



Ινστιτούτο Διεθνών Οικονομικών Σχέσεων
Institute of International Economic Relations

Maritime Security in Europe's Southeastern Neighbourhood



Plamen Tonchev, Efkleidis Doulgeridis

Research Associates:

Mariam Abesadze, Natalia-Spyridoula Koveou

October 2026

Table of Contents

1. Executive Summary	3
2. Abbreviations	5
3. Introduction	6
4. Analysis of Threats	7
4.1. <i>Threats Stemming from Military Clashes</i>	7
4.2. <i>Threats Attributable to Other Factors</i>	10
5. Economic and Financial Implications of Maritime Security Challenges	14
5.1. <i>Effects on Commercial Shipping</i>	15
5.2. <i>Blockade of Ports and Use of Sea Mines</i>	16
5.3. <i>Undersea Infrastructure</i>	16
5.4. <i>Shadow Fleets</i>	17
5.5. <i>Migration and SAR</i>	17
5.6. <i>Who Foots the Bill?</i>	18
6. International Conventions and Regional Frameworks	18
6.1. <i>International Conventions</i>	19
6.2. <i>Legal Lacunae in Relation to Maritime Security Threats</i>	20
6.3. <i>Regional Arrangements</i>	22
7. Conclusions	24
8. Policy Proposals	26
8.1. <i>Addressing Legal Gaps</i>	26
8.2. <i>Strengthening Enforcement</i>	27
8.3. <i>Building a Regional Maritime Security Architecture</i>	27
9. Annexes	29

1. Executive Summary

Assessment of Maritime Security Threats

- Maritime security in Europe's southeastern neighbourhood (ESEN), a strategically important hub of the global economy, carries a high and ever-growing cost, which could be divided into several distinct – and occasionally overlapping – categories. Some of them relate to major armed conflicts, others stem from the endemic regional instability. The Black Sea and the Red Sea are the principal theatres of direct military threats, but their effects increasingly spill over into the Eastern Mediterranean and the Aegean Sea as well. The war in the Gulf also has serious implications, with the potential for simultaneous disruption to energy supplies and maritime traffic across several critical chokepoints.
- Threats are no longer confined to conventional naval warfare or attacks on individual merchant vessels. The threat spectrum now includes sabotage of undersea infrastructure, shadow fleets, AIS manipulation and GNSS interference, and environmental degradation. The dense web of shipping lanes, energy networks, pipelines and data cables further increases escalation risks. Ports, ship-to-shore communications, vessel traffic services, satellite-dependent navigation and timing systems, and offshore energy installations are also potential targets. Not least of all, disputes over maritime borders and exclusive economic zones increase tensions in the ESEN region and are potentially 'inflammable', while migrant smuggling networks at sea accentuate the need for search and rescue (SAR) operations.

Economic and Financial Implications of Maritime Security Threats

- Given the dominant role of shipping in global trade, the interruption of supply chains has immediate economic effects, even if their full magnitude is difficult to estimate. However, the financial impact extends far beyond the direct cost of damaged ships. Simultaneous constraints on maritime traffic through the Strait of Hormuz and at chokepoints in the ESEN region would be particularly consequential for both energy security and global shipping. Any prolonged restriction of supply-chain flows affects the prices of energy and other commodities along trade routes linking Asia, the Middle East and Europe. These additional burdens are passed on to consumers and businesses through higher prices for energy, food, manufactured goods and other commodities. The effect is particularly significant for economies that are highly dependent on maritime imports and have limited alternative transport routes.
- Damage to seaports, submarine cables and pipelines is also exceptionally expensive because repairs are often difficult, time-consuming and dependent on specialised expertise. Search-and-rescue operations, environmental pollution and necessary clean-up efforts entail further expenditure that is often poorly quantified. Shadow fleets, with their associated risks of unsafe navigation and sanctions evasion, add yet another layer of indirect economic costs. A significant financial burden derives from the perception of risk itself, which translates into higher war risk insurance premiums and freight rates, while rerouting leads to longer voyage itineraries and increased fuel consumption.
- Technological advances in warfare and the availability of relatively inexpensive means of attack, such as unmanned systems and mines, create a particularly pronounced attacker–defender cost asymmetry: relatively inexpensive capabilities can impose disproportionate costs on sophisticated vessels and infrastructure, potentially putting defenders at a significant disadvantage. At the same time, persistent hazards—mines, damaged infrastructure and disrupted navigation—can remain long after active hostilities subside.

Legal Framework and Regional Arrangements

- Existing legal frameworks, including the United Nations Convention on the Law of the Sea (UNCLOS), remain essential for navigation, safety and environmental protection. However, they were not designed to address many of the challenges posed by contemporary maritime-security threats and leave gaps concerning unmanned and autonomous systems, undersea sabotage, activities associated with hybrid warfare and enforcement. Given that many maritime-security threats are multi-causal and often relate to inter-state tensions and armed conflict, legal instruments alone cannot provide effective responses. A further difficulty concerns jurisdiction and attribution, particularly when incidents involve vessels with unclear or disputed registration, opaque ownership structures or complex chains of control.
- Against this background, the ESEN region relies on an array of UN, EU and NATO operations and missions, alongside other multinational arrangements, including maritime-security operations and related missions. New formats and mechanisms are emerging to strengthen regional capacity in response to the expanding threat spectrum. The key challenge is to improve coordination among these existing and overlapping mechanisms, and to combine military capabilities with legal, regulatory, diplomatic and technological tools.

Overall, ESEN should be approached as one interconnected maritime-security space. Effective resilience requires a strategy that aligns military responses with stronger maritime-domain awareness, resilient infrastructure design, mine countermeasures, cybersecurity, enforcement against shadow fleets, environmental protection, legal clarification and reform, and institutional cooperation across the entire region.

The Policy Proposals presented in the report are structured around three priorities:

- **Addressing legal gaps and clarifying existing rules:** This includes clarifying the treatment of civilian vessels carrying military cargoes through the Turkish Straits; developing clearer rules on jurisdiction, attribution and responsibility for damage to critical undersea infrastructure; and pursuing the development of an international legal framework for unmanned surface vessels as a priority.
- **Strengthening maritime-security enforcement:** Coordination among EU naval operations, particularly ASPIDES and ATALANTA, should be strengthened through closer engagement with other related initiatives. Insurance verification should become an effective enforcement tool against shadow-fleet vessels, while the IMO and regional port State control authorities should enhance oversight of high-risk vessels and provide technical assistance to smaller ports and operators. The objective should be an enforcement chain in which weaknesses at individual ports or companies do not undermine the wider maritime-security system.
- **Strengthening the regional maritime-security architecture:** At the ESEN level, a standing coordination forum could connect the four sub-regions and bring together coastal states, the EU, NATO and the IMO, while dedicated Black Sea, Red Sea and Eastern Mediterranean formats could address subregion-specific challenges. The EU should consider supporting: (i) the development of more durable institutional arrangements and adequate funding for recently established mechanisms in the Black Sea basin; (ii) the emerging role of Red Sea stakeholders in maritime security; and (iii) initiatives aimed at establishing a relevant Eastern Mediterranean forum.

2. Abbreviations

AIS	Automatic Identification System
ASPIDES	European Union Naval Force Operation ASPIDES
CFSP	Common Foreign and Security Policy of the EU
ECDIS	Electronic Chart Display and Information System
EEAS	European External Action Service
EEZ	Exclusive Economic Zone
EMC	East to Med Data Corridor
EMSA	European Maritime Safety Agency
ESEN	Europe's Southeastern Neighbourhood
CISE	Common Information Sharing Environment
CSDP	Common Security and Defence Policy of the EU
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GSI	Great Sea Interconnector
GT	Gross Tonnage
IMO	International Maritime Organization
ISM Code	International Safety Management Code
ISPS Code	International Ship and Port Facility Security Code
MDA	Maritime Domain Awareness
MSO	Maritime Security Operation
NATO	North Atlantic Treaty Organization
ROEs	Rules of Engagement
SAR	Search And Rescue operations
SOLAS	International Convention for the Safety of Life at Sea
UN	United Nations
UAV	Unmanned Aerial Vehicle
UNCLOS	United Nations Convention on the Law of the Sea
UNSC	United Nations Security Council
USV	Unmanned Surface Vehicle
UUV	Unmanned Underwater Vehicle

3. Introduction

Maritime security is a key issue in Europe's Southeastern Neighbourhood (ESEN), a broad region situated along several major transport routes connecting Asia and Europe. The concept of the ESEN region was first introduced in a previous publication by the Institute of International Economic Relations (IIER), released in August 2025.¹ In a sense, ESEN constitutes the EU's southeastern 'near abroad', fully in line with the [European Neighbourhood Policy](#) (ENP). This contiguous region, which remains comparatively under-researched as a whole, connects several maritime theatres that are usually analysed separately, including the Black Sea basin and the Eastern Mediterranean as the maritime gateway to the Middle East. The scope of this study has been broadened to include the Red Sea, which extends the ESEN maritime space to the Bab el-Mandeb strait and, indirectly, to the Gulf of Aden.

The ESEN region hosts two major armed conflicts — the wars in Ukraine and in the Middle East — as well as several other protracted or 'frozen' conflicts. Against this backdrop, the global shipping industry is facing unprecedented security challenges as the maritime environment becomes increasingly fragmented by geopolitical tensions. Over the past few years, local and regional conflicts, including those within the ESEN region, have demonstrated their capacity to generate wider economic shocks and geopolitical realignments. From state-backed hostilities in the Black Sea to attacks by non-state actors in the Middle East, critical maritime routes and chokepoints are increasingly under pressure. At least three chokepoints of global significance — the Bosphorus, the Suez Canal and the Bab el-Mandeb strait — are located within or directly connected to the region covered by this report. Rather than representing isolated theatres, these chokepoints form part of an interconnected maritime system whose disruption could have cascading consequences for international trade, energy security and geopolitical stability. In this sense, the ESEN region constitutes a fulcrum of international maritime traffic and a potential flashpoint for systemic disruption of global proportions.

The proliferation of advanced weaponry, including unmanned aerial and surface vehicles (UAVs/USVs), alongside new forms of warfare such as cyber operations, has further increased the exposure of maritime transport to security threats. Over the past few years, attacks and other security incidents have affected commercial shipping in several parts of the ESEN maritime space, including Houthi attacks in the Red Sea, attacks involving unmanned surface vessels against Russian-linked shipping in the Mediterranean, the strategic use of the chokepoints of Hormuz and Bab el-Mandeb, and the threat of sea mines. Disruptions to commercial shipping, particularly the transportation of oil and other strategic commodities, can force vessels to divert from established routes and use longer or otherwise less efficient alternatives. Such diversions prolong voyages and raise costs which can, in turn, translate into reduced availability of goods. These challenges affect not only global commerce but also the resilience of entire states and societies.

The report focuses on three main areas: a 'menu' of relevant maritime security threats; their economic and financial implications; and the legal framework governing maritime security in the ESEN region. The analysis is based on open sources in several languages, including academic research and publications by reputable media outlets. Particular attention has been paid to media reporting from countries throughout the region, in order to capture a broad range of perspectives and developments reported locally. Finally, the report offers policy recommendations for stakeholders concerned with maritime security in the ESEN region.

¹ P. Tonchev, V. Petropoulos, 'China in the Security Conundrum of Europe's Southeastern Periphery', *Institute of International Economic Relations (IIER)*, 29 August 2025, https://idos.gr/wp-content/uploads/2025/09/China-in-the-Security-Conundrum-of-ESEP_FINAL_12-9-2025.pdf.

The authors are immensely grateful to the following experts for their comments on early drafts of the report and their valuable contributions: Prof. Maria Gavouneli of the National and Kapodistrian University of Athens, Greece; Prof. Emil Avdaliani of the European University in Tbilisi, Georgia; Prof. Asteris Huliaras of the University of the Peloponnese, Greece; Dr Nasir Ali, Director of the Laas Geel Academy of International Relations in Somaliland; Mr Yannis Triphyllis, Member of the Board of Directors of the Hellenic Chamber of Shipping; and, last but not least, Mr Yordan Bozhilov, President of the Sofia Security Forum, Bulgaria. Their feedback and insights have considerably helped the authors improve the report, both conceptually and in its overall presentation.

4. Analysis of Threats

4.1. Threats Stemming from Military Clashes

Clearly, the single biggest category of threats at sea in the ESEN region over the past few years stems from military clashes, primarily in the Black Sea and the Red Sea. Since the outbreak of the war in Ukraine in February 2022, Russia has deployed its Black Sea navy to conduct long-range missile attacks on Ukrainian soil. By the end of August 2026, authorities in Kyiv had reported [262 vessels](#) damaged or destroyed in Russian attacks on the Ukrainian commercial fleet and navy. In turn, Ukraine has considerably improved its military capabilities with the help of Western countries. Thanks to technological advances in modern warfare, mostly through the use of unmanned aerial and surface vehicles (UAVs/USVs), by April 2026 Ukraine had reportedly destroyed or disabled around [30% of Russia's Black Sea Navy](#), forcing it to retreat to the naval bases in Novorossiysk and [Ochamchire](#), the latter being a new facility in Georgia's occupied region of Abkhazia. Meanwhile, there has been a new surge in hostilities since July 2026, with both Russia and Ukraine seeking to inflict economic damage on one another.

Drone strikes have been recorded in the Eastern Mediterranean, too. In March 2026, an Iranian-made Shahed-type drone, launched from Lebanon, struck a [British air base](#) in Cyprus. Shortly afterwards, Greek Air Force intercepted [two Iranian UAVs](#) heading towards Cyprus. At about the same time, a missile attack on the [Incirlik air base](#) in Turkey was reported, while NATO air defences stationed in the area [intercepted two ballistic missiles](#) fired from Iran.

In recent years, the proliferation of unmanned aerial and maritime systems has become one of the defining features of the security environment in the ESEN region and globally. According to military analysts, [aerial drones \(UAVs\)](#) now account for up to 80% of battlefield losses in the Russia-Ukraine war. Similar dynamics are evident in the Red Sea as well: the use of missiles and unmanned aerial/surface drones by the Iranian-backed Houthi group is a major threat to maritime security in the area, thus affecting the global economy as a whole.

Attacks on Commercial Vessels

Commercial shipping is increasingly being subjected to the same type of attacks, particularly in the above two sub-regions. [The Red Sea's significance](#) for global trade is considerable, as it connects the Indian Ocean to the Mediterranean via the Suez Canal. This corridor alone accounts for 12% to 15% of international maritime trade, approximately 30% of global container traffic, and is of crucial importance to European and Asian economies alike. However, since late 2023, maritime traffic has been heavily affected due to Houthi attacks in the Red Sea, with [more than 100 attacks](#) on merchant ships recorded between November 2023 and October

2025. Following a brief lull in the wake of the Gaza ceasefire in October 2025, the Houthis announced four months later that they would [resume attacks](#) following the strikes on Iran in late February 2026, and launched an even larger-scale [military campaign](#), mostly targeting Saudi Arabian tankers in the Red Sea. Moreover, in September the Houthis captured [strategically important islands](#) close to the Bab el-Mandeb strait, which has further elevated risks in the area.

Annex 1 highlights the total and nature of incidents that took place between November 2023 and September 2025 in the Red Sea. While [more than 40%](#) of recorded Houthi attacks between October 2023 and June 2024 involved drones, it is actually missiles that have proved far more effective. The majority of successful attacks on vessels used missiles (72%), while other means such as UAVs/USVs accounted for the remaining 28%. Even though the proliferation of UAVs/USVs has increased, actors in the region have used primarily traditional arms to attack merchant ships. Notably, bulk carriers, cargo ships and crude oil tankers were the most targeted vessels.

Attacks on merchant vessels in the Red Sea as well as the mere threat of attacks brought about a slump in maritime traffic through the Suez Canal by more than 50% in 2024 and 2025

As for the impact of these incidents on maritime traffic and threat perceptions in the Red Sea, statistics released by the [Suez Canal Authority](#) show that vessel transits peaked at 26,434 in 2023, before falling to 13,213 in 2024 and 12,758 in 2025 - a decrease of more than 50% in two years (Annex 2). This trend demonstrates that, apart from actual attacks, the mere threat of attacks can have a significant impact on global shipping traffic. This is arguably the clearest example of how the perception of threat can be as damaging as actual threats themselves.

Selective targeting by the Houthi paramilitary group is also worth mentioning. In November 2023, the [seizure of the *Galaxy Leader*](#), which was initially considered to be Israeli-owned, was the first major Houthi attack on merchant ships in the Red Sea. Some shipping companies allegedly struck deals with the Houthis to make sure their vessels were not targeted, thus enabling the rebels to earn an estimated \$2 billion a year.² Further south, a [resurgence of piracy](#) off the Horn of Africa presents even greater challenges to maritime traffic in the broader region.

2026 has seen a significant surge in violence in the Black Sea as well. While Russian attacks primarily target terrestrial infrastructure, the Ukrainian armed forces claim that within a single week, [from 6 to 11 July](#), they hit 76 Russian-linked vessels in the Sea of Azov. Independent information is hard to come by, but multiple videos of these attacks have appeared online. Interestingly, however, a Reuters review has found that only some of the [targeted Russian vessels](#) were actually subject to international sanctions, meaning that a number of merchant ships may also have been caught in the crossfire.

Sadly, loss of life in the ESEN region has been inevitable: between 8 and 12 seafarers were reportedly [killed in the Red Sea](#) between 2023 and 2026. The situation is even worse in the Black Sea area: according to sources in Kyiv, some [330 Ukrainian seafarers](#) have been killed or injured since the beginning of the war in February 2022. The human toll of the escalation in the summer of 2026 is particularly devastating: a Turkish seafarers' union has reported [23 people killed](#) in July 2026 alone, and [21 seafarers and port employees](#) reportedly lost their lives in Odessa in a single month.

² Committee 'Security and Defence' of the European Parliament, Background Information, 27 January 2025, p. 8, https://www.europarl.europa.eu/RegData/commissions/sede/ordre_du_jour/2025/01-27/SEDE_OJ%282025%2901-27_2_EN.pdf.

Attacks on Ports and Use of Naval Mines

Ports have been targeted directly during both major conflicts in the ESEN region. In the Black Sea, Russia has repeatedly struck [Ukrainian port infrastructure](#) since the start of the war by striking Odessa, the Danube River ports and the grain terminals that serve them. Ukraine, too, has struck Russian Black Sea export infrastructure repeatedly, above all the Novorossiysk and Sheskhari oil terminals as well as the adjacent Caspian Pipeline Consortium facility. Both warring sides treat the other's ports as legitimate military and economic targets, even though many of the consequences of this conflict are borne by third parties. The objectives of these attacks are both military and strategic, as Black Sea ports are significant outlets for exports and sources of revenue for Russia and Ukraine.

In the Red Sea, by mid-2024 Houthi missile and drone attacks had caused the [effective closure of Eilat](#), a port that normally handles 5% to 7% of Israel's maritime trade. Traffic was diverted to the Israeli ports of Ashdod and Haifa in the Mediterranean Sea, but in June 2024 [both were attacked](#) as well. This shows that a threat in one ESEN sub-region could easily spill over into other sub-regions. Hostilities escalated further in July 2026, when the Houthis declared a [naval blockade of Saudi Arabia](#) and struck tankers serving its Red Sea oil terminals, including the [Saudi-flagged Encelia](#) tanker off the port of Yanbu.

Other ESEN countries have also experienced attacks on their port infrastructure, even if they are not directly involved in armed conflicts. [In June 2026](#), an unmanned surface vessel exploded near two berths in the port of Constanța, close to an oil terminal. According to media sources, a Ukrainian USV [lost communications](#) and fell into the harbour, while three more Ukrainian naval drones went off course in Romanian waters that day. A month later, but further south in the Eastern Mediterranean, a drone attack on [Egypt's port of Damietta](#) caused a fire that engulfed two LNG carriers. Egyptian tugboats immediately towed a regasification vessel over three and a half kilometres offshore, as an explosion [could have devastated the port](#) and surrounding areas.

Meanwhile, since Russia's full-scale invasion of Ukraine in February 2022, sea mines have become one of the most persistent hazards to commercial navigation, an issue concentrated in the Black Sea. Mines laid in the northwestern part of the basin have broken loose from their moorings and drifted with currents, creating a threat that is mobile, difficult to predict and potentially lethal to merchant shipping. According to Ukrainian sources, [400 to 500 sea mines](#) have been placed in the Black Sea since February 2022, making maritime activity extremely dangerous.

Attacks on Undersea Infrastructure

Another emerging pattern across the ESEN region is the targeting of undersea infrastructure as a tool of hybrid warfare. The damage caused to undersea fibre-optic cables in the Red Sea in March 2024 stands out. According to US sources, the damage was caused by a Houthi attack on a merchant ship in the Red Sea, which was forced to drop anchor and drag it along the seafloor. As a result, undersea cables were cut, disrupting 25% of internet traffic between Asia and Europe.³ The Houthis have released an official statement denying their involvement in this particular incident, but their attacks certainly pose a tangible threat to internet connectivity in the region. Once again, this type of threat forms part of a much broader pattern, as at least [eleven undersea cables](#) have been damaged across Europe since October 2023, with most of these incidents involving vessels allegedly linked to the Russian shadow fleet. For instance, in December 2024 the [Russian tanker Eagle S](#) was accused of intentionally damaging the Estlink 2 undersea high-voltage power cable between Finland and Estonia, which some sources clearly regard as an [act of hybrid warfare](#).

³ Committee on 'Security and Defence' of the European Parliament, *op.cit.*, pp. 8-9.

In the Black Sea, there are two important natural gas pipelines between Russia and Turkey, known as [Blue Stream](#) and [TurkStream](#), which became operational in 2003 and 2020, respectively. Following the outbreak of the Russia-Ukraine war, these are the last remaining pipelines used to transfer Russian gas to Southeast Europe. According to [Russian sources](#), by March 2026 compressor stations of both pipelines on Russian soil had been attacked by Ukrainian drones some 40 times, resulting in [minor and contained damage](#).

A prospective 1,555-km [Black Sea Submarine Cable](#) (BSSC) aims to establish a high-voltage power interconnection between Anaklia in Georgia and Constanța in Romania. It will allow electricity generated from clean energy sources in Azerbaijan, Georgia and other countries to be delivered to the European market. Furthermore, a fibre-optic cable is planned to be laid along the same route at a later stage. Once built, it will place a high-voltage line and a data cable across the full width of a hotly contested maritime basin.

Further south, similar concerns about undersea infrastructure are on display in the Aegean Sea and the Eastern Mediterranean, particularly in relation to the [Great Sea Interconnector](#) (GSI), a prospective submarine power cable aiming to connect Greece, Cyprus and Israel. However, [Turkey has opposed this project](#) and tried to halt it by projecting military power in the area between Rhodes and Cyprus. Meanwhile, Israel, Cyprus, Greece and France are promoting an undersea fibre-optic cable along the so-called [East to Med Data Corridor](#) (EMC), which is to be extended to Saudi Arabia and India at a later stage. While the section connecting Saudi Arabia and Europe is currently under construction, the [second phase](#) towards South Asia is at the planning stage. This project offers an alternative to existing data cables on the floor of the Red Sea (Annex 3) and minimises dependence on a single route. However, [Turkey is impeding the project](#) in areas that Ankara claims as part of its continental shelf. The implementation of both projects is highly likely to conflict with Ankara's so-called [Mavi Vatan](#) ('Blue Homeland') maritime doctrine which seeks to expand Turkey's sovereignty claims across the Aegean and the Eastern Mediterranean. Therefore, disputes over the construction of undersea infrastructure in the area may well intensify, while heightened tensions constitute a potential, yet serious, threat to maritime security.

4.2. Threats Attributable to Other Factors

Apart from threats directly related to armed conflicts, there are many other maritime security challenges in the ESEN region that should also be considered. Some of them are actually indirect war-related activities, 'dressed up' as commercial shipping, such as Russia's shadow fleet. In other cases, disputes over sovereignty and resources, illegal migration flows or environmental concerns also have a bearing on maritime security across the broader region.

Shadow Fleets

The use of the so-called 'shadow fleets', particularly by sanctions-evading Russia, is accompanied by the manipulation of maritime monitoring systems, with vessels transmitting [false positioning data](#) and indicating erratic locations. Ships belonging to Moscow's shadow fleet regularly deactivate their Automatic Identification System (AIS) transponders, thus making them difficult to trace. According to some sources, the size of Russia's shadow fleet is estimated at roughly [600 to 800 tankers](#), equivalent to between 10% and 15% of the global tanker fleet, while Ukrainian authorities list more than 1,300 vessels linked to it. Global Navigation Satellite System (GNSS) [jamming and spoofing activities](#) in the Black Sea are widespread, as illustrated by reports that in the fourth quarter of 2025 alone the Black Sea

Jamming and spoofing activities are widespread in the Black Sea, which accounted for 20% of recorded incidents on a global scale in the last quarter of 2025s

[accounted for 20%](#) of all recorded jamming incidents on a global scale, significantly undermining navigational safety in the basin.

However, Ukrainian attacks targeting Russia's shadow fleet, mostly with unmanned surface vehicles, are not confined to the Black Sea. Some Ukrainian multipurpose USVs, used against [Russian-linked tankers](#), have an operational range of approximately 1,000 km. This may help explain why in May 2026 a [Ukrainian USV loaded with explosives](#) was found off the coast of the Lefkada island in western Greece. While this device was reportedly intended for use against Russian targets in the Mediterranean, it could easily pose a significant risk to maritime security in countries not involved in the conflict, as [noted by the Greek government](#). Moreover, this was not an isolated case, as there have been other incidents with [Ukrainian military activities](#) targeting the Russian shadow fleet in the Mediterranean.

Disputes Over Sovereignty and Natural Resources

Hostilities are not the only cause for concern about maritime security in the ESEN region. In a number of cases, tensions that do not necessarily evolve into armed conflicts present significant threats to maritime security as well. ESEN is also marked by state-level disputes over sovereignty and maritime jurisdiction, exclusive economic zones (EEZs), development projects, etc. This trend is particularly pronounced in the Aegean Sea and the Eastern Mediterranean. For instance, the Greek-Turkish dispute over maritime borders in the area extends beyond prospective infrastructure projects. [Turkey seeks to legitimise](#) its borders in the Aegean Sea, thus denying Greek islands their maritime rights. Both countries have announced the establishment of [marine parks](#) in the Aegean Sea, which further raises tensions in the area. Ankara's increasingly belligerent posture is illustrated by its [annual military exercises](#) known as EFES, based on amphibious invasion scenarios. An escalation of the standoff and a flare-up between the two countries could affect commercial shipping in the Aegean Sea, as well as further north in the Black Sea.

Moreover, a significant project in the Eastern Mediterranean is the hydrocarbon exploration awarded by Greece to Chevron, ExxonMobil and HelleniQ Energy. The exploration blocks lie the southwest of Crete as well as [between Cyprus and Crete](#). Turkey maintains that these blocks are located within its EEZ in light of the Mavi Vatan doctrine promoted by Ankara. In addition, in November 2019 [Turkey and Libya signed a memorandum](#), which purports to delimit their EEZs and challenges Greek sovereignty over the blocks in question. Moreover, if Turkey enacts its Mavi Vatan doctrine, scheduled for the autumn of 2026, Greek fishermen and commercial shipping would also be affected. For these reasons, the possibility of escalation between the two countries, albeit NATO members, cannot be ruled out.

Migrant Smuggling and SAR

Migrant smuggling at sea is clearly a threat that should be considered, mostly with regard to the search and rescue (SAR) operations it necessitates. The responsibility for SAR operations lies primarily with the national authorities of coastal states. For instance, the [EU Frontex Agency](#) does not have an independent SAR mandate; it supports national authorities by providing assets and surveillance capabilities, but coordination and final decisions remain in the hands of the national authorities of littoral states. In the Eastern Mediterranean, and in Greece in particular, the number of migrants travelling on [small inflatable boats](#) from Turkey or Libya is estimated to have been close to 150,000 between 2023 and mid-2025 (Annex 4). There have been multiple incidents involving capsized boats and the drowning of migrants. The high-speed manoeuvres of the smugglers are not just a hypothetical risk, but a real danger that has resulted in loss of life. One such incident was recorded in February 2026, when a speedboat carrying migrants collided with a [Hellenic Coast Guard vessel](#) near the island of Chios, resulting in 15 fatalities. These incidents are often controversial, with

[alleged pushbacks](#) at the centre of a politically charged public debate on migration policies. In any case, the scale of the problem is expected to increase further, as the growing number of migrants detected in the Eastern Mediterranean appears to be part of a persistent pattern.

Threats to the Marine Environment

Maritime security threats also entail direct environmental costs, even though they are often overlooked and tend to become apparent only after an attack or an accident has already taken place. The clearest examples are oil spills, emissions, and illegal discharges from vessels, all of which clearly affect fisheries, cetaceans and Posidonia seagrass meadows. A related incident took place in December 2024, when two Russian tankers, *Volgoneft-212* and *Volgoneft-239*, broke apart in a storm near the Kerch Strait, in the northeastern stretches of the Black Sea. The accident caused the release of an estimated [2,400 to 4,000 tonnes of fuel oil](#) and the [death of birds and dolphins](#).

The Bosphorus Strait, too, has a long record of environmental disasters. In 1979, the tanker [Independenta exploded](#) after a collision near Istanbul, killing 43 seafarers and spilling or burning more than 90,000 tonnes of crude oil. In 1994, the [Nassia collision](#) caused the death of 24 seafarers and the release of some 95,000 tonnes of crude oil. In total, [461 maritime incidents](#) were recorded in the Bosphorus Strait between 1953 and 2002. The latest serious incident took place in July 2024, when [traffic was temporarily suspended](#) after the failure of a ship's engine within the Bosphorus Strait.

Merchant ships that have been abandoned or have sunk due to attacks also pose substantial environmental and navigational hazards. Between March 2022 and August 2026, at least ten related incidents were recorded across the ESEN region – six in the Black Sea and another four in the Red Sea (Annex 5). Oil products, chemicals and other toxic cargoes are particularly hazardous, as they can contaminate sediments, coastlines and marine organisms. Corrosion can eventually breach the tanks of sunken ships and cause chronic leakage. Shipwrecks can physically destroy or cover seagrass meadows, coral communities and other benthic habitats.

Undersea infrastructure also poses considerable environmental risks. An attack on the Blue Stream and TurkStream pipelines or the prospective GSI cable could cause comparable harm to marine ecosystems in the Black Sea and the Eastern Mediterranean, respectively. A similar incident in the Baltic Sea, where four coordinated blasts in the [Nord Stream pipelines](#) in 2022 caused large-scale contamination and toxicological risks, serves as a cautionary tale in the ESEN region. The Nord Stream blasts released approximately [465,000 tonnes](#) of methane, which is one of the worst recorded incidents in history. A rupture of the undersea pipelines in the Black Sea could release methane on a comparable scale. Unlike damage to onshore infrastructure, such a release would be difficult to contain, as methane rapidly disperses into the atmosphere rather than remaining in a form that can be recovered or cleaned up.

Typology of Maritime Security Threats

While this is not an exhaustive presentation of all the maritime security threats in the ESEN region, Figure 1 sets out their typology, and the following sections of the report analyse each of them in greater detail. The analysis illustrates the increasingly interconnected and multidimensional nature of maritime security threats across Europe's southeastern neighbourhood. Rather than constituting separate, geographically confined challenges, these threats form an evolving pattern of insecurity affecting military operations, commercial shipping, critical infrastructure, energy security and the marine environment across the wider region.

A defining trend is the erosion of the distinction between military and civilian maritime domains. Attacks on warships and port infrastructure, strikes against merchant vessels and shadow-fleet tankers, and the presence of sea mines demonstrate how armed conflicts can disrupt commercial activity and threaten

freedom of navigation. The consequences extend beyond the immediate areas of hostilities by causing cargo diversion, higher shipping costs and uncertainty surrounding energy supplies and maritime logistics.

At the same time, the growing vulnerability of critical maritime infrastructure and navigation systems adds a significant hybrid dimension to regional insecurity. Sabotage or suspected interference with undersea cables and energy infrastructure, GNSS jamming and spoofing, and AIS manipulation complicate maritime surveillance, obscure vessel movements and increase operational risks. These challenges are compounded by environmental hazards, including pollution from damaged vessels and fuel carriers, whose effects may persist long after the incidents that caused them.

The security environment is further complicated by persistent disputes over maritime sovereignty, infrastructure and resources, as well as irregular migration, smuggling and the resurgence of piracy. Although these challenges differ in origin and require distinct responses, they place competing demands on maritime surveillance, enforcement and SAR capacities, while potentially aggravating existing political tensions.

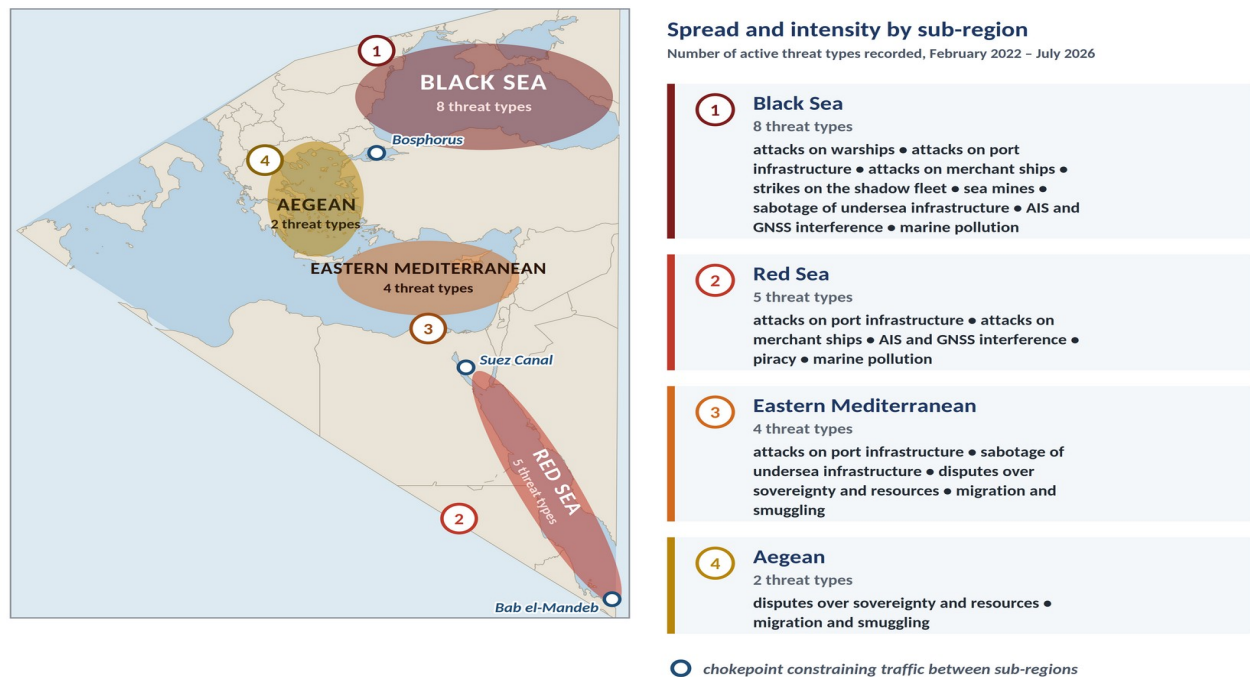
Figure 1
Typology of Maritime Security Threats and Broader Trends in the ESEN Region
February 2022 – July 2026

Type of Threat	Area	Trends
Attacks on Warships	Black Sea	Ukrainian attacks have degraded Russia's Black Sea Fleet, resulting in substantial losses and reduced operational activity by July 2026.
Attacks on Port Infrastructure	Black Sea, Eastern Mediterranean, Red Sea	Ports and maritime logistics hubs increasingly becoming targets, disrupting trade and forcing cargo diversion. The pattern extends from Black Sea ports to Israeli and Saudi facilities further south.
Attacks on Merchant Ships	Black Sea, Red Sea	Attacks on merchant ships carrying military equipment or aiming to inflict economic costs to warring sides. Sustained Houthi attacks in the Red Sea since late 2023 disrupting commercial traffic, causing vessel losses, casualties and major rerouting. After a temporary pause, the attacks resumed in July 2026.
Strikes on Shadow Fleet	Black Sea	Russia's shadow fleet increasingly being targeted, adding a new layer of risks to shipping involved in sanctions evasion and to energy flows.
Sea Mines	Black Sea	Large-scale mining creating persistent navigation hazards. More than 150 mines neutralised through regional mine-countermeasure operations, but the residual threat remains difficult to quantify.
Sabotage of Undersea Infrastructure	Black Sea, Eastern Mediterranean	Growing vulnerability of undersea assets demonstrated by attacks on infrastructure supporting energy and communications networks, even where the main pipelines or cables are not directly hit.
Disputes Over Sovereignty, Infrastructure and Resources	Eastern Mediterranean, Aegean	Competing maritime claims continue to constrain energy exploration and survey activities, particularly where naval forces are used to deter or halt operations.
AIS / GNSS Interference	Black Sea, Red Sea	Electronic interference turning into a widespread maritime-security problem. Spoofing and jamming affect large numbers of vessels, while AIS manipulation or deactivation further reduces transparency of navigation.
Migration and Smuggling	Aegean, Eastern Mediterranean	Irregular maritime migration entrenched as a persistent pressure point, with recurring risks of overcrowding on certain routes, collisions and loss of life, necessitating SAR operations.
Piracy	Red Sea, Gulf of Aden, Horn of Africa	Piracy and vessel seizures resurging alongside the broader deterioration in regional maritime security, reversing some of the gains made during the previous decade.
Marine Pollution	Black Sea, Red Sea, Turkish Straits	Considerable risks, arising from conflict-related incidents and maritime accidents, particularly from damaged or poorly maintained fuel carriers.

Source: Compiled by the Institute of International Economic Relations on the basis of multiple sources

Alongside the identification of key trends and broader patterns across the entire ESEN region, a more granular approach to assessing maritime security threats would be to gauge their intensity in the four sub-regions discussed in this paper (Figure 2). The Black Sea and the Red Sea clearly stand out as the most threat-intensive areas, and it is no coincidence that both are ‘hosts’ to strategically significant chokepoints – the Bosphorus and Bab el-Mandeb straits, as well as the Suez Canal.

Figure 2
Spread and Intensity of Maritime Security Threats in the ESEN Region
February 2022-July 2026



Source: Institute of International Economic Relations

5. Economic and Financial Implications of Maritime Security Challenges

This chapter delves into the economic and financial implications of threats analysed in previous sections of the report, beginning with their overall impact on the shipping market. Hostilities and attacks on commercial shipping are the most significant threats, although they clearly overlap with others. In the Black Sea, the war between Russia and Ukraine has led to the massive destruction of both infrastructure and vessels, the aggregate value of which is virtually impossible to calculate. Arguably, the scale and intensity of the all-out war between Russia and Ukraine, both on land and at sea, helps explain why no authoritative institution has published a comprehensive cumulative estimate of the global economic cost of the disruption of shipping and trade in the Black Sea.

In the Red Sea, the disruption is driven primarily by Houthi drone and missile attacks on commercial shipping in the Bab el-Mandeb Strait and, to a lesser extent, attacks on onshore and submarine infrastructure. The Red Sea-Suez Canal route accounts for 12% to 15% of global maritime trade and roughly 30% of global container volumes. As of September 2025, the estimated overall cost of Houthi attacks in the Red Sea stood at some

\$200 billion⁴, and this figure certainly has gone up in 2026. In addition, simultaneous disruption at the straits of Hormuz and Bab el-Mandeb can be particularly consequential for both energy security and global shipping. The ongoing conflicts in Ukraine and the Middle East have led to elevated and volatile prices as well as higher insurance rates and freight charges. The conflicts have contributed to tighter global financial conditions, while heightened geopolitical uncertainty has increased risk aversion, thereby increasing capital-market volatility. Disruptions in major maritime routes, especially through the Black Sea and the Strait of Hormuz, have increased insurance costs, extended shipping times, and reduced the predictability of supply chains.

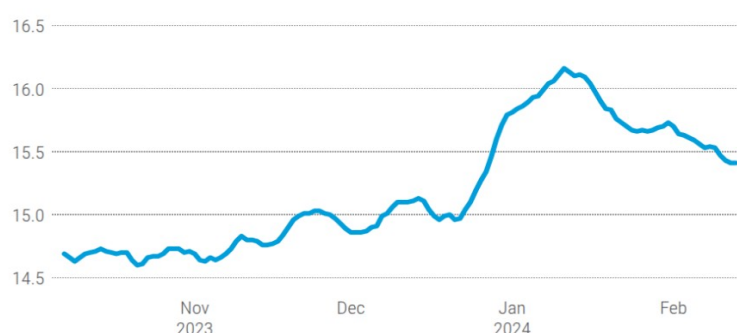
5.1. Effects on Commercial Shipping

The Impact of Rerouting

By now, it is clear that the crisis in the Red Sea, in conjunction with hostilities in the Gulf region, has fundamentally altered global [shipping routes, costs and delivery timelines](#). Attacks on commercial shipping in the Red Sea forced shipping companies to avoid the Suez Canal and reroute around the Cape of Good Hope, which adds roughly [3,000 to 3,500 nautical miles](#) to a standard Asia-to-Europe voyage. As a result, [Asia-Europe container freight rates](#) rose sharply immediately after the outbreak of the Gaza war in October 2023. In early February 2024, average container shipping spot rates from Shanghai to Europe more than tripled, jumping by 256%.

Increased vessel speed, too, contributes to the sharp rise in fuel use. This is particularly evident in the case of container ships, where a 1% increase in speed typically leads to a [2.2% rise in fuel consumption](#). For example, accelerating from 14 to 16 knots can increase fuel use per mile by 31%. A 50% increase in operating speed more than [triples daily fuel consumption](#). In 2024, the shipping company Hapag-Lloyd reported a [19% rise](#) in annual bunker fuel consumption, directly attributable to the diversions around Africa (Figure 3).

Figure 3
Average Vessel Sailing Speed* of Voyages on the Cape Route
7 October 2023 – 13 February 2024



* Seven-day average, measured in knots

Source: UNCTAD calculations, based on Marine Benchmark data

War Risk Premiums and Freight Rates

Since Russia's invasion of Ukraine in 2022 and the outbreak of the war in Gaza in 2023, there has been a dramatic increase in war risk insurance premiums across the ESEN region. The Black Sea basin has experienced the most severe impact, with premiums rising from around 0.025% of hull value before the war

⁴ Committee 'Security and Defence' of the European Parliament, *op.cit.*, p. 8.

to 5%-10% at the 2022 peak. By contrast, the Aegean Sea has not been assessed as posing a comparable direct war risk to commercial shipping.

War risk premiums in the Eastern Mediterranean have also experienced a considerable increase, from approximately 0.05% to 2% of hull value, peaking in November 2023 amid heightened regional tensions. In the Red Sea, premiums similarly rose from around 0.05% to between 0.7% and 2%, reaching their peak in December 2023. Overall, these figures demonstrate how geopolitical and military risks translate into higher financial costs for maritime transport (Figure 4).

Figure 4
Evolution of Insurance Premiums in the ESEN Region
February 2022 – July 2026

Area	Period	War Risk Premiums (% of Hull Value)
Black Sea	2022–2026	0.025% → 5%-10% (Peak: 2022)
Aegean Sea	2022–2026	No war risk premium applied
Eastern Mediterranean	2023–2026	0.05% → 2% (Peak: Nov. 2023)
Red Sea	late 2023–2026	0.05% → 0.7%-2% (Peak: Dec 2023)

Sources: Lloyd's List, S&P Global, Bloomberg, Reuters

5.2. Blockade of Ports and Use of Sea Mines

There are some estimates of the damage caused to the global economy by the curtailed exports of oil, gas and grain from both Ukraine and Russia. In December 2025, [Ukraine's seaborne trade shrank by 19%](#) year-on-year, and by 68% compared with December 2021. Russian shipments, too, have also declined: in July 2026 alone, they [dropped by around 30%](#) year-on-year.

Russia's use of a [Black Sea blockade tactic](#) by targeting ports and ships has inflicted significant damage to Ukraine's economy, particularly to its agricultural exports. While Ukraine accounts for [10% of global wheat](#) and [15% of global maize](#) trade, Ukrainian farmers have sustained estimated [losses of \\$12 billion](#) due to attacks on the country's seaports. Ukraine is also a major producer of sunflower oil, with Ukraine and Russia together accounting for roughly [80% of global sunflower oil](#) exports. Russia, too, has experienced disruptions to its grain exports due to Ukrainian attacks in the Sea of Azov and the Black Sea. Nonetheless, Russia remains the world's largest wheat exporter, supplying [48 million tonnes](#) a year and accounting for about [21% of global wheat exports](#). Overall, it is clear that the war in the Black Sea basin and the disruption of grain exports are contributing to the risk of an international food crisis.

The use of sea mines provides a particularly clear example of cost asymmetry and its enormous financial implications. One mine [costs \\$1,500 to produce](#), and the damage it can inflict on ships exceeds that caused by any other means of attack since World War II. The cost of [producing and laying a mine](#) is between 0.5% and 10% of the cost of removing it, while neutralising it can take up to 200 times longer than laying it.

5.3. Undersea Infrastructure

Attacks on submarine cables in the Red Sea have demonstrated the vulnerability of undersea infrastructure as well as the considerable cost of necessary repairs. In 2024, incidents in the Red Sea reduced [Europe-Asia data traffic](#) by around 25%, and estimates put the total economic damage at [around \\$3.5 billion](#) between early 2024 and 2025. The cost of repairing a severed submarine cable varies depending on seafloor depth and cable

length, and may range between [€50 million and €60 million](#). The restoration of undersea cables is inherently difficult due to the specialised vessels and expertise required. In deep waters, a repair ship must lift, splice and re-lay the cable under extreme pressure, which requires purpose-built vessels and remotely operated equipment.

Disputes over undersea infrastructure also generate elevated costs because of delays. Interstate standoffs, such as the ones in the Eastern Mediterranean, alter project timelines, raise developers' standby costs, and inflate borrowing costs for subsequent phases. This is the case with the [€2 billion Great Sea Interconnector](#) (GSI) and the [\\$850 million](#) East to Med Data Corridor (EMC) due to disputes between Greece, Turkey and Cyprus. Of course, these figures represent the estimated value of the projects and potential lost profits, rather than precise estimates of the economic damage caused by the disputes.

5.4. Shadow Fleets

The economic damage caused by shadow fleets is also difficult to pin down, but some extrapolation is possible. For instance, some calculations estimate that the Russian shadow fleet generates approximately [\\$87-100 billion](#) per year. The fleet transfers roughly 3.7 million barrels a day, i.e., equivalent to some 65% of Russia's seaborne oil exports. Ukrainian attacks on Russia's shadow fleet clearly aim to deprive Moscow of this significant source of much-needed revenue.

The economic cost associated with shadow fleets also arise from environmental hazards, given that the price tag of cleaning a major oil spill may be [around \\$1.5 billion](#). As [over 70% of the ships](#) in Russia's shadow fleet are older than 15 years, the danger of a mechanical failure that could lead to an oil spill is considerable, and recent Ukrainian attacks on Russian vessels in the Black Sea further accentuate this risk.

In addition, interference with navigation signals has now become a persistent pattern rather than an occasional phenomenon. [Reports indicate](#) that over 13,000 vessels worldwide were affected in the second quarter of 2025, while 12,000-plus spoofing incidents were recorded globally between 13 and 24 June 2025 alone, involving over 3,000 vessels. Jamming/spoofing disrupts vessel navigation, delays cargo deliveries and incurs additional costs. Moreover, this type of interference can give rise to disputes over maritime accidents and subsequent insurance coverage. The [maritime insurance market](#) has seen a significant increase in enquiries about these risks over the past few years.

Shadow fleets entail considerable environmental and navigational risks, compounded by the age and poor maintenance of their vessels

Once again, as in other categories of threats, there is a profound asymmetry between the cost of jamming/spoofing and its potential consequences. Jamming/spoofing equipment can be relatively inexpensive, whereas the economic impact of disrupting the operations of a large commercial vessel can run into tens or hundreds of thousands of dollars per incident, and the insurance cost of a serious grounding incident or collision can reach tens of millions of dollars.

5.5. Migration and SAR

Migration also carries a financial cost, which is borne mostly by the coastal states of the ESEN region. SAR operations require ships, aircraft and extensive coordination, all of which entail significant costs. Between 2008 and 2024, Frontex paid [more than €2 billion](#) in grants to EU member states, a substantial share of which was allocated to Greece for maritime border control and surveillance. The scale of the problem helps explain

these costs. Since 2014, [more than 32,000 people](#) have died or gone missing in the Mediterranean, an average of around five people per day. In addition, SAR zones are vast: the central Mediterranean SAR zone alone covers about [500,000 square kilometres](#), an area the size of France, which makes finding small boats difficult and expensive.

The cost of SAR operations in addressing migration flows is a continuing financial burden, rather than a one-off expense. The cost of dedicated rescue operations can be illustrated by two Central Mediterranean operations in the 2010s. Italy's operation Mare Nostrum [cost around €9.5 million](#) per month between October 2013 and October 2014. Its EU successor, [Operation Triton](#), saw its budget [tripled to €120 million](#) for two years, and ran until it was replaced by [Operation Themis](#) in February 2018. In the ESEN region, this burden falls particularly on Greece in the Aegean Sea. The Frontex [Operation Poseidon](#) has supported Greece since 2006, covering the maritime borders between Turkey and the Greek islands. Each detected migrant boat can trigger a SAR operation, which is costly and at times even dangerous.

EU member states in the Mediterranean bear significant costs for Search and Rescue operations resulting from irregular migration flows

Adding up the estimated financial impact of all these threats is a herculean task. However, the overall economic burden clearly extends well beyond damage to vessels and seaports or the immediate expenditure on naval operations. It encompasses trade and supply-chain disruptions, higher war-risk insurance premiums, the rerouting of merchant ships, delays, additional security precautions, mine-clearance expenses and other protective measures. In conflict-affected zones such as the ESEN region, the resulting economic burden can amount to billions of dollars annually.

5.6. Who Foots the Bill?

A crucial but often overlooked question is who ultimately shoulders the burden created by maritime security threats, since the distribution of costs is uneven and difficult to trace. Insurers typically absorb the initial losses before repricing risk within weeks, while shipping operators pass additional costs on to importers, and retailers seek to protect their margins. The eventual incidence therefore falls largely on consumers, even when the original disruption occurs far from them. The economic consequences extend beyond higher prices: before the resurgence of Houthi attacks on merchant shipping in July 2026, [JPMorgan attributed](#) a 0.7 percentage-point increase in core inflation to the Red Sea disruption. In economies already exposed to inflationary and fiscal pressures, sudden increases in the prices of essential goods can contribute to social unrest and political instability. The Arab Spring is a case in point, with rising food prices contributing to the [upheaval in Egypt](#) and other countries in 2011.

Environmental costs follow a different trajectory, particularly when responsibility is obscured by complex ownership structures and flags of convenience. Where the operator or beneficial owner cannot readily be identified or lacks the resources to meet its obligations, coastal states may ultimately be left to finance pollution clean-up and the restoration of affected areas. Similarly, disruption or damage to maritime infrastructure can have financial implications well beyond the immediate incident, with developers bearing standby and delay-related expenses and future users or consumers ultimately facing higher financing and operating costs.

The broader pattern is therefore one of a significant disconnect between the origin of maritime security risks and their ultimate economic and environmental incidence. Those responsible for generating the additional risks are often not those who bear the resulting costs, which are instead distributed across insurers, businesses, governments, coastal communities and consumers. This externalisation of costs is an important

dimension of maritime insecurity that should be incorporated into assessments of regional resilience and policy responses.

6. International Conventions and Regional Frameworks

This chapter addresses the following key issues: (i) To what extent does the legal framework at the international, regional, and national levels cover the loss of vessels, cargo or damage to infrastructure? and (ii) What are the appropriate responses to maritime security challenges in the ESEN region that are not covered by the existing legal framework?

6.1. International Conventions

The [United Nations Convention on the Law of the Sea](#) (UNCLOS) provides the principal legal framework governing the world's oceans, establishing rules on maritime zones, navigation, resource exploitation, and the rights and responsibilities of coastal and flag states. It is central to maritime security because it defines the legal basis for navigation, jurisdiction, freedom of the seas, and the peaceful resolution of disputes. As a near-universal framework, UNCLOS promotes stability and predictability in international maritime affairs, even though some states have not ratified or do not accept all of its provisions.

The [International Convention for the Safety of Life at Sea](#) (SOLAS), adopted in 1974 and amended repeatedly since then, sets [minimum safety standards](#) for the construction, equipment and operation of merchant ships above specified passenger or gross-tonnage (GT) thresholds, tankers and bulk carriers being subject to specific additional codes. SOLAS stipulates, *inter alia*, that ships covered by the convention must carry relevant certificates and approved distress signals. In addition, states have the authority to inspect foreign vessels calling at their ports and to detain them if deficiencies are found. Every country in the ESEN region is [party to the convention](#).

The [International Safety Management \(ISM\) Code](#) is a mandatory framework incorporated in Chapter IX of SOLAS. Every shipping company is required to operate a certified Safety Management System covering pollution prevention and safety procedures. The [International Ship and Port Facility Security \(ISPS\) Code](#) was adopted in 2004 in the wake of the 9/11 attacks, and requires ships and port facilities to comply with approved security plans. Every SOLAS signatory is automatically bound by the aforementioned codes, usually through '[tacit acceptance](#)', unless a country formally objects beforehand. Classification societies are private organisations that may be authorised by flag states to conduct statutory surveys, audits and certification, while Port State Control authorities subsequently verify ships' compliance. However, classification societies may depend financially on the shipping companies whose vessels they audit, which creates a potential conflict of interest. Port inspections usually focus on whether the paperwork is in order, not necessarily whether the safety rules are actually followed on a daily basis. Moreover, there is no single international body that can directly monitor the enforcement of ISM/ISPS requirements – this is a task for port authorities, shipping companies and classification societies.

The Montreux Convention

The Montreux Convention (1936), which establishes the regime of the Bosphorus and Dardanelles Straits, is unique among treaties governing international maritime chokepoints. It gives Turkey significant powers over these waterways, subject to specified conditions, e.g. including the duration of stay of military vessels from

non-littoral states. Only Black Sea states may return submarines purchased or constructed outside the Black Sea to their home bases. If Turkey remains neutral at a time of an armed conflict, warships of the belligerent states are [prohibited from transiting](#) the Straits, with only three exceptions: (i) warships returning to their naval bases; (ii) the enforcement of UN military sanctions against the aggressor; (iii) military assistance to a state victim of aggression on the basis of a mutual assistance treaty binding Turkey. Notably, Russia has moved military cargo through the Straits aboard [civilian merchant vessels](#) and accuses Ukraine of doing the same.

Given that Bab el-Mandeb is a natural waterway like the Bosphorus and Dardanelles Straits, an interesting question is whether a Montreux-style convention could be adopted for it. At present, this is not a realistic prospect. Montreux works to a large extent because only one state administers the Straits under a settled peacetime regime. Bab el-Mandeb is bordered by Yemen, Djibouti and Eritrea, and lies within an active conflict area. A regional body already exists: the [Council of Arab and African States](#) bordering the Red Sea and the Gulf of Aden. It was founded in Riyadh in January 2020 by eight littoral states. Notably, however, although it was deliberately created [without a military arm](#), in July 2026 a [Saudi-led naval coalition](#) for the protection of navigation in the Red Sea was announced.

6.2. Legal Lacunae in Relation to Maritime Security Threats

The umbrella UNCLOS convention, adopted in 1982 and in force since 1994, is deliberately vague or incomplete in certain areas – a necessary compromise to secure broad international support. Although it has been and is being complemented by a large number of additional conventions and protocols, it has not kept pace with modern realities. Many challenges arise from issues that were simply not foreseen at the time, such as the technological advances that we are witnessing nowadays, the need to protect expanding critical undersea infrastructure from malicious attacks or the growing use of chokepoints as geopolitical weapons. Moreover, UNCLOS is not universally accepted by the entire international community, which limits its validity and political weight. Several indicative examples illustrate this point.

Many gaps in international maritime law stem from the fact that key conventions were adopted at a time when modern challenges were not foreseen

A serious practical problem stems from the fact that not all ESEN countries are signatories to UNCLOS. In the Eastern Mediterranean, Turkey has not signed the convention and, as recently as January 2026, reconfirmed its legal status as a [non-party to UNCLOS](#). The same applies to Israel, as well as Eritrea further south. Libya, for its part, has signed UNCLOS, but has not ratified it. The absence of universal adherence to the principal international maritime-law framework inevitably leads to disputes over sovereignty issues and potential conflicts in the ESEN region.

In the case of the Bosphorus Strait, the Montreux Convention does not provide a clear definition of ‘war’, which gives Turkey considerable discretion in determining which provisions to apply. One of the obvious implications is that Russian military cargo, carried by [merchant vessels](#), is often transported through the Bosphorus without being impeded. Article 29 does provide for amendments, but this requires unanimity, which hands any single party to the convention an effective veto. As a result, while formal revision is possible in theory, it is extremely difficult to achieve in practice. In addition, the Montreux convention is under pressure from modern realities because maritime traffic has reached unprecedented levels. In 1936, when the Montreux Convention was signed, only seventeen vessels passed through the Turkish Straits⁵; in 2025,

⁵ Derya Nur Kayacan, ‘The Legal Regime of the Turkish Straits and the Montreux Convention’, in Mareike Fröhlich, Elizabeth Harvey and Ingrid Sigstad (eds), *South Eastern Europe and the European Union – Legal Transformations*, Series of Papers 6 (Verlag Alma Mater, 2020), p. 7.

their number skyrocketed to 40,172. Of those vessels, [9,554 were tankers](#) carrying oil, liquefied natural gas (LNG) and liquefied petroleum gas (LPG). Ninety years after the Montreux convention was signed, traffic has become infinitely more intensive, ship sizes have grown, and cargoes have become toxic and dangerous in many cases.

The legal position is even less clear in the Red Sea, due to the absence of an international instrument comparable to the Montreux convention. The eight littoral states bordering the Red Sea and Gulf of Aden are often at loggerheads, if not in a state of war, and concluding a comprehensive agreement on maritime security is next to impossible. The Montreux convention functions to some extent, because one state administers the Turkish Straits, but this certainly does not apply to Bab el-Mandeb, which has turned into one of the hot spots of global significance.

Yet another gap in the international legal framework relates to liability. The 1884 Convention for the [Protection of Submarine Telegraph Cables](#) and UNCLOS provide limited clarity regarding undersea infrastructure. Articles 113 to 115 of UNCLOS place liability for cable damage on flag states. However, coastal states whose cables are damaged in their exclusive economic zones, but outside their territorial waters, have no enforcement jurisdiction over foreign-flagged vessels. This problem is further compounded by the widespread use of flags of convenience (at 70% of the global commercial fleet in 2024)⁶, which can make it difficult to identify and hold the actual beneficial owners responsible. In principle, a flag state may incur international responsibility for its failure to exercise the due diligence required under UNCLOS to prevent such acts. However, there are few cases in which a flag state has actually been held internationally responsible for failing to do so.

With regard to environmental risks, the 1973 [International Convention for the Prevention of Pollution from Ships](#) (MARPOL), the 1992 Civil Liability Convention, the 2001 Bunkers Convention and the 2007 [Nairobi Wreck Removal Convention](#) all assume an identifiable registered owner and a legitimate insurer. However, while a vessel with an opaque ownership chain and a certificate from an unrecognised insurer may satisfy the paperwork, these arrangements defeat the purpose of the legal framework. To complicate things even more, classification societies certify on behalf of flag states while being paid by the companies they audit. Rather than assessing the actual condition of vessels, port inspections often focus primarily on verifying documentation.

Another gap relates to the legal status of USVs within the UNCLOS framework. The convention does not provide a general definition of 'ship', but does define 'warship'. Under [Article 29 of UNCLOS](#), a warship is a vessel belonging to the armed forces of a state, flying distinctive external marks, and under the orders of a commissioned military officer. In other words, unmanned systems clearly do not qualify as 'warships' under the current UNCLOS definition. This gap has been addressed to some extent through the adoption of a non-mandatory International Code of Safety for Maritime Autonomous Surface Ships ([MASS Code](#)) by the International Maritime Organization (IMO) in May 2026. A MASS is defined as a ship which, to varying degrees, can operate independently of human interaction.

In addition, the proliferation of naval mines is a serious concern for many shipping companies. In principle, mine warfare at sea is covered by the [1907 Hague Convention VIII](#) on submarine mines. There is a glaring gap between this international convention adopted more than a century ago and contemporary modes of warfare. The convention in question refers to simple tethered mines used in the early twentieth century, not modern sophisticated mines deployed in ongoing conflicts in the Black Sea and elsewhere. Moreover, the Hague VIII Convention focuses on risks to belligerents, not to neutral and non-belligerent states facing the danger of mines, as is often the case nowadays. Since 2022, thousands of Soviet-era contact mines have

⁶ '2025 Review of Maritime Transport', Chapter II, UNCTAD, p. 51, https://unctad.org/system/files/official-document/rmt2025ch2_en.pdf.

[escaped their moorings](#) and drifted towards the coastline of the other Black Sea littoral states. Since these mines do not contain any sign of their source, there is no way of tracing any responsibility, and both Russia and Ukraine have pointed fingers at each other.

Apart from the need to update the international legal framework regularly, if not to overhaul it drastically, another serious challenge stems from the limited capacity of stakeholders to enforce the existing legal and regulatory provisions. For instance, while every port and shipping company should observe ISPS safety and security requirements, limited resources can reduce the effectiveness of these mechanisms and make practical implementation much harder. Armed conflicts and regional instability plaguing the ESEN region pose additional challenges for the authorities called upon to meet these requirements.

6.3. Regional Arrangements

The lacunae in the international legal framework applicable to the ESEN region have necessitated a growing number of regional arrangements, which are often temporary and *ad hoc*. The ESEN region has a diverse but fragmented network of maritime-security cooperation mechanisms, ranging from political dialogue platforms and voluntary forums to information-sharing and operational coordination structures. The Western Indian Ocean and Red Sea benefit from relatively well-developed arrangements, while the Mediterranean relies more heavily on coastguard and political dialogue frameworks. In the Black Sea, established cooperation has been constrained by geopolitical tensions and the war in Ukraine. EU mechanisms such as the Common Information Sharing Environment (CISE) and inter-agency coastguard cooperation provide broader cross-regional support. Nonetheless, operational coordination remains limited compared with the number of dialogue and capacity-building arrangements (Annex 6).

One form of sub-regional arrangements across ESEN is the deployment of maritime security operations (MSOs) by the US, the EU, NATO and various other actors. Notably, the legal basis for these MSOs and related auxiliary missions varies considerably, ranging from UN mandates and EU Council Decisions to North Atlantic Council decisions, national legislation and mission-specific coalition agreements (Annex 7).

Maritime Security Operations

In 2006, the [Maritime Task Force](#) (MTF) of the United Nations Interim Force in Lebanon (UNIFIL) was established to monitor Lebanese territorial waters and prevent unauthorised arms transfers by sea. The duration of MTF is due to expire in December 2026. In 2008, the EU launched [Operation ATALANTA](#) to counter piracy off the Horn of Africa, and protect vessels transiting to and from the Red Sea and the Suez Canal. It brings together the majority of EU member states as well as non-member states, and its mandate has been extended until 2027. In 2015, the EU launched the border control [Frontex Operation Poseidon](#), primarily assisting Greece in addressing irregular migration flows in the Aegean Sea and the Eastern Mediterranean.

The lacunae in the international legal framework have necessitated regional arrangements and a growing number of maritime security operations in ESEN

Meanwhile, since Russia's annexation of Crimea in 2014, NATO has repeatedly deployed [naval groups](#) to the Black Sea for exercises, patrols, maritime-security and mine-countermeasures activities. Drawing on contributions from allies, these deployments have focused on surveillance, deterrence, training and maritime situational awareness. Shortly afterwards, NATO established a mission in the Aegean Sea aiming to enhance its southeastern flank to counter human trafficking and irregular migration through surveillance and information sharing. In 2016, NATO launched [Operation Sea Guardian](#)

which covers the whole of the Mediterranean with an emphasis on maritime situational awareness, counter-terrorism, maritime security, freedom of navigation and capacity-building.

In 2020, the EU Naval Force Mediterranean [Operation IRINI](#) was launched, focusing primarily on enforcing the UN arms embargo on Libya, with secondary contributions to migration monitoring. Operation IRINI was launched under the EU Common Security and Defence Policy (CSDP) framework and in accordance with UN Security Council Resolution 2292 on Libya. In March 2025, the mandate of the operation was [extended to March 2027](#), with the protection of critical maritime infrastructure added to its mandate. In June 2026, the rules of engagement (ROE) were updated to confront [Russia's shadow fleet](#) by means of inspections and, if necessary, detentions. Moscow, for its part, argues that the 'shadow fleet' concept is unsubstantiated and that these measures violate the freedom of navigation guaranteed under UNCLOS.

Since 2022, the [Combined Task Force 153](#) has been active in the Red Sea, at the Bab el-Mandeb strait, and in the Gulf of Aden. Bringing together up to 47 states on a rotational basis, this multinational MSO focuses on maritime security, countering illicit activities and capacity building. Given the importance of the Red Sea and the chokepoints of the Suez Canal and the Bab el-Mandeb Strait to Asia-Europe supply chains, in February 2024 the EU launched [Operation ASPIDES](#) tasked with protecting merchant ships in the area. The operation benefits from the contributions from twenty EU member states and, according to [Council Decisions \(CFSP\) 2024/583](#) and 2024/632, its mandate covers three main areas: escorting merchant vessels, protecting commercial ships from attacks and ensuring maritime situational awareness. The ROEs of Operation ASPIDES are based on [necessity and proportionality](#). The operation's mandate was [extended in February 2026](#) for one year to safeguard freedom of navigation in the Red Sea. In July 2026, amidst a new surge in attacks in the Red Sea, Saudi Arabia invited many countries to join a coalition for the protection of commercial shipping in the area. To date, [thirteen countries](#) have reportedly agreed to participate in this joint endeavour.

All the MSOs mentioned above are defensive in nature, in that their mandate is confined to the protection of merchant ships from attacks and other forms of disruption of maritime traffic in the Red Sea. An exception to this pattern is the [Operation Poseidon Archer](#) as a distinct offensive campaign against the Houthis. Launched in January 2024 by the US and the UK, with support from Australia, Bahrain, Canada and the Netherlands, it aimed to degrade the military capabilities of the Houthi armed group, though with [limited results](#).

The persistence of violence in the Red Sea suggests that these MSOs over the past two decades or so may not be sufficient to protect maritime traffic in the area. At the same time, a counterfactual assessment suggests that without maritime security operations in the Red Sea, the toll would have been much higher. For instance, [in 2024 alone](#), Operation ASPIDES protected more than 640 merchant ships, provided close escort to more than 370, destroyed four ballistic missiles, intercepted 18 drones and 20 USVs, and rescued 50 seafarers.

Maritime Safety and Demining

Maritime safety is supported, at least in part, through regular inspections and the detention of vessels where serious deficiencies are identified. The detention of vessels is regulated by various provisions of international law covering temporary restrictions on their movement or the control of persons on board by authorised actors. UNCLOS provides the legal framework for boarding and, in specific circumstances, the seizure or detention of vessels, notably under [Articles 92, 105 and 110 of UNCLOS](#). In addition, related military operations rely on UNSC decisions and interpretations of self-defence in regions plagued by asymmetric threats, and vessel detention is practised across much of the ESEN region.

The Black Sea offers a useful example. Since 2000, there has been a regional mechanism anchored in the so-called [Black Sea MoU](#) on port state control among the six littoral states. Its Port State Control Committee holds annual meetings, the most recent of which took place in the Bulgarian city of [Varna in April 2026](#). Both Russia

and Ukraine attended the meeting, despite the armed conflict between them. By the end of 2025, the number of inspections in the Black Sea had declined from its peak in 2019, and yet the number of deficiencies and detentions had markedly [increased to 6.78%](#) of inspected vessels (Annex 8).

Another regional arrangement that merits attention has emerged in the Black Sea basin in response to the threat posed by naval mines in the area. In January 2024, Turkey, Romania and Bulgaria signed an MoU and established the so-called [Mine Countermeasures Black Sea](#) (MCM Black Sea) Task Group to undertake [minesweeping activities](#). In July 2026, at the NATO summit in Ankara, they extended the mandate of this format to include the protection of critical undersea infrastructure. This suggests that, in the absence of an adequate legal framework under Hague Convention VIII for addressing this contemporary problem, countries are increasingly relying on minilateral political and operational formats.

7. Conclusions

The report demonstrates that over the past few years maritime security in Europe's southeastern neighbourhood has entered a significantly more complex and volatile phase. The Black Sea and the Red Sea have emerged as the two principal areas of concern, but developments in these theatres increasingly affect the Eastern Mediterranean and the Aegean as well.

The main conclusion is that maritime threats can no longer be viewed primarily as isolated incidents involving naval forces or individual merchant vessels. They increasingly form an interconnected spectrum encompassing military attacks, disruption of commercial shipping, attacks on ports and undersea infrastructure, threats posed by mines, electronic interference with key functions of vessels, shadow fleets, disputes over sovereignty and resources, irregular migration and environmental risks.

Military conflicts constitute the most serious and immediate threats in the ESEN region. The war between Russia and Ukraine, and the confrontation between the Houthis and their opponents in the Red Sea have demonstrated the vulnerability of commercial shipping to missiles, aerial drones and unmanned surface vessels. The growing use of relatively inexpensive unmanned systems has altered the cost-benefit equation of maritime warfare, allowing state and non-state actors alike to threaten vessels and infrastructure at a comparatively low cost.

The weight of threat perceptions should also be factored in. The damages recorded in this report are not only produced by attacks on ships or port infrastructure, but in equal measure by the perception of threat – or fear. Therefore, the consequences extend well beyond immediate physical damage: attacks or even credible threats of attack can force shipping companies to avoid entire maritime corridors, as illustrated by the dramatic decline in traffic through the Suez Canal since late 2023 and the diversion of vessels around the Cape of Good Hope.

In addition, the report highlights the importance of threats that are not directly related to armed conflicts. Shadow fleets, AIS manipulation, GNSS jamming and spoofing can undermine maritime situational awareness and navigational safety, while facilitating sanctions evasion. Disputes over sovereignty and EEZs in the Aegean and Eastern Mediterranean delay infrastructure and energy projects, and could lead to heightened tensions between states, if not potential military escalation. Irregular migration and human smuggling also create a different category of maritime-security challenges, requiring costly search-and-rescue operations, and generating substantial humanitarian and political pressures.

The importance of threats not directly related to armed conflicts should not be underestimated

The economic consequences of threats to maritime security are substantially greater than the direct value of damaged vessels or infrastructure. Rerouting increases fuel consumption and other operational costs, voyage duration and delivery timelines, while insurance premiums and freight rates rise in response to perceived risks. The Black Sea illustrates another dimension of this problem, as attacks on ports and vessels, as well as sea mines, disrupt exports, with consequences for global agricultural and energy trade.

The report finds that the environmental dimension remains persistently under-addressed, even though it cuts across almost all categories of threats. Unlike military losses, which are tracked and reported quickly, environmental damage is often diffuse, slow to assess, and ‘culprits’ are not easy to pinpoint. This gap between visible war-related incidents and less readily quantifiable environmental costs suggests that the latter may be substantially higher than the figures quoted in this report indicate.

The study also stresses the profound asymmetry of threats and responses to them. The use of relatively inexpensive mines, drones and electronic-warfare equipment means that creating a threat at sea is now far easier, cheaper and faster than countering it. Relatively modest expenditure and expertise by an attacker can generate disproportionately large costs for shipowners, insurers, governments and global supply chains. These asymmetric threats are affordable for the attacker and exhausting for the defender.

Another important finding is the growing vulnerability of critical undersea infrastructure. Submarine cables and pipelines are increasingly strategic assets because they support vitally important electricity transmission and communications. Their exposure to deliberate attacks, accidental damage or disputes over their routes creates risks that are not adequately addressed by existing international arrangements. The prospective expansion of submarine electricity and data connections across the Black Sea and the Eastern Mediterranean aims to increase connectivity, but may simultaneously create new strategic vulnerabilities.

The existing international legal framework provides an essential foundation, but is increasingly failing to keep pace with these developments. UNCLOS, SOLAS, MARPOL and other related conventions remain crucial for predictability in shipping, navigational safety and environmental protection. However, important legal gaps have become apparent in relation to unmanned systems, modern mine warfare, sabotage of undersea infrastructure, opaque ownership structures and enforcement-related issues. The incomplete participation of some ESEN states in UNCLOS further complicates efforts to establish common rules. The Montreux Convention remains highly important to the governance of the Turkish Straits, but its provisions were not designed to address the contemporary scale and nature of maritime traffic or the challenges posed by modern hybrid warfare.

Against this background, regional and multinational maritime-security operations have become indispensable. EU, NATO, UN and multinational initiatives demonstrate that cooperation can mitigate risks even where a comprehensive political or legal settlement is impossible. Maritime security operations, such as ASPIDES, ATALANTA, IRINI, Sea Guardian and regional mine-countermeasure arrangements have served as useful workarounds supporting surveillance, deterrence, protection of merchant vessels and providing practical responses to specific threats. Their effectiveness, however, depends on sustained political commitment, adequate resources, clear mandates and coordination among stakeholders. The persistence and geographical spread of maritime threats indicate that military deployments alone cannot provide a lasting solution.

The assessment indicates significant gaps in maritime domain awareness, the protection of critical infrastructure, cybersecurity and navigation resilience, legal rules governing emerging technologies, monitoring of shadow fleets, mine-countermeasure capabilities and regional cooperation. These shortcomings are compounded by insufficient integration of maritime security with environmental protection, trade resilience and emergency preparedness.

Overall, the ESEN region should be understood as a single, interconnected maritime-security space rather than a collection of separate sub-regions. Developments in the Black Sea can affect the Aegean and the Eastern Mediterranean; instability in the Red Sea can disrupt European supply chains; attacks on undersea infrastructure can have consequences far beyond the location of the incident; and technological innovations can allow threats to travel over considerable distances. The key policy challenge is therefore to move away from a reactive approach, focused on individual incidents, towards a comprehensive and anticipatory system of maritime resilience.

8. Policy Proposals

8.1. Addressing Legal Gaps

- **Address the treatment of civilian vessels carrying military cargoes under the Montreux Convention:** What is needed is an agreement among the parties to the Convention that civilian vessels carrying military cargoes should be treated essentially as warships, irrespective of the Black Sea 'littoral-state' flags they fly. Port and flag-state authorities should verify such cargoes more rigorously.
- **Seek clarity on the legal status of USVs:** Given that the definition of a 'warship' under Article 29 of UNCLOS is no longer fully relevant, unmanned systems should be covered by a new legal instrument, e.g. a special protocol to the convention. The EU should consider raising the issue within the IMO.
- **Address the jurisdictional gap on undersea infrastructure:** UNCLOS Articles 113 to 115 establish certain obligations concerning damage to submarine cables and pipelines, but leave important questions of jurisdiction, attribution, liability and enforcement insufficiently addressed. A substantial body of principles, proposals and other initiatives has emerged in response to these concerns.⁷ In particular, the International Law Association Committee on Submarine Cables and Pipelines under International Law has developed draft rules addressing jurisdiction over cables and pipelines and incidents affecting them, and [has submitted](#) them to the Secretary-General of the United Nations.

8.2. Strengthening Enforcement

- **Make insurance verification an instrument of enforcement at chokepoints:** Shadow-fleet tankers frequently sail without genuine insurance cover, which transfers the cost of cleaning up oil spills to coastal states. Port and strait states should verify insurance documentation systematically, and confirm it with the issuing insurer rather than merely accepting the certificate at face value.
- **Strengthen the enforcement chain, and help smaller ports and operators meet requirements:** The regulatory framework relies heavily on the impartiality of classification societies, compliance of shipping companies, and effective oversight by flag and port states. Port and strait states should systematically verify insurance documentation and, where appropriate, confirm its validity directly with the issuing insurer rather than accepting certificates at face value.
- **Provide support to weaker stakeholders in terms of capacity building:** The IMO and regional groups should consider providing technical assistance to the national authorities of smaller countries that find it difficult to meet SOLAS, ISM and ISPS requirements, since an enforcement chain is only as strong as its weakest link.

⁷ International Law Association on Submarine Cables and Pipelines Under International Law, Final Report, p. 4, <https://www.ila-hq.org/en/documents/final-report-submarine-cables-and-pipelines-under-international-law-vienna-2026>.

- **Strengthen monitoring and enforcement against AIS manipulation and GNSS interference:** This would require monitoring and analysis of AIS ‘dark periods’, identity changes, implausible voyage patterns and incidents of GNSS jamming or spoofing, particularly in approaches to major ports and chokepoints. Regional authorities could establish a common mechanism for comparing AIS data with satellite imagery, GNSS interference data and other available sources, while distinguishing legitimate safety-related AIS interruptions from deliberate concealment or interference.
- **Attention should be paid to the possibility of false-flag operations:** There have been cases in which attacks were deliberately attributed to other states or non-state actors. Such operations pose a direct risk to maritime security because they can complicate attribution and increase the risk of inappropriate political or military responses and escalation.

8.3. Building a Regional Maritime Security Architecture

- **Consider developing a regional security strategy** which combines stronger MDA, protection of critical infrastructure, enhanced cybersecurity and navigation resilience, clearer legal rules for emerging technologies, more effective monitoring of shadow fleets, improved mine-countermeasure capabilities, and stronger regional cooperation. It should also integrate maritime security with environmental protection, trade resilience and emergency preparedness. Therefore, protecting the freedom of navigation in the ESEN region is not only a military or legal imperative, but a prerequisite for the resilience of European and global security.
- **Consider setting up regional groups to coordinate maritime security, at two levels:** At ESEN level, a standing forum should bring together the coastal states of the four sub-regions, EU institutions, NATO and the IMO, with UNHCR and IOM as observers on migration-related issues. At sub-regional level, dedicated formats should address specific problems, such as a Black Sea format involving Ukraine, Georgia, Bulgaria, Romania and Turkey alongside NATO and the EU, and a Red Sea format linking the littoral states with the IMO under the UN framework. An international conference facilitated by the IMO could link these efforts without creating a new institution.
- **Consider supporting the Red Sea Council process:** Despite the hostilities in the Red Sea, there is a regional body, namely the [Council of Arab and African States](#) Bordering the Red Sea and the Gulf of Aden (Red Sea Council). Founded in Riyadh in January 2020 by eight littoral states, it was deliberately created without a security arm. In July 2026, its members began [working towards a naval coalition](#) for the protection of navigation. The EU should evaluate the prospects of related efforts and consider connecting them to Operation ASPIDES.
- **Expand the mandates of ASPIDES and ATALANTA through the UN:** Both operations contribute significantly to the protection of maritime routes in the southern stretches of the ESEN region, but the geographical spread of threats shows the limits of relying on EU operations alone. Consider closer coordination between the two operations and seek linkages with the Contact Group on Illicit Maritime Activities in the Western Indian Ocean.
- **Convene a multilateral conference on the Eastern Mediterranean:** The disputes affecting the Great Sea Interconnector and the East to Med Data Corridor are not exclusively legal problems, and legal instruments alone will not resolve them. The [Greek 5x5 initiative](#), bringing together five EU and five non-EU coastal states, offers a suitable format for discussions on maritime boundaries, infrastructure protection and migration in a single dialogue framework. The EU should support it as the sub-regional component of the ESEN structure proposed above.

- **Upgrade the Mine Countermeasures Black Sea Task Group in institutional terms:** The Task Group should go beyond the current memorandum-based format to a more institutionalised form of cooperation, and should be provided with sufficient funding, given that mines will remain in the Black Sea for years to come and clearance capacity is expensive to rebuild if the Task Group is dismantled.
- **Provide the Black Sea Maritime Security Hub with EU funding:** This new structure should be supported financially, against a clear three-year action plan. Its core mission and mandate should be reviewed and updated at regular intervals, in line with emerging threats.
- **Strengthen the Frontex mandate in relation to SAR operations:** Frontex funding should be linked to actual SAR activities rather than to border control alone, so that the states shouldering the operational weight also receive financial resources.

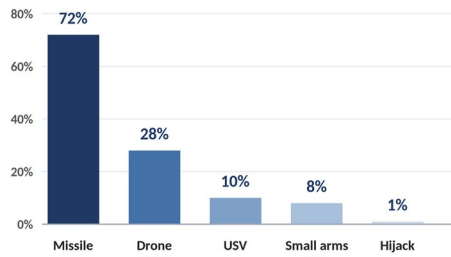
9. Annexes

Annex 1

Typology of Attacks on Commercial Vessels in the Red Sea November 2023 to September 2025

ATTACK VECTOR, SHARE OF INCIDENTS

Incidents may involve more than one vector, so shares exceed 100%



OUTCOME OF ATTACKS



Source: Lloyd's List

Annex 2

Numbers of Vessels Passing Through the Suez Canal 2023-2025

ANNUAL TRANSITS, 2023-2025

Year	Total transits	Net tonnage
2023	26,434	1.5 bn tons
2024	13,213	524.5 M tons
2025	12,758	522.1 M tons

CHANGE BY VESSEL TYPE, 2025 VS 2024

Vessel type	Change 2025 vs 2024
LNG ships	+132.4%
Car carriers	+74.4%
Passenger ships	+34.6%
General cargo	+18.1%
Container ships	-3.1%
Bulk carriers	-18.2%

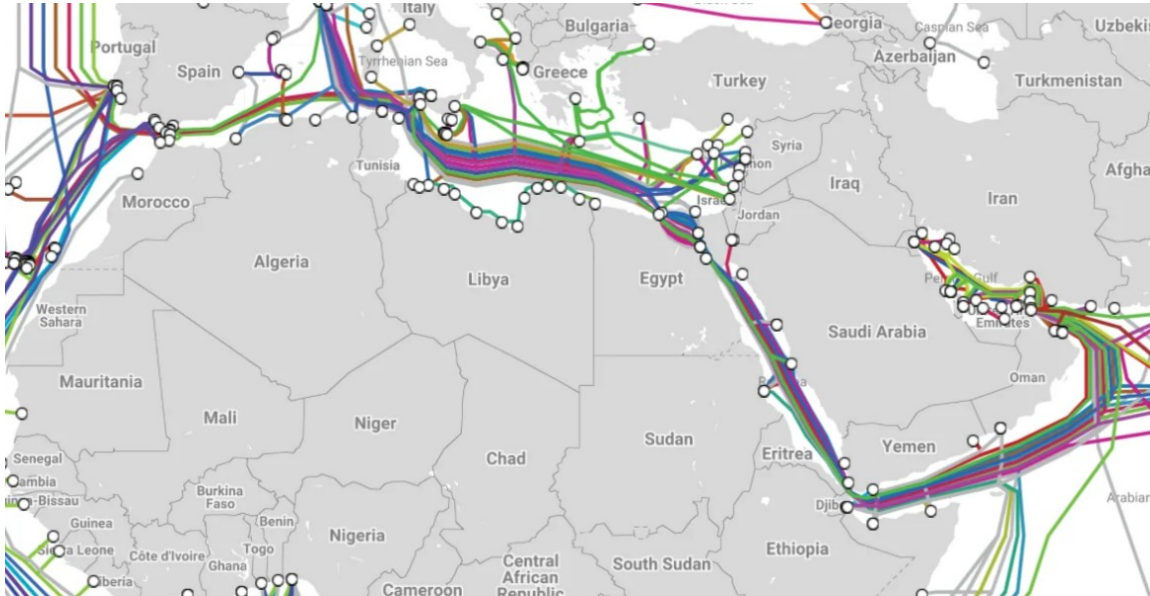
TANKERS AS SHARE OF TOTAL TRANSITS

Year	Tanker share of transits
2023	~32%
2024	~37%
2025	~39%

Source: Suez Canal Authority

Annex 3

Underwater Fibre Optic Cables in the ESEN Region, 2025



Source: Middle East Eye

Annex 4

Migration Routes and Detections in the Eastern and Central Mediterranean 2020-2025

Year	Central Mediterranean → Italy / Malta	Eastern Mediterranean → Greece / Bulgaria / Cyprus	Total EU sea routes	Deaths / missing
2020	~35,600	~20,000	~95,000	1,500+
2021	~67,700	~20,000	~123,300	2,050+
2022	~106,000	38,690	~189,000	2,500+
2023	~157,700	60,073	~380,000	3,105+
2024	~67,000 (-59%)	69,400 (+14%)	~239,000 (-38%)	1,000+ (H1)
2025	~29,300 (H1)	~19,600 (H1)	~178,000 (-26%)	pending

Detections count crossing events, not individuals: a person crossing twice is counted twice.

The Libya-Crete corridor became the largest sub-route within the Eastern Mediterranean in 2024-2025.

Sources: Frontex, IOM, UNHCR

Annex 5
Environmental and Navigational Hazards
Caused by Abandoned and Sunk Merchant Ships in ESEN
March 202 – August 2026

Time	Vessel	Type	Location	Incident	Environmental & Security Risks
March 2022	<i>M/V Helt</i>	General cargo vessel	Black Sea, off Odessa	Sank off Odessa; crew abandoned the vessel; a mine seen as a likely cause.	In ballast - not carrying cargo when the incident occurred; potential environmental hazard.
March 2024	<i>Rubymar</i>	Bulk carrier	Red Sea	Attacked by Houthi forces; crew abandoned the vessel; subsequently sank.	Vessel carried ammonium nitrate; potentially significant impact on the marine ecosystem.
June 2024	<i>Tutor</i>	Bulk carrier	Red Sea, off southwest Yemen	Hit by a USV, abandoned and sank.	Sinking created a potential environmental and navigational hazard.
July 2025	<i>Magic Seas</i>	Bulk carrier	Red Sea, off Hodeidah, Yemen	Attacked with gunfire and grenades from small boats; crew abandoned the vessel.	Abandoned merchant vessel posed a potential environmental and navigational threat.
July 2025	<i>Eternity C</i>	Bulk carrier	Red Sea, off Yemen	Attacked and subsequently sank; crew safely rescued.	Sinking created a potential environmental and navigational hazard.
November 2025	<i>Kairos</i>	Oil tanker	Black Sea, off Burgas, Bulgaria	Abandoned by crew and began leaking residual oil.	Oil pollution created a direct marine environmental threat.
July 2026	<i>Golden Leo</i>	General cargo vessel	Black Sea	Attacked and rendered unseaworthy; drifted and sank in Odessa Bay; 10 seafarers killed.	Fuel and lubricants could contaminate coastal waters; navigational hazards due to wreck-removal challenges.
August 2026	<i>Emil</i>	Bulk carrier	Black Sea, off Odessa, Ukraine	Severely damaged by multiple drone attacks and left adrift.	Abandoned vessel created a potential environmental and navigational hazard.
August 2026	<i>Yanina</i>	Container ship	Black Sea, 130 nm from Novorossiysk, Russia	Struck by naval drones and sank; crew safely rescued.	Sinking created a potential environmental and navigational hazard.
August 2026	<i>Anna S</i>	Bulk carrier	Black Sea, off Novorossiysk, Russia	Hit by aerial drones; crew rescued by a nearby vessel.	Damaged vessel created a potential environmental and navigational risk.

Source: Institute of International Economic Relations compiled from multiple sources

Annex 6

Regional Dialogue Platforms and Cooperation Mechanisms in the ESEN Region

Name	Year	Seat	Geographical scope	Mandate
<i>Regional Dialogue Platforms</i>				
Djibouti Code of Conduct/ Jeddah Amendment	2009/ 2017	No fixed seat; IMO-supported	Western Indian Ocean, Gulf of Aden, Red Sea and wider western Indian Ocean region	Regional cooperation against piracy and maritime crime; capacity-building
Mediterranean Coast Guard Functions Forum	2009	No fixed seat; rotating host	Mediterranean	Coast-guard cooperation on surveillance, SAR, border control, trafficking, fisheries and pollution
NATO Mediterranean Dialogue	1994	NATO HQ, Brussels	Mediterranean and adjacent areas	Political and practical security cooperation, including maritime security
Eastern Mediterranean Sea Basin Strategy dialogue	2026*	No permanent seat; EU-led	Eastern Mediterranean	Developing a framework for Eastern Mediterranean maritime cooperation
Regional Maritime Law Enforcement Dialogue	2021	No permanent seat	Southern Red Sea, Gulf of Aden and Horn of Africa	Law-enforcement dialogue, information-sharing, inter-agency cooperation and capacity-building
Djibouti Maritime Security Symposium	2024*	Djibouti	Red Sea/Gulf of Aden and wider regional maritime domain	Regional maritime-security dialogue and networking
European Coast Guard Functions Forum	2009	No fixed seat	Europe / European maritime domain	European coast-guard cooperation, training and capacity-building
<i>Operational / Technical Cooperation Mechanisms</i>				
EU inter-agency coast-guard cooperation (EMSA–Frontex–EFCA*)	2017	EU level	EU maritime domain	Surveillance, information-sharing, risk analysis and exercises
Common Information Sharing Environment (CISE)	2009/ 2024	EMSA, Lisbon	EU maritime domain	Maritime-surveillance information-sharing and situational awareness

* European Fisheries Control Agency (EFCA)

Source: Institute of International Economic Relations compiled from multiple sources

Annex 7

Maritime Security Operations and Related Missions in the ESEN Region, As of July 2026

Operation/Mission	Duration and Mandate	Participating Countries	Legal Basis
UNIFIL Maritime Task Force (MTF)	2006 – 2026 Eastern Mediterranean/Lebanon: Monitoring Lebanese territorial waters, preventing unauthorised arms transfers by sea, and supporting the Lebanese Navy.	UN Member States contributing naval forces; Lebanon cooperates with the MTF.	UNSC Resolution 1701 (2006), following a request from the Lebanese Government.
Atalanta	2008-2027 Anti-piracy operations primarily in the Gulf of Aden; to a limited extent, in the southern Red Sea and approaches to the Bab el-Mandeb Strait.	Twenty EU member states under CSDP (ten providing warships and aircraft) + two non- member states.	UNSC Resolutions 1814, 1816, 1838, 1846 (lapsed 2022; now UNCLOS Arts. 100-107)
Frontex Poseidon	2015–present* Aegean Sea/Eastern Mediterranean: Maritime border surveillance, detection of irregular crossings, search and rescue, and support against migrant smuggling.	Greece, participating EU/Schengen states and Frontex; contributions vary by operational cycle.	EU Schengen acquis and Frontex regulations, notably Regulations (EU) 2016/1624 and 2019/1896.
NATO maritime activities / Standing Naval Groups	2015–present* Black Sea: Maritime presence, surveillance, reassurance, deterrence, training and maritime situational awareness.	NATO Allies; contributions vary, including Romania, Bulgaria, Turkey and other Allies.	North Atlantic Council decisions; NATO collective defence framework and applicable international maritime law.
NATO Aegean Activity	Feb 2016–present* Aegean Sea: Reconnaissance, surveillance and information-sharing; support against human trafficking and irregular migration.	NATO Allies on a rotational principle and contributing naval assets; cooperation with Greece, Turkey and Frontex.	NATO Defence Ministers' decision of 11 Feb 2016 and subsequent North Atlantic Council decisions.
Operation Sea Guardian	2016–present Mediterranean Sea: Maritime situational awareness, counter-terrorism, maritime security, freedom of navigation and capacity-building.	NATO Allies, with varying contributions.	NATO Warsaw Summit (2016) / North Atlantic Council decisions; non-Article 5 maritime-security operation.
Operation IRINI	2020 – 2027 Mediterranean Sea/Libya: Enforce UN arms embargo on Libya, monitor illicit petroleum exports and contribute to disrupting human smuggling networks.	EU Member States; third countries may participate.	EU Council Decision (CFSP) 2020/472**, implementing relevant UN Security Council resolutions, including UNSC resolution 2292.
Combined Task Force 153 (CTF-153)	2022 – present Red Sea/Bab el-Mandeb/Gulf of Aden (generally, outside the Gulf): Maritime security, counter-illicit activities and capacity building.	47 states contributing to a Combined Maritime Force; rotating leadership and contributions.	Combined Maritime Forces naval partnership; national legislation and applicable international law; no UNSC resolution.
Operation Poseidon Archer	2024-2025 Red Sea/Bab el-Mandeb/Gulf of Aden, as part of a broader operation aiming to disrupt/downgrade Houthis' military infrastructure in Yemen.	US-UK, with support from several other countries.	Article 51 of the UN Charter on individual self-defence.
Operation ASPIDES	2024- 2027 Red Sea/Gulf of Aden. Protection of commercial vessels; provision of maritime situational awareness; safeguarding freedom of navigation.	Twenty EU member states; third-country participation possible.	EU Council Decision (CFSP) 2024/583 and 2024/632**, under Articles 42(4) and 43(2) TEU and applicable international law.
Saudi Arabia-Led Naval Coalition	2026 - Protection of commercial shipping in the Red Sea and the Gulf of Aden in the name of freedom of navigation.	14 countries as of 30 July 2026; accession of other countries possible.	Intergovernmental defence arrangement.

* Successive operational cycles or continuing activities rather than one uninterrupted mission under a single fixed mandate.

** CSDP military operation, established through a Council Decision under the CFSP framework

Source: Institute of International Economic Relations

Annex 8

Inspections and Detentions in the Black Sea, 2016-2025

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Number of Inspections	5,066	4,997	5,214	6,036	5,721	5,624	4,972	5,294	4,587	5,117
Number of Detentions	229	283	278	212	241	178	174	208	216	347
Detention %	4.52	5.66	5.33	3.51	4.21	3.17	3.50	3.93	4.71	6.78

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Number of Inspections with Deficiencies	2,845	3,018	3,103	3,401	2,831	3,003	2,981	3,204	3,140	3,596
Number of Deficiencies	18,266	21,006	21,450	19,422	15,442	15,321	16,100	17,326	17,285	21,973
Deficiencies/Inspections	3.61	4.20	4.11	3.22	2.70	2.72	3.24	3.27	3.77	4.29
Deficiencies/Inspection with Deficiencies	6.42	6.96	6.91	5.71	5.45	5.10	5.40	5.41	5.50	6.11

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
No. of Detainable Deficiencies	822	962	948	653	678	644	843	1,162	1,055	2,019
Detainable Deficiencies/ Detention	3.59	3.40	3.41	3.08	2.81	3.62	4.84	5.59	4.88	5.82

Source: Black Sea MoU Annual Report, 2025