

Maritime Security Through Intelligence



Transit Risk Assessment

Indian Ocean - 17°N - Galle

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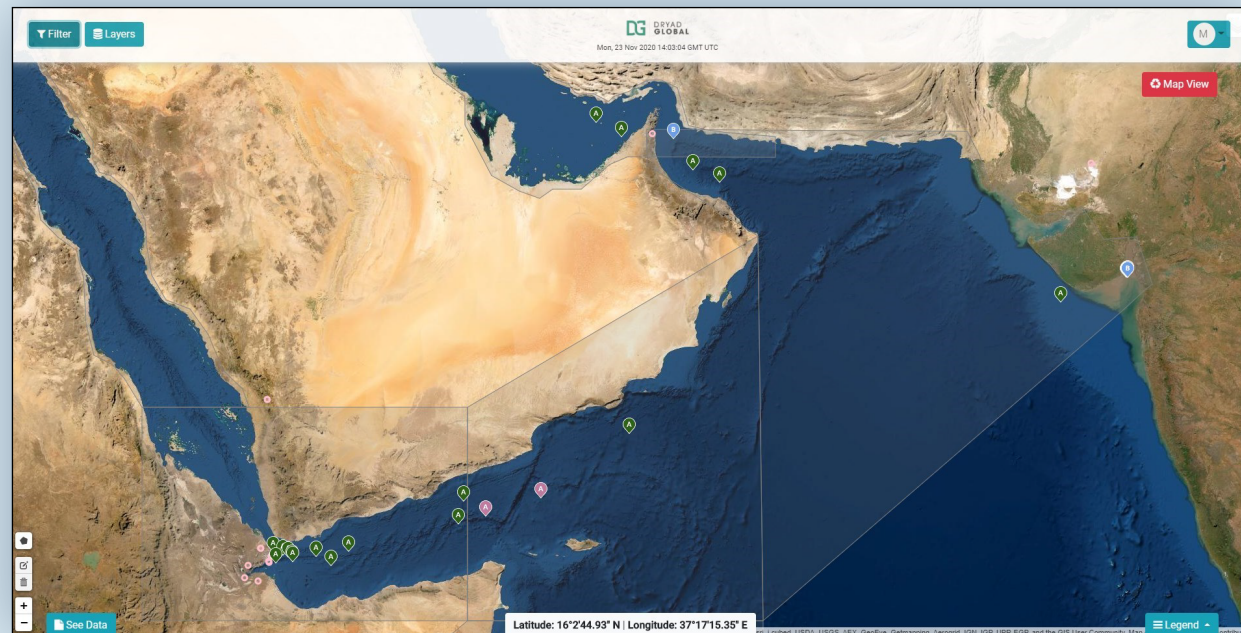
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Risk summary – MT Jag Lakshya

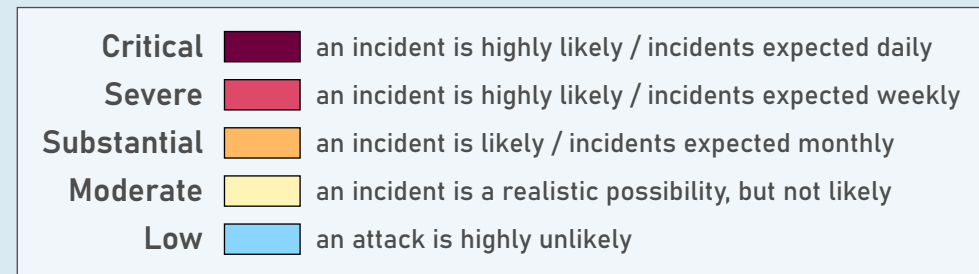
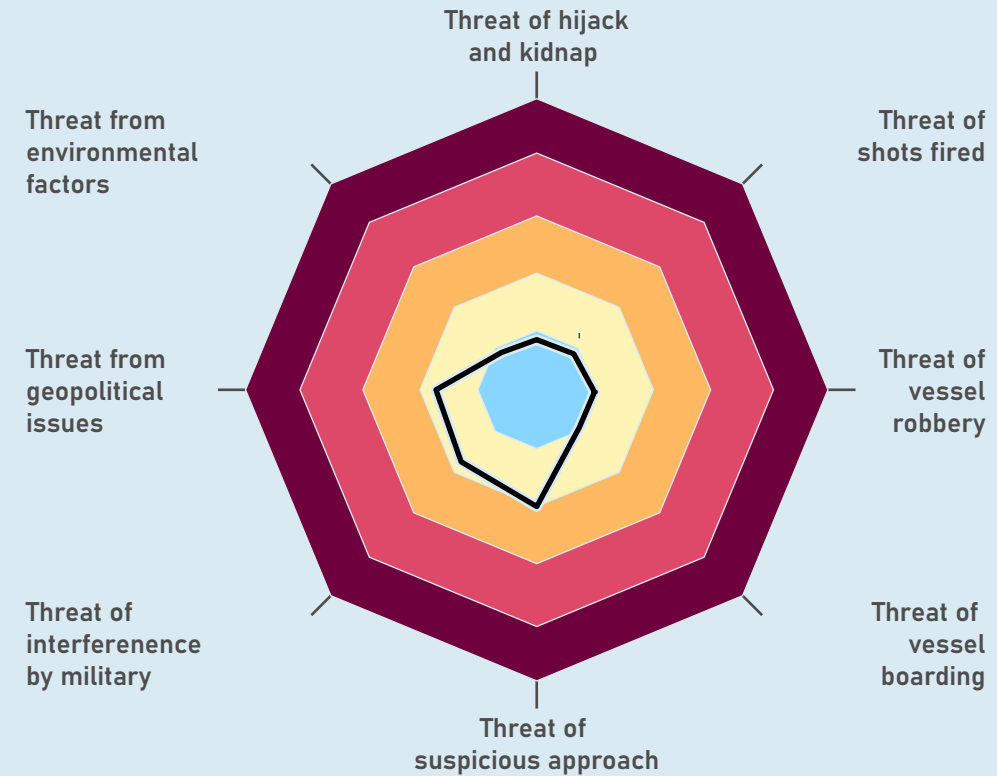
Routing	17N- Galle
Client proposed routing approval	Approved
Risk Rating	MODERATE
Dryad proposed routing	n/a
Risk rating	n/a

Baseline recommended mitigations

Security escort vessel	Optional
Unarmed embarked security advisors	Optional
Registration with MDAT-GoG	Recommended
Group transit / naval convoy	Recommended
Enhanced sentries	Recommended
Manual GPS verification	Not Required
Fire hose deterrent	Optional
Ballistic protection for bridge	Optional
Preventative boarding measures*	Recommended
Vessel lock down	Not Required
Minimal lighting	Not Required

*Barbed wire / anti-climb protection

Voyage specific transit risk assessment



Risk area in general



Small craft operating conditions

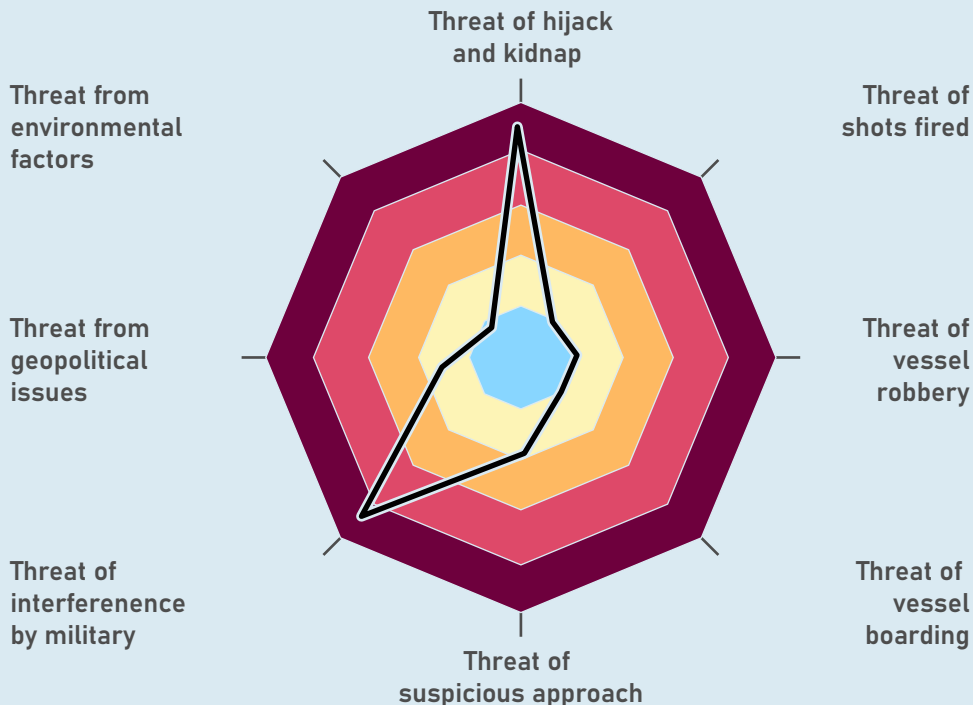
Wave height Within limits	Wave period Within limits	Wind Within limits
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Vessel sensory effectiveness

IR Positive	Radar Positive
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Sensor performance is measured by averaging weather parameters within the principle area of risk within a 5 day window from the reporting date. The nature of weather means that sensor performance may vary

Indian Ocean regional risk assessment



Transit overview

The MT SAMPLE is due to transit from 17°N inbound Galle. The routing will encompass the key risk areas of lower Red Sea (Bab al Mandab) and the Gulf of Aden. Analysis of previous incident and weather data, including maritime crime methodology and trends indicates that this is a MODERATE risk transit for vessel and crew. The principle risk for vessel and crew is within the Gulf of Aden.

Incidents within the intended area of transit are typified by relatively high volumes of suspicious approach reports. On 16th October 2021 Iranian state media announced that Iranian Navy vessels escorting two tankers had fired upon 5 'pirate' speedboats that had approached the tankers. Thus far details regarding this incident remain sparse and there remains no evidence to suggest piratical intent. All incidents within 2021 have been absent of any identifiable piratical intent. The principle concentration for such reporting remains in the waters south of Aden and in the vicinity of Point A IRTC. In addition to suspicious approaches there have been a number of more serious incidents involving the overspill of war risk from Yemen. Such incidents have involved the targeting of vessels by waterborne IED's. Incidents of this nature remain highly irregular and are almost exclusively limited to the targeting of commercial vessels associated with the wider Yemen conflict. In particular vessels of Saudi and Israeli flag are deemed to be at heightened risk. The majority of such incidents have occurred in the waters south of Yemen within the Westbound transit corridor between the Yemeni ports of Al Mukkalah and Nishtun.

Recent incidents within the Gulf of Oman and wider Arabian Sea are typified by incidents of extended war risk and geopolitical instability. The area is operating at a heightened state of risk as a result of ongoing tensions following from the attack on the MT MERCER STREET on the 29 July 21 and the temporary detention of the MT ASPHALT PRINCESS. Incidents remain

highly calculated and are only assessed to present a heightened risk to those vessels currently embroiled in disputes with Iran. Such incidents are not assessed to present a persistent risk to wider commercial shipping in transit throughout the region.

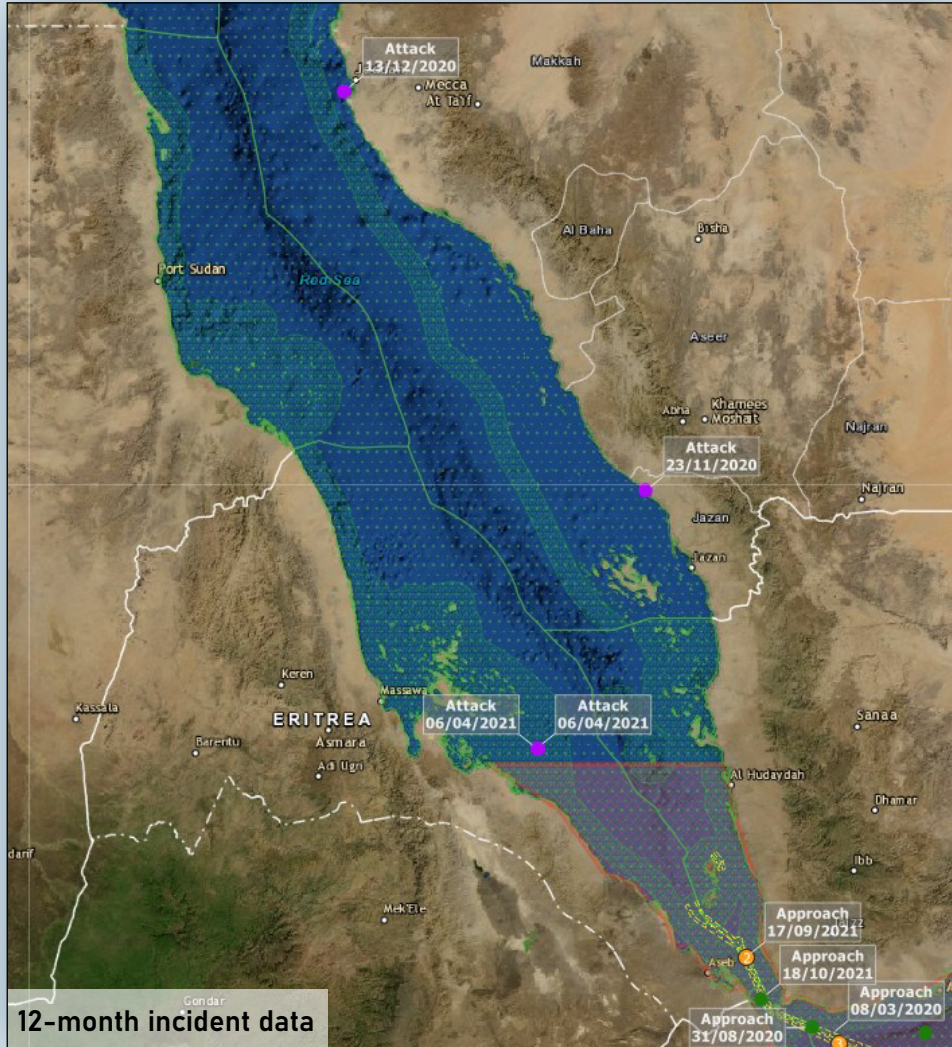
Vessel Vulnerability (inc Human Factor): Analysis of vessel parameters indicates that the MT DI MATTEO does not hold any unique characteristics that are likely to increase the risk profile.

It is vital that all unprotected access points including partially lowered gangways and pilot ladders remains stowed and hardening measures focused within these areas.

Such is the latent risk to the vessel through the intended areas of transit, the deterioration of vigilance by watch-keeping personnel presents a significant risk to vessel and crew. Whilst in all areas of risk, crews must be mindful of the risk from a fall in vigilance over a prolonged period of time and take measures to mitigate this where possible.

Risk area in detail

Lower Red Sea (Bab al Mandab)



Latest incidents

Time	Location	Category
2021-02-20 22:00	Around 63nm SE of Lagos	Approach
2020-11-17 09:00	40nm South Lome	Kidnapping
2020-11-10 01:19	70nm South East Cotonou	Fired upon
2020-10-09 03:45	Apapa Bulk Terminal Ltd., Lagos Port, Nigeria	Boarding

Area risk level

Moderate

Primary threat

Kidnapping/approach

Threat from approach to vessel

The risk of vessels being subject to suspicious approaches in this region is assessed as MODERATE. Incidents appear to be broadly identifiable within two clear themes. Of those incidents which are part of a geopolitical narrative and those connected with an increase in non-traditional vessel traffic, both kinds resulted in an increase in approaches and irregular maritime behaviour throughout 2020. Incidents have shown a clear trend indicating two key areas of focus for activity. The majority of incidents have occurred within the vicinity of the lower Bab al Mandab and Point A (IRTC). Incidents within this area, have almost exclusively been recorded as Suspicious Approaches and are not assessed to have been maritime security incidents. Within 2020 there were 8 incidents recorded of suspicious approach within the Western Gulf of Aden. In three incidents warning shots were fired, and in once incident weapons were shown but no shots fired. There was only one incident in 2020 where ladders were sighted on an approaching skiff. Throughout 2020 no vessel was approached consistently, or any attempted boarding made. In 2021 ther

The risk of environmental factors impacting vessel operation is assessed as LOW. There are no significant environmental factors that have the potential to alter the risk profile to commercial vessels transiting the Gulf of Aden within the Short to Medium Term.

In stark contrast to both historical trends of reporting and the recent uptick in reported incidents, vessels operating within the wider Gulf of Aden & MSTC are highly unlikely to undergo an incident of this nature. Therefore, the risk of hijack or kidnap in this region is assessed as LOW. Thus far there have been no incidents of this nature within the wider Gulf of Aden across a 24 month period. Despite this, all vessels should ensure that appropriate hardening measures are in place for all Gulf of Aden transits so as to remove the opportunity for such an incident whilst underway. There have been 6 reported incidents of suspicious approaches. On the 19th October a small craft approached a vessel in an aggressive manner, the master noted that there were 6 persons onboard with ladders sighted, AST raised weapons and the craft left.

A second cluster of incidents can be identified in the waters south of the Yemeni port of Al Makallah. Here incidents are assessed to have been connected with the wider conflict in Yemen, with vessels targeted by WBIED and weapons. These incidents were assessed to be unique to the region and are not assessed to pose a wider risk to commercial shipping. The westbound lane of the IRTC has recorded the majority of incidents within the MSTC.

The Gulf of Aden is home to high density fishing traffic consisting of light weight, often unlit and poorly maintained fishing vessels. Such incidents may be resulting in false reporting of approaches by suspected piratical vessels. Vessels are reminded to remain vigilant to the presence of local fishing vessels in the region, as pirates are known to have previously used fishing traffic as a cover to gain proximity to their targets. The threat is most likely North of Bosasso bounded by lines of longitude 48-51 East. Socotra should be given a wide berth and avoid by at least 100 nm. In addition to this, the area is popular with both

vessels involved in illicit trade and migration.

Recent inflammation of conflict in the Tigray region of Ethiopia, while unlikely to directly affect commercial operations, is likely to result in a substantial increase in migrant traffic. The IMO recorded 20,000 migrants crossing into Sudan in the first week of fighting. According to the International Organisation of Migration, migrant traffic from the Horn of Africa typically flows to Yemen through Djibouti and the northern Somali coast across the Gulf of Aden and Bab al-Mandeb. In 2018, 92% of those migrants were from Ethiopia and the majority of the rest were from Somalia. If the conflict continues to escalate, large scale migration is likely to continue both westward into Sudan and Eastward across the Red Sea and Gulf of Aden to Yemen. Vessels should maintain awareness for possible interceptions of migrant vessels in the region.

Threat of shots fired at vessel

Water-Borne Improvised Explosive Devices (WBIED) have also played a role in previous attack patterns of Houthi units within the strait, with particular focus on the Saudi ports Jizan and Shuquaiq due to their proximity to Saudi Yemen border as well as the Yemeni Port of Salif. In December 2020, an attack on a vessel at the Saudi Port of Jeddah indicated an ability of threat actors to conduct such attacks significantly beyond their normal area of operations. On 16th March 2021, there have been 6 reported incidents of suspicious approaches. On the 19th October a small craft approached a vessel in an aggressive manner, the master noted that there were 6 persons onboard with ladders sighted, AST raised weapons and the craft left.

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Interference From Military / Parliamentary Forces

The risk of interference to vessel operations by military or paramilitary forces in this region are assessed as LOW. There remains a significant volume of legitimate Naval traffic transiting the region as well as regular maritime patrolling and group naval convoys throughout the MSTC. Vessels operating

within the region must be mindful that regional Coastguards may often operate vessels that may not immediately identify themselves as such. Further still, professional practises of approach and investigation are while legitimate may not always conducted to the highest standards and may be easily confused for vessels with hostile intent. Any potential interaction with a vessel claiming to be a legitimate maritime authority should always be verified before any interaction or boarding attempt allowed.

The Saudi led Arab Coalition announced that their forces had destroyed three Houthi owned vessels laden with explosives in the Southern Red Sea in recent months. In addition, there were two incidents in December 2020 where mines reportedly damaged vessels in the Southern Red Sea. Littoral states as well as great powers like Russia, China and the UK have been jostling for power in this maritime region for quite some time. This has included redeployments and military maneuvering. In September 2021, the Arab coalition forces foiled a naval imminent attack planned by the Iranian-backed Houthi group in the Red Sea, the Saudi-led coalition command said. The coalition naval destroyed two Houthi bomb-laden boats off the Yemeni western port of Salif in Hodeida, it added in a statement carried by the Saudi Press Agency (SPA). There have been an additional three instances of the Saudi-led Arab coalition destroying Houthi bomb-laden boats within the Bab al Mandeb Strait in October 2021. The coalition have claimed that they posed an imminent threat to commercial shipping.

Geopolitical

The likelihood of geopolitical themes impacting vessels operations is MODERATE. The Gulf of Aden remains defined less by its maritime security risks and more by the complex geopolitical narratives that are prevalent onshore. In the adjacent regions (e.g. Gulf of Oman, Red Sea, Persian Gulf) there have

been a streak of tit-for-tat attacks involving Israeli and Iranian vessels. Incidents have generally involved low intensity explosions that have not led to casualties amongst personnel. Though the numerical probability of an attack is low, there remains a heightened risk for Israel and Iran affiliated (through ownership or flag) vessels. All vessels should be vigilant however, because a vessel was recently misidentified as Israeli owned. Vessels are advised to be especially cautious for the approach of small skiffs at night. Within the short to medium term geopolitics remain unlikely to significantly alter the risk profile within the maritime domain to the extent that this will have significant impact upon wider commercial shipping. However, despite this, localised incidents remain common and as such it is vital that vessels transiting the region remain appraised of the dynamics of the region.

Hijack/Kidnap

In stark contrast to both historical trends of reporting and the recent uptick in reported incidents, vessels operating within the wider Gulf of Aden & MSTC are highly unlikely to undergo an incident of this nature. Therefore, the risk of hijack or kidnap in this region is assessed as LOW. Thus far there have been no incidents of this nature within the wider Gulf of Aden across a 24 month period. Despite this, all vessels should ensure that appropriate hardening measures are in place for all Gulf of Aden transits so as to remove the opportunity for such an incident whilst underway.

Robbery

Vessels calling at port or anchor within the Gulf of Aden are assessed to be at a HEIGHTENED but low risk of robbery as a result of the persistent risk to vessels from low level maritime crime. Incidents of this nature remain highly irregular with no reported incidents within a 24-month period.

Shots Fired

The risk of shots being fired at vessels in the Gulf of Aden or the Bab al Mandeb Strait is assessed as LOW. Incidents of this nature occurred within 2020 on three occasions, however the incidents were assessed to be connected with wider geopolitical narratives. On all occasions, vessels were transiting within the westbound IRTC south of Al Makkalah and the Yemeni Port of Nishtun. Whilst weapons have been recorded as 'sighted' in incidents within the Western Gulf of Aden, there have been no recorded incidents of vessels being fired upon.

Vessels involved in fishing, migration and wider illicit trade all have the potential for carrying arms, however these are likely to be for protection purposes only and unlikely to present a risk to wider commercial shipping.

Boarding

The risk of vessels being boarded by maritime criminals in this region is assessed as LOW. In stark contrast to both historical trends of reporting and the recent uptick in reported incidents, vessels operating within the wider Gulf of Aden & MSTC are highly unlikely to undergo an incident of this nature. Thus far there have been no incidents of this nature within the wider Gulf of Aden across a 24 month period. Despite this, all vessels should ensure that appropriate hardening measures are in place for all Gulf of Aden transits so as to remove the opportunity for such an incident whilst underway.

Vessels calling at port within the region are at a HEIGHTENED risk as a result of the persistent risk from low level maritime crime.

Environmental

The risk of environmental factors impacting vessel operation is assessed as LOW. There are no significant environmental factors that have the potential to alter the risk profile to commercial vessels transiting the Gulf of Aden within the Short to Medium Term.

Measures for Preventing, Mitigating & Recovering from an Attack

Space

Where possible vessels should also maintain 50nm from the coast of any populated landmass. Maintain a strict communications watch and establish communication with all vessels coming close. Vessels should consider their proximity to Saudi flagged vessels when transiting the Red Sea, particularly in the vicinity of Hanish Islands, Strait of Hormuz and Persian Gulf.

In the event of merchant vessels being hailed masters should respond with ship's name, flag state and confirm that they are proceeding in accordance with International Law. If contacted by Iranian authorities, it is recommended that masters contact UKMTO. It is also merchant shipping maintain transmissions on AIS throughout the region to avoid misidentification and to assist with merchant shipping monitoring.

Time

The general principle is to transit areas of higher risk by day to maximise your detection distance. Night transit significantly alter the risk profile. It should be noted that this is different to traditional maritime security risks where most suspicious approaches occur within daylight hrs. If a night transit is required, significant care should be taken to provide substantial illumination of vessel including surrounding area and extremities. There is no requirement for a standing patrol of deck area in transit if illumination and speed are constant.

Transit speed

Vessels should achieve appropriate and constant speed at the soonest opportunity upon departure and whilst within the risk area. The Master should consider increasing to full sea speed if suspicious activity develops. Small boats find great difficulty maintaining speed running into sea. Keeping a potential aggressor in a stern chase at maximum sea speed is ideal.

Posture

The embarkation of AST for this transit will provide a significant degree of enhanced protection above what is assessed to be an essential requirement for this transit. The addition of unarmed observers is not recommended. In light of the ongoing COVID-19 crisis and other security variables within the region, Dryad Global continue to recommend that vessels face an enhanced risk profile when embarked security advisors are present onboard.

Within politically sensitive areas such as the Persian Gulf and Gulf of Oman, the presence of unarmed security advisors, is highly likely to raise IRGC(N) suspicion.

Any personnel who are not actively involved in the operation of the vessel would invariably face increased scrutiny and suspicion and would be highly likely to result in the detention of vessel and crew. Iran has previously used the auspices of espionage as a reasoning to justify spurious detentions of foreign nationals, the presence of unarmed military advisors would significantly increase this risk.

In addition any additional personnel aboard a vessel during the spread

Measures for Preventing, Mitigating & Recovering from an Attack

COVID-19 exacerbate the potential for the virus to spread, and compound issues surrounding infection control. Increased number of personnel deepen the issues faced in contact tracing and mitigating the threat posed by COVID-19.

Full compliance with BMP5 is considered essential in areas of risk. In addition, significant outward and area lighting would serve as a suitable deterrent to both vessels at anchorage and underway. Transits should be conducted with full BMP5 measures in place if necessary, in the Master's judgement or in accordance with Company statutory policy.

Vessels are advised to keep the Automatic Information System (AIS) on and are reminded that there is no requirement to complete the field stating the last or next port of call. Vessels are reminded that the 'spoofing' of GPS data is possible and as such manual verification of positioning is essential when in the Strait of Hormuz.

In addition, and whilst at anchor, vessels should consider implementing the following measures if deemed appropriate by the CSO / Vessel.

Master

- Rotate the propeller continuously or at short, irregular intervals.
- Operate bow and stern thrusters at zero (0) thrust.
- Turn the rudder frequently.
- Switch the echo sounder to transmit counter/combat swimmer/diver threat.

In all cases, vessels should register with MSCHOA and report to UKMTO when entering the Indian Ocean VRA. 24-48 hrs in advance, Masters are to provide transit plans for the SoH and AG to UKMTO including:

- Time of Entering/Exiting the SoH TSS.
- Outline of Navigation Plan whilst operating in SoH and AG.
- Any constraints or speed restrictions.
- Crew Nationality

Emergency evacuation procedures should continue to be well rehearsed and understood by all crew. Vessel masters and company CSO's should consider protocol in respect of interaction with state forces i.e. US Navy and IRGC(N). In all cases vessels should comply and remain vigilant.

Voyage specific recommendations

It is highly recommended that as a result of the unique design of the vessel, crews consider the employment of additional security measures at vessel low points, to be deployed in the event that the vessel reduces speed or loses power within risk areas.

Vessels are expressly reminded to ensure that all hardening should include external facing windows and doors which should be secured in order to prevent entry to the vessel super structure.

In addition, in the event of a vessel lock down it is vital that equipment is not left accessible to pirates that could be used to gain access to protected areas.

Measures for Preventing, Mitigating & Recovering from an Attack

Emissions control (EMCON) / emergency comms

No specific recommendation.

Access control

Daylight Procedure – Consider single point of entry

Darkness Procedure – All external access points locked, and all doors locked (considering need for escape).

Deck Access – Only if necessary, routing maintenance to be avoided.

Secure all deck equipment and remove all tools, equipment and flammables that could be of use to an adversary. Store with access consideration, (remove all oxy acetylene equipment that could be used to penetrate access into Citadel)

Operational security (OPSEC)

All information regarding vessel operations should be considered confidential.

Step aside manoeuvre

A step aside manoeuvre is a diagnostic action designed to test the intent of a newly detected vessel to determine its intentions. On spotting a suspicious vessel with a CPA less than 2nm alter course immediately to determine if the vessel alters to maintain a closing CPA. At a point where

this is feels suspicious the Master should consider increasing to maximum sea speed and sounding the alarm and reacting in accordance with piracy drills.

Identification criteria (IDCRIT)

to assess a vessel as suspicious:

- Any contact, Dhow sized or smaller who alters course to maintain a close CPA.
- The OOW is suspicious.