



Two perspectives on littoral warfare

Alfred Bergström & Charlotta Friedner Parrat

To cite this article: Alfred Bergström & Charlotta Friedner Parrat (2022): Two perspectives on littoral warfare, Defence Studies, DOI: [10.1080/14702436.2022.2080659](https://doi.org/10.1080/14702436.2022.2080659)

To link to this article: <https://doi.org/10.1080/14702436.2022.2080659>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 25 May 2022.



Submit your article to this journal [↗](#)



Article views: 296



View related articles [↗](#)



View Crossmark data [↗](#)

Two perspectives on littoral warfare

Alfred Bergström^a and Charlotta Friedner Parrat^b

^aSwedish Navy, Stockholm, Sweden; ^bDepartment of War Studies and Military History, Swedish Defence University, Stockholm, Sweden

ABSTRACT

The world's littorals is an important theater for all sorts of human interaction. So, also for naval warfare, which increasingly has led defense planners to focus on littoral capabilities rather than on Mahanian high-sea battles. We address the question of what littoral warfare means for different types of states. To that end, we develop a set of opposing ideal-types with regards to each type's operational environment, aims, methods, and means for littoral warfare. We then use these ideal-types to analyze the naval doctrines of Sweden, the UK, and the US. This comparison generates some interesting results. For blue-water navies, littoral warfare is an additional burden and a high-risk endeavor, since the littoral, which the planning concerns is somebody else's. For the small coastal state, correspondingly, littoral warfare is the sole purpose of its navy, and it can focus all its resources there as well as on cooperation with its air force and army, which are necessarily nearby. For blue-water navies, the objective of littoral warfare is to defeat the enemy, whereas for the small coastal state, it is deterrence.

ARTICLE HISTORY

Received 4 March 2021

Accepted 18 May 2022

KEYWORDS

Littoral warfare; navy; great power navy; small coastal navy; ideal-types

The littoral theater

There exists exactly zero blue-water, surface-to-surface missile engagement between warships in recorded history. All such engagements have taken place in what is commonly known as the littorals; that is, close to shore. Barring a high-intensity conventional war between two blue-water navies, this trend is likely to continue.

Generally, the littorals is an important theater for all sorts of human interaction. 80% of the world's capitals are found in the littorals, and the littorals comprise 16% of the world's oceans and seas and 100% of seaborne trade starts and ends here (Vego 2015, 31). In 1993, two years after the end of the Cold War, the US Navy made the very conscious decision to shift strategic focus from open-water warfare *on the sea* to littoral warfare *from the sea* (Murphy 1993, 65). Almost three decades later, the shift in focus has spurred on technological advancements to vessels and weapons for littoral operations. Hence, it seems evident that the littorals are still of outmost importance for any naval planner.

1993 also marked the start of a niche field within maritime theory: littoral warfare. Some might maintain that littoral warfare is not significantly different from blue-water warfare (Murphy 1993). Others recognize it as qualitatively different enterprise, lacking

CONTACT Charlotta Friedner Parrat  charlotta.friednerparrat@fhs.se  Department of War Studies and Military History, Swedish Defence University, Stockholm Box 27805, S-11593, Sweden

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

(and needing) a theory of its own (Vego 2015; Ya'ari 2014). Indeed, there are several particularities to littoral warfare compared to the more traditional high sea focus of the blue-water navies; notably, the defending side of a littoral expedition seems to have a disproportionately large advantage against the attacking side, even when a coastal navy is pitted against a blue-water navy (Till 2018; Ya'ari 2014). This leads to the very natural question of whether a small navy views littoral warfare differently than a large navy. This article thus investigates the question: What does littoral warfare mean for different types of state? We attempt to answer by developing two ideal-types of state with regards to their preparedness for littoral warfare, hoping that this exercise will allow us to systematically isolate and define the differences we see between blue-water navies and those of coastal states when planning for littoral warfare.

We do not, in this text, wish to put a precise cap on where the littorals end. With every technological invention, the area covered by the term littorals would have to be redefined. Instead, we understand the littorals as being the area of water that could be protected from land, and the coastal area of land, which could be threatened from the sea (cp Vego 2015, 33).

The rest of this article is outlined as follows: First, we offer a number of theoretical starting points for studying littoral warfare. Second, drawing on those starting points, and especially on the contributions by Milan Vego and Jacob Børresen, we develop a set of opposing ideal types of state with a readiness for littoral warfare. Third, we use those ideal types for analyzing the approaches to littoral warfare expressed in doctrines of three states, one of which can be considered as “the extreme littoral” (Lundquist 2014), one that is usually seen as an archetype of blue-water navy, and one with blue-water ambitions but a more limited range. Finally, we discuss what this analysis can tell us about the different perspectives on littoral warfare held by states of different capacity and ambition for littoral warfare.

Categorizing navies

There is no shortage of efforts to categorize navies. We may look to Grove's (1990) classification, or to his more recent revision of it (Grove 2016). On his original nine-level scale, capacity for littoral warfare is one criterion among many, although central only for the lowest levels of navy, which are supposedly limited to doing only coastal defense. Overall, Grove's (2016, 15–16) categorizations rely for their assessment on the sort of platforms and weaponry a navy has, as well as on how far from its own shore it has the capacity of acting, measured as its “level of afloat support.” For the purposes of this article, this measurement overlooks an important aspect of a navy's *raison d'être*, namely its intended operational theater. From a blue water starting point, a navy's reach from its own shore is an obvious criterion for strength; but for a coastal state with defensive and deterrent ambitions, reaching further out at sea might just be considered an unwarranted expense.

In a recent book chapter, Till also asks whether small navies are different – presumably in relation to blue-water navies. He divides the question into two aspects: whether they are different in kind from blue-water navies, and whether they are different from one another (Till 2016, 21). Both questions are answered at least partly in the affirmative. In this article, our aim is to contribute to the body of naval theory, to an overwhelming

extent built on the experiences of blue-water navies, by giving equal weight to the ambitions and requirements of small navies. We therefore treat small navies as entirely different from, even opposites to, blue-water navies within the littoral environment. However, we do not differentiate between small coastal navies within that environment, but claim that at least in the first analysis, they can justifiably be taken as belonging to one and the same category.

In this article, we analyze states' capacities for littoral warfare with regards to their intended operational environment; their aims and goals; methods employed; and the means at their disposal. These choices are discussed and justified over the following sections.

Operational environment

The difference in operational environment between small and big navies comes out quite clearly in Børresen's (1994) treatment of "the coastal state." In his words, a (small) coastal navy is "inherently defensive in orientation. It does not represent a serious threat to anyone who does not venture into its local area of operations, while at the same time it has a capacity to maintain law and order, to prevent potentially destabilising attempts by external actors to take the law into their own hands" (Børresen 1994, 174). The coastal state can rarely, if ever, threaten a blue-water navy in a Mahan-style decisive battle on the high sea, but close to its own shore, it is specialized, both in training and equipment, and can therefore be a tough contender for a stronger aggressor. Børresen (1994, 151) points to three primary factors underlying this idea: first, the geography of the littoral, which affords natural shelter and/or protection from the shore for the defending side; second, the proximity of the defending navy to its own bases; and third, the possibility of the coastal navy to cooperate closely with its corresponding air force and army. All of those circumstances play up the relative strength of a coastal state in, or in proximity to, its own waters.

Further, Vego outlines how a blue-water navy loses some of its effectiveness in the littorals, particularly in regards to its mobility. Shallow waters make draft a real problem for larger units, reducing their speed and range (Vego 2015, 45). Large ships will be easy for an opponent to identify, and it is more difficult for them to hide than on the open sea. A smaller defender, however, can hide more easily in its own littoral. "The physical environment in the littorals, in typical narrow seas particularly, requires a naval force differently composed from that employed on the open ocean" (Vego 2015, 45). One aspect important to study for differentiating between blue-water navies and navies of coastal states is therefore the operational environment for which a navy is conceived.

Aims and goals

Another important question to consider is what role a state's navy is meant to fulfil; or, in short, its aim and ambition. Till (2016) points out how "the critical thing is not the simple number of assets a navy has, but how that balances against the commitments that it has to meet and the roles that this requires it to perform." A navy's strengths and weaknesses have to be measured in relation to its own aims and goals, rather than in relation to a blue-water ideal.

In Børresen's (1994, 151–52) words, “the purpose of the armed forces of a small state is not to wage war, but to avert it . . . If war breaks out anyway, the purpose of the defensive actions of the small state is still deterrence, and not victory.” This is clearly different for a larger navy with power projection ambitions, and leads to two preferred objectives for the coastal navy: Deterrence by a credible defense; and safeguarding sovereignty in its territorial waters in order to remove potential causes for conflict (Børresen 1994, 153). Finally, Børresen (1994, 152) points out that the stakes are typically higher for a coastal navy fighting to defend its coast, than for a stronger aggressor. In this way, we argue that aims and goals for littoral warfare are different for different types of state.

Methods employed

Littoral warfare sometimes warrant different methods than do high sea battles. The confined nature of the littoral makes employment of small ships, coastal missile batteries, and submarines a possibility. The short distance from shore and harbor lowers demand for operational endurance and units can be deployed and redeployed at short notice (Vego 2015, 34). It is in the littorals, and specifically in the narrow seas, Vego notes, that blue-water navies have the most difficulty in projecting power. The littorals, and even more so, the archipelago, offer both challenges and opportunities. A sprawling archipelago can be difficult to handle for an attacker, but it also requires a higher numerical from the defending side (Vego 2015, 38). It is the side that best can exploit the opportunities of the archipelago that has an advantage.

Furthermore, Vego (2015) identifies sea control as the key operational concept for the stronger side and sea denial for the weaker side. Complete control of a narrow sea cannot be obtained as long as the opponent is alive and active (Vego 2015, 55). In the littorals, the influence that can be projected from land onto the sea is much more pronounced than on the open ocean. Sea control thus cannot be achieved unless the stronger side controls both the sea and the relevant land areas (Vego 2015, 54).

Another aspect of littoral warfare is choke-point control. A choke-point is simply an (often narrow) strait that maritime units must pass through to reach an area of operation. Control of such a choke-point is an offensive objective for the stronger side and denying that control is a defensive objective. The defensive objective pursued by the weaker side is often of smaller order, since this task can be accomplished by non-naval units (Vego 2015, 56). Interoperability and cooperation between services is vital both in the struggle for sea control and in denying that control (Vego 2015, 54–56). For the defending state, which is at its own home-ground, this is typically easier, and cheaper, to achieve. We thus argue that there is a clear difference between a coastal state and a blue-water navy, with respect to the methods they employ for littoral warfare.

Means

It follows logically that different operational environments, aims and ambitions, and methods also require different means. In the littoral waters, big ships are not necessarily the most advantageous. Narrow seas, or the littorals in general, allow for both sides to keep much of the area of operations under surveillance, which makes it difficult for larger ships to remain undetected, even when a high degree of sea control is maintained (Vego

2015, 42). Smaller ships, on the contrary, can take advantage of their size to hide between islands or in the archipelago (Vego 2015, 42). The threat to a blue-water navy increases as the distance to shore decreases. The coastal state often possess a cost-effective, multi-layered defense, which might catch their opponent off-guard (Vego 2015, 31–32). This multi-layered defense is focused on anti-access/area-denial (A2/AD), and consists of assets such as diesel submarines, multipurpose corvettes, sophisticated mines, coastal missile batteries, and land-based aircraft (Vego 2015, 32). A blue-water navy aiming to attack a coastal state far from its own home-ground quite obviously need a different material set-up, including air carriers and other large ships that are good for crossing the ocean and for projecting power, but less easy to hide or accelerate among small islands in an archipelago. For this reason, we have selected the different means for littoral warfare in which different types of state have chosen to invest as our final classificatory criterion.

Ideal-types for littoral warfare

Below the ideal types will be summarized and their characteristics defined. The two types will, somewhat simplistically, be presented as diametric opposites. This simplification obscures some nuances, such as, for instance, the possibility of using sea denial for aggressive purposes; or the assumption that a coastal state will typically be a defender while a blue-water navy will typically be an aggressor. Yet, we find the simplification warranted for this analytical “first cut” at littoral warfare for different types of state. Presented in this way, the ideal-types can be used as two end points of a spectrum when categorizing actual, existing, navies. As is normally the case with ideal-types, they are not supposed to correspond exactly to any actual navy, but to represent opposing extremes. We have chosen to call the ideal types *Small Navy (type A)* and *Superpower Navy (type B)*. These types are defined below by the four different factors discussed above, namely operational environment, aims and goals, methods employed, and means.

Firstly, the primary operational environment in which a navy is built to operate is obviously central to the discussion of littoral warfare. If the littoral is not included in a navy’s operational environment, then it cannot be expected to grasp the concept of littoral warfare. The type A navy therefore, at one end of the spectrum, is thought to operate *only* in the littoral, and, importantly, only in its “home ground” littoral. The type B navy operates globally and masters brown, green and blue water, although with an emphasis on blue water.

Secondly, the maritime aims and goals of a navy include overarching goals (as to say something about the ambitions of the navy) as well as the goals pertaining to littoral combat in particular. The small type A navy aims for deterrence in peace-time, and for coastal defense in times of war. It is limited to defending one or a select few areas along its own coastline at any given time. The type B navy’s goal is global power projection, including in the littoral regions of the world. The type B navy is expeditionary in nature and have a high readiness-level. As a “go-anywhere-do-anything-navy” (Granhölm 2016, 179), it both enjoys and upholds freedom of navigation, and is limited mainly by its own mobility.

Thirdly, the methods employed typically differ between the two types of navy. The type A navy’s method in the littoral is, barring in exceptionally favorable circumstances, mainly sea denial – to deny or contest an enemy’s sea control. The type A navy also views

Table 1. Matrix of the ideal types and their characteristics.

	Operational environment	Maritime aim/goal	Method	Means
Small Navy (Type A)	Littoral, archipelago, and narrow sea; “home ground”	Deterrence and/or coastal defense	Sea denial, when possible sea control, combat power mainly from land onto the sea	Small, fast attack-craft, land-based missile-systems, mines, often together with army and air force
Superpower Navy (Type B)	Brown, green and blue water	Global power projection	Sea control, Combat power mainly from sea onto land	Aircraft carriers and everything else

the littorals in a “seaward” fashion, meaning that combat power will mainly be directed and projected from land onto the sea. The type A navy views the littorals as an operational advantage and seeks to exploit it in whatever fashion it can. The type B navy’s primary method in the littorals is, conversely, to gain sea control and keep it. Often the risks that come without own sea control in the littorals are far too great to risk advancement. The type B navy concerns itself with how it can project power from the sea onto the land (landward). The type B navy thus seeks sea control in the littorals in order to enable operational manoeuvrability and power projection.

Finally, the means of the type A navy are limited. Its navy is mostly comprised of small (although lethal) vessels with limited operational endurance. Since the type A navy is limited in resources, it seeks a tactical advantage by employing cost-effective weapons such as land-based missile systems and mines to bolster its defenses. The type A navy, in a coastal defense operation, rarely operates alone since its own land and air forces are in close proximity, and close cooperation between friendly units is of vital importance to its success. The type B navy is an aircraft carrier navy. That is to say, all imaginable maritime means are available to it. Although having access to friendly units would be preferable, the distance from its own forces at which it operates usually means that the type B navy cannot rely on other services to gain and maintain sea control. The type B navy is sizable and highly technological but not invulnerable.

The ideal-typical representations of navies for littoral combat are represented in Table 1.

Real navies: Analysis of Sweden, the United Kingdom, and the United States

We now proceed to analyzing the littoral warfare capacities of Sweden, the United Kingdom (UK), and the United States (US) of America. Sweden was chosen as a country most likely to resemble the type A navy, while the USA, as the only global projection navy in the world, was chosen to resemble the type B navy. We have chosen to analyze also the UK, for a navy that is a less obvious fit with our ideal-types. The UK is deemed to be particularly interesting in this regard, because it is pro-active in developing its littoral capacity. In terms of Grove’s (2016, 16–18) revised ranking of navies (which, as discussed above, focuses on overall capacity and not on littoral warfare specifically), the US is a first rank navy, the UK a second rank navy, and Sweden a third rank navy.

For our empirical material, we have chosen to focus primarily on doctrines rather than on practice, as doctrines supposedly contain the expressed ambitions and preferred actions if push comes to shove in the littorals. Needless to say, doctrines cannot say much about how any navy would in fact act if it was involved in a littoral confrontation, but we consider the information they provide good enough, for two reasons. First, actual actions and reactions must vary with the particular situation in question, with who is in command on that very day, or even with the weather. Doctrines give a stylized, if less accurate, response that can be assumed to hold, in principle if not in practice, over a longer time. Second, actual engagements in the littorals are (luckily) rather rare to come by. Especially for our small navy, Sweden, we would have to leave the modern era for finding an example of an actual engagement. Empirically evaluating its efforts at deterrence would also be a rather challenging task, as it is difficult to judge to what extent the relative calm along its coast is a result of its own efforts or of some other circumstance.

For those reasons, we have analyzed one maritime doctrine from each state, namely that which concerns the operational level. We deemed studying the tactical level insufficient, considering the extended use of joint forces in littoral warfare. The maritime doctrines are the Swedish *Operativ Doktrin 2014* (hereafter: OD14; Försvarsmakten. 2014)¹; the British *UK Maritime Power 2017* (hereafter: UKMP17; Defence, Ministry of. 2017); and the US *Naval Doctrine Publication 1: Naval Warfare 2010* (hereafter: NW10; Navy, Department of the. 2010).²

Real-type operational environments

No explicit definition of littoral warfare exists in the studied Swedish doctrinal publication, *Operativ Doktrin 2014*. This is to be expected when one considers Sweden's unique operational environment. The Baltic Sea, which is the main operational area of the Swedish naval forces, is in its entirety a littoral area and a narrow sea. As mentioned above, a narrow sea is among the most challenging of any operational environments, which implies difficulties as well as possibilities for littoral warfare. It is therefore not a stretch to assert that the operations and exercises conducted by Sweden today and those that have been conducted in the past in general fall within the realm of littoral warfare. This has lead Sweden to be proclaimed by one observer as "the world champion in littoral operations" (Lundquist 2014).

To fully understand the UK view on littoral warfare (or the littoral region) this paper presents the old definition as well as the reworked one. In British Maritime Doctrine from 2004, the littoral region is defined as: "*Coastal sea areas and that portion of the land which is susceptible to influence or support from the sea.*" In UK Maritime Power from 2017 the updated definition is: "*Those land areas (and their adjacent areas and associated air space) that are susceptible to engagement and influence from the sea*" (UKMP17, 69). There appears to be a clear shift in focus from "coastal sea areas" to "those land areas." There is another wording change, which is interesting, that from "support" to "engagement"; the latter phrasing seeming more aggressive and expeditionary in nature.

The US Navy is a multifaceted naval force capable of operating in blue, green and brown-water alike (NW10, 28). With regards to the littoral operating environment two definitions can be found in US maritime doctrine (NW10, 48):

- 1) The littoral comprises two segments of the operational environment:

1. Seaward: the area from the open ocean to the shore, which must be controlled to support operations ashore.

2. Landward: the area inland from the shore that can be supported and defended directly from the sea.

2) In naval operations, that portion of the world's land masses adjacent to the oceans within direct control of and vulnerable to the striking power of sea-based forces.

The first definition denotes the two ways to view the littoral as “seaward” and “landward”; however, in essence, and in relation to the ideal types, they both mean the same thing. Both concern how seaborne units can project power onto land, and not how power can be projected from land unto the sea. Quite clearly, then, the littorals as an operational environment are somebody else's littorals.

Maritime aims and goals

The primary tactical and operational purpose of the Swedish Armed Forces is deterrence (OD14, 19). The Swedish armed forces should by their actions deter an enemy or potential enemy from using violence. No matter the scale of the operations, the overarching goal of the Swedish maritime forces is to deter an enemy from using violence, or from violating Swedish territorial borders. In order to achieve this purpose, three secondary aims are identified: uphold territorial integrity, compel and defeat (OD14, 20–21). Upholding territorial integrity, first, is seen as vital in order to secure Swedish sovereignty and interests. In a maritime context, this means to protect Swedish territorial waters; and to meet, and reject, nations that advertently or inadvertently seek to violate the border. Compel, second, means to by threat or use of violence force an actor to do something against their will or intention. Defeat, third, is to achieve one's own operational goals or to deny the opponent the achievement of their own (OD14, 20–21). An enemy is defeated when he lacks the will or the means to armed combat. It is vital to remember that these three sub-goals all serve to attain the overarching purpose of the Swedish armed forces, namely deterrence; a purpose which is defensive in nature.

The United Kingdom, as an island nation, views the sea as the lifeblood of its economy. A safe, secure and reliable maritime environment is therefore of outmost importance (UKMP17, 11). The doctrine identifies three key roles for UK maritime forces, in line with the UK National Security Objectives, namely: war fighting, maritime security, and defense engagement (UKMP17, 22, 51). These roles, in turn, lead to the three main goals of UK maritime forces: “*protect* national trade, *project* globally to support the UK Overseas Territories and, in cooperation with other like-minded nations, *promote* the free movement of global trade” (UKMP17, 22). It is in regards to the second of these goals that littoral warfare will play a prominent role. To fully appreciate the utility of maritime forces it is “necessary to understand the littoral, especially how maritime power can be projected onto land from the sea” (UKMP17, 5). The aim of littoral operations is power-projection.

Another angle that the UK doctrine highlights is communications, mainly the internet, where 99% of global internet traffic is dependent on submarine cables and internet servers and hubs are predominantly found within the littoral zone (UKMP17, 13). The control of littoral regions, and in particular maritime choke points, will lead to fulfillment of the third goal; promote the free movement of global trade. UK doctrine recognizes that

even minor maritime powers can pose a significant threat by using land-based missiles and sea mines, both of which are relatively cheap compared to their potential effect (UKMP17, 14, 17). Controlling the littorals, in sum, is important to the UK in mainly two ways; firstly, for power projection and secondly for securing free trade.

The overarching goals for the US Navy are first and foremost to defend the United States and control and deter any approaches toward continental USA (NW10, 20–21). The next priorities are establishing forward lines of communication and maintaining control of the sea (NW10, 15–16). Control of the sea does not equal permanent sea control, but rather to allow for freedom of navigation and the free-flowing of maritime trade. The US recognizes that rapid globalization and urbanization (most of which takes place in the littorals) have important implications on their operating environment and in turn, for their strategic goals. Foreign sensitivity to US troops and diminishing access to overseas harbors mean that maintaining a forward presence becomes more difficult. In this context, the navy is vital. The US navy does not require the acquiescence of a host-nation to maintain a forward presence; the navy is viewed as an integral part of US power projection (NW10, 18).

Methods

The purpose of Swedish maritime operations is to maintain control, or contest an enemy's control, over the entirety or parts of the area of operations (OP14, 43). Control, in this sense, is defined as the ability to control or influence an enemy in the air, on, or below the surface, and on nearby land-areas. Maritime operational control is achieved when Swedish or allied land, air, or sea-forces can operate with a certain security and operational manoeuvrability. The doctrine notes that complete sea control is only achievable under extremely favorable conditions. It is interesting to note here that maritime control in the littorals is not an end in itself, and certainly not for maritime forces; rather, maritime control in the littorals is meant to enable other services (air or land) or indeed, other nations, to operate freely and to coordinate their efforts (OP14, 43). In an armed conflict, the Swedish maritime forces should continuously use the archipelago for regrouping and as a starting position for continued combat (OP14, 42). The term “starting point” can also mean two things: either that the archipelago is to be exited before engaging the enemy, or indeed that the enemy can be engaged from within the archipelago itself. Swedish doctrine identifies the archipelago as an asset to exploit or take advantage of. Using it for regrouping hints at the shielding nature of the archipelago.

The UK doctrine recognizes freedom of maneuver to be of singular importance in littoral operations. The doctrine coins the term “littoral manoeuvre” and defines it as “exploiting the access and freedom provided by the sea as a basis for operational manoeuvre from which a sea-based amphibious force can influence situations, decisions, and events in the littoral regions of the world. The ability to deploy a land force from a sea base is a key capability of the maritime force” (UKMP17, 60). Littoral maneuver is one way, alongside a carrier strike, of projecting maritime power, by enabling the capability of landing land-based forces ashore. Hydrographic and oceanographic survey vessels are also a vital prerequisite for theater entry and littoral maneuver (UKMP17, 55–60). The UK doctrine identifies several threats in the scope of littoral operations, notably mines, shore-based missiles, cyber and electromagnetic

activities, or cognitive methods such as targeting through social media. One way to counter these threats is to exploit the mobility and freedom of navigation of naval vessels. The threat of shore-based missiles in particular is emphasized as posing “an unacceptable level of risk to maritime units” (UKMP17, 43). It is unclear whether this threat is deemed large enough to not enter a littoral area at all if there are enemy missile batteries on land. This disproportionate risk versus reward lays at the heart of littoral warfare and is further exemplified in regards to sea control. The level of sea control required is dependent upon the threat and the mission. Gaining and maintaining sea control is “a major component of any maritime or expeditionary operation” (UKMP17, 42). Sea control in littoral operations also concerns the shoreline and some distance in-shore, and can only be acquired by a combination of sea-based and land-based forces.

For the US navy, one of its goals is power projection. This is achieved in the littorals of the world. Power projection may be accomplished in three ways: attacking targets on shore, amphibious landings or raids, and supporting a sea-control operation. Two of these methods are directly hostile in nature. Supporting sea-control operation is, according to its doctrine, the only credible, non-lethal, way of power projection. US doctrine recognizes that their potential adversaries are becoming more lethal. A2/AD capabilities, such as sea mines and surface-to-surface missiles are becoming more widely available, to both less-developed states, but also to non-state actors (NW10, 18). “Sea control is the foundation of seapower primacy. Credible combat power is the combination of sea control and power projection, the ability to exploit the sea as manoeuvre space in order to project influence and power ashore” (NW10, 28). Sea control is viewed as a necessary precursor to power projection. In fact, the doctrine states that the two complement each other (NW10, 27). Sea control allows naval forces to get within striking distance of land-based threats and, in turn, neutralize them, so as to enhance freedom of action at sea. This is thought to ultimately enable power projection of forces ashore (NW10, 27–28). To clarify, the doctrine is referring to two different things here. In step 1, a strike from an off-shore location is carried out, out of range of potential threats. In step 2, a landing operation is carried out: power projection by “boots on the ground.” Sea control operations in the littoral include the “destruction of enemy naval forces, suppression of enemy sea commerce, protection of vital sea lanes, and establishment of local military superiority in areas of naval operations” (NW10, 27). Such operations are mainly carried out by naval forces but can be supported by land and air forces when appropriate. Gaining sea control to an area closer inshore may well require the control of key land areas and terrain.

Means

Sweden has a small navy, with primarily coastal protection equipment. It possesses a handful of multirole Visby corvettes, mine-clearing and mine-laying capabilities, several patrol craft, numerous fast and mobile patrol boats, amphibious units with short-range, land-based surface-to-surface missiles, as well as anti-ship missiles and a small number of diesel-powered submarines (The Military Balance 2020, 150). Swedish doctrine states that the navy should cooperate with other services whenever it is appropriate, not least its air force, and lists systems and capabilities that can be shared on an

operational level (OP14, 35, 42–46). Its amphibious capacities are integrated in the navy, while joint operations also include drawing on land-based artillery and on the air force to control the marine airspace (OP14, 43, 45).

The UK currently has one aircraft carrier, a handful of destroyers and over a dozen frigates. It has naval aviation including aircraft and helicopters, and anti-submarine weapons. The UK possesses a sizable fleet of nuclear-powered submarines. Alongside destroyers and frigates, the UK also has several coastal patrol-type vessels and fast patrol vessels, as well as mine counter-measure vessels. There is a diversity of logistic and support vessels. Moreover, the Royal Marine also has several amphibious landing vessels and assault ships (The Military Balance 2020, 159–160).

US doctrine contends that operations in the littorals, including ports, harbors, and coastal waters require “ships, amphibious ships and landing craft, and patrol craft with the stability and agility to operate effectively in surf, in shallows, and the near-shore areas of the littorals” (NW10, 28). The US navy commissions these types of means. It is not a fruitful exercise to list all of the US navy vessels and capabilities; the list would simply be too long. Suffice to say that there are currently 19 active littoral combat ships of the *Freedom*- and *Independence*-class, 11 active aircraft carriers and 67 active submarines, 32 principal amphibious ships, and a multitude of patrol and landing craft (The Military Balance 2020, 49–50).

What have we learned about littoral warfare?

After an analysis of the maritime doctrines, Sweden, as expected, appears to fall close to the type A navy ideal-type. Sweden’s operational environment is a narrow sea and a littoral according to Vego’s definition. The UK and US navies are type B navies in the sense that they can both operate anywhere on the planet; brown-, green- and blue-water alike. The US navy is by many regarded as the only global superpower navy in that they can on short notice enter almost any theater. The UK has global power projection abilities but they are limited to only one place at any one time.

Regarding maritime aims and goals, the analysis shows that Sweden once again falls close to the type A navy. The Swedish navy’s main purpose is deterrence (in all conflict scales) and in the event of war, coastal defense. Sweden has no explicit goal of power projection. The UK and US, again, resemble of type B navies, as both have stated power-projection goals, explicitly mentioning the littorals as the most likely place for this. The UK doctrine seems more aggressive than the US doctrine in this matter, as the US doctrine mentions deterrence as an underlying goal as well. This may, of course, come down to a bias on the present authors’ side in reading and interpreting the doctrines; however, the UK maritime goals, particularly “project *globally*” and “promote the free movement of *global* trade” may be hard to attain considering the size of the Royal Navy. Although the research question in this study concerns what littoral combat means for different types of state, it may still be wise to ponder the possibility of the UK posing as, rather than being, a type B state in this regard.

With regards to methods employed, Swedish doctrine expresses an ambition to establish sea control and, whenever this cannot be done, to contest an enemy’s sea control (sea denial). The doctrine recognizes that sea control is only possible during extremely favorable conditions; a reasonable assessment for any type A navy. The type

A navy recognizes that its best course of action is to not even attempt sea control against a stronger contender, except in exceptionally favorable circumstances. It will thus avoid a decisive battle with the knowledge that active units in the littorals (a fleet-in-being) pose a much greater threat than could ever be gained from a head-to-head battle. The US and UK navies both wish to establish sea control, preferable with other service types or allies, but claim to have the capacity to do it alone. This falls nicely within our expectations for a type B navy. Both navies recognize that establishing sea control in the littorals is difficult, but it is viewed as essential. This is partly to achieve operational manoeuvrability and freedom of navigation, but also because they recognize the potential threats and risks associated with littoral warfare (especially when one is the attacker). The US and UK are also mainly concerned with how power can be projected from the sea onto land while Sweden regards the littorals as a place for regrouping and keeping friendly units hidden from the enemy.

With regards to means, Sweden ticks many of the boxes of a type A navy, but is somewhat better equipped. It has multipurpose corvettes and diesel-powered submarines, and in addition developing amphibious capabilities, including land-based surface-to-surface missile systems. It still possesses sea mines, although mining is not a core capability of the Swedish naval forces. The close cooperation between its navy and air force makes it possible to aim for controlling the marine airspace. The US navy, meanwhile, is a type B navy also in regards to means, having all available means at its disposal. The UK navy is, in relation, much more limited. However, it is reasonable to assume that the UK navy can conduct a sea control operation in the littorals, but probably not without the support of other friendly forces.

These findings are summarized in [Table 2](#).

In summary, the US navy is a true type B navy; the UK is not. Sweden is not a true type A navy, since it displays some capabilities, which are beyond that of the type A navy. However, the three examined countries fall close enough to the presented ideal types (type A and type B navies) to draw some interesting conclusions.

What does littoral warfare *mean* to these countries, and how are they different? Are they different? The US and the UK have both recognized the need for systems specifically conceived for littoral warfare. They also accurately identify the threats connected to the littorals (mines, missiles, etc.). When considering means, the type A and B navies are simply opposite sides of the same coin: a defender and an

Table 2. Summary of the results. Underlined words denote a difference from the ideal types.

	Operational environment	Maritime aim/goal	Method	Means
Sweden	'Extreme littoral' + narrow sea	Deterrence/coastal defense	Sea denial, when possible sea control, combat power from land <u>and</u> sea	Corvettes, mines, diesel submarines, amphibious capabilities, land-based missile-systems, often joint with army and air force
UK	Brown, green and blue water	Limited global power projection	Sea control (when possible), combat power mainly from sea onto land	1 aircraft carrier, lacking corvettes and littoral strike craft.
USA	Brown, green and blue water	Global power projection	Sea control, combat power mainly from sea onto land	Aircraft carriers, All relevant means.

attacker. For example, we do not expect a global power projection navy to deploy land-based missile batteries in a foreign theater; the means match the methods, which, in turn, match the aims.

In US and UK doctrine, littoral warfare cannot be described without them taking on the role of the attacker; their expeditionary nature shines through. They have assumed (or want to assume) the role of the global superpower and type B navy; when referencing the littorals, they are not implying their own littoral – they are implying someone else's. They do not have the “home-field advantage” (Hughes 2014), so careful preparations must be made to even the balance. The US and UK will go to great lengths in securing sufficient sea control. The littorals and warfare in the littorals without sea control is a much greater threat to an attacker. As phrased in the UK doctrine quoted above, the level of risk is sometimes “unacceptable.”

A defender or type A navy recognizes its own shortcomings, and it is perhaps only in conjuncture with other services that sea control may ever be gained. But the capacity for sea control is not entirely necessary either, when the purpose is deterrence or, ultimately, being able to defend one's own shore. Littoral warfare for the type A navy is about how to maximize effect by limited resources. This is done by taking advantage of the physical environment, and by enabling short supply-lines and likewise short lines of communication. The type A navy views the type B navy as a potential enemy and vice versa. In this way, they both view littoral warfare in relation to themselves, and actually mean different things when using the concept. Littoral warfare, for these navies, is thought to advance different goals and thus to require different methods and means. In the introduction, it was mentioned that the objectives of littoral warfare are the same as those of blue-water warfare: project power, defeat the enemy (Murphy 1993, 64–65). For the type B navy, this may be true. However, the type A navy is not concerned with power projection, but rather deterrence. Defeating the enemy might not be as important as denying him sea control or, indeed, just staying alive.

In any conflict, war, or even game, it is helpful, and sometimes necessary, to understand the motives of one's opponent. It is clear that the type B navy recognizes the threats that the type A navy can pose, and it does not underestimate them. In Swedish doctrine, the threat posed by the type B navy is less explored. Maybe this has to do with theory and doctrine-production – most maritime theory comes from type B navies! Where would the type A navy want to engage the type B navy, if, despite its best efforts at deterrence, the push came to shove? All the evidence point in one direction: in the littorals, or preferably in the archipelago; well in range of land-based and amphibious units, and with an increased chance to avoid detection.

Conclusion

In this article, we set out to inquire into what littoral warfare means for different types of state. To this end, we constructed two ideal types of navies, one, type A, focused solely on protecting its own coast, and the other one, type B, set up for global power projection. The type A and type B navies have different goals and aims within the scope of littoral warfare. This, in turn, leads to different methods and means. Their operational environments also differ, as the type B navy ideal-typically is conceived to be able to strike anywhere at any time; whereas the type A navy is heavily specialized on its own littoral

environment. This article has explored these differences, drawing on doctrines of three real navies to compare their planning for littoral warfare to the four dimensions of our ideal-types. The result of that exercise was that Sweden is close to an ideal-typical type A navy, the US is close to an ideal-typical type B navy, and that the UK is also close to an ideal-typical type B navy, albeit with some important qualifications, and therefore a little closer to the middle of an imagined scale between the two types.

In regards to our research question, we have learned that littoral warfare indeed means different things to type A and type B navies. For the type A state, littoral warfare, although immensely challenging, and requiring close cooperation with its air force and army, is the *raison d'être* of the navy. It is the place where any attacker should be deterred, and, if this proves impossible, where all the opportunities that the coast, the archipelago, and the narrow sea can offer should be exploited to deny sea control to the attacker. Conversely, for the type B state, littoral warfare is a dangerous enterprise, which it will sometimes have to risk in its pursuit of global power projection and other goals. In this sense, littoral warfare for our ideal-typical navies are mirror-images, where the big risk for one is the opportunity for deterrence and defense for the other. Hopefully, this answer is also useful for understanding naval defense planning for real-world states other than the three that we have analyzed.

Notes

1. This document has since been replaced by a newer version (Doktrin för gemensamma operationer 2020). However, we estimate that this does not affect the overall Swedish attitude to littoral warfare as understood in this article. Both the topography of the coast and the ambition to employ joint forces in any coastal operation remain the same.
2. This document has since been replaced by a newer version (Naval Warfare Doctrine 2020). However, we estimate that this does not affect the overall US attitude to littoral warfare as understood in this article. The overall ambition of go-anywhere-do-anything, including in the world's littorals, remain.

Acknowledgments

The authors wish to thank ms Orla Fehrling, lieutenant commander Jonas Kindgren and professor Jerker Widén, as well as the editor and anonymous reviewer of *Defence Studies* for their advice on this piece. The usual disclaimers apply.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributors

Alfred Bergström is a sub-lieutenant onboard the HSwMS Härnösand, 4th Naval Warfare Flotilla of the Swedish Navy.

Charlotta Friedner Parrat is an assistant professor of War Studies at the Swedish Defence University. She has previously published in *Political Studies*, *Journal of International Organization Studies*, *International Studies Quarterly*, and *International Studies Review*.

References

- Børresen, Jacob. 1994. "The Seapower of the Coastal State." *The Journal of Strategic Studies*. 17 (1) Taylor & Francis: 148–175. doi:[10.1080/01402399408437544](https://doi.org/10.1080/01402399408437544).
- Defence, Ministry of. 2017. "Joint Doctrine Publication 0-10 UK Maritime Power." Swindon. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/662000/doctrine_uk_maritime_power_jdp_0_10.pdf
- Försvarsmakten. 2014. "Operativ Doktrin 2014." *Stockholm*. <https://www.forsvarsmakten.se/siteassets/4-om-myndigheten/dokumentfiler/doktriner/operativ-doktrin-2014.pdf>
- Granholm, Niklas. 2016. "A Small Navy in A Changing World: The Case of the Royal Swedish Navy." In *Small Navies: Strategy and Policy for Small Navies in War and Peace*, edited by Mulqueen, Michael, Deborah Sanders, and Ian Speller, 167–184. London and New York: Routledge.
- Grove, Eric. 1990. *The Future of Sea Power*. London: Routledge.
- Grove, Eric. 2016. "The Ranking of Smaller Navies Revisited." In *Small Navies: Strategy and Policy for Small Navies in War and Peace*, edited by Mulqueen, Michael, Deborah Sanders, and Ian Speller, 15–20. Abingdon and New York: Routledge.
- Hughes, Wayne P. 2014. *Fleet Tactics and Coastal Combat*. Annapolis, Md: Naval Institute Press.
- Lundquist, Edward. 2014. "The 'Extreme Littoral.'" *Sea Power* 57 (4): 72–80.
- The Military Balance 2020. 2020. *The Military Balance*. Vol. 120. London: Routledge.
- Murphy, Frank J. 1993. "Littoral Warfare: Adapting to Brown-Water Operations." *Marine Corps Gazette* 77 (9): 64–73.
- Navy, Department of the. 2010. "Naval Doctrine Publication 1 Naval Warfare." Scotts Valley, Ca: Createspace Independent Publishing Platform. https://www.usni.org/sites/default/files/inline-files/NDP-1-Naval-Warfare-%28Mar-2010%29_Chapters2-3.pdf
- Till, Geoffrey. 2016. "Are Small Navies Different?" In *Small Navies: Strategy and Policy for Small Navies in War and Peace*, edited by Mulqueen, Michael, Deborah Sanders, and Ian Speller, 21–31. London: Routledge.
- Till, Geoffrey. 2018. *Seapower: A Guide for the Twenty-First Century*. Oxon: Routledge.
- Vego, Milan. 2015. "On Littoral Warfare." *Naval War College Review*. 68 (2) JSTOR: 30–68.
- Ya'ari, Yedidia. 2014. "The Littoral Arena." *Naval War College Review* 67 (3): 7.