

The sea routes, between security, geopolitical criticalities, religious tensions and economic interests

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Abstract. This article examines maritime routes as strategic infrastructures at the intersection of economic interdependence, security imperatives, religious tensions, and geopolitical competition. Starting from a historical and theoretical overview of sea power, it highlights how control of maritime communication lines has evolved from a primarily military doctrine into a multidimensional instrument encompassing legal, economic, and political dimensions. The study analyzes the structural fragility of the global maritime system, emphasizing the role of critical choke points and submarine infrastructures in sustaining international trade, energy supplies, and digital connectivity. Particular attention is devoted to contemporary crisis areas, including the Red Sea, the Strait of Hormuz, the Baltic Sea, and the Mediterranean, where state and non-state actors increasingly exploit maritime vulnerabilities through hybrid and asymmetric strategies. The Houthi insurgency, disruptions to submarine cables and pipelines, and recent incidents involving energy and data infrastructure are discussed as emblematic cases of emerging maritime insecurity. The article also explores national responses, with a focus on Italy's strategic repositioning within the framework of the "enlarged Mediterranean" and recent legislative developments aimed at protecting underwater assets. Ultimately, the contribution argues that maritime routes are no longer neutral spaces but key arenas in which global power balances, legal regimes, and security architectures are being reshaped

Key Words: Maritime security; Sea power; Geopolitical choke points; Submarine infrastructures; Hybrid warfare

1. Introduction: The historical importance of the sea routes.

Navigation emerged as humans developed the capacity to construct vessels, plot courses, navigate waves, utilize currents, and sail against winds. Since then, humanity has traversed sea routes for exploration, conquest, exchange, trade, migration, colonization, and, subsequently, for the procurement of raw materials from quarries and mines. Consequently, sea routes have become pivotal catalysts for development and power.

If we retrace the history of humanity, in fact, we can easily notice how the main civilizations arose precisely along the coastal strip and how they managed to flourish by developing maritime skills and sailing the seas.

Currently, oceans cover 70% of the Earth's surface, with 80% of the global population concentrated near coastlines. It is important to note that the majority of global production activities occur at sea, underscoring the critical importance of maritime navigation for international trade. The globalization of the economy has fostered significant interdependence among countries, even those geographically distant, as they are interconnected within the producer-processor-consumer chain. The continuous flow of goods and energy resources facilitates this continuity. According to the European Maritime Safety Agency, today, 90% of these goods and raw materials transit along maritime communication lines, and 75% of this flow passes through critical geographical nodes, known as "choke points", which are international canals and straits often subject to international disputes.

In the contemporary era, sometimes termed the Anthropocene (Crutzen & Stoermer, 2000) to highlight humanity's profound impact on the Earth's environment and natural resource exploitation, entire economies rely on the uninterrupted flow of oil, gas, and container traffic. However, beneath the seemingly neutral surface of international waters lie strategic challenges, geopolitical rivalries, and hegemonic conflicts concerning the acquisition and distribution of these resources, leading to a dynamic reshaping of global balances.

Maritime routes serve not only as conduits for trade but also reflect the power dynamics and interests of states, thereby acting as indicators of international relations and geopolitical balances. The notion that control of the sea dictates the destiny of nations is a recurring theme in major theories of maritime power and geopolitics. This dominion over sea routes is conceptualized across three levels: physical control, exercised to guarantee freedom of navigation (e.g., mitigating maritime piracy); economic influence, implemented to protect trade flows; and soft power, utilized as a deterrent to foster alliances and establish international regulations.

2. The practical relevance of the concept of Sea power

The concept of maritime power originated in the West during the Punic Wars, when Rome introduced significant innovations to its vessels, such as the "rostrum" and the "corvus" (Pitassi, 2015; Maniscalco, 1992). However, it developed substantially between the 16th and 18th centuries, during the "golden age" of navigation and exploration. This period of colonialism and maritime imperialism witnessed major naval powers vying for supremacy over the seas through a complex interplay of military, economic, and geographical factors.

Presently, maritime power is governed by International Maritime Law, yet its theoretical foundations lie in the works of classical authors whose insights, despite subsequent updates, continue to inform contemporary doctrine. The notion of "Sea Power" (Mahan, 2010; Corbett, 1988; Mackinder, 1902) thus pertains to a Nation's capacity to exert influence over the seas for political, economic, and military objectives. It is considered essential for projecting national power, controlling commercial maritime routes and strategic points, and serves as a prerequisite for geopolitical expansion and international supremacy.

When exercised through a combined control of land resources and sea routes, maritime power becomes a fundamental lever for global hegemony.

Therefore, maritime power has evolved from a purely military doctrine into a multifaceted instrument of strategic influence, relevant in both political-military and legal-economic dimensions. This evolution has contributed to redefining the very concept of maritime dominion, particularly in light of contemporary international law.

3. Maritime routes between economy and trade

All major global powers are actively expanding their zones of influence far beyond their territorial waters, extending strategic, economic, and military control even to distant maritime regions. A clear example is the People's Republic of China's strategic approach, which involves substantial investments in acquiring ports such as Port Said in Egypt and Piraeus in Greece. These ports are subsequently utilized as dual-use (civilian/military) bases, positioning China as a leading economic player in the Mediterranean. These acquisitions enable China to leverage its commercial power and infrastructural supremacy to counter any interference from competitors on sensitive issues.

The maritime system is undeniably fundamental, strategically contested, and intrinsically interconnected. A delay of a container ship in the port of Cartagena, for instance, can elevate the price of coffee in Naples. Simultaneously, however, the maritime system is also exceedingly fragile.

3.1 Suez Strait, Red Sea and the Houthi threat

A stark example of this intrinsic vulnerability was the 2021 Suez Canal crisis, when the container ship *Ever Given* ran aground, blocking the canal for over a week and causing immense negative repercussions on global trade (Shen, 2025; Khoi et al., 2025).

The Red Sea undoubtedly represents a strategic naval artery. Thanks to pioneering infrastructure projects like the Suez Isthmus and the construction of the Ras Bir lighthouse in the Strait of Bab al-Mandeb and the Crispi lighthouse at Cape Guardafui, the Red Sea has progressively become a vital highway for merchant traffic, essential for global logistics. Furthermore, this sea is known to host a dense network of submarine cables, crucial for a substantial portion of the world's data traffic, and equally threatened by the Houthi insurgency.

Following the Suez Canal obstruction, the Red Sea has been subject to an ongoing crisis since 2023, stemming from the threat of attacks on vessels transiting from Yemen by the Houthis. These attacks have resulted in significant global repercussions, increasing insurance costs, substantially slowing goods delivery, and compelling shipping companies to seek alternative routes.

But who are the Houthis, and what are their objectives?

The transformative movements of the “Arab Springs” also impacted the Republic of Yemen and this led to the 2012 deposition of Ali Abd Allah Saleh, former President of North Yemen and the first President after unification—who had been in power for over thirty years. This deposition destabilized the country, soon leading to a civil war, formally declared on an inter-confessional basis between Sunni

and Shi'ite religious factions, but with broader, still unresolved motivations. The conflict's consequences are disastrous, particularly for the civilian population, which even before the hostilities was already classified as among the world's poorest (Dresch, 2000).

The division between tribal clans represent also a division at the confessional level, as Yemen, unlike other Islamic countries, has an almost balanced presence of Sunnis (particularly Shafi'ites) and Shi'ites (predominantly of the Zaydi school), to which Houthis belongs.

The current Republic of Yemen emerged from the country's unification on 1990, that led to the cohabitation of two very distinct historical, political, economic, and social realities, also separated by their adherence to different legal schools.

The Shi'it Houthi movement's activism as a dissident group began in the 1990s from the capital and rapidly spread across much of the country, culminating in an armed rebellion against the central government, and in 2014 they conquered the capital Sana'a. Since then, they have become major regional actors, adopting an anti-Western and anti-Sunni mood.

Today, the Houthi threat has significantly disrupted shipping routes in the Red Sea, increasing the cost and time for shipping and delivery of goods. It has also exposed a critical vulnerability in the global submarine cable infrastructure, underscoring the need for enhanced protection and prompting the deployment of international military missions such as the US-led "Prosperity Guardian" and the European-led "Aspides", to protect maritime traffic.

The Strait of Hormuz represents the sole access to the Persian Gulf area and, critically, the only viable route for transporting of crude oil demanded by global markets. This is due to the unique geography of the Persian Gulf, the immense volume of oil production from major regional producers, and the limited capacity of alternative transport routes. Each day, approximately 20% of global demand passes through the Strait as well as 30% of the world's marketed liquefied natural gas.

In 2010, following the official announcement of a significant increase in enriched uranium production at Iran's Natanz nuclear power plant, a nuclear crisis erupted (Ofek, 2021). This led to an intensification of embargoes and "Western" sanctions on Iran, which had been in effect since 1996, resulting in a decline in Iranian oil production and exports to third countries, with unavoidable global repercussions. Following the outbreak of the conflict between Israel and Iran in 2025, it is easy to foresee enormous repercussions: oil traffic through the Strait of Hormuz and its control will be decisive in both local scenarios and global balances.

4. Hybrid warfare and protection of strategic infrastructures

Almost all global internet traffic is transmitted via undersea cables. Inevitably, the theory of maritime power extends to the oceanic regions traversed by these cables. The current expansionist strategies of states and international tensions render their control and security precarious, thus jeopardizing the connections upon which the global economy now relies.

The risks involve both accidental damage, despite advanced construction and installation techniques, and potential sabotage or targeted attacks during conflicts. There is also the possibility that these cables could be exploited for espionage and cyberattacks (Bueger et al., 2022; Burnett, 2021). Furthermore, issues of litigation between public and private entities arise, as does the question of sovereignty that countries can exercise over these infrastructures, given that most cables are owned by private companies or “Big Tech” corporations (García Cáceres, 2023; Raha & Raju, 2021). The considerations regarding undersea cables are largely applicable to submarine gas pipeline systems, where similar risks and problems exist (Pogoretsky, 2017).

Since 2022, the Baltic Sea has been the site of a series of incidents involving strategic submarine infrastructure, prompting strong suspicions of sabotage and reigniting the debate on the safety of submarine cables and pipelines, as well as the concept of “hybrid warfare” (Hoffman, 2007). This term generally refers to a conflict strategy that simultaneously and coordinately integrates various modes of aggression, transcending the traditional distinctions between conventional and irregular warfare. Actors who adopt this strategy, whether state or non-state, combine military tactics with non-military actions and tools, often employed undeclared or ambiguously, to achieve political or strategic objectives, even resorting, in the case at hand, to sabotage or attacks (Muuga et al., 2025).

Key events include the sabotage of the Nord Stream 1 and 2 pipelines in September 2022 and investigations have ruled out accidental damage but have not definitively identified specific responsibility. In October 2023, the Balticconnector pipeline, connecting Finland and Estonia, and an associated communication cable were damaged. Between November and December 2024, several submarine telecommunications and energy cables laid in the Baltic Sea were interrupted, including those connecting Finland to Germany (C-Lion-1), Sweden to Lithuania, and the EstLink 2 power cable between Finland and Estonia. Once again, investigations focused on the possibility of sabotage.

Investigations have ruled out accidental damage but have not definitively identified specific responsibility although suspicions for most incidents have been directed at an alleged “Russian shadow fleet” operating in the area. The threat has significant implications for Europe and global connectivity (Lee, 2025).

5. The Italian Navy’s strategy in the “enlarged Mediterranean”

Mediterranean holds particular relevance. Despite comprising only 1% of the global water surface, it is traversed by nearly 20% of the world’s maritime traffic. Italy, a nation with a strong maritime character, possessing approximately 8,000 km of coastline and a distinctive morphology, is centrally located in the Mediterranean. It is Europe’s leading country for the volume of goods imported by sea, and also imports approximately 80% of its oil needs via maritime routes. The national maritime cluster alone generates about 3% of Italy’s GDP, with an economic multiplier equal to 2.9 times the invested capital (Nomisma, 2021).

To ensure natural gas supplies to countries like Italy and Spain (and, through them, to the rest of Europe), specialized terminals for liquefied gas transport and hundreds of kilometers of gas pipelines are necessary, many of which cross multiple countries and the Mediterranean Sea itself (Fabbri, 2020; Sellari, 2021). These combined circumstances have led to a redefinition of Italian maritime strategy, prompting first the Italian Navy and then the Government to conceive an “enlarged Mediterranean” (Ramoino, 1999). This concept defines an “operational theater of maximum national interest in which the Italian State implements a common security strategy” (Domini, 2022). The enlarged Mediterranean thus constitutes a zone of political, economic, and security projection that incorporates into Italy’s strategic space a vast area spanning the Strait of Gibraltar, the Black Sea, parts of the Indian Ocean, parts of the Atlantic Ocean, and the Persian Gulf, thereby also including the Middle East and Central Africa (Jean, 1995). The protection and stability of the Mediterranean Sea and its extended projections are crucial for Italy and for the entire European Union.

Recently, Italian Government has started a new strategy rooted in the notion of maritime power, amending its legislative and regulatory framework through Bill No. 1462/2025, titled “safety of underwater activities”. Amending Military Code, the Italian Government drastically has modified the Italian Navy’s rules of engagement, authorizing the Italian Navy to react by opening fire against any entity threatening the safety of underwater infrastructure of national interest.

An Agency for the Safety of Underwater Activities (ASAS) is also established, with transversal responsibilities, under the functional authority of the Presidency of the Council of Ministers. Its primary task is to define the measures necessary to ensure the physical safety of underwater structures in maritime areas under national jurisdiction and, limited to those of national interest owned by Italian nationals, also on the high seas. The Agency’s other tasks include coordinating international and European cooperation in underwater matters, in conjunction with the Ministry of Foreign Affairs and International Cooperation and the Ministry of Infrastructure and Transport, as well as collaborating with intelligence and security agencies in exchanging information on the seabed and the status of strategic infrastructure.

6. Conclusions

An analysis of contemporary geopolitical dynamics confirms the inescapable importance of maritime power as a determining factor for national security and international stability. From its original formulation as a military doctrine, the concept of sea power has evolved into a complex instrument of strategic influence, permeating political-military, economic, and legal dimensions, and also informing the legal framework of reference. The architecture of international maritime law, founded on key conventions such as UNCLOS, while providing an essential regulatory framework for the regulation of maritime spaces and freedom of navigation, demonstrates the limits of its practical applicability in contexts of growing geopolitical tension. The proliferation of disputes and the dynamic interpretation of

normative principles highlight an intrinsic tension between state sovereignty and the peaceful use of the seas, necessitating a recalibration of national strategies in light of the concept of maritime power.

Furthermore, the structural vulnerability of maritime lines of communication and tensions at critical chokepoints, such as the Strait of Hormuz and the Red Sea, are emerging as a focal point for global security. Crises generated by religious conflicts and geopolitical tensions, such as the ongoing friction between Iran and Sunni proxies, or the Houthi insurgency in Yemen, demonstrate how regional fragilities can have systemic repercussions on international trade and energy security. These scenarios require reflection on the effectiveness of defensive missions and the desirability of a more robust multilateral intervention, in accordance with customary and treaty international law.

An area of growing concern concerns the protection of strategic underwater infrastructure, namely telecommunications cables and gas pipelines. Almost all global data traffic and a significant portion of energy transport depend on these facilities, making them primary targets in modern hybrid warfare. Events such as the sabotage in the Baltic Sea or the threatened blockade of the Strait of Hormuz not only reveal the physical vulnerability of such infrastructures, but also highlight the ambiguity and difficulty in assigning legal responsibility in the context of unconventional operations.

In this context, the Italian strategy, based on the idea of an “enlarged Mediterranean”, represents an approach consistent with the need to defend national interests in a strategic projection area. The proposed Italian regulatory reform through Bill 1462/2025, which amends the military system and establishes the Agency for the Safety of Underwater Activities (ASAS), reflects a paradigm shift in the application of the traditional concept of maritime power. It aims to provide a legal framework for effective military engagement aimed at protecting underwater infrastructure of national interest, including in the High Seas, and to improve international intelligence coordination.

Ultimately, safeguarding the maritime domain requires an integrated approach that combines compliance with the international legal framework with the necessary projection of force to ensure the uninterrupted continuity of vital flows, such as goods, energy supplies, and data. Global economic interdependence requires that maritime security be managed not only through the use of conventional means, but also through robust protection of critical underwater infrastructure, which must be conceived as external ramifications of the national territory, in terms of strategic security and as an extension of the notion of maritime power.

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