Maritime Industry Security Threat Overview (MISTO)

26 November 2025

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Introduction

Background and disclaimer

The MISTO has been compiled to provide general and situational information regarding the maritime domain. MISTOs are based on an amalgamation of publicly available information and information obtained by the authors through their networks of stakeholders in shipping, governments, and academia. The information contained herein is based on data available as of the date of this assessment and is subject to change without notice. The MISTO does not constitute a guarantee of the accuracy, completeness, or timeliness of the information provided.

The MISTO authors disclaim any responsibility for any direct or indirect consequences arising from the use of the MISTO. Users of the MISTO are advised to conduct their own due diligence, consult additional sources, and exercise appropriate caution.

The MISTO does not constitute legal, operational, or financial advice, nor does it replace the need for ship operators, shipping companies, and other maritime stakeholders to implement their own security protocols, perform risk assessments, and adhere to applicable regulations and best practices. The authors assume no liability for any actions taken or not taken based on the information provided in this document.

By making use of the MISTO, users acknowledge and accept the terms of this disclaimer.

Purpose

The purpose of the MISTO is to provide an overall understanding of prevailing security threats.

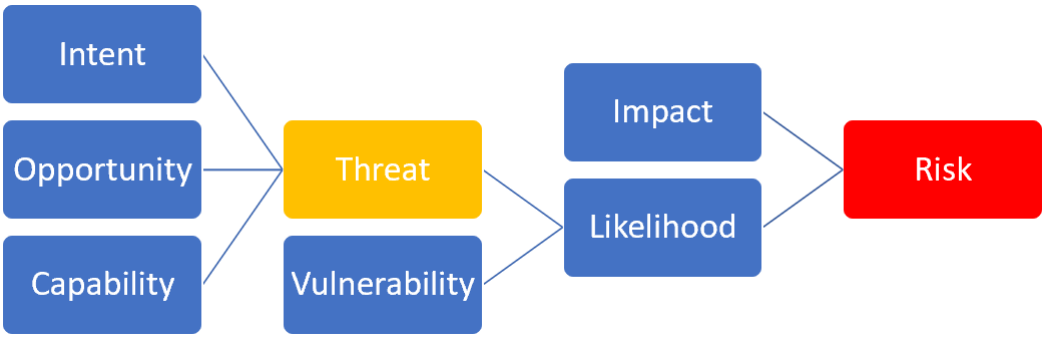
Scope

MISTOs focus on the physical threats to maritime that have with potential to cause serious harm to people, environment, ship, and/or cargo. This includes acts of piracy, armed robbery, terrorism, and war/armed conflict. In cases where physical security threat actors also pose cyber security threats, these are included in the threat description. Threats such as unwarranted detentions, smuggling, stowaways, blackmail, fraud, corruption, etc. are not covered by the MISTOs.

MISTO's threat description

The MISTOs are rooted in the understanding of a threat as the product of capability, opportunity, and intent of a threat actor. Threat should not be confused with risk, which is unique to different ships in different situations, and the product of probability and impact of a specific incident.

The way the concepts threat and risk are inter-linked with the other "Risk building blocks" can be illustrated as follows:



The "Risk building blocks"

When quantifying a threat care should be taken to avoid becoming subjective. It is a common mistake to use terms such as "serious threat" and thereby missing the point that a threat is only "serious" when posed against a vulnerable target. For the same reason, the MISTOs are described in factual rather than subjective terms. Thus, it is the MISTO user's responsibility to make a proper risk assessment - to determine whether or not the post-mitigation residual risk is acceptable in relation to a given threat. The answer to that question depends on the actual circumstances including the risk acceptance level of the user.

Security risk assessment

The MISTO are intended for use in conjunction with the Best Management Practices (BMP) for Maritime Security, which includes structured guidance on the security risk assessment process including various methods of risk mitigation. In addition to the BMP, shipping industry associations may on a case-by-case basis issue detailed, scenario-specific guidance. The full suite of publicly available and jointly endorsed information and guidance is available at the joint industry association website: www.maritimeglobalsecurity.org/

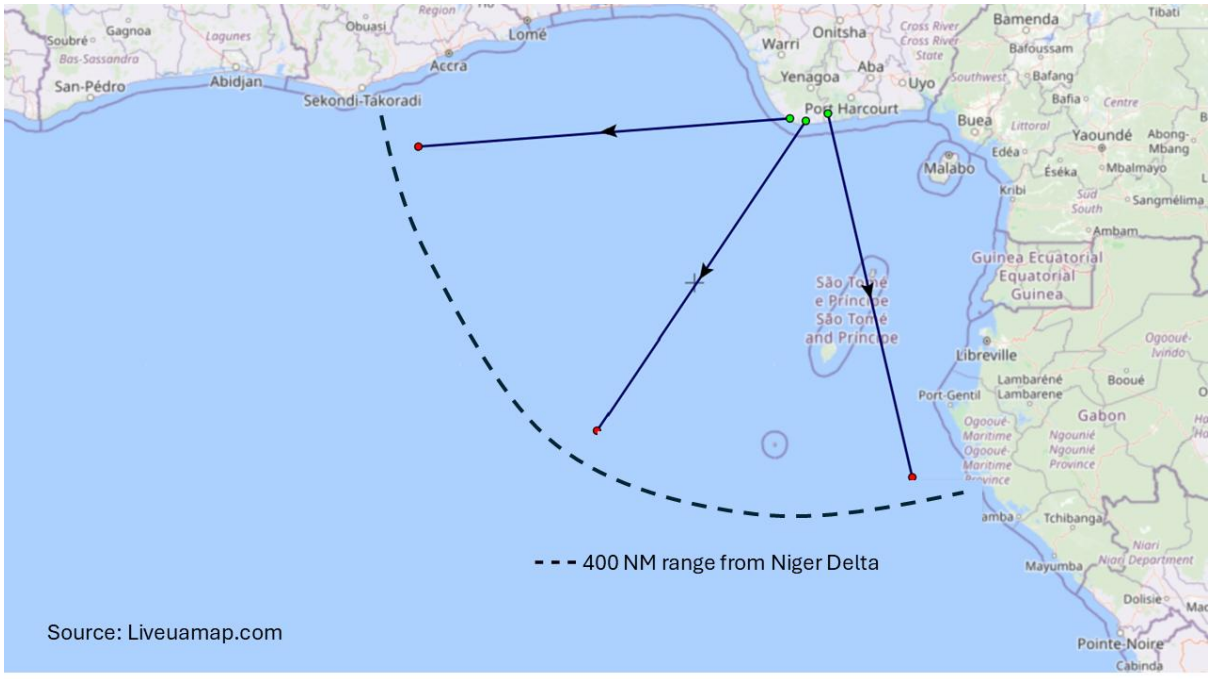
Update of the MISTO

The MISTO will be updated every 3 – 6 months depending on the situation.

Gulf of Guinea – predominantly Niger Delta based pirates

Background and trends

- Piracy is a long-standing problem in the region with the vast majority of attacks emanating from the Niger Delta.
- Less frequent attacks by local armed robbers have also occurred across the region.
- Frequency of attacks varies depending on political and economic conditions ashore.
- Recent law enforcement and economic efforts by Nigeria assisted by the shipping industry and non-regional navies appear to have reduced the frequency of attacks, but at present it is unclear whether this suppression will endure.
- Over the past couple of years piracy activity has been at a historically low level. However, the security situation in the region can change quickly with the political situation especially in Nigeria, which struggles with a plethora of domestic political- and security issues.



The Gulf of Guinea

Capability

- Niger Delta based pirates have typically operated from skiffs with up to ten pirates onboard.
- They have typically been armed with automatic weapons, knives, and boarding ladders.

- Pirate attacks are possible at distances of up to 250 nm from the coastline, particularly during spells with favourable weather conditions which may occur in the rainy season. All ship types may be targeted.
- Inshore attacks against local passenger and cargo vessels or against military detachments remain a threat across the Niger Delta, underlined by various incidents in recent months. Such attacks are not a direct concern for merchant ships in international trade, but crews must be vigilant during river transits in the Niger Delta.
- Some members of a pirate action group have typically been familiar with ship operations.
- Occasionally, motherships have been used.
- Pirates have displayed ability to collect intelligence and select targets.
- Pirates have attempted to break into citadels, often using ship's tools, if circumstances have allowed.
- Hostage holding camps have been located in the Niger Delta and have typically been able to hold hostages for up to two months.

Intent

- The pirates are financially motivated, and they are steadfast in pursuing their goals which may include:
    - Stealing valuables on board.
    - Kidnapping members of crew for ransom.
    - Theft of the cargo.
- The pirates will use force to achieve their aims.
- Often, they are not deterred by armed security personnel, and there are several examples of pirates opening fire on seafarers and onboard armed security and/or military personnel.
- Pirate groups' intent is currently low which is reportedly attributed to their involvement in government-funded oil pipeline protection services.
- Many cases which are reported as piracy involve ships solely trading within the region. Such incidents are unlikely to be genuine piracy involving random targets.
- Piracy appears linked to other organized criminal activity and corruption at all levels.

Opportunity

- Gulf of Guinea pirates operate from bases in the Niger Delta and can attack shipping in the wider Gulf of Guinea (historically up to around 400 nautical miles from the Niger Delta), including in ports and anchorages in coastal states in the region. It cannot be ruled out that the use of motherships can result in attacks even further away.

- The rainy season typically lasts from around February to around November, with a slight lull in July-August. The threat of attacks has previously been higher outside the monsoon season.
- Pirates have attacked at any time of day but have typically been more successful during hours of darkness.
- At any given time, around 400 – 600 commercial ships operate in the Gulf of Guinea. In 2024 there were around 3-5 pirate attacks/robberies on oceangoing ships, and in 2025 to date (XX November) we have seen 3-4 attacks.
- Law enforcement in the Gulf of Guinea is patchy due to lack of sufficient capable law enforcement assets and complications due to national political and criminal agendas.
- Law enforcement is also affected by complicated maritime borders (mainly overlapping Exclusive Economic Zone claims) which hampers effective deployment of law enforcement assets.

Further guidance

https://www.maritimeglobalsecurity.org/geography/gulf-of-guinea/

https://gog-mdat.org/home

Red Sea, Gulf of Aden, Northwest Indian Ocean – Houthi insurgents

Background and trends

- Since November 2023 the Houthis have threatened and attacked merchant ships in the Southern Red Sea and Gulf of Aden.
- This area covers shipping routes which are affected by the conflict in Yemen, including operations by Houthi forces to target shipping linked to Israel as well as the US and the UK.
- The Houthis claim they attack to support the Palestinian cause and to stop the Israeli military operations in Gaza.
- Several navies operating in various task forces are engaged in defensive operations against the Houthi threat, and US and UK have even conducted strikes on Houthi controlled areas and capabilities directly involved in attacks on merchant ships.

Southern Red Sea and Gulf of Aden
(source: Joint Maritime Information Center – JMIC)

Capability

The Houthis have well-established intelligence networks and are believed to have close links to certain State actors. They have also been known to use open-source information, including ship tracking websites, AIS data, and social media. Houthi forces are often masquerading as Yemeni Coastguard or Navy officials and attempting to coerce merchant ships to sail to Yemeni ports.

The Houthis have conducted attacks using the following types of weapons and means:

- Antiship cruise missiles. These are missiles with ranges up to around 800 kilometres. They are equipped with terminal guidance systems, typically either a radar seeker, infrared seeker, or electro-optical seeker, which enables the missile to hit its target with precision depending on external factors such as weather or background targets.
- Antiship ballistic missiles. These missiles come in various forms, some with a range up to 1,700 kilometres or even more. They are typically aimed at a geographical coordinate calculated on basis of the target's course and speed, range to the target, and the missile flying time. These missiles have limited terminal guidance and therefore limited accuracy, and their accuracy deteriorates with increased distance to the target.
- Unmanned Aerial Vehicles (UAV, or drones). These come in various types with various ranges and sensor capabilities such as cameras (e.g. infrared).
- Unmanned Surface Vehicles (USV). These are essentially remotely operated skiffs laden with explosives and equipped with cameras. They are typically operated from a nearby, manned skiff, or remotely operated from ashore.
- Skiffs with armed persons and equipped with boarding equipment.
- Helicopters with armed persons and equipped with boarding equipment.
- Sea mines, usually in the shape of tethered mines laid in vicinity of ports. This has not been seen for some time, but the capability remains.
- Uncrewed Subsurface Vehicles. The Houthis have these in their inventory, but these have not yet been used against merchant ships.
- GNSS jammers. GNSS interference can be experienced across the Southern Red Sea as well as areas where military operations are underway (eg Eastern Mediterranean and Strait of Hormuz). GPS interference has been particularly prevalent, however, all forms of GNSS can be affected. Devices and several types of shipboard equipment reliant upon GNSS input (for example time input) may prove to be unreliable in these areas.
- AIS spoofing. Any ship can have their AIS data interfered with and this may result in the disruption or disguise of a ship's name, location, route information etc.. AIS data in this region may therefore be unreliable.

Intent

- Since the November 2023 start of the Houthi campaign against commercial shipping, the Houthis have adjusted their threats according to the prevailing situation between Hamas, Israel, US, UK, and other stakeholders.
- The current situation in November 2025 remains fluid and uncertain.

- Much depends upon a US backed ceasefire in Gaza. It is anticipated that if this ceasefire fails, then attacks on shipping by the Houthis will resume.
- On 9 November the Houthis stated in a latter to Hamas' al-Qassam Brigade that Houthi attacks on Israel and Israeli shipping in the Red Sea and the Arabian Sea had been suspended because of the ceasefire in Gaza.
- Notwithstanding the ceasefire and the indication from the Houthis of standing down attacks against Israel and Israeli linked ships, the situation remains relatively uncertain. . Only the Houthis know what their target matrix is at any given time.
- Finally, prior to the ceasefire, on 30 September the Houthis announced a prohibition on the export of US Crude oil. This sanction was expanded to apply to most US oil companies, their CEOs, and the carriage of US crude. It is likely that this applies to US cargo. No statements have been made to rescind this prohibition.
- The principal objective of the Houthis is to apply political and economic pressure on Israel. Therefore, the Houthi campaign is likely to endure at least until the situation in Gaza is fully resolved to the satisfaction of the Houthis.
- Prestige and acceptance as a legitimate regional actor is also a motivating factor for the Houthis.
- In the past, the Houthis have appeared to accept some element of collateral damage and have appeared to have mistakenly hit targets due to the use of poor or outdated intelligence.

Opportunity

- Around 120 ships pass through the Bab-El-Mandeb on a weekly basis, and this represents a drop of around 50 – 60 % compared to pre-conflict traffic levels.
- To illustrate the traffic density in the area from 18°00' N in the Red Sea to 052°00' E in the Gulf of Aden, military authorities report an average of 240 cargo ships present in the area. Of these, approximately 130 are navigating international waters, while the remainder are in territorial waters.
- The military presence in the region is limited, but does appear to provide some deterrence effect.

Further guidance

https://www.maritimeglobalsecurity.org/geography/goa-etc/

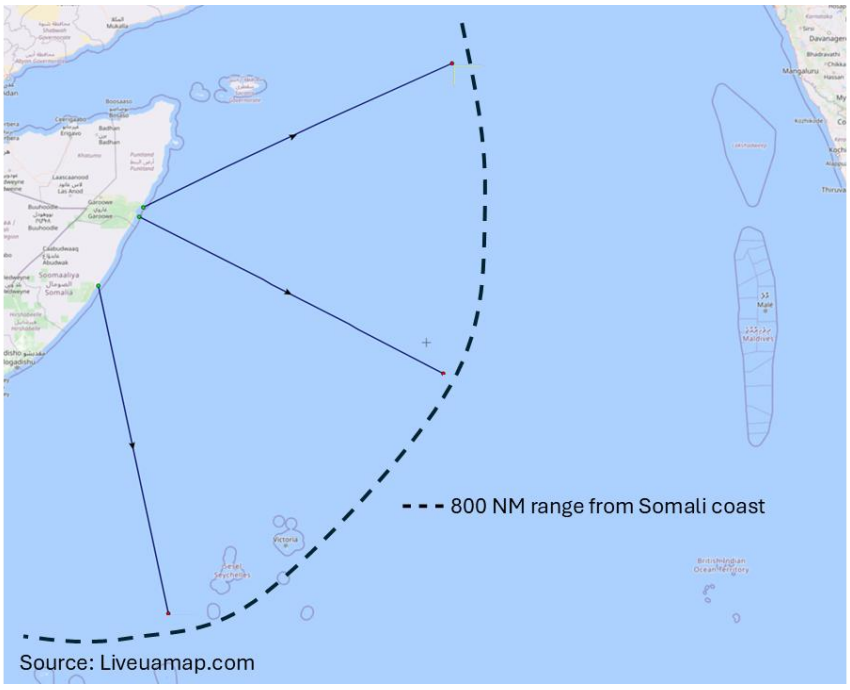
https://www.ukmto.org/partner-products/jmic-products

https://mscio.eu/

Northwest Indian Ocean and adjacent waters – Somali pirates

Background and trends

- From around 2008 to around 2013, Somali piracy was the predominant threat in the region, but military law enforcement activity, self-protection by shipping, and socio-economic changes ashore in Somalia have suppressed the pirate threat.
- At the height of Somali piracy in 2011 there were just over 200 attacks against commercial ships, with 28 successful hijacks and more than 600 seafarers held for ransom.
- After the initial surge in pirate activity at the end of 2023 naval warships in the area is likely to still be a crucial deterrent to criminal groups considering to board and hijack merchant ships.
- In the wake of the escalation of the Houthi anti-shipping campaign in November 2023, Somali piracy re-emerged with a few attacks on merchant ships, some of which were at great distances from the shore.
- During the 12 months from November 2023 to November 2024, 43 attacks have taken place against fishing dhows and commercial ships, of which 19 were successful hijacks.



NW Indian Ocean and adjacent waters

- Active interventions by Puntland Maritime Police Force and international navies have disrupted several hijacks and are likely to have helped suppress the piracy threat somewhat.

- In 2025 to date (19 November) Somali pirates have occasionally attacked fishing vessels and dhows, and in November 2025 two attacks were recorded against ocean-going shipping by skiffs operating from a mothership.

Capability

- Skiffs manned by six to eight pirates armed with automatic weapons, RPGs, knives, and boarding ladders.
- Often, pirates use hijacked dhows or merchant ships as motherships, to extend their operational range.
- In recent years merchant ships and several fishing dhows have been hijacked up to around 800 nautical miles from the Somali coast. Based on previous experiences of Somali piracy Hijacks could well happen even further away.
- Pirates have proven capable of boarding ships with 10 metre freeboard or more. Experience has shown that boarding of ships sailing 18 knots or more is typically quite difficult.
- Pirate action groups can come and go. It is easy to get organised, identify a vulnerable ship close to the coast and use simplistic means such as skiffs to carry out an attack close to the coast.

Intent

- Hijack of ship, holding ship and crew for ransom.
- Hijack of fishing dhows due to local disputes.
- The intent may increase if local fishermen become dissatisfied with the local authorities' efforts to address illegal fishing in the area, leading them to consider piracy.
- Local clan elders seem generally unsupportive of piracy, which reduces the intent of would-be pirates.

Opportunity

- The weather in Somali waters is characterised by two rainy seasons typically during April to June, and October to December. That said, weather forecasts should be monitored to establish the prevailing weather conditions at the given time.
- Outside the rainy seasons, when the weather is typically favourable, the possibility of an attack close increases, and more so closer to the coast.
- Currently, at any given time, there are around 300 – 400 ocean going ships in the Northwest Indian Ocean. The re-routing of merchant ships south of the Cape of Good Hope has increased Somali pirates’ opportunity.

- Following the guidance in BMP significantly reduces the opportunity for pirates to attack merchant ships.
- Somali pirates no longer have complete freedom to operate from the Somali coastline due to improved law enforcement especially by Puntland Maritime Police Force and the robust interventions by international navies.

Further guidance

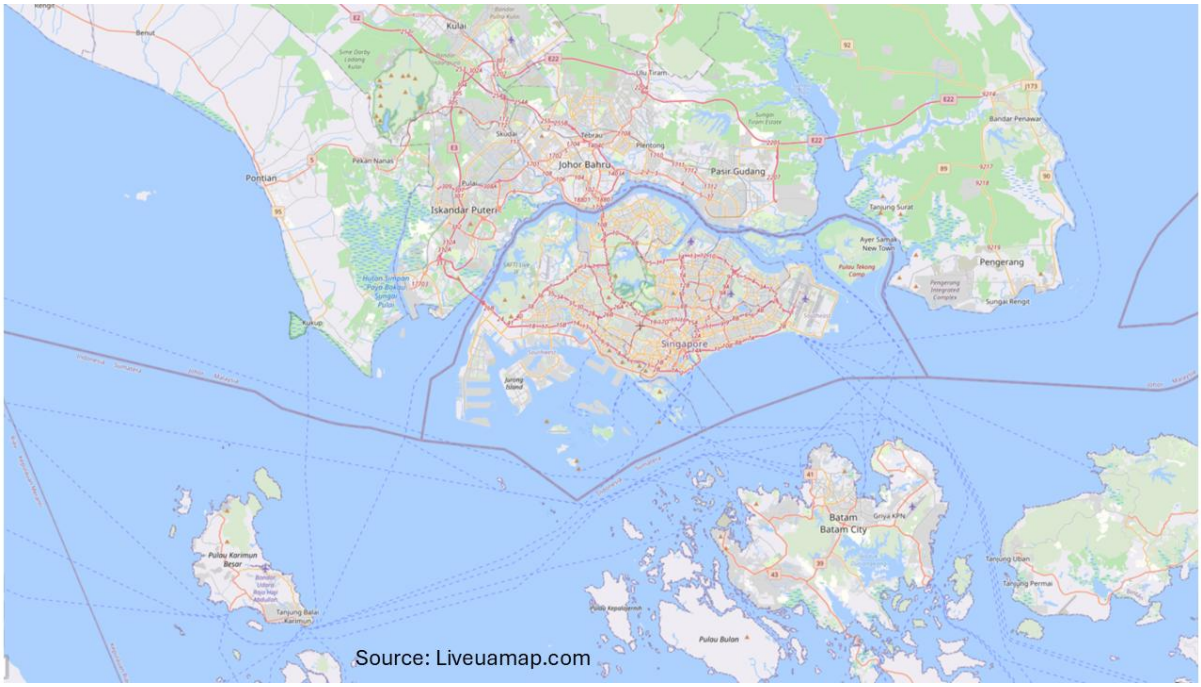
https://www.maritimeglobalsecurity.org/geography/goa-etc/

https://on-shore.mschoa.org/home/

Straits of Malacca and Singapore (SOMS) – pirates and armed robbers

Background and trends

- SOMS are among the world's busiest and most strategically important waterways.
- Over 100,000 ships transit the SOMS annually. Due to high traffic and narrow passages, the region has long been a hotspot for piracy and maritime crime.
- In recent years, improved security measures have reduced incidents, but sporadic threats persist, often involving armed robbery or low-level opportunistic attacks targeting slow-moving or anchored ships.
- In July 2025 regional maritime law enforcement agencies conducted an effective campaign against pirate groups active in the eastbound lane of the SOMS. Since then, only 4-5 attacks have taken place against ships transiting through SOMS.



Straits of Malacca and Singapore

Capability

- Perpetrators in the SOMS are generally opportunistic, but less organized and less heavily armed than Niger Delta based pirates.
- One exception are the perpetrators conducting hijack and theft of oil, or theft of e.g. tugs. These crimes often rely on intelligence collection and prior planning to ensure successful outcome.
- Perpetrators use small boats resembling fishing boats to approach targeted ships discretely. Attacks typically occur after dark.

- Perpetrators use poles, hooks and lines to climb board.
- Perpetrators use light weapons such as knives, machetes, or small firearms for intimidation.
- Perpetrators have knowledge of local geography, allowing them to exploit choke points, narrow channels, and secluded anchorages.

Intent

- Pirates in the SOMS are typically motivated by financial gain. Examples include hijack of parcel tankers to steal oil, theft of tugs and other smaller ships, theft of other high-value cargo, theft of ships' spares, equipment, mooring ropes, paint, etc., robbery of crew personal belongings and cash, and even theft from barges of sellable scrap metals.

Opportunity

- In SOMS, the high volume of traffic and dense shipping lanes provide ample targets.
- Ships with low freeboard are easier to board, especially slow-moving, drifting or anchored ships.
- Geographical features such as narrow straits, nearby islands, and busy ports provide hiding spots and opportunities to attack or evade authorities.
- There are gaps in patrols and surveillance. The area and volume of traffic make effective monitoring and law enforcement challenging.

Further guidance

https://www.maritimeglobalsecurity.org/geography/south-east-asia/

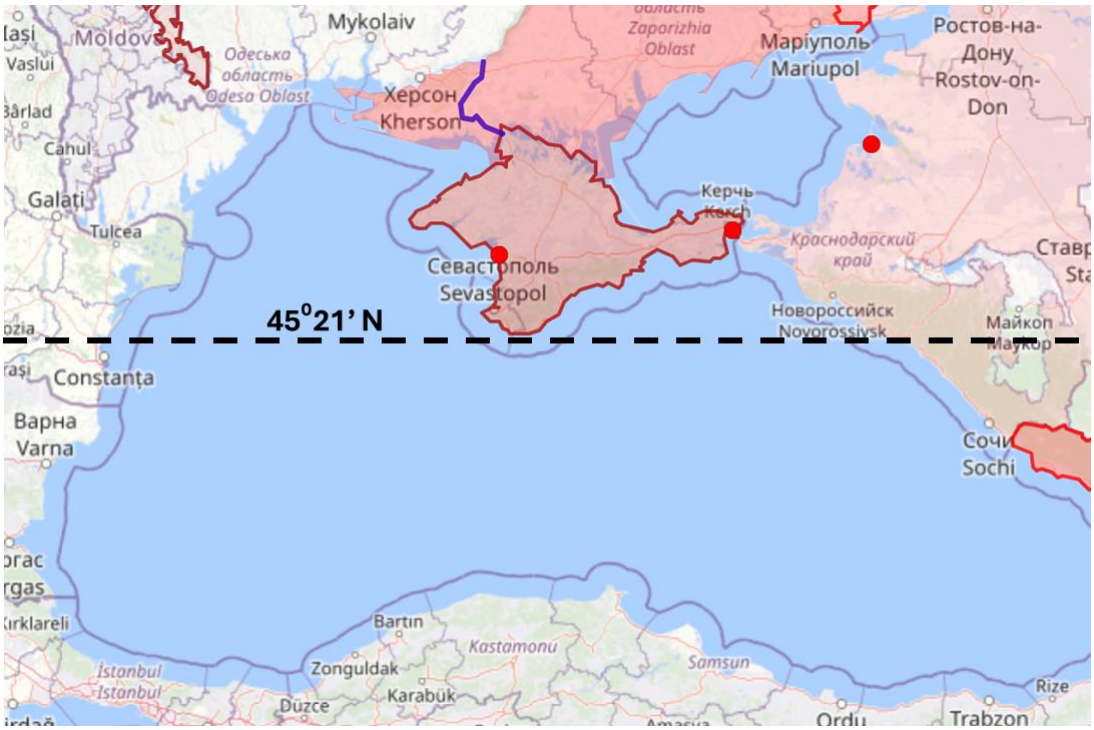
https://www.recaap.org/

https://www.ifc.org.sg/

Black Sea and Sea of Azov – Russia and Ukraine

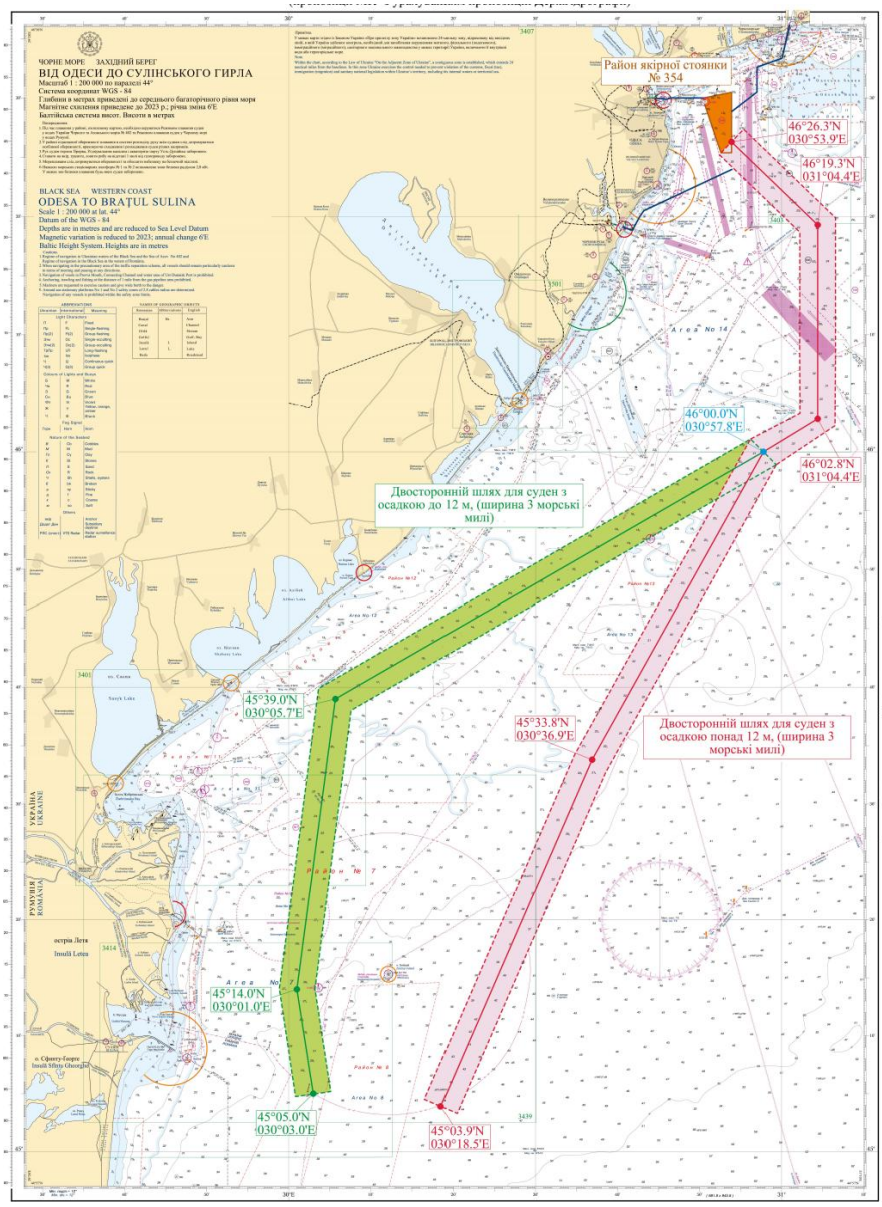
Background and trends

- On 24 February 2022 Russia initiated a full-scale military assault on Ukraine and initiated an embargo against Ukrainian ports. Furthermore, Russia quickly established a no-sail zone in the Black Sea north of parallel 45°21' N and the Sea of Azov – see chart insert.



Russian declared no-sail zone north of 45°21' N
(source: www.liveuamap.com)

- Since the beginning of the war, Russia's initial control of the sea was increasingly challenged by Ukraine. As per January 2025, Russia is only able to intermittently enforce its no-sail zone due to the contesting by Ukrainian forces of Russia's naval- and air superiority – see chart insert.
- Early on, transport of grain and other to the world essential cargoes from Ukraine was internationally recognised as of strategic importance. Between 22 July 2022 and 17 July 2023 the Black Sea Grain Initiative was in force, allowing export from Ukraine of grain and related foodstuffs and fertilizers.
- The expiration of the Black Sea Grain Initiative prompted Ukraine to establish transit corridors to and from Ukrainian Black Sea ports. As of January 2025, these corridors remain operational – see chart insert.



Ukraine-established maritime routes, north-western part of Black Sea (source: IMO Circular Letter No.4748, 19 July 2023)

Capability

- Using weapons launched from aircraft, drones, surface ships, and submarines Russia has the capability to attack ships in the entire Black Sea and Sea of Azov.
- Russia has naval- and air superiority but this is contested by Ukraine especially in the northwest part of the Black Sea, where Ukraine can deploy weapons from shore locations, aircraft, and from surface- and air drones operating at sea.
- Minefields are established in the approaches to Ukrainian Black Sea ports. Mines have occasionally detached from their tether and drifted counterclockwise along the coast as far as the west and southwest areas of the Black Sea.

Intent

- Russia has stated that all merchant ships heading for Ukrainian Black Sea ports are considered legitimate military targets. Likewise, Ukraine has stated that all merchant ships heading for Russian Black Sea ports are considered legitimate military targets.
- Currently, Russia and Ukraine appear to exercise some restraint when it comes to attacking merchant ships at sea. Still, both sides have attacked commercial shipping.
- Russia continuously attacks port areas and maritime infrastructure in Ukraine.
- Ukraine-bound cargoes in transhipment via other Black Sea ports could potentially also be targeted by Russia.
- Ships carrying military cargoes are a priority for both sides. Other ships appear to have also been targeted in the past, either due to erroneous targeting or deliberately.
- Attacks outside the immediate conflict area on merchant ships classified as military targets cannot be ruled out.

Opportunity

Despite the conflict between Russia and Ukraine, maritime trade continues in the Black Sea. Ukraine-bound shipping's use of the coastal route inside Romanian territorial waters for transits to and from Ukrainian ports reduces the Russian opportunity to attack. Similarly, Russia-bound ships can take a route further to the east to reduce the Ukrainian opportunity to attack.

Further guidance

https://armada.defensa.gob.es/ihm/Aplicaciones/Navareas/Index_Navareas_xml_en.html

https://www.maritimeglobalsecurity.org/risksissues/armed-conflict-and-war/