भारत सरकार/ GOVERNMENT OF INDIA
पत्तन,पोत परिवहन और जलमार्ग मंत्रालय
MINISTRY OF PORTS, SHIPPING AND WATERWAYS
नौवहन महानिदेशालय, मुंबई
DIRECTORATE GENERAL OF SHIPPING,
MUMBAI

F. No. File No: 28-11/3/2023-MSB Date -29.12.2023

DGS Circular No. 27 of 2023

Sub.: Maritime Security Advisory on the security situation in the Persian Gulf, Strait of Hormuz, Gulf of Oman, Arabian Sea, Gulf of Aden, Bab al Mandeb Strait, Red Sea, Somali Basin and Arabian Sea region - reg.

For the attention of Ship Owners, Ship Managers, Shipping Agents, RPSL Agents, Ship Masters, Seafarers, Charterers, Recognised Organisation & Recognised Security Organisation, Coastal Indian States including Administrations of Union territories and State Maritime Boards.

1. This advisory is issued given further developments due to the escalation in the number of security-related incidents in the Gulf of Aden, Bab al Mandeb Strait, Red Sea, Somali Basin and Arabian Sea region. The Indian government consistently monitors the maritime security environment to ensure the safe and secure passage of vessels, maintain uninterrupted trade flows, and safeguard Indian ships, crew, and maritime interests.

2. In the event of any incidents or security escalation due to incidents stated in this advisory, the **communication protocol** to be followed generally is as follows:

2.1. Contact the nearest coalition warship and Indian Navy vessel using VHF Channel 16, provide the current location, describe the situation, communicate the intended course of action, and seek further guidance.

2.2. Inform the United Kingdom Maritime Trade Operations (UKMTO), the vessel's Company Security Officer, DGComm Centre (dgcommcentre-dgs@nic.in) with a copy to IFC-IOR (ifc-ior.gurugram@navy.gov.in).

2.3. Inform other applicable agencies/organisations as relevant based on the region and type of occurrence (such as MRCC, etc).

3. **Gulf of Aden:** In the event any vessel receives a VHF communication from entities claiming to be the "Yemeni Navy" directing them to change course towards Al Hudaydah or another location on the northwest coast of Yemen, the following steps should be taken.

Firstly, if it is safe to proceed, the vessel should consider ignoring the VHF call and maintaining its course. After that, communication protocol, as stated in para 2, must be followed, and the incident must be reported to receive appropriate support and advice for navigating the situation safely.

4. **Loitering Munitions (LM) such as drones, unmanned aerial vehicles (UAVs), and projectile attacks pose a significant risk in these waters,** as evident from the recent incidents indicating a rise in such hostile activities. Oil Companies International Marine Forum (OCIMF) has published an informational paper titled "Loitering Munitions – The Threat to Merchant Ships," detailing the escalating risk of loitering munitions (LM), such as the Shahed-136, to commercial vessels. This document highlights the operational and technical traits of LMs and provides best practice recommendations to counter these emerging security challenges.

5. The vessel MT Mercer Street incident drone attack indicates LM targeting used AIS transponder data. However, the vessel MV Pacific Zircon was still attacked despite AIS being switched off. It is possible that historic AIS voyage data was used to estimate a likely position; this enables the LM to use other sensors for accurate location. Limiting the information in AIS data fields or switching off AIS could make a ship harder to locate but may be unlikely to prevent an attack ultimately.

6. Voyage threat and risk assessment should consider the danger from LM. Simultaneously switching off AIS and altering the ship safely away from its original course may provide limited mitigation capabilities to avoid being attacked. Changes in voyage routing should be considered to make it harder to estimate a position. Not including the next port of call in the AIS data fields should also be considered.

7. Attacks have been conducted very far out in the high seas, as evident from the Chem Pluto attack on 23.12.2023 in the Arabian Sea and the Shahed-136 attack drone attack on 24.11.2023 on the 15,000-TEU CMA CGM Symi in the Indian Ocean. These drones have a range of up to 600 nautical miles or 1,100 kilometres offshore, which can extend further by ship-launched LM.

8. Eyewitness accounts indicate LM can be detected acoustically, albeit at a limited range before being seen. An all-around good lookout is essential, but response times may be limited. Vessels encountering or suspecting loitering munition activity (even when not attacked) should immediately report as per the aforesaid communication protocol.

9. From learnings from earlier incidents, where an effective drone reporting system mitigates issues associated with its low detection signatures, all reports increase maritime awareness and help reduce this threat.

7 Countermeasures

Commercially available solutions for countering LM are being developed and rely on either destroying the LM in flight or disrupting the controlling radio frequencies by jamming or spoofing. The solutions' aim is to disrupt the GPS receivers by broadcasting a strong signal on the relevant bandwidth, flood it and thwart the device from receiving satellite signals. While this is the scope of state/military grade systems, there are some regulated-civil applications, such as those used in airports and on critical infrastructures such as oil platforms and maritime terminals. Some countries have already deployed counter-drone systems on oil and gas sea platforms.

Practical countermeasures for merchant ships are generally actions to either prevent the LM detecting a ship or to limit the damage on impact. In the Middle East region, it will not be known if a detected UAV/LM is friend or foe. Unless otherwise informed, all detections or warnings of detections should be treated as a threat.

To prevent detection in areas of increased threat:

- Threat assessment should identify areas of increased LM threat.
- Monitor and understand regional advisories and notifications.
- Consider changes to voyage routing to become less predictable.
- Review AIS policy.
  - To reduce detection, consider minimising information in the data fields. For voyage related data, SOLAS requires Ship's draught – Hazardous cargo (type – as required by the competent authority) – Destination and ETA (at Master's discretion) – Optional – Route plan (waypoints).
- Close radar watch. Commercial radars can detect a fast-moving contact, however:
  - Research suggests LM detection by radar can vary from 2-5km.
  - The radar cross section of LM can be small, comparable to some birds. Most commercial radar are configured to ignore the response to avoid clutter. Some radar manufacturers offer software upgrades designed to detect small airborne targets.
  - LM construction and design can have a significant impact on a radar's detection ability, as can the LM orientation to the radar.
  - The operating frequency of commercial radar for small target detection is limited, but may detect small, fast, airborne targets.
- All round audible and visual lookout.

Limiting damage on impact:

- Crew briefed and emergency drills practiced.
- On detecting an LM, consider safe manoeuvring such as displacing the ship as quickly as possible from its original track.
- If time and safety conditions permit, consider manoeuvring the ship to reduce any impact on the accommodation block or area where crew may be mustered.

Table 1: Countermeasures for LM (Source: Loitering Munitions – The Threat to Merchant Ships, OCIMF)

10. A safe muster point/citadel inside the ship and above the waterline should be identified and could provide safety to the crew. If a ship detects a drone, the Master should consider alerting the crew with the ship's alarm and ordering them to the designated safety space. This mitigation requires quick reaction times after detecting the threat and should be practised. At a minimum, the crew should be inside the structure with closed doors and windows. Firefighting equipment should be rigged and quickly operational.

11. Many of these drone attacks are carried out on vessels having an Israeli connection, such as vessel owner/charterer. Such vessels must have a heightened threat perception while conducting a risk analysis.

12. The threat of **limpet mines**, capable of being attached to hulls and explosive boats, potentially leading to severe damage and risks, particularly in the **Persian Gulf, Strait of Hormuz, and the Gulf of Oman, as well as the Red Sea and Gulf of Aden**, demands constant vigilance. Crew members should closely monitor for suspicious activity and promptly report any suspicions or incidents.

13. **Illegal boarding, detention, seizure, and hijacking have become a pressing concern for ships navigating through this region**. Notable incidents have included capturing vessels under various international flags utilising small boats, military/navy vessels, and helicopters, after which vessels are coerced to move into territorial waters.

14. Additionally, the persistent issue of **piracy and armed robbery** at sea, especially prevalent in the **Gulf of Aden, Western Indian Ocean / Arabian Sea, and Somali Basin,** continues to threaten maritime safety. Furthermore, an example of the increased capabilities and boldness of Somali pirates was evident during the Hijacking of MV Ruen on 15.12.2023, where the pirates utilised a hijacked dhow as mother ship during this incident.

15. The UKMTO have received a report of a Mechanised Sailing Vessel (MSV) being Hijacked by heavily armed personnel in an undefined area around Eyl, Somalia, on 22.12.2023. Accordingly, the pirates can utilise this MSV as a mother vessel, extending their operational capabilities. All Indian MSVs (Dhows) are invited to be extra vigil and comply with the DGS Order 11 of 2018 dated 07.12.2018 on 'Standard Operating Procedure for operation of Indian sailing vessel in international voyages'.

16. All merchant vessels are advised to take note of this information and avoid such dhows by maintaining high CPA from such vessels, when transiting these regions. All stakeholders are advised to adhere to the Best Management Practices to deter Piracy and enhance maritime safety in the Red Sea, Gulf of Aden, Indian Ocean and the Arabian Sea (BMP5).

17. Additionally, **navigation and communication disruptions, including GPS interference and spoofing,** present complex challenges, and potential risks. Vessels encountering such issues should promptly report as per the communication protocol while taking necessary precautions to ensure the vessel's and its crew's safety and security.

18. As the **conflict in Yemen poses further risks, particularly in the Red Sea and Gulf of Aden**, Indian flagged vessels are advised to avoid the country's ports and exercise increased caution in adjacent waters (MS Notice 12 of 2022 dated 02.12.2022).

19. All vessels transiting Persian Gulf, Strait of Hormuz, Gulf of Oman, Arabian Sea, Gulf of Aden, Bab al Mandeb Strait, Red Sea, Somali Basin and Arabian Sea region are advised to share by email the details of the vessel, date/time of transit and Satcom email and telephone details to DGComm Centre (dgcommcentre-dgs@nic.in) with a copy to IFC-IOR (ifc-ior.gurugram@navy.gov.in) in the appended format (Annexure I).

20. Furthermore, all CSOs, Vessels and Master must consider the heightened security risks given the current scenario. They must adhere to the practices and precautionary measures specified in DGS Circular No. 25 of 2023 dated 05.12.2023 and the SOPs/advisories/Best Management Practices therein. Weekly Maritime Security Updates, as available on the IFC-IOR website, must also be referred to obtain the weekly list of security incidents occurring worldwide.

21. It is advised to carry out a **ship shore security drill** for all the applicable security scenarios (e.g. Piracy, Loitering Munitions, etc) before the vessel transits this region.

22. Regular reviews and training should be conducted to ensure understanding and implementation of the non-exhaustive lists of security measures stated in the DGS Circular. Collective vigilance and adherence to the security SOPs/advisories are crucial for mitigating these varied and significant threats.

This is issued with the approval of the Director General of Shipping.

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Note - The underlined blue content in the circular indicates hyperlinks to the relevant online content on their website.

Annexure – 1

Vessel Name	IMO No.	MMSI	Call Sign	Email	Sat phone	Last Port / Next Port	Key Transit points and Eta
							(eg. Entering Red Sea eastbound on 01.01.2024/1500 hrs lt, Total Transit Time xx hours; ETA Strait of Bab al-Mandab on XX.01.2024/1500 hrs lt; ……)