

Special Advisory: Naval mines and MBIEDs off Yemen

19/05/2017



Executive summary

- A substantial threat from naval mines is present off the western Yemeni coastline – especially in the vicinity of Mokha, Al-Hudaydah and Midi
- Vessels transiting the Bab-el-Mandeb Strait and southern Red Sea should maintain the furthest possible distance from the Yemeni coast
- MBIEDs and naval mines are unlikely to deliberately target commercial shipping in the Red Sea and Bab-el-Mandeb Strait though the threat of drifting, acoustic or magnetic contact cannot be discounted

Current situation

There is a substantial threat of Marine-Borne Improvised Explosive Devices (MBIEDs) and naval mines to merchant shipping transiting within 50NM of the Yemeni coast, the Bab-el-Mandeb Strait and southern Red Sea. The threat from mines to shipping along the western Yemeni coast has increased since forces loyal to the Hadi government launched Operation GOLDEN SPEAR on 07 January 2017. Supported by the Saudi-led coalition, the Yemeni Army are trying to remove Houthi rebels from key coastal areas, including the strategic port cities of Mokha and Al-Hudaydah. On 10 February Mokha was captured by Yemeni government-allied forces.

Incidents

- On 04 February, the US Maritime Administration (MARAD) warned that Houthi rebels were suspected of having placed mines in the vicinity of Mokha harbour
- On 10 March an unidentified Yemeni Coast Guard vessel struck a mine off Mokha, killing two crewmembers and wounding eight others
- On 08 March 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
- On 25 March 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 25 March Royal Saudi Navy and Yemeni Navy engineers cleared mines in the vicinity of Al-Hudaydah
- On 16 April, the Yemeni Navy launched Operation NAVAL ARROW to remove naval mines laid by Houthi rebels in the vicinity of Midi, Hajjah governorate. The mines were described as Iranian produced and laid by the Islamic Republic of Iran Navy submarines
- On 01 May, 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-Mikhlaifi, stated that the naval mine was an Iranian acoustic naval mine
- On 08 May Saudi-led Coalition Forces Command reported that Royal Saudi Navy vessels operating in Yemeni waters had discovered naval mines near the port of Midi

The threat is however not limited to western Yemen. Mines have previously been recovered in southern Yemeni governorates, including in October 2016 when military divers and personnel from Yemeni Coast Guard encountered approximately half a tonne of naval mines and semi-submersible explosives near Mukalla harbour, Hadhramaut governorate.

The majority of naval mines recovered in Yemen have been described as basic (to be contact or magnetic), though sophisticated acoustic naval mines have been recently recovered by the Yemeni Navy and Royal Saudi Navy. It is likely that the contact, magnetic, acoustic and pressure mines are Iranian produced. The US Department of Defense estimates that the Islamic Republic of Iran Navy (IRIN) has a stockpile of at least 2,000 naval mines. Currently the IRIN has a limited mine-laying capability to deliver naval mines via its three Kilo-class and one Fateh-class submarines.

Due to the presence of Houthi rebels along western littoral areas straddling the governorates of Al-Hudaydah and Hajjah, all vessels are advised to maintain the furthest possible distance from the Yemeni Red Sea coast and use the Traffic Separation Scheme (TSS) west of Hanish al Kabir Island.

The Aden-based government of President Hadi – backed by the Saudi-led coalition – continues to face insurmountable challenges in establishing strong governance in areas under its control. In the most recent episode of Yemen's continuing fragmentation, the former governor of Aden, Aydarus al Zubaidi, announced the formation of a new 'Transitional Political Council' (TPC) on 11 May. The new council – opposed by President Hadi – is a manifestation of long-standing grievances and perception of marginalisation that have fuelled southern separatist sentiments since the Yemeni unification in 1990. The TPC includes key advocates for independence of southern Yemen and is likely to further undermine the precarious security situation in southern governorates under the nominal control of President Hadi.

Amid the continuous erosion of President Hadi's authority in southern and eastern governorates, the conflict in Yemen will remain at a stalemate in the short term. Though international shipping is unlikely to be directly targeted by Houthi rebels, the threat from maritime incidents affecting merchant vessels off the Yemeni Red Sea Coast and in the Gulf of Aden will remain substantial in the next six months.

Map of areas with heightened threat from MBIEDS and naval mines



Map Source: NYA MarTrack™

Historical international use of naval mines

Between 1981-1987 at the height of the Iran-Iraq War, Iran and Iraq conducted 451 attacks against 340 merchant vessels of 38 countries. In total only 3% of vessels (two in 1984 and eight in 1987) were targeted using naval mines. Iran was the primary user of naval mines during the conflict and had laid minefields in shipping channels west of Farsi Island, the Straits of Hormuz and in waters close to Kuwait.

During the Gulf War (1990-1991), Iraq planted approximately 1,150 naval mines in minefields off the Kuwaiti coast. The action confounded the freedom of navigation for the remainder of the war and severely damaging the Ticonderoga-class guided missile cruiser USS PRINCETON and Iwo Jima-class amphibious assault ship, USS TRIPOLI. In total, Iraq inflicted over USD27million of damage to the two vessels for the estimated cost of USD11,500.

Historical use of MBIEDs

Floating MBIEDs have been extensively utilised in conflict zones and by terrorist organisations throughout modern history. Previous examples of floating MBIED have been constructed from oil drums, water tight containers made from plastic, polythene and fibreglass to increase buoyancy and waterproofing of plastic explosives. Triggers have varied depending on region, though command wires, contact and proximity fuses have all been utilised.

In the Vietnam War the People's Liberation Armed Forces of South Vietnam (PLAF) and North Vietnamese Army (NVA) utilised floating MBIEDs and antipersonnel mines in baskets to attack US Navy river patrol boats operating throughout South Vietnam.

During the Northern Ireland conflict, the Irish Republican Army (IRA) and splinter groups conducted sporadic incidents of floating MBIED attacks against Royal Navy and British flagged merchant vessels. Devices were constructed from a watertight container or oil drum tethered just below the surface water.

In April 2004 the Jefferson Parish Sheriff's Office, US Coast Guard and US Federal Bureau of Investigation (FBI) seized a floating MBIED in Lake Pontchartrain, Louisiana. The device was constructed from two to three pounds of explosives in a waterproofed plastic pipe, protected by plastic bags, with a waterproofed timer device. The incident was recorded as a deliberate act of domestic maritime terrorism.

During the initial invasion of Iraq coalition forces recovered contact MBIEDs, which shared similar design characteristics to those recovered in Sri Lanka. In November 2006 four British servicemen were killed and three injured after a patrol boat was ambushed with an MBIED hidden underneath a pontoon bridge on the Shatt al-Arab waterway in Basra.

In March 2008 a Sri Lanka Navy patrol boat, SLN DVORA (P438), struck a floating MBIED breaching the hull and sinking the vessel, killing 14 personnel. The Liberation Tigers of Tamil Eelam (LTTE) naval division, the Sea Tigers, had laid the MBIED field during the night to prevent detection. The MBIED was likely constructed from plastic, burned polythene and fibreglass and tethered in line with previous LTTE devices. The Sea Tigers engineering brigades had utilised floating MBIEDs previously to deny the Sri Lankan government use of Trincomalee harbour.

In February 2010 Israeli fishermen on Kshatot beach, Ashdod, and Hofit beach, Ashkelon, discovered two floating MBIED devices. The devices consisted of pressurised canisters attached by wires to a battery and a mobile phone hidden inside a barrel to add buoyancy. The Israel Police estimated that the devices weighed "several dozen pounds" and were designed to be exploded by phone once it came into contact with a vessel. A statement later claimed that four devices were released from the Gaza Strip in a joint operation by the Palestinian militant groups; the Islamic Jihad's al-Quds Brigades, the Popular Resistance Committees' Salah a-Din Brigades and the Nabil Masud Group.

Outlook

- In the short-term a substantial threat will remain for vessels transiting in the southern Red Sea and Bab-el-Mandeb Strait from naval mines and MBIEDs
- In the medium to long-term the threat is almost certain to persist whilst Yemeni Army and Saudi-led coalition operations continue in west Yemeni governorates
- Vessels are advised to maintain the furthest possible distance from the Yemeni coast due to the substantial threat of naval mines, MBIEDs and being targeted by rival military forces operating in coastal regions. Vessels should transit during daylight hours and use the western TSS wherever possible
- In particular vessels should exercise heightened vigilance whilst transiting west of Mokha, Al-Hudaydah and Midi. Naval mines have been released in the vicinity of these areas and Houthi rebels have attacked both naval and merchant vessels using maritime terrorism and anti-shipping missiles
- It is unlikely that Houthi rebels will directly target commercial shipping in the Red Sea and Bab-el-Mandeb Strait. In the past anti-ship missile attacks and marine-borne IEDs emanating from the Yemeni coast have largely targeted military vessels
- Vessels are advised to adhere to self-protection measures laid down in the Best Management Practices (BMP) 4. Vessels in the area should also maintain heightened vigilance during their transit
- Report any unusual activities or hostile or potentially hostile action to the coalition naval forces using VHF Channel 16, via e-mail at cusnc.bwc@me.navy.mil or by phone 011-973-1785-3879; and remain in contact with the United Kingdom Maritime Trade Operations (UKMTO) and the U.S. Naval Cooperation and Guidance of Shipping (NCAGS) at cusnc.ncags_bw@me.navy.mil to the maximum extent possible



Limitation

This document is intended for the sole use of the UK P&I Club and its members. Our opinion and advice is given on the basis of the information given to us in our instructions and the surrounding circumstances known to us to exist at the time when those instructions are given. We do not accept responsibility for verifying the information or investigating beyond its limits. Subsequent changes to relevant information or to the surrounding circumstances may affect the reliability of our opinion and advice but we do not accept responsibility for that effect. We do not accept responsibility for the outcome of action taken or not taken as a result of our opinion and advice unless the possibility of that action being taken or not taken is set out in specific terms in our instructions.

About NYA

NYA International is a leading global risk and crisis management consultancy. Since 1990 we have helped organisations to maximise opportunities and operate successfully in complex environments around the world. We help our clients to understand the threats and vulnerabilities to their people, assets and international operations, improve their resilience and effectively mitigate and manage a wide range of security-related problems and crises. NYA has one of the largest specialist response teams in the industry and experience of advising on around 80-100 crisis incidents each year.

Contact us

NYA International Ltd.

77 Water Street
New York 10005
United States

26 Market Place
London W1W 8AN
United Kingdom

1 Raffles Place
Singapore 048616
Singapore

+44 207 291 7700
info@nyainternational.com
nyainternational.com