

The Ticking Time Bomb FSO *SAFER* – An Imminent but Preventable Environmental Disaster

Author: LtCol Michael von Normann, DEU Army, CSAG Middle East Branch

The opinions and conclusions expressed herein are those of a number of international officers within the Combined Strategic Analysis Group (CSAG) and do not necessarily reflect the views of United States Central Command, nor of the nations represented within the CSAG or any other governmental agency.

Key Points

- A major FSO *SAFER* oil spill will overshadow other Yemen challenges and harm millions of lives and livelihoods likely for decades.
- The Houthis use FSO *SAFER* as a bargaining chip but must fully understand the risks. A spill will cause an ecological disaster for which the world will forever hold the Houthis responsible.
- A Red Sea environmental disaster will likely drive increased riparian population migration inland, and severely increase DPs and IDPs throughout the region.
- The UN and international community must act quickly to avert an environmental catastrophe which will have colossal economic, political, and societal spillover effects far beyond the Arabian Peninsula.

Introduction

Since 2015, aging oil tanker FSO *SAFER* (“*SAFER*” or the “Vessel”) has sat rotting off the Yemeni coast - less than 4 miles off Ras Issa port, 35 miles north of Hodeida. Hodeida is the center of Houthi-controlled northwestern Yemen. On August 4, a massive and devastating 2700-ton ammonium nitrate blast in Beirut shocked the world. Shortly after, Yemenis reminded the world that the decaying floating storage vessel, FSO *SAFER*, could cause a wide-spread disaster around the Arabian Peninsula. Should the FSO *SAFER* rupture from exploding storage tank gases or have structural failure, the resulting 160-million-liter Red Sea crude oil spill (four times the 1989 *EXXON VALDEZ* oil spill) will negatively impact tens of millions of people. With just a blink of an eye, the world will witness a never before seen disaster. The resulting spill will surely cause an environmental disaster with severe ecological, economic, infrastructure, political, and humanitarian impact for decades to come, and far beyond Yemeni waters. World powers have largely ignored this looming catastrophe for more than five years, but must now address the crisis with the sheer priority it requires.

How did *WE* get here?

For a year, Houthi rebels refused permission for UN inspectors to conduct an onsite assessment. By late May, water had penetrated the engine room and the engines have not run for years due to lack of fuel. Additionally, the Vessel (built in Japan in 1976) is only single hulled and at acute risk of a breach. The over 40-year-old ship has not been serviced in the last five years, and its dilapidated condition could cause a fire or explosion at any moment.

The Vessel has been moored off Yemen’s Red Sea coast since 1987. Prior to the 2015 civil war, the “*SAFER* Floating Storage and Offloading Terminal,” measuring 360 meters long and 70 meters wide, was used to pump oil from a

pipeline to other ships at the port of Ras Issa. But after years of Yemen fighting, the Houthis control this port. For the rebels, the *SAFER* is money and leverage to further their political goals. However, the Vessel endangers millions of people's livelihoods even beyond the coast. The UN seeks to remove and sell the oil as soon as possible, and split the proceeds among the Iran-backed rebels and the Yemeni government. But the Houthis insist the oil revenue belongs solely to them. While determining oil revenue rights may require international legal proceedings, the first priority must be to avert the potential disaster. Waiting until certain tragic disaster occurs is unacceptable.

What is the cargo's actual value?

Normally, the market value of one million barrels of crude oil is **\$40 to \$60 million**.¹ While the Houthis hope to realize that value, crude oil stored for over five years in a hot, corroded, and unmaintained tanker degrades the cargo and makes it difficult to sell.² Additionally, oil prices fell sharply during the coronavirus pandemic.³ Thus, the Houthis' valuation is not only unrealistic, but now the cost to salvage the Vessel and cargo will likely exceed the potentially fouled oil's value. While they can no longer profit from the oil, the Houthis still use the *SAFER* as an important bargaining chip. Well aware of the dire situation of war, starvation, disease, poverty, and COVID-19, the Houthis implicitly threaten to allow the disaster to happen. But this leverage can easily slip out of their hands and end overnight in an unprecedented catastrophe with environmental, humanitarian, political, and economic consequences. Such a disaster would surely include fallout that would rest on the rebels' heads; "they can't afford the permanent black mark, having negative and fatal implications".⁴

What are the foreseeable consequences of an oil spill for the region and beyond?

If the tanker spills its cargo into the Red Sea, the immediate consequences will be **environmental** and **ecological**. Since the stored oil is a very light and sweet oil, some of the spillage might evaporate quickly, while most of it will travel quickly on the ocean's surface and cause more devastating effects than heavier oil. Subsequently, more than **100 islands** in the Red Sea could lose their biodiversity, likely "**300 species of coral reefs** would disappear from Yemeni waters because the oil film would prevent oxygen and sunlight from reaching them."⁵ Further, Hodeida port, home to almost **68,000 fishermen**,⁶ will be closed indefinitely. In total **126,000 Yemeni fishermen**⁷ will possibly lose their source of income and **850,000 tons of fish** could be wasted rather than feed starving Yemenis. In addition to destroying much of the Red Sea, the ecological crisis will devastate bird life. Roughly **1.5 million migratory birds** who cross Bab el-Mandeb each year on their passage to Africa will be at risk.⁸

Aside from the environmental damages, the travelling oil film will reach Arabian Peninsula and African coast Red Sea **desalination plants**. The damage to desalination systems will impact lives and water supply of millions of people in Egypt, Sudan, Eritrea, and Saudi Arabia as the output of raw and industrial water will diminish noticeably.

¹ "Yemen's Iran-backed Houthis threaten to blow up abandoned oil tanker," Joanne Serrieh, Al Arabiya, 6 Jul 2020, <https://english.alarabiya.net/en/News/gulf/2020/07/06/Yemen-s-Iran-backed-Houthis-threaten-to-blow-up-abandoned-oil-tanker-Analyst->, accessed 22 Jul 2020.

² "Yemen's Red Sea 'time bomb' is a Beirut-like disaster in waiting," Elizabeth Hagedorn, Al-Monitor, 12 Aug 2020, <https://www.al-monitor.com/pulse/originals/2020/08/yemen-fso-SAFER-tanker-oil-spill-beirut-leak-red-sea-vessel.html>, accessed 13 Aug 2020.

³ "As if Yemen needed more woes, a decrepit oil tanker threatens disaster," Rick Gladstone, New York Times, 17 Jul 2020, <https://www.nytimes.com/2020/07/17/world/middleeast/yemen-oil-tanker-pollution.html>, accessed 18 Jul 2020.

⁴ *Ibid*.

⁵ "Yemen's Red Sea 'time bomb' is a Beirut-like disaster in waiting," Elizabeth Hagedorn, Al-Monitor, 12 Aug 2020, <https://www.al-monitor.com/pulse/originals/2020/08/yemen-fso-SAFER-tanker-oil-spill-beirut-leak-red-sea-vessel.html>, accessed 13 Aug 2020.

⁶ "Yemenis fear decaying oil tanker could cause major disaster," Saeed Al-Batati, Arab News, 5 Aug 2020, <https://www.arabnews.com/node/1715281/middle-east>, accessed 6 Aug 2020.

⁷ "Yemen: Houthi send repair team to abandoned oil tanker," Middle East Monitor, 3 Jul 2020, <https://www.middleeastmonitor.com/20200703-yemen-houthis-send-repair-team-to-abandoned-oil-tanker/>, accessed 4 Jul 2020.

⁸ "Yemen's Red Sea 'time bomb' is a Beirut-like disaster in waiting," Elizabeth Hagedorn, Al-Monitor, 12 Aug 2020, <https://www.al-monitor.com/pulse/originals/2020/08/yemen-fso-SAFER-tanker-oil-spill-beirut-leak-red-sea-vessel.html>, accessed 13 Aug 2020.

Such degraded conditions could force millions to migrate towards more livable places. The severe Red Sea damage, on both coasts, could close shipping lanes for weeks or months.

These changes threaten an already fragile regional security and stability, and also divert **international maritime navigation** between Asia and Europe. Yemen's grave humanitarian situation will likely reach bottom when the Red Sea shipping lanes - a 20,000 ship waterway representing 10% of the global trade⁹ - shut down, even temporarily. The significant **economic setback** will cause financial impacts far beyond the region. Locally, Yemeni ports will be inaccessible, cutting off the country's sole lifeline for international aid.¹⁰ This will dramatically deteriorate the livelihood of Yemen's 28 million people since up to 90% of its food supplies are imported, and 80% of the people rely on humanitarian aid. Further, fuel costs will likely spike by approximately 200% and food costs will double.¹¹ This could prove fatal to Yemen's society.

The **environmental catastrophe** will rapidly turn into an **economic disaster** combined with a **humanitarian tragedy**. The affected Yemeni society will be pushed to the brink. The internationally recognized government, partly operating from exile in Saudi Arabia, is already struggling with nationwide instability. Such a development would be a **diplomatic and political debacle**. Salvaging the decrepit Vessel should be simple compared to a potential **multi-faceted environmental, economic, humanitarian, diplomatic and political disaster**. Additionally, world leaders should be well aware that if a major spillage occurs, a clean-up operation will easily cost a billion dollars - dozens of times more than the oil's value - according to environmental experts.¹² Further, the developed world will pay these billions because Yemen certainly cannot.

Conclusion

During Great Power Competition, termination of disarmament treaties, NATO funding, China's Belt and Road Initiative, and the COVID-19 pandemic, the FSO *SAFER* challenge occupies the world's back burner. Despite periodic international news stories, the pending catastrophe remains largely unreported to the public. While the stories create brief concern, the issue remains neglected because the crisis has yet to occur. But the crisis must be addressed before it is too late. The international community must realize this is not a question of if something happens, but when. Thus, the ultimate issue is how to keep a bad situation from getting worse and minimize the damage?

The world still has options to prevent this disaster. The UN is ready to deploy a maintenance team upon obtaining clearance from all parties. But eventually, all solutions depend on the Houthis. Currently, the rebels keep the international community in suspense. This is not acceptable since the stakes are too high. The international community should broadly sanction the Houthis. But simply freezing their financial resources, and cutting them off from commerce, will only harm their already oppressed citizens. A proper combination of 'stick and carrots' is needed to get the Houthis to act.

After five years of war, all parties are aware that there is no future Yemen without Houthis. Perhaps this is the time to follow words with deeds. If the Houthis grant international community experts immediate access to *SAFER* to avert an ecological catastrophe, then the UN should consider allocating the Houthis a share of any *SAFER* oil sale revenue. The UN could use such an agreement as an initial step in political negotiations with the Houthis. Houthis and the internationally recognized government of Yemen negotiated similarly prior to the Stockholm

⁹ "The Red Sea Time Bomb," David Harden, The Hill, 23 Aug 2020, <https://thehill.com/opinion/international/513266-the-red-sea-time-bomb>, accessed 24 Aug 2020.

¹⁰ "As if Yemen needed more woes, a decrepit oil tanker threatens disaster," Rick Gladstone, New York Times, 17 Jul 2020, <https://www.nytimes.com/2020/07/17/world/middleeast/yemen-oil-tanker-pollution.html>, accessed 18 Jul 2020.

¹¹ "Yemen's Red Sea 'time bomb' is a Beirut-like disaster in waiting," Elizabeth Hagedorn, Al-Monitor, 12 Aug 2020, <https://www.al-monitor.com/pulse/originals/2020/08/yemen-fso-SAFER-tanker-oil-spill-beirut-leak-red-sea-vessel.html>, accessed 13 Aug 2020.

¹² "Can an environmental catastrophe be averted?," Al Jazeera English, Inside Story, Interview, 18 Jul 2020, <https://www.youtube.com/watch?v=V3xvEFmn9GE>, accessed 13 Aug 2020.

Agreement in late 2018. Finally, one nation or organization, preferably neutral, should assume the lead in a “Save the FSO *SAFER*” campaign. Thus, the U.A.E., Saudi Arabia, and the U.S. should not take this role. The EU may be a promising interlocutor that could bring the opposing factions together at the negotiation table. While the UN cannot show much recent success with its substantial Yemen efforts, the EU has been much less intertwined in the war than other potential intermediaries. Of course, the EU also has interests and wants to protect Red Sea commercial shipping.

Words must now turn to action. International parties must take all possible steps to avoid the potential unprecedented ecosystem, environmental, economic, and humanitarian disaster. Finally, an international immediate crisis reaction task force must be formed and stand-by to deploy instantly if required.

Recommendations for the US / USCENTCOM

- Advertise and support the formation of an international immediate crisis reaction task force with experts and equipment on stand-by until the threat is removed, or to deploy if the *SAFER* spills.
- Raise awareness of imminent great danger to all Red Sea military and commercial shipping.
- Increase air and surface surveillance/security around FSO *SAFER* to avoid intentional or inadvertent dangerous Vessel contacts.
- Prepare STRATCOM key messaging to highlight the Houthis’ responsibility whilst promoting a UN/EU initiative.
- Work with AFRICOM to determine the consequences of a likely rise of DPs/IDPs in the region.
- Support UN efforts to solve a potential global environmental catastrophe by exerting adequate pressure on resistant parties.
- Motivate and promote the EU as focal intermediary to approach all factions to prevent a forthcoming global disaster.