strategic Persian Gulf and Strait of Hormuz to the naval component of the Islamic Revolutionary Guard Corps the Islamic Revolutionary Guard Corps Navy, or IRGCN as it is known.

**Summary**

The Civil War in Yemen has presented several maritime threats. In March 2017, the head of US Central Command, General Joe Votel, warned that coastal defense missiles, radar systems, mines and explosives boats deployed by the rebels posed a threat to shipping in the strait. Recent incidents off Yemen coastline and the Bab al-Mandab strait, indicate an increased threat level to shipping from maritime terrorism and piracy.

First the Houthi rebels attacked a UAE naval transport Swift and also targeted US Navy warships with and anti-ship missiles in October 2016. The US responded with Tomahawk cruise missile strikes in October 2016. Then, in January 2017, they rammed a Saudi frigate *Al Madinah* with a remote controlled explosive boat.

The Houthi militias also spread naval mines, off the western Yemeni coastline – especially in the vicinity of Mokha, Al-Hudaydah and Midi, thereby endangering international ships and shipping lanes. The mines were said to be relatively simple in nature, but that doesn’t mean they wouldn’t have catastrophic effects on ships moving through the area, many of which carry huge loads of oil and natural gas. These mines pose a clear threat to the safety and the movement of international and commercial shipping, making it a clear violation of international law.

The Yemeni forces and Saudi Navy are constantly engaged in mine-sweeping on Yemeni shores, amid warnings over mines planted by Houthi militias but these anti-mine warfare efforts don’t seem to be sufficient for confronting the threat. The U.S. Navy is the only force in the region that does maintain a robust anti-mine warfare capability.

A report issued by the US Office of Naval Intelligence ONI, in March 2017, stated that the attacks on ships in the Bab al Mandab strait, especially commercial ones, will trigger the involvement of other parties, pointing out that the US Navy will deploy all the needed efforts to protect the freedom of ships. The US warning noted that the closure of this waterway would lead to substantial increases in total energy costs and global oil prices.37

Iran’s backing of the Houthi rebels necessarily raises comparisons between the Bab al-Mandab situation and the significant chokepoint in the Persian Gulf’s Strait of Hormuz and Iran is watching how the Trump administration and the Saudi coalition respond to the incident.
Notes.

1 Admiral al-Sultan said the statements Royal Saudi Navy Chief: Bab al-Mandeb and Red Sea security paramount, Al Arabiya, August 31, 2017.
2 Houthi leader threatens to attack Gulf States, Al Arabiya, September 15, 2017.
3 US warns of underwater mines planted by Houthis in Bab al-Mandeb, Al Arabiya, March 6, 2017.
4 Bab al-Mandab, Egypt and the storm, Al Arabiya, January 24, 2017.
5 Britain issued warning over possible commercial ship attacks off Yemen, Al Arabiya, 17 August 2017.
7 Hani al-Sufayan, Strategic sea trade routes near Yemen under threats from Houthi militias, Al Arabiya, June 1, 2017.
8 Houthi rebels deny firing RPG that struck foreign tanker off Yemen coast, News 4 Europe, June 1, 2017.
12 Iran-Backed Houthis Claim Attack on Saudi-led Coalition Ship Near Strategic Strait, People's Mujahidin Organization Iran, June 14, 2017.
15 The video appeared on the Sanaa-based state news agency’s website which is run by Yemen’s Houthi rebels.
17 Saudi forces destroy Houthi boat, foil terror plot in Jazan, Al Arabiya, April 25, 2017
18 Saudi forces destroy Houthi boat, foil terror plot in Jazan, Al Arabiya, April 25, 2017.
19 Houthis target Yemeni port with a booby-trapped boat, Al Arabiya, July 29, 2017.
21 Explosive boat attack foiled targeting UAE ship, Al Arabiya, August 16, 2017.
24 http://www.navaldrones.com/Ya-Mahdi.html
28 Red Sea Mine Kills 2 Yemen Coast Guard, ASKET, March 10, 2017.
31 Coalition forces find naval mine northwest of Yemen’s Midi Port, Al Arabiya, July 10, 2017.
32 The underwater bombs planted by Houthis off Yemen’s coast, Al Arabiya, September 17, 2017.
33 Yemeni army destroys Houthi boat off Midi coast, Al Arabiya, September 4, 2017.
34 The underwater bombs planted by Houthis off Yemen’s coast, Al Arabiya, September 17, 2017.
35 Video: Yemeni forces launch ‘Operation Naval Arrow’ to remove Houthi mines, Al Arabiya, April 16, 2017.
36 Video: Yemeni forces launch ‘Operation Naval Arrow’ to remove Houthi mines, Al Arabiya, April 16, 2017.
37 US warns of underwater mines planted by Houthis in Bab al-Mandeb, Al Arabiya, March 6, 2017.