OIL SECURITY AND GEOGRAPHY

Rising Tensions Threaten Middle East Oil Chokepoints: Background and Policy Options

By Matthew Reed
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INTRODUCTION

For ten days starting July 25, Saudi Aramco suspended all oil shipments through the Bab al-Mandeb Strait, one of the world's most vital oil chokepoints, after two Saudi oil tankers were attacked off the coast of Yemen. One of the ships was lightly damaged but no one was injured. The incident marked at least the fifth time this year that an oil tanker has been targeted by Houthi militants backed by Iran. Over the last three years, the Houthis have deployed mines, anti-ship cruise missiles, explosive drone skiffs, and their own attack boats.

The Saudi response was dismissed by some as a politically-motivated overreaction designed to highlight the menace posed by the Houthis. Moreover, it was seen as a possible pretext to abandon UN peace talks and restart the siege of Hodeida--Yemen's most important port, which remains under Houthi control. However, this cynical reading of events overlooks the fact that oil tankers have been repeatedly and deliberately targeted this year for the first time.

At today's prices the cargo of a Saudi VLCC (Very Large Crude Carrier) would be worth $150 million but a spill could cost Saudi Aramco many times more. The statement issued by Saudi Energy Minister Khalid al-Falih on July 25 emphasized crew safety but also the risk of environmental disaster.[1] An empty Saudi oil tanker sailed through the strait on July 29, which suggests the environmental risk is a top concern.[2] Other Gulf Arab oil producers did not follow suit and suspend shipments this time, but they may choose to do so in the future.

If major OPEC oil producers are becoming more sensitive to threats in the Red Sea it is because attacks have increased lately and the threats became more explicit this summer. This is a direct result of developments on the ground inside Yemen, where the Houthi alliance has fractured and their territory is shrinking. It is also a

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[1] http://www.saudiaramco.com/en/home/news-media/news/Bahri-Ship.html
[2] https://www.spglobal.com/platts/en/market-insights/latest-news/shipping/073018-unladen-saudi-vlcc-crosses-bab-el-mandeb-despite-temporary-halt

response to the U.S. withdrawal from the Iran nuclear deal. Faced with impending oil sanctions, Iranian officials are once again threatening to close the Strait of Hormuz and in recent weeks they have started threatening the Red Sea.

The Trump administration describes its approach to Iran as a "maximum pressure" campaign and Iran is clearly responding with a maximum threat campaign of its own. Two of the world's most critical straits are now in the crosshairs.

THE YEMEN CONFLICT

Yemen's civil war began in 2014 when the Houthis capitalized on widespread discontent and aligned themselves with former president Ali Abdullah Saleh. Saleh had ruled North Yemen from 1978 until 1990 and a unified Yemen from 1990 until 2012, when he was pushed out by a negotiated settlement in the wake of the Arab Spring uprisings. He was replaced by Vice President Abd-Rabbu Mansour Hadi under a UN-backed plan devised by the six-member Gulf Cooperation Council (Saudi Arabia, UAE, Kuwait, Bahrain, Oman, and Qatar).

In September 2014, after clashes and protests against subsidy cuts, the Houthis captured the capital, Sana'a, and placed Hadi under house arrest. Their unlikely alliance with Saleh made the Houthis a more credible military force with potential access to long-range ballistic missiles. The takeover was warmly welcomed in Tehran, which set off alarm bells in GCC capitals.[3]

In February 2015, Hadi escaped and fled for Aden, the southern port city about 100 miles east of the Bab al-Mandeb Strait. By March the Houthis had the city surrounded and the recognized government was forced into exile. On March 26, 2015, a military coalition led by Saudi Arabia and the UAE intervened in the Yemen crisis on behalf of the Hadi government with three major objectives: reinstating the legitimate government; destroying long-range missiles that posed a threat to Yemen's neighbors; and preventing Iran from turning the Houthis into a dangerous proxy, like Hezbollah in Lebanon.

As of mid-2018 the campaign has failed to achieve its primary goals and the humanitarian cost inside Yemen has been staggering. The Houthis have retreated from southern provinces but they still control the capital, the ports of Hodeidah and Salif, and over 100 miles of coastline from which they can attack Red Sea shipping.

Over the last three years, the Houthis have only grown closer to Iran, which has repeatedly broken the UN arms embargo to supply them with sophisticated weapons.[4] There is also reason to believe that the Iranians have taken a hands-on role in helping the Houthis identify targets in the Red Sea.[5] Whereas the Houthi-Iran connection was questioned only a few years ago, recent statements by Iranian leaders leave no doubt that they count the Houthis as a loyal proxy ready to disrupt maritime trade.

THE STRAITS OF HORMUZ AND BAB AL-MANDEB

The Middle East is home to two of the most important oil chokepoints in the world: the Strait of Hormuz, at the mouth of the Persian Gulf, and the Bab al-Mandeb Strait, where the Red Sea meets the Gulf of Aden. According to the U.S. Energy Information Administration, 18.5 million b/d passed through the Strait of Hormuz in 2016.[6] OPEC's top five producers—Saudi Arabia, Iraq, Iran, Kuwait and the UAE—all depend on the Strait to ship crude oil and petroleum products, the majority of which go to Asian customers. The global

[3] https://www.telegraph.co.uk/news/worldnews/middleeast/yemen/11445757/Iran-builds-ties-with-new-Yemen-regime.html
[4] The UN Panel of Experts has repeatedly found Iran to be in "non-compliance" with the arms embargo imposed by UN Resolution 2216. See: [http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2018/68]
[5] https://www.washingtoninstitute.org/policy-analysis/view/curbing-houthi-attacks-on-civilian-ships-in-the-bab-al-mandab
[6] https://www.eia.gov/beta/international/regions-topics.php?RegionTopicID=WOTC

LNG trade also depends on Hormuz for Qatari gas. As of 2016, roughly one-third of all oil and gas traded by sea passed through the Strait of Hormuz on any given day.[7]

Saudi Arabia and the UAE both maintain pipelines that could deliver some oil to terminals outside the Strait of Hormuz. However, capacity is limited and the pipelines are already in use. Saudi Arabia's East-West pipeline, for example, currently handles lighter grades and is not necessarily prepared to deliver heavier grades to the Red Sea. Even if Riyadh and Abu Dhabi maximized pipeline deliveries to points outside the Strait of Hormuz, the loss of Iraqi and Kuwaiti exports--almost 6 million b/d combined--would send prices soaring.

Almost 5 million b/d passed through the Bab al-Mandeb Strait in 2016. At its narrowest point, the strait is just 18 miles wide and two-way traffic is limited to two channels (inbound and outbound). "Closure of the Bab el-Mandeb could keep tankers originating in the Persian Gulf from reaching the Suez Canal or the SUMED Pipeline, diverting them around the southern tip of Africa, which would add to transit time and cost," the EIA wrote in a July 2017 review.[8] Markets could adjust to a closure of Bab al-Mandeb by rerouting crude, unlike a shutdown of the Strait of Hormuz. However, an extended closure or suspension of traffic through Bab al-Mandeb would be problematic for Saudi Arabia. It depends on crude delivered by ship to supply major refineries on the Red Sea (Yanbu, Rabigh and Jizan, which is scheduled to start up early next year.) Non-oil traffic through the Suez Canal would also be affected by a wider disruption.

Oil trade through the Strait of Hormuz has not been hindered since the "Tanker War" of 1987-88, when the Iran-Iraq war forced the U.S. to lead an international effort to re-flag tankers and escort them through hostile waters, but it has been threatened more recently. Leading up to U.S. sanctions and a European oil embargo in 2012, Iranian leaders threatened to close the Strait of Hormuz in retaliation.[9] They never did and Iranian oil exports fell by about 1 million b/d. Up to now, disruptions have been minimal in the Bab al-Mandeb Strait, with only the Saudis suspending shipments for ten days.

INCREASED DANGER TO OIL TANKERS IN 2018

Since Donald Trump assumed office in January 2017, Iranian provocations in the Persian Gulf have fallen dramatically, but Houthi activity has increased in the Red Sea.[10] The Houthis have attacked ships using at least four methods since 2015: (1) self-guided explosive drone skiffs; (2) rockets and small arms fired from fast-attack craft; (3) indiscriminate sea mines; (4) and anti-ship, radar-guided missiles launched from the coast. Over the last two years the Houthis have taken credit or been blamed for no less than 18 attacks on coalition, commercial, and U.S. navy vessels. Most of those attacks happened this year.

In 2017, the danger to Red Sea shipping increased significantly according to the most recent UN Panel of experts report.[11] The Houthis began deploying explosive drone boats, repurposed anti-tank missiles, and more sophisticated sea mines, likely of Iranian origin. Last year the Houthis damaged or destroyed a Saudi frigate, an Emirati mine-hunting ship and a Yemeni coast guard vessel, among others. But it was not until 2018 that oil tankers were repeatedly and deliberately targeted by Houthi forces. This escalation followed explicit threats issued by Houthi leaders in September and November of last year.

"We could target Saudi oil tankers and we could do anything," Houthi leader Abdel Malik al-Houthi warned in September 2017, when the stage was being set for the siege of Hodeida.[12] The Saudi-led coalition imposed a

[7] Ibid.
[8] Ibid.
[9] https://fas.org/sgp/crs/mideast/R42335.pdf
[10] https://www.apnews.com/a36e23a8d549464caaea7dc1932babae
[11] http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2018/68
[12] https://www.reuters.com/article/us-yemen-security/yemens-houthi-leader-says-could-target-saudi-oil-tankers-if-hodeidah-attacked-idUSKCN1BP2AF

total blockade on the port city in early November after more ballistic missile attacks on the Kingdom. The Houthis responded by explicitly threatening oil tankers again on November 12. "The battleships and oil tankers of the aggression and their movements will not be safe from the fire of Yemeni naval forces if they are directed by the senior leadership [to attack]," a Houthi commander told a pro-Houthi television network.[13]

On January 10, 2018, the Houthis targeted an oil tanker for the first time. The coalition announced that three explosive skiffs in the Red Sea had sought out an oil tanker and other commercial vessels off the coast of Hodeida.[14] Those skiffs were destroyed and the attack failed. But on April 3, the Houthis attacked a Saudi tanker, the *Abqaiq*, using what some suspect was a land-based anti-ship rocket system.[15] The ship survived and reached port with modest damage. The coalition claimed to have thwarted another boat bomb attack on an oil tanker on May 23.[16]

On July 25, the Houthis attacked two more Saudi oil tankers, damaging one of them--the *Arsan*--and prompting the Energy Ministry to suspend oil shipments through the Bab al-Mandeb Strait.[17] "The *Arsan* was struck at the stern above the waterline, with imagery analysis showing an impact hole two to three meters wide and minor scorching damage on the outer hull," according to an assessment by experts from the Washington Institute for Near East Policy. "The most likely cause was a large unguided rocket fired from a fast-attack craft following behind the tanker," they speculated.[18]

No oil tankers were targeted by the Houthis from 2015 through 2017. A total of five tankers were targeted in the first seven months of 2018, two of which were damaged. The Houthis still control some 125 miles of Red Sea coast from which they can launch attacks. On July 31, the militants announced that they would halt attacks on all vessels for two weeks starting August 1, but the threat endures.[19] In fact, Iranian officials are counting on that threat to make the U.S. and others think twice about cutting off Iran's oil exports.

THE IRAN FACTOR

President Trump withdrew the United States from the Iran nuclear deal on May 8. Since then his administration has promised to impose the "toughest sanctions in history" on Iran. Secretary of State Mike Pompeo has made it clear that exceptions, which allow Iran's customers to gradually wind down oil imports, will be hard to come by and the administration's goal is to starve the regime of oil revenues as soon as possible.[20]

In late June, an unnamed State Department official told reporters that the U.S. intended to zero out all of Iran's oil and condensate exports by November 4, implying some 2.5 million b/d might be taken off the market.[21] That bold statement boosted prices. It also got the attention of Iranian politicians, who began warning the U.S. that it too could cut off other countries' oil exports.

President Hassan Rouhani first threatened to close the Strait of Hormuz on July 3 during a trip to Europe. "The Americans have claimed they want to completely stop Iran's oil exports. They don't understand the meaning of this statement, because it has no meaning for Iranian oil not to be exported, while the region's oil

[13] https://uk.reuters.com/article/uk-yemen-security/yemens-houthis-threaten-to-attack-warships-oil-tankers-if-ports-stay-closed-idUKKBN1DC0S5
[14] https://www.thenational.ae/world/mena/arab-coalition-in-yemen-thwarts-attack-on-saudi-oil-tanker-1.694523
[15] https://www.reuters.com/article/us-yemen-security-oil/saudi-arabia-expects-no-oil-supply-impact-from-houthi-tanker-attack-idUSKCN1HB0ZC
[16] https://www.reuters.com/article/us-yemen-security-tanker/saudi-led-coalition-foils-houthi-attacks-on-red-sea-ships-saudi-and-uae-media-say-idUSKCN1IO15P
[17] https://www.bloomberg.com/news/articles/2018-07-25/saudis-halt-oil-shipments-via-bab-el-mandeb-strait-after-attack
[18] https://www.washingtoninstitute.org/policy-analysis/view/curbing-houthi-attacks-on-civilian-ships-in-the-bab-al-mandab
[19] https://www.reuters.com/article/us-yemen-security/yemens-houthis-halt-red-sea-attacks-for-two-weeks-idUSKBN1KL1W4
[20] https://www.state.gov/secretary/remarks/2018/07/284292.htm
[21] https://www.state.gov/r/pa/prs/ps/2018/06/283512.htm

is exported," the president's website quoted him.[22] Iran's Supreme Leader Ali Khamenei, who has final say over all security and military matters, later endorsed Rouhani's threat. "If Iran's oil export is blocked, no other country in the region can export oil either," is how he paraphrased Iran's president on July 21.[23]

Rouhani doubled down on July 22 when speaking to Iranian diplomats in Tehran. "When we say that if our oil is not exported, no one's oil will be exported, they [the Americans] say: [Iran wants to close] the Strait of Hormuz. No sir! That is the simplest one," Rouhani declared. "We have many other options. It is not the Strait of Hormuz. There are many other straits, but you are aware of only one of them."[24]

Rouhani was clearly referring to the Bab al-Mandeb Strait. That was the conclusion immediately drawn by hard-liners inside Iran, who hailed him as "the Lord of the Straits" after his speech.[25] Various military officials have since voiced their readiness to act if called upon.[26] More and more, Iranian officials are referring to the Red Sea as another part of the world where the regime can project power, although there is no Iranian naval presence there and they deny any involvement in the Yemen conflict.

OUTLOOK

For Iran, closing the Strait of Hormuz would be the "strategic equivalent of a suicide bombing," as the Carnegie Endowment's Karim Sadjadpour memorably put it.[27] It might also be described as the nuclear option.

To close or compromise the world's most vital oil chokepoint would be an act of war against the global economy and Iran's neighbors, including those it has positive relations with, like Iraq. Attacking commercial ships would invite a devastating response from the U.S. Fifth Fleet based in Bahrain. (Judging by President Trump's tweets, that response does not have to be proportional or limited.)[28] Oil prices would jump on news that hostilities had broken out. The international community would unite to condemn Iran's actions, leaving it more isolated than ever. Iran, for its part, would also be unable to export oil via the same route it denied others. For these reasons, it is extremely unlikely that Tehran would ever attempt to close the Strait of Hormuz.

The Bab al-Mandeb Strait is a different story. Because the strait sees only 25% of the petroleum and oil products handled by Hormuz, those shipping lanes may still be an appealing target. Any disruption there would be substantial but not cataclysmic, and the Houthis would presumably pay the highest price for escalation. Iran's leaders would--in theory--preserve some measure of plausible deniability by relying on a proxy to cause chaos. Yet such a move would still demonstrate Iran's reach and boost the price of oil, helping Tehran's bottom line.

If tensions are to peak soon it will likely be later this year when the harshest oil sanctions are re-imposed in November or early next year when their full impact becomes apparent. It remains to be seen just how effective sanctions will be. Iran currently produces about 4.7 million b/d (crude and condensate) and exports 2.5 million b/d. Threats to maritime trade will likely rise as Iran's exports fall, but there is no reason to believe that exports will fall to zero.

European refiners and bankers are extremely wary of doing business with Iran and U.S. allies in Asia (Japan, South Korea) will likely cut back imports significantly. However, the Chinese categorically reject U.S. unilateral sanctions, they maintain banking channels with no exposure to sanctions, and they could be enticed to buy

[22] https://www.reuters.com/article/us-iran-nuclear-usa-oil/irans-rouhani-hints-at-threat-to-neighbors-exports-if-oil-sales-halted-idUSKBN1JT0NB
[23] http://en.farsnews.com/newstext.aspx?nn=13970430000859
[24] "Iran president warns US government of 'mother of all wars.'" BBC Monitoring transcript (July 25, 2018)
[25] "Lord of the Straits" is how the hardliner daily *Vatan-e Emruz* described Rouhani on its front page.
[26] http://www.irna.ir/en/News/82962038
[27] http://www.cnn.com/TRANSCRIPTS/1807/23/ampr.01.html
[28] https://twitter.com/realDonaldTrump/status/1021234525626609666

more oil from Iran if the price is right. Indian state-owned refiners are also considering ways to keep importing oil from Iran. Meanwhile, Turkey seems poised to resist U.S. sanctions threats. If Iran's customers in China, India and maybe Turkey remain loyal and volumes steady, the floor for Iranian crude exports looks to be around 1.0-1.3 million b/d, meaning Iran's exports would again be cut by half as they were from 2012 through 2015.

Even if the U.S. will likely fall short of "zeroing out" Iranian oil exports, freedom of navigation cannot be taken for granted. Washington and its allies should consider the following options to deter aggression and protect against a major supply disruption. So long as Iran has something to lose from a closure, threats to the Strait of Hormuz should be viewed with skepticism. The same cannot be said of the Bab al-Mandeb, especially if Iranian exports to Europe dry up.

POLICY OPTIONS

Identify and deter the culprits: The U.S. should dedicate more assets to identify and interdict suspect vessels in the Red Sea and the Gulf of Aden, some of which may be used to arm the Houthis or help direct their attacks against international shipping. The Houthis should be warned explicitly that their attacks will not be tolerated and that the U.S. could again become directly involved as it was in October 2016 when the USS *Nitze* destroyed Houthi radar sites following two failed attacks against a U.S. destroyer.[29] Any compelling evidence of Iranian involvement (arms, vessels, individuals or military units) should be made public. The stakes are too high to allow the Iranian government to hide behind a proxy.

Be ready to act: Long-standing security commitments to freedom of navigation and the volume of energy at risk make threats to either strait a national security priority for the United States. Sudden oil price spikes put all energy consumers and their economies at risk. Preventing this worst-case scenario may depend on a speedy, forceful, and decisive military response, for which the U.S. Fifth Fleet is prepared. In coordination with the Saudi-led coalition, the U.S. should consider the merits of escorting commercial vessels through the Bab al-Mandeb Strait and Red Sea if the Houthis target more oil tankers in the future.

Going forward, the U.S. and its allies should regionalize and internationalize these issues *before* a crisis breaks out. Washington should rally Asian and European governments to condemn threats to their oil supplies; Iran's oil-rich Gulf neighbors and the Egyptian government, which operates the Suez Canal, should be called on to reject threats to maritime trade.

Prepare for a disruption in the short- and medium-term; modernize the SPR and reconsider strategic oil stock sales: As of May 2018 the U.S. Strategic Petroleum Reserve or SPR held 660 million barrels of oil, down from 695 million at the beginning of 2017.[30] The SPR was established after the Arab oil embargo of 1973 as an "emergency response tool" which the President can tap in the event of an "economically-threatening disruption of oil supplies."[31]

But because U.S. oil production has climbed steadily over the last decade (this year reaching 11 million b/d for the first time ever)[32] lawmakers have decided to mandate non-emergency SPR sales to raise revenue for the federal government. Over the next decade the SPR is set to shrink by another 250 million barrels.[33] This is unwise given the market's overall lack of spare capacity, heightened geopolitical risks, and the distinct possibility of a supply crunch in the 2020s brought on by a lack of upstream investment after the price crash of 2014.[34]

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[29] https://www.reuters.com/article/us-yemen-security-missiles-idUSKCN12C294
[30] https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/spr-quick-facts-and-faqs
[31] https://www.energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve/releasing-oil-spr
[32] https://www.reuters.com/article/us-usa-oil-eia/us-crude-oil-output-hits-11-million-barrels-per-day-for-first-time-ever-idUSKBN1K81XT
[33] https://www.eia.gov/todayinenergy/detail.php?id=35032
[34] https://www.ft.com/content/e424c4b0-204a-11e8-a895-1ba1f72c2c11

The SPR should be modernized in keeping with the Bipartisan Budget Act of 2015, which mandates the sale of $2 billion of oil. But beyond that lawmakers should reconsider slashing U.S. oil reserves to just 60% of capacity in the coming years. Moreover, any adjustment to SPR strategy should be followed by statements tying the changes to specific threats. U.S. pledges to preserve freedom of navigation and tap strategic reserves in coordination with other members of the International Energy Agency could help cap a price spike brought on by a crisis.

Mitigate oil dependency over the long-term: The U.S. economy remains vulnerable to oil price spikes because of its singular dependence on oil as a transportation fuel. The best way to mitigate that risk in the coming decades is to enhance fuel economy standards through regulation, invest in and expand mass transit where practical, and encourage the development and adoption of vehicles that run on alternative fuels.

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