

# What was the role of Sea Power in the Era of Total War?

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Sea power is a combination of a naval fleet of sufficient strength to control the seas and a geographic position from where that force can be effectively applied.<sup>1</sup> Total war is variously defined but requires that belligerents are prepared “to make any sacrifice in lives and other resources to obtain complete victory.”<sup>2</sup> Sea power shaped the two world wars of the twentieth century. This essay will show how sea power shaped total war through the control of sea lanes, power projection, blockade, and economic power.

Holger Herwig’s simple definition of sea power contains the key elements of a strong fleet and strategic geography.<sup>3</sup> On the matter of a fleet of sufficient strength, WWII in particular showed that real sea power came from not from the fleet-in-being at the start of the war, but from having the economic and industrial capacity to build and rebuild a fleet to cover losses during the war. German naval officer and writer, Wolfgang Wegner, was explicit in his understanding of the importance of geographic positioning when he wrote, “Only he who controls the sea lanes in time of war by virtue of his geographical position – independent of the strength of the fleet – possesses something.”<sup>4</sup>

To this point on the eve of WWI, Germany was not a sea power nation despite having a relatively strong naval fleet. Wedged in continental Europe, with a small number of ports that all used the same route to the open ocean, Germany lacked Mahan’s geographical precondition to be a sea power.<sup>5</sup> Conversely, Great Britain entered WWI as the strongest sea power in the world with control of key commercial sea lanes and access to raw materials and

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<sup>1</sup> Holger H. Herwig. ‘The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered.’ *International History Review* 10, no. 1 (1988): p. 104. <https://doi.org/10.1080/07075332.1988.9640469>.

<sup>2</sup> *Encyclopedia Britannica*, “Total War”, accessed 20 October 2024. <https://www.britannica.com/topic/total-war>.

<sup>3</sup> Herwig. ‘The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered’, p. 104.

<sup>4</sup> Wolfgang Wegner. *The Naval Strategy of the World War*, translated by Holger H. Herwig, Annapolis, Naval Institute Press, 1989, p. 114.

<sup>5</sup> Herwig. ‘The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered’, p. 105.

industrial products from every continent.<sup>6</sup> Britain understandably expected that this advantage would hasten a victory over Germany but it soon became evident that the sea was not going to be the scene of a decisive battle in the style of Mahan and that the war would be won or lost on the Continent.<sup>7</sup>

At the beginning of the war, the Royal Navy established a 'distant blockade' of the German fleet from its base at Scapa Flow where it controlled German access to the open seas via the North Sea. However, the German Navy could threaten the British mainland from the North Sea, and this required Britain to keep a strong fleet in the North Sea at the cost of using it elsewhere. Consequently, the naval war there became a defensive stalemate, and the battles of Jutland or Dogger Bank were costly but produced no decisive outcome for either side.<sup>8</sup>

The control of sea lanes and the capacity to project power from the sea via an amphibious lodgement are two key elements of sea power, and the Dardenelles Campaign of 1915 provides an example of both these elements. Britain and France planned to forcibly take control of the Dardanelles Strait and the Bosphorus Strait to allow the free passage of seabound commerce into and out of Russia to the Mediterranean Sea. This would allow their ally Russia to be resupplied by sea from the Mediterranean strengthening Russia's land forces. When this sea approach failed due the sea mines and shore-based artillery sinking the surface vessels and submarines, the largest amphibious landing to that time was launched against Turkey on the adjacent Gallipoli Peninsula. This operation also failed with the ground forces unable to break out of the beachhead anywhere along the invasion coast.

The failure of fleet-on-fleet battle to produce a decisive outcome or inability to control sea lanes vital for the war effort might lead to a conclusion that sea power played little or no role World War One. Alternatively, it can be argued that British sea power played a critical role in the war of attrition that WWI became. Where, both the Royal Navy and the German Navy made effective use of another weapon of sea power, the blockade.

The Royal Navy effectively blockaded Germany at the North Sea preventing the passage of merchant shipping into the German ports on the Baltic Sea.<sup>9</sup> The German Navy

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<sup>6</sup> Paul Kennedy. "The War at Sea." Chapter in *The Cambridge History of the First World War*, edited by Jay Winter, 321–48. The Cambridge History of the First World War. Cambridge: Cambridge University Press, 2014, pp. 323-25.

<sup>7</sup> Ibid, p. 323.

<sup>8</sup> Ibid.

<sup>9</sup> Peter Hart. *The Great War: A Combat History of the First World War*. Oxford: Oxford University Press Incorporated, 2013, p. 118. Accessed October 25, 2024. ProQuest Ebook Central.

used the submarine in an attempt to blockade the British ports on the west coast as well as sinking shipping in the sea lanes across the Atlantic from the USA to Great Britain. While not completely effective in terms of tonnage sunk, the U-boats actions against merchant shipping were responsible for a change on the conduct of the war. The 'limited war' of the sea where extant treaties prevented the use of force against neutral or civilian vessels, changed to the 'total war' of unrestricted submarine warfare which in part was responsible for the United States' entry into the war as an ally of the Entente powers.<sup>10</sup> The US was then able to bring its growing economic and industrial might to bear and from that time it became evident that Germany would lose the war.

Britain with its powerful navy remained in control of the international sea lanes of communication and was able to bring troops and raw materials from its colonies and dominions around the world. For example, Australia continued to send troops to the Western Front in escorted convoys via South Africa and the Suez Canal despite the threat in the Indian Ocean of a small number of German raiders. This was possible due to access to port facilities in British Commonwealth and Dominion places such as Western Australia and South Africa where ships, crews, and passengers could be resupplied. When the USA entered the war in early 1917, the thousands of troops that they brought to the war could only be used in battle in Europe because of sea power to bring them safely across the Atlantic Ocean evading or defeating the German U-boat threat.

The role of sea power in WWII shared some similarities with WWI but was also markedly different. Once again armed escorts protected shipping from the threat of submarines in the Atlantic Ocean, control of the sea lanes around Europe and in the Mediterranean was an objective of both sides. A significant difference was the effective use of sea power by the Allies in all theatres to project and support of combat forces on land.

The Battle of the Atlantic, where German U-boats attempted to halt the flow of seaborne trade across the Atlantic Ocean, "was one of the decisive campaigns of the Second World War."<sup>11</sup> a most critical victory for the Allies of WWII. It enabled the buildup of troops in Britain for the various campaigns around the Mediterranean Sea, the bombing campaign against Germany, and significantly it facilitated the pre-deployment of troops, arms,

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<sup>10</sup> Ibid, p. 308.

<sup>11</sup> Marc Milner. "The Battle of the Atlantic." *Journal of Strategic Studies* 13, no. 1 (1990): p. 45.  
<https://doi.org/10.1080/01402399008437400>.

ammunition and landing craft for the invasion of Normandy and the defeat of Germany on land from the west

Two-thirds of Britain's food, all its oil, and combat troops from across the world arrived in Britain by sea.<sup>12</sup> Britain would not have been able to continue the war against Germany if not for the control of the sea communications that fed its people and industries. Paul Kennedy goes into detail about the technology and the tactics used by both sides while Craig Symonds delves into the logistics of replacing sunk shipping and conclude that the inability of the Germans to replace their sunk U-boats in sufficient quantity along with the capacity of the US to replace shipping faster than the Germans could sink it, was the determining factor in Allied victory.<sup>13</sup>

While the American nation was at war, the continent faced no real enemy threat, and its industry was able to operate twenty-four hours a day, seven days a week, without being damaged by aerial bombing as was happening to both Germany and Britain. This, coupled with natural resources, an industrial base, and a strong economy, allowed the USA to overtake Britain as the world's greatest sea power.<sup>14</sup> In 1940, the US economy was larger than the combined economies of Germany, Italy and Japan, and by war's end was stronger than the sum of its enemies and its allies.<sup>15</sup> It was this economic strength that enabled the US to mobilise its industry for war.

Like the situation in WWI, that power could not be used without shipping to export its war effort to Europe and the Pacific. The US government centralised the control of the production of shipping through the Navy Department and the US Maritime Commission. These organisations coordinated the establishment of shipyards, the recruitment of a labour force of over one million, the designs of ships, and the production schedules for the quantities and types of ships to be built.<sup>16</sup> While tensions developed between the parties and difficulties remained throughout the war, the centralised operation of ship building, with the US Government the sole customer of all facilities, enabled the US economy to build ships of all

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<sup>12</sup> Nathan Miller. *War at Sea, A Naval History of World War II*, New York, Scribner, 1995, p. 23.

<sup>13</sup> Craig Symonds. "For Want of a Nail: The Impact of Shipping on Grand Strategy in World War II." *The Journal of Military History* 81, no. 3 (2017): p. 658, and Paul Kennedy. *Victory at Sea: Naval Power and the Transformation of the Global Order in World War II*. New Haven: Yale University Press, 2022, p. 416.

<sup>14</sup> Ibid, p. 661.

<sup>15</sup> Ibid. p. 662.

<sup>16</sup> Frederic Chapin Lane. *Ships for Victory : A History of Shipbuilding under the U.S. Maritime Commission in World War II* . Edited by United States. Maritime Commission. John Hopkins paperbacks ed. Baltimore : Johns Hopkins University Press, 2001, pp. 3-8.

types faster than their enemies could sink them.<sup>17</sup> In discussing the role of industry in the Allied victory in WWII, historian Craig Symonds wrote, “And among all the various products of that industrial effort, the most consequential, the most determinative, was shipping.”<sup>18</sup>

When WWII started the LST didn’t exist, but a few short years later, it had become so critical to amphibious operations that shortage of supply limited operations. Winston Churchill said of the LST, “It became the foundation of all our future amphibious operations, and was often their limiting factor.”<sup>19</sup> An LST could carry 32 Sherman tanks and had bunk space for 350 soldiers. At a time when everything being produced for the war was important, circumstances conspired to delay the construction of these vessels, and while those reasons are beyond the scope of this essay, the shortage of the LST provides a clear example of the link between a strategy that is reliant on sea power and logistics.<sup>20</sup> The LST, and sea power, enabled the invasion of north-west Europe, which led to the defeat of Germany in the west.

A key role of sea power during WWII was the projection of combat power. The island-hopping Pacific campaign is the most obvious example of this where US amphibious forces fought a series of battles against the Japanese getting closer to the Japanese mainland. While the need to invade the Japanese mainland was eventually negated by the two atomic bombs dropped on Nagasaki and Hiroshima, the huge joint forces closed in on Japan on two fronts in task forces of aircraft carriers, surface combatant ships and troopships for embarked forces. As Ballantine writes, “The concluding months of the war saw deployment in the Pacific of the greatest naval force and most extensive system of logistic support in the history of warfare.....totalling 1,137 combat vessels, 14,847 combat aircraft, 2,783 large landing craft and many thousands of smaller landing craft.”<sup>21</sup> The forces also included ground troops from the US and those from countries such as Australia who were fighting in the island chains and in New Guinea and being supported by merchant and naval shipping. At the peak 600,000 tons of supplies were being shipped monthly from the US to over 400 advanced bases to support the power projection in the Pacific Theatre.<sup>22</sup>

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<sup>17</sup> Ibid, p. 833.

<sup>18</sup> Symonds. “For Want of a Nail: The Impact of Shipping on Grand Strategy in World War II.”: p. 658.

<sup>19</sup> Winston S. Churchill. *The Second World War, Volume V, Closing the Ring*, London, Cassell & Co. Ltd., 1952. p. 26.

<sup>20</sup> Craig L. Symonds. *Neptune : The Allied Invasion of Europe and the D-Day Landings*, Oxford University Press, 2014, p. 154.

<sup>21</sup> Duncan S. Ballantine. *U. S. Naval Logistics in the Second World War*. Princeton University Press, 1947, p. 287. <https://babel.hathitrust.org/cgi/pt?id=mdp.39015009037378&view=1up&seq=3>.

<sup>22</sup> Ibid.

In the European theatre, power projection by sea power was critical to the Mediterranean campaigns. Ships from the USA took the 20,000-mile journey around the southern tip of Africa and north via the Indian Ocean and into the Mediterranean to supply the British Eighth Army in Egypt.<sup>23</sup> In spite of the production of shipping from the USA, all operations needed more shipping. The plans for the Anglo-American invasion of north-west Africa, Operation Torch, faced a shortage of all types of shipping. Deputy Commander for Torch, Mark Clark wrote, “(there was) a continual crisis over shipping space and frequent changes in plans had to be made in order to overcome what was always a shortage of vessels.”<sup>24</sup> The defeat of the Axis on Sicily had another sea power consequence, the opening of sea lanes of communication in the western Mediterranean to the Suez Canal and the Indian Ocean. For the Allies, this action shortened the sea journey to and from Europe to countries such as India and Australia, which were helping to supply the Allied war effort with troops, foodstuffs and materials, thereby making more shipping available and increasing monthly tonnages across all types of freight.

The high point of the role of sea power for power projection was arguably the invasion of north-west Europe, Operation Overlord. Sea power was so critical to this operation that it was delayed until mid-1944 to allow time for sufficient vessels to be produced.<sup>25</sup> Critical to the success of the landings was the provision of all types of landing craft, especially the Landing-Ship Tank (LST).

In the Pacific, the Japanese significantly challenged Allied sea power with the sinking of Royal Navy ships *Prince of Wales* and *Repulse*. In 1942, the US Navy losses to Japanese fleet action left them with just two aircraft carriers.<sup>26</sup> The Imperial Japanese Navy had sustained similar losses, and it was the capacity of the US to rebuild its fleet from its industrial base, and Japan’s inability to do the same that was the difference in sea power and the role that it played in the Pacific theatre.<sup>27</sup>

In the Second World War, Germany gained access to Atlantic ports after the conquest of France in 1940, and thus had strategic geographic positioning that it lacked in WWI, but

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<sup>23</sup> Symonds. “For Want of a Nail: The Impact of Shipping on Grand Strategy in World War II.”: p. 665.

<sup>24</sup> Mark Clark, *Calculated Risk*, New York, Harper & Brothers, 1950, pp. 46-46, in Craig L. Symonds, *World War II at Sea : A Global History*. New York, NY, United States of America: Oxford University Press, 2018. p. 334.

<sup>25</sup> Vincent O’Hara. *Torch : North Africa and the Allied Path to Victory*. Annapolis: Naval Institute Press, 2015. Accessed May 21, 2024, pp. 289-290.

<sup>26</sup> Nathan Miller, *War at Sea: A Naval History of World War II*, p. 391.

<sup>27</sup> Symonds, “For Want of a Nail: The Impact of Shipping on Grand Strategy in World War II.”: p. 666.

was unable to exploit the value of these facilities as its inferior fleet was incapable of dominating the Royal Navy.<sup>28</sup> While Germany had some colonies throughout the world, its status as a continental state rather than a sea power state, meant that these were fewer in number and importance than those of the Allies, especially Britain and France and later the United States. Germany did not have access to the international merchant fleet and associated port and dock infrastructure that Britain possessed to use sea power strategically in either war. In both wars Germany had a navy which was tactically effective but was not able to use sea power to influence the outcome of the war although this was not always obvious at the time.

If American economic and industrial might gave the Allies a superiority in sea power in WWII, then the inferiority in economic and industrial power meant that ultimate success was always unlikely for the Axis powers. This does not mean however that the Axis forces didn't inflict significant losses on the Allies on the oceans. For example, in December 1942, German U-boats sank over 400,000 tons of Allied shipping.<sup>29</sup> In both wars the German submarine threat to the Atlantic communications was so significant that it almost changed the outcome of the war.

Sea power has played a decisive role in total war, even when the final battles didn't happen on the oceans. The blockade was used as a means of denying the enemy of resources required to feed the populace and to prosecute the war on land, sea and air. Power projection from the sea was unsuccessfully attempted in WWI but played a major role in the offensive strategy of WWII in the European, North African and Pacific theatres. The securing and attacking sea lanes of communication was a key action of all belligerents and played a determining role in the outcome of both wars but ultimately giving the Allies the ability to move troops and war material across the world's oceans was central their success in both conflicts. Finally, the Allies through the United States harnessed the economic strength and built industrial capacity to build the necessary shipping with competent crews that allowed them to be the dominant sea power that its enemies could not match. In the total wars of the twentieth century these elements of sea power helped to determine the outcome.

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<sup>28</sup> Herwig. 'The Failure of German Sea Power, 1914-1945: Mahan, Tirpitz, and Raeder Reconsidered', p. 104.

<sup>29</sup> Craig Symonds, "For Want of a Nail: The Impact of Shipping on Grand Strategy in World War II.": p. 663.

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