

BASTIONS OR BURDENS? ASSESSING THE ROLE OF ANGLO-AMERICAN  
HOSPITAL SHIPS DURING THE WORLD WARS

A Thesis  
by  
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## **Abstract**

### **BASTIONS OR BURDENS? ASSESSING THE ROLE OF ANGLO-AMERICAN HOSPITAL SHIPS DURING THE WORLD WARS**

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For the past several millennia, historians have dedicated great amounts of their time and energy to studying the history of military action and engagements. Often directing their attention towards the battles themselves, few scholars examine what happens to those soldiers who became sick or wounded on the front lines of battle. This project seeks to help remedy this deficiency by assessing the role of Anglo-American hospital ships during the First and Second World War. As far back as the eighteenth-century, military forces on both sides of the Atlantic have relied on hospital ships to provide a quick, efficient, safe, and comfortable means of evacuation for battlefield casualties. By observing their long-term development, and considering their performance in a number of battles around the world, this work argues that British and American hospital ships were a critically important presence in combat operations during the global conflicts of the early twentieth-century.

At the same time, it also demonstrates that the era of the First and Second World War represent the “golden age” of hospital ships. Following the Second World War, the ever-changing face of modern warfare led to a decline in both countries’ use of hospital ships. These ships, which had at one time represented bastions of safety and healing, ultimately

became burdens to military powers who began to rely on other means of evacuating their casualties. Finally, in an effort to learn more about the impact of war on those who waged it, this work will shed light on the experiences of a number of Allied nurses and soldiers who worked or recovered aboard one of the many hospital ships during the wars.

## **Acknowledgments**

The list of individuals to whom I am indebted for their support during this project is certainly too long to recite within the confines of a single page. Nevertheless, I will attempt to express my gratitude to as many as I can. First, I would like to acknowledge and thank the members of my thesis committee: Dr. Judkin Browning, who helped me nurse this idea from abstraction to reality and who provided thoughtful edits to earlier drafts which certainly saved me from a number of embarrassing mistakes; Dr. Timothy Silver and Dr. Michael Turner who suggested possible avenues of research, supplied useful editorial commentary, and provided readings which enhanced my knowledge of the relationship between war and the environment as well as Britain and her role in the early twentieth-century. To them I certainly owe a great deal. In addition, I would like to thank the History Department at Campbell University in Buies Creek, North Carolina. It was there, as an undergraduate, that I developed a fondness for military and maritime history and I am truly grateful for each of those faculty members who always pushed me to be the best historian that I could be.

I would also like to thank my friends and family. While your continuous love and support has been absolutely critical to the completion of this project, I am most thankful for your investments in my education, for always encouraging me to pursue my passion for history, for being understanding on the many occasions that spending more time with my work meant spending less time with you. Most importantly, I thank you for convincingly

feigning interest whenever you found yourself an unwilling participant in one of my many tangential historical ramblings. I love you all and dedicate this work to each of you.

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## Introduction

On June 27, 1918, His Majesty's Hospital Ship (HMHS) *Llandoverly Castle* sank off the southern coast of Ireland. Under the command of Lieutenant Colonel Thomas Howard MacDonald, *Llandoverly Castle* was making the return trip to England, after depositing hundreds of wounded Canadian soldiers in Nova Scotia. Around 9:30 that evening, *U-86* of the German Imperial Navy, under the command of Helmut-Brümmer Patzig, spotted her in the waters of the North Atlantic and began its pursuit. According to testimonies given during the 1921 Leipzig War Crimes Trials, "Patzig recognized the character of the ship, which he had been pursuing for a long time, at the latest when she exhibited at dusk the lights prescribed for hospital ships by the Tenth Hague Convention. In accordance with international law, the German U-boats were forbidden to torpedo hospital ships." While Patzig's pursuit certainly violated international law, it also transgressed orders put forth by the German Naval Command, who had issued orders that hospital ships were only to be sunk within the limits of a specific barred area. This area did not include the southern coast of Ireland.

Nonetheless, Patzig decided to torpedo the vessel, operating under the suspicion that she was clandestinely transporting American airmen to the European theater. Had this been the case, *Llandoverly Castle* would have forfeited the protections afforded to hospital ships under the Hague Conventions X and become a fair target for the German submarine. The first torpedo struck the port side of the vessel and caused her to begin sinking. According to witness testimony, *Llandoverly Castle* had 19 lifeboats on board when she was torpedoed, and each boat could hold 52 men. However, the impact of the torpedo damaged a number of portside lifeboats. "The favorable weather assisted life-saving operations," and five lifeboats

in all were successfully lowered from the sinking vessel. Once in the water, the U-boat approached the captain's lifeboat to determine whether or not the ship had been carrying Allied airmen, or munitions (another factor which would have made *Llandoverly Castle* a fair target). After determining that his suspicions were indeed false, Patzig ordered the submarine to submerge and began circling the lifeboats. After a short time, the submarine surfaced and began to ram the lifeboats.

Moreover, in an episode that would become one of the greatest atrocities of the entire war, *U-86* attempted to further cover up her crimes by opening fire on the lifeboats with machine guns as well as with the submarine's 10.5cm deck gun. In all, one lifeboat with 24 passengers survived the massacre that claimed the lives of 258 wounded soldiers, nurses, and crew members (see Figure 1.1).<sup>1</sup> In a particularly grisly account, given after the war by Captain Kenneth Cummins of HMS *Morea*, he recalled the experience of sailing through the remains, both human and otherwise, of *Llandoverly*

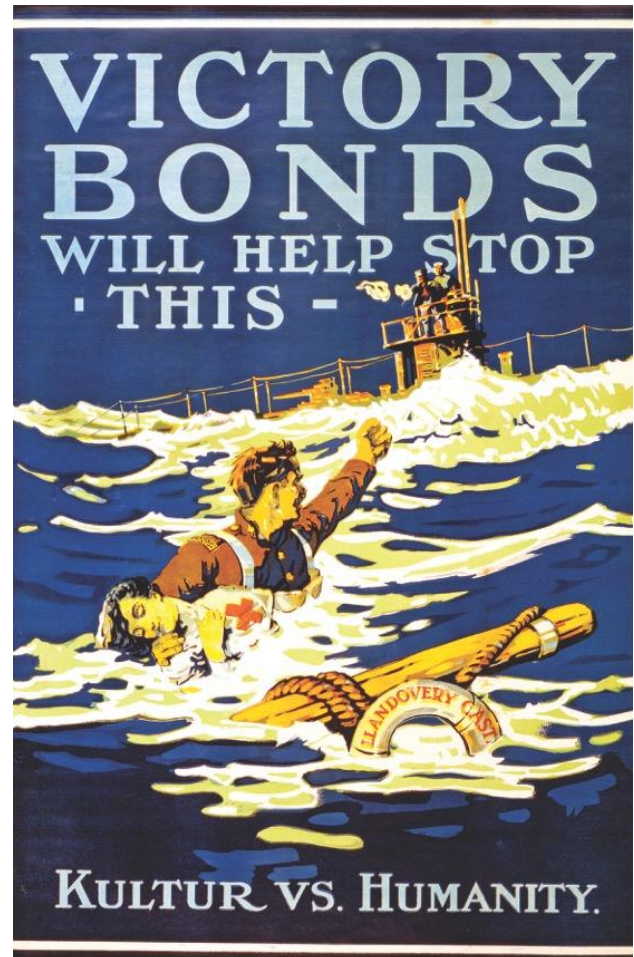


Figure 1.1 Propaganda poster depicting German atrocities against HMS *Llandoverly Castle*. Source: Imperial War Museum, PST 12375, <https://www.iwm.org.uk/collections/item/object/30965>.

*Castle*. “We were in the Bristol Channel, quite well out to sea, and suddenly we began going through corpses. The Germans had sunk a British hospital ship, the *Llandoverly Castle*, and

<sup>1</sup> "German War Trials: Judgment in Case of Lieutenants Dithmar and Boldt," *The American Journal of International Law* 16, no. 4 (1922): 708-24. doi:10.2307/2187594.

we were sailing through floating bodies. We were not allowed to stop— we just had to go straight through. It was quite horrific, and my reaction was to vomit over the edge.” Going on, Cummins remembered “seeing these bodies of women and nurses, floating in the ocean, having been there for some time. Huge aprons and skirts in billows, which looked almost like sails because they dried in the hot sun.”<sup>2</sup>

As the sinking of the *Llandoverly Castle* shows, the history of military hospital ships is fraught with episodes of violence and courage. These stories, however, are not often enough told in the writing of the past. In December of 1944, Harold Larson of the Office of the Chief of Transportation, Army Service Forces, published a monograph titled “Army Hospital Ships in World War II.” Before discussing more technical aspects, such as the evacuation procedures of 1942 and the scope of the Army hospital ship program, Larson provides a brief historical background of hospital ships. In the opening sentence, he writes that “The evacuation of the sick and wounded is a perennial problem in the history of warfare.” It is likely that Larson uses this sentence just as a reference to the often tricky task that military forces face while trying to transport casualties from the field of battle to the bed of convalescence. However, when one approaches this sentence from a slightly different angle, it also raises a much bigger issue. While the evacuation of the sick and wounded have certainly been a perennial problem in the history of warfare, a larger problem in the *histories* of warfare has been *a lack of discussion* around how militaries have gone about evacuating their sick and wounded.

This work will take the first step towards providing a remedy to this problem. To do this, it will examine the development and use of Anglo-American military hospital ships,

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<sup>2</sup> Max Arthur, “Captain Keith Cummins: Veteran of both World Wars,” *The Independent*, December 18, 2006.

focusing primarily on their roles in the First and Second World Wars. Hospital ships have played an integral part in many combat operations, and especially in the global wars that occurred in the opening half of the twentieth century. Across the long and storied past of crafting military histories, scholars have devoted their efforts to analyzing the tactics, strategies, and execution of hundreds of combat operations. However, they have said comparatively little about the casualties of war and their experiences after the battle ended. At the same time, little has been written regarding those medical staff members who were charged with making sure that battlefield casualties received proper medical attention. First person accounts of military leaders, medical thinkers, nurses, and those wounded in combat reveal valuable historical information about military hospital ships and their role in twentieth-century combat.

Chapter one will assess the conception and early growth of Anglo-American hospital ships from the end of the 18<sup>th</sup> century through the turn of the twentieth century. While vessels which one might unmistakably identify as hospital ships did not enter the fold until the 1860s, there were some deliberate efforts to implement “floating hospitals” during the Age of Sail which proved to be influential upon later developments. For the British, the Crimean War and Second Opium War represented watershed moments in their approach to hospital ships and military medicine as a whole. It was not until the Civil War, however, that the U.S. government first introduced vessels to act as hospital transports for American battlefield casualties. These ships played a vital part in the evacuation of sick and wounded soldiers from the Peninsula Campaign in the summer of 1862 as well as other engagements in both the eastern and western theaters. Chapter one also includes a brief discussion on international laws, like The Hague and Geneva Conventions and the protections that they afforded to

military hospital ships. These are particularly important to understand when looking at the applications of these vessels during the world wars. Finally, we will look at the advancements in and use of hospital ships during The Spanish American War. Maintaining a complete understanding of all of these points is an essential first step in surveying the use of hospital ships in early twentieth-century warfare.

The second chapter will focus on British hospital ships from 1896-1918, using the First World War as a framework for assessing their efficacy in combat operations. In Great Britain, new theories involving the application of hospital ships developed across the decade and half prior to World War I. During this period, Britain's military and medical minds addressed the need for purpose-built hospital ships, arguing that these vessels should be specifically designed to treat battlefield casualties, to supplement their fleets, and ultimately provide a solution to Larson's "perennial problem." While purpose-built vessels were the goal, for some, the constraints of time and war meant that Britain, as well as her Dominions of Canada, Australia, and New Zealand, had to rely on a conversion system. In this system, the Admiralty of the Royal Navy could acquire old passenger liners, make alterations to the ships' interior, which would allow for the housing and treatment of casualties, and introduce the converted ship into combat operations. Possessing a clear understanding of the initial goals that Great Britain hoped to achieve with their hospital ships will be extremely valuable for determining whether or not they had met those goals by 1918. Since Americans arrived late to front lines of the Great War and, therefore, were unable to field any hospital ships of their own, the discussion of hospital ships in World War I will be limited to the vessels of Great Britain and her Dominions.

An analysis of the usefulness of British hospital ships during the First World War must consider a number of factors. First, one must assess the impacts that pre-war international treaties, like The Hague and Geneva Conventions, had on the effective use of hospital ships in combat. Namely, were international laws sufficient to prevent enemy combatants from preying on unarmed hospital ships? From this, one can determine whether or not those treaties precipitated environments wherein hospital ships proved to become more of a burden and less of a bastion for battlefield casualties. Second, one must assess the performance of hospital ships in a combat setting. One of the most notable uses of British medical vessels took place in the eastern Mediterranean during the Gallipoli Campaign of 1915. As the harsh environmental features of Gallipoli's beaches hampered the establishment of land-based field hospitals, the Mediterranean Expeditionary Force (MEF), formed from British, Australian, and New Zealand troops, under the command of General Sir Ian Hamilton, relied on the presence of hospital ships to supplement their pressing needs for medical care. Looking at the performance of hospital ships in battle, or their ability to effectively treat wounded soldiers or transport them to safety is a crucial step in determining whether or not they were a useful part of military operations. Finally, this section will briefly address the targeting of medical ships as part of Germany's policy of unrestricted submarine warfare to demonstrate the potential weakness of international laws protecting hospital ships.

Following the assessment of British hospital ships during the Great War, chapter three will survey the role of American hospital ships during World War II. Opening with an examination of America's hospital ship program on the heels of World War I, it will explain how and why the United States transitioned from the first nation to develop a hospital ship from the keel-up, in 1917, to scrambling to convert hospital ships in the opening years of

World War II. Indeed, the US military was unable to field a specially designated hospital ship until June 1943—a year and a half after the Japanese attack on Pearl Harbor.

Furthermore, this chapter will explore how, by 1945, the United States had managed to outfit 39 Army and Navy vessels for hospital service in all of the combat theaters around the world. In addition, it will seek to understand the lack of inter-branch cooperation between the Army and Navy that led to the initial delay in the opening stages of the conflict.

With regard to the performance of American hospital ships in combat, chapter three will focus on their presence in the Pacific Theater and their importance in the Battle of Iwo Jima. By 1945, clearly marked hospital ships were no longer as prominent as they had been during the First World War. In some cases, the distinguishing white paint and Red Cross markings on hospital ships made them enticing targets for Japanese bombs and *kamikaze* pilots. Therefore, some hospital ships preferred to blend in and operate without their prominent markings and without the protections of international law. More often, though, the shortage of hospital ships caused by inefficient growth during the interwar period necessitated higher levels of improvisation. As a result, by the closing years of World War II, casualties were often evacuated and provided treatment aboard modified vessels that were not afforded the protections of international law. It was during this period, after World War II, that the use of hospital ships began its decline.

Finally, this work's epilogue will briefly consider the state of military hospital ships in the post-1945 era. Across the nearly eight decades since end of World War II, military technology has rapidly advanced to the point where hospital ships on the front lines are no longer necessary as the primary method of casualty evacuation. Helicopters and airplanes ultimately made aerial evacuations a safer and quicker alternative to seaborne evacuations.



Down from its fleet of 39 medically equipped vessels in 1945, today the United States military operates only two hospital ships—United States Naval Ship (USNS) *Mercy* (T-AH-19) and USNS *Comfort* (T-AH-20). Both ships are converted tankers, built in the years after the Vietnam War. In 2004, Vice Admiral Michael Cowan, the Navy Surgeon General and Chief of the Bureau of Medicine and Surgery, remarked that *Mercy* and *Comfort* were “wonderful ships, but they’re dinosaurs. They were designed in the '70s, built in the '80s, and frankly, they're obsolete.”<sup>3</sup> As the future of military hospital ships remains in the balance, an assessment of their use in twentieth-century combat will be an essential first step in determining how they might be used in battles yet to come.

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Historiography focused on combat medicine, and the use of hospital ships during early twentieth-century warfare is scant. Therefore, this work hopes to be a valuable contribution to that scholarship, opening the floor for scholarly conversation and debate, while providing new avenues of exploration which will prove useful for future historians interested in military, medical, or maritime history. The stories of hospital ships, those who worked on them, as well as those whose lives they saved are essential pieces of history that deserve to be brought to light.

One of the most well-known and often cited works of military history is John Keegan’s *The Face of Battle* (1976). In a section titled “The Deficiencies of Military History” Keegan outlines the basic tenants of “the old” military history. Among these are a focus on generals and generalship, economics, institutions, and “battle piece” examinations of combat.<sup>4</sup> What Keegan proposes instead is for historians to broaden their scope and

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<sup>3</sup> “T-AH 19 Mercy Class,” <https://www.globalsecurity.org/military/systems/ship/tah-19.htm>.

attempt to see the “face of battle,” that is the experiences of the men on the ground who were asked to strain, suffer, and in many cases die, for their cause. Instead of discussing generals and battlefield tactics, Keegan instead examines “wounds and their treatment, the mechanics of being taken prisoner, the nature of leadership at the most junior level, the role of compulsion in getting men to stand their ground, the incidence of accidents as a cause of death in war and, above all, the dimensions of the danger which different varieties of weapons offer to the soldier on the battlefield.”<sup>5</sup> *The Face of Battle* is a notable achievement because it introduced scholars to a "new" military history which allows historians to consider a wide range of topics apart from generalship and tactics. For this study, Keegan's work is significant because it was one of the earliest military histories to thoughtfully address battlefield casualties, as well as the mental and physical toll that warfare takes on the minds and bodies of its participants. And in the spirit of Keegan's “new” military history, this work seeks to reveal more about the lives and personal experiences of those who served their countries in the field of battle.

Recently, the body of scholarship surrounding British and American military medicine in the First and Second World Wars has increased. In 2010, the leading voice in British military medicine during the twentieth century, Mark Harrison, published his work *The Medical War: British Military Medicine in the First World War* in which he explains why medicine became so important to the conduct of war between 1914 and 1918. Harrison also argues that British military medicine improved dramatically during the war. He notes that the medical services were "clearly essential to military efficiency and their improvement

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<sup>4</sup> John Keegan, *The Face of Battle* (New York: Penguin Books, 1976), 25-29.

<sup>5</sup> Keegan, *The Face of Battle*, 77.

was part and parcel of the vital managerial reforms undertaken by Douglas Haig during his period as commander-in-chief." One of the most striking elements of Harrison's study, however, is its scope. Instead of focusing solely on the Western Front, Harrison examines a number of different theaters in hopes that this might permit "comparisons to be made between different theaters and the identification of those factors which had a bearing upon the success or failure of medical arrangements."<sup>6</sup> Another important element of Harrison's work is his intermittent discussions of hospital ships. Of particular note are his examinations of British hospital ships during the Gallipoli landing.<sup>7</sup>

On the heels of Harrison's study of battlefield medicine during World War I, two more works appeared in 2014—Emily Mayhew's *Wounded: A New History of the Western Front in World War I*, followed by Christine E. Hallett's *Veiled Warriors: Allied Nurses of the First World War*. Mayhew's book can be neatly summarized by a sentence which appears in her introduction. *Wounded* is "a history of the central experience that was repeated hundreds of thousands of times up and down the Western Front and went beyond rank or status: the wounding of a soldier and the struggle of medics to save his life." One key element that is mysteriously missing from her book is the hospital ship. In a work of scholarship that focuses on wounded soldiers and asserts that "The wounded spent a surprising amount of time on the move," one expects that hospital ships would be a major point of discussion. Instead, Mayhew focuses primarily on the land-based counterpart of the hospital ship: the hospital train. She notes, "The medical system relied on trains to move

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<sup>6</sup> Mark Harrison, *The Medical War: British Medicine in the First World War*, (New York: Oxford University Press, 2010), 10-14.

<sup>7</sup> Harrison, *The Medical War*, 179-180.

large numbers of wounded around France and back home to Britain.”<sup>8</sup> How these trains were able to cross the Channel from France to Britain is never explained.

Like Harrison’s *The Medical War*, Hallett’s *Veiled Warriors* looks at the service of Allied nurses across a broad spectrum of combat theaters. Although Hallett admits that her history is “a partial and distorted one, written by an English-speaking historian from a highly Anglocentric perspective,” she attempts to recount the experiences of a vast sample of Allied nurses from Britain, France, Belgium, Russia, Romania, Australia, South Africa, New Zealand, Canada, and the United States.<sup>9</sup> Her work is an attempt to dispel the myths surrounding combat nurses of the First World War who were often seen as little more than self-sacrificing heroines, romantic foils to the male combatant, and doctor’s handmaidens. Hallett argues that these women were trained professionals who should be appreciated for performing significant work in their own right.<sup>10</sup> One of the great benefits of the work is that her broad geographical focus across multiple fronts allows her to include a brief section examining the role of Allied hospital ships in the Eastern Mediterranean. In only a handful of pages, Hallett offers many lurid accounts from nurses who were aboard those vessels and gained first-hand experience of combat by practicing medicine on the front lines.

Concerning scholarship that examines military hospital ships more specifically, some of the earliest works appeared on the pages of the *British Medical Journal* before and during the First World War. Military minds and Royal Navy personnel constantly pondered ways to improve seaborne medical care and ensure that battlefield casualties could be swiftly and

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<sup>8</sup> Emily Mayhew, *Wounded: A New History of the Western Front in World War I* (New York: Oxford University Press, 2016), 3-4.

<sup>9</sup> Christine E. Hallett, *Veiled Warriors: Allied Nurses in the First World War* (New York: Oxford University Press, 2014), vii.

<sup>10</sup> Hallett, *Veiled Warriors*, 2-3.

safely evacuated. Since the close of the Second World War, however, two key works focus on the role of hospital ships in twentieth-century warfare and are vital building blocks upon which this study is constructed. These works are Emory A. Massman's 1999 work, *Hospital Ships of World War II: An Illustrated Reference* and J.H. Plumridge's *Hospital Ships and Ambulance Trains*.<sup>11</sup> While not a professionally trained historian, Massman's interest in hospital ships began during his time of naval service in the Second World War and grew while conducting research for his retirement hobby of model ship building. His fascination ultimately led to this work which manages to fit the history of each of America's 39 World War II-era hospital ships into a single 450 page volume. While this reference work is useful to historians for identifying individual ships and uncovering a bit of surface-level information regarding their conversion into floating hospitals, renaming, and wartime activities, that is, unfortunately, where its utility ends. Throughout the work, Massman fails to provide citations but instead lists all of his reference materials in a bibliography without specifying which source corresponds with a particular piece of information in the text. Furthermore, his list of primary source materials is limited to eight manuscripts and a dozen of his own personal correspondences which makes it difficult for other interested historians to trace his references back to the source. Finally, Massman does not attempt to answer historical questions surrounding hospital ships in combat, nor does he provide any detailed assessments of hospital ships before World War II, or after. Nonetheless, it is still an important work in that it provides a solid foundation upon which future studies can attempt to build and expand.

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<sup>11</sup> Emory A. Massman, *Hospital Ships of World War II: An Illustrated Reference to 39 United States Military Vessels* (Jefferson, NC: McFarland Press, 1999); John H. Plumridge, *Hospital Ships and Ambulance Trains* (London: Seeley, 1975).

John Plumridge's analysis of hospital ships and ambulance trains is one of the earliest attempts to understand these vital components of military history. While he seems to spend more time assessing the importance of Great Britain's ambulance trains and praising their gradual improvement through the course First World War, he mentions the use of hospital transports during the Crimean War and recounts the tale of the ill-fated *Llandoverly Castle*. Like Massman, Plumridge does not seek to answer any historical questions surrounding the use of military hospital ships in combat. In the same way, his work represents an opening word on the subject and is, therefore, an appropriate foundation upon which to build the present study.

In addition to its primary focus on military and medical history, this study will also incorporate threads of an emerging historical discipline known as environmental history. Environmental history began in the 1960s and 70s and has since blossomed into a rather large field. In the short time since its inception, practitioners of environmental history have managed to assemble a relatively robust body of scholarship whose focus spans across numerous topics and historical periods. In the last several decades, environmental historians and military historians have slowly made their way towards merging their research interests and have begun conducting research on the relationships that exist between warfare and the natural world.

For the purposes of the present study, considering the impact that environmental factors had on the development and use of hospital ships is exceeding useful. In many of the conflicts that this work surveys, illness from disease often proved more deadly than wounds sustained by enemy bullets. At the same time, unique environmental factors like geography, climate, and terrain made it difficult for British or American invasion forces to establish

adequate medical treatment facilities on land. As a result, ocean-going hospital ships were absolutely necessary as a means for combating the invisible army known as the environment.<sup>12</sup>

The global wars of the early twentieth century represented the “golden age” of Anglo-American hospital ships. By the end of World War II these vessels, as they had developed over the previous century and a half, had turned from bastions to burdens and were no longer viable options for wide-scale use in combat operations. For this reason, it is imperative that the history of these ships, as well as the stories of those who worked on them and whose lives they saved, be told. During the intense fighting that took place in the first half of the twentieth century, hospital ships helped save hundreds of thousands of lives. As soldiers rushed headlong into battle, fully prepared to transverse the fires of hell and defiantly stare down death, they could rest assured in the knowledge that hospital ships stood behind them, ready to pluck them from the fires and ferry them to safety.

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<sup>12</sup> For more on the environmental history of warfare, see Judith A. Bennett, *Natives and Exotics: World War II and Environment in the Southern Pacific* (Honolulu: University of Hawai'i Press, 2009); Lisa Brady, *War upon the Land: Military Strategy and the Transformation of Southern Landscapes during the American Civil War* (Athens GA: University of Georgia Press, 2012); Charles E. Cloosmann, ed., *War and the Environment: Military Destruction in the Modern Age* (College Station, TX: Texas A&M University Press, 2009); Simo Laakkonen, Richard Tucker, and Timo Vuorisalo, eds, *The Long Shadows: A Global Environmental History of the Second World War* (Corvallis, OR: Oregon State University Press, 2017); Richard P. Tucker and Edmund Russell, eds, *Natural Enemy, Natural Ally: Toward an Environmental History of Warfare* (Corvallis, OR: Oregon State University Press, 2004); Richard P. Tucker, Tait Keller, J.R. McNeil, and Martin Schmid., eds, *Environmental Histories of the First World War* (New York: Cambridge University Press, 2018); H.A. Winters, *Battling the Elements: Weather and Terrain in the Conduct of War* (Baltimore: Johns Hopkins University Press, 1998).

## Chapter One: The Historical Development of Anglo-American Hospital Ships

For millennia, a close relationship has existed between medicine and the sea. As Zachary Friedenberg recounts in the opening paragraphs of his study on medicine in the age of sail, “In the Trojan wars, when Menelaus was wounded by a Trojan bowman, his brother and fleet commander Agamemnon sent for his fleet surgeon, Machaon, the son of Aesculapius, the god of medicine, to treat the wound.” Furthermore, some evidence suggests that the ancient navies of the Mediterranean understood the need for medical treatment facilities in combat and, therefore, designated some of their ships as floating hospitals.<sup>1</sup> Medical vessels, which one hesitates to label "hospital ships," occasionally appear throughout the more modern historical record as well. For instance, in 1588 the famed Spanish Armada included two medical ships with a displacement of 30 seamen, 100 soldiers, and 50 trained physicians.

Britain christened her first proto-hospital ship, *Goodwill*, in 1608, and during the Second Dutch War of 1664, two medical ships served in the fleet.<sup>2</sup> Like their successors in the twentieth century, early hospital ships were often converted gunboats; outfitted to serve as medical treatment facilities. However, Friedenberg notes that "Some surgeons disapproved of hospital ships, believing that an ill sailor received better treatment on his own vessel, where he was known and supported by his mates." He argues, "No nation during the centuries of sailing vessels was wholeheartedly committed to the idea of a hospital ship."<sup>3</sup>

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<sup>1</sup> Zachary B. Friedenberg, *Medicine Under Sail* (Annapolis, MD: Naval Institute Press, 2002), 1.

<sup>2</sup> John Stewart, "Hospital Ships in the Second Dutch War," *Journal of Royal Navy Medical Service* 34, (1948): 29-35.

<sup>3</sup> Friedenberg, *Medicine Under Sail*, 29.



While this may have been the case, a closer examination of early medical vessels, as well as the ideas surrounding them, is useful for understanding why later hospital ships evolved in the ways that they did.

One of the main philosophies of medical ships that emerged during the age of sail was the need for adequate ventilation below deck. On December 4, 1741, well known British physician and scientist, Sir William Watson, penned a response to an idea put forth by a fellow scientist, David Sutton concerning the importance of ventilation in the lower decks of ships. At the time, professional physicians accepted the miasmatic theory as medical fact. According to the *Dictionary of Public Health*, the miasmatic theory held that sickness derived from “miasma, an ill-defined emanation from rotting organic matter.”<sup>4</sup> To combat the presence of bad air on ships, and in turn protect the health of its sailors, Sutton proposed an invention “to extract the foul and stinking air from the well and other parts of ships.” In his observation of Sutton's suggestion, Watson argued: "As nothing is more conducive to the health of the human body than taking a sufficient quantity of wholesome air into the lungs, so the contrary is attended with pernicious and often destructive consequences."<sup>5</sup> Eighteenth-century ideas about miasmatic theory informed the conversion process of gunboats to hospital ships. The only steps necessary in the conversion process was the addition of ventilation grating in the vessel's hull and the installation of partitions in the hold to prevent the spread of bad air among ailing sailors.<sup>6</sup> During the age of sail, two major contributing

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<sup>4</sup> John M. Last, ed., *Dictionary of Public Health* (New York: Oxford University Press, 2006), 237.

<sup>5</sup> William Watson, “Some Observations upon Mr. Sutton’s Invention to Extract the Foul and Stinking Air from the Well and Other Parts of Ships, with Critical Remarks upon the Use of Windsails,” *Philosophical Transactions (1683-1775)* 42, (1742-1743), 62, <http://www.jstor.org/stable/104147>.

<sup>6</sup> Friedenbergs, *Medicine Under Sail*, 30.

factors required Great Britain to include hospital ships in their military framework— empire and warfare.

In the two centuries immediately predating World War I, Great Britain enjoyed the largest empire on Earth. Maintaining that empire, however, often required the movement of large numbers of troops to engage in military action within the colonies. This often created a problem of overcrowding which, in turn, increased the likelihood of disease. To remedy this problem, the Royal Navy supplied hospital ships. While these ships were intended to stave off the spread of disease among the healthy sailors, they often lacked proper medical facilities, and many did not even carry a physician on board. In 1739, a physician accompanying Lord Cathcart's campaign in the West Indies recounted his experience aboard one of the hospital ships: "The men were pent up between the decks in small vessels where they had not room to sit upright; they wallowed in filth; myriads of maggots were hatched in the putrefaction of their sores, which had no other dressings than that of being washed in their own allowance of brandy." In the following decades, accounts like these promoted reforms in British naval medicine. In addition to ventilation and the expulsion of miasmatic air, surgeons, most notably James Lind, advocated the use of soap among seamen, the addition of lime juice in sailor's diets to combat scurvy, and the use of chemical disinfectants to sanitize ship compartments.<sup>7</sup>

The second contributing factor that promoted the modernization of British hospital ships was warfare. Emory Massman argues that "the development of hospital ships became necessary with the increasing occurrences of war, which by its very nature wounds and kills warriors." He further asserts that "Public opinion no longer tolerated throwing mortally

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<sup>7</sup> Richard A. Gabriel, *Between Flesh and Steel: A History of Military Medicine from the Middle Ages to the War in Afghanistan* (Dulles, VA: Potomac Books, 2013), 102-103.

wounded men overboard” solve logistical problems of casualties littering the deck, a practice common among navies during this period.<sup>8</sup> These statements seem to suggest that early hospital ships were necessary for the successful execution of warfare because they provided a more appropriate place of disposal for sick and wounded combatants whose care would have presented a substantial burden on board a warship. Further illustrating the close connection between hospital ships and war, Milt Riske commented that “Hospital ships are children of necessity, mothered and fathered by wars.”<sup>9</sup> For Great Britain, their experiences in the Crimean War and Second Opium War taught them valuable lessons concerning hospital ships and military medicine at large.

The Crimean War lasted from October 1853 to March 1856. Unfolding in the Balkans of southeastern Europe, the war pitted an alliance of Great Britain, France, and the Ottoman Empire against powers of Tsar Nicholas I, and later Alexander II, controlling the forces of the Russian Empire. It was the first major international war following the Congress of Vienna in 1815 and a fight to balance power in the region. The Ottomans were fighting to defend themselves from Russian invasion while Great Britain and France sought to defend, and further, their interests in the region.<sup>10</sup> In the end, the Allied forces were able to defeat the Russian Empire, but the legacy of the war is one tainted by gross mismanagement at the tactical, logistical and medical levels. With the introduction of telegraph technology, British

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<sup>8</sup> Massman, *Hospital Ships*, 15.

<sup>9</sup> Milt Riske, “A History of Hospital Ships,” *Sea Classics*, March 1973, [http://www.ibiblio.org/hyperwar/NHC/hospital\\_ships.htm](http://www.ibiblio.org/hyperwar/NHC/hospital_ships.htm).

<sup>10</sup> Michael Clodfelter, *Warfare and Armed Conflict: A Statistical Encyclopedia of Casualty and Other Figures, 1492-2015* (Jefferson, NC: McFarland Press, 2017), 178. For more on the Crimean War, see Andrew D. Lambert, *The Crimean War: British Grand Strategy Against Russia, 1853-1856* (Manchester, UK: Manchester University Press, 1990) and Trevor Royle, *Crimea: The Great Crimean War, 1854-1856* (New York: St. Martin’s Press, 2000).

press correspondence could quickly relay information back to people on the home front. Occasionally, news of mismanagement incited passionate responses in the papers. In one instance, an editorial in *The Times* strongly rebuked Britain's failed system of management asking "Where, let us ask, was the profit of the outlay or exertions by which bales upon bales of stores were sent to rot at Balaklava? If they could neither be housed, nor stored, nor distributed, they might evidently have just as well been taken up to the top of Dover cliffs and pitched into the sea."<sup>11</sup> Some of these derelictions, specifically regarding the management of battlefield casualties, ultimately precipitated vast reforms in British nursing and enhanced the need for the British military to adopt hospital ships in the following decades.

Conditions during the Crimean War were horrendous on all sides. Evidence suggests that infection killed more soldiers than bullets or sabers as preventative measures such as antibiotics did not appear until the twentieth century.<sup>12</sup> This meant that military physicians were faced with very few means with which to combat the spread of infectious disease. To make matters worse, British soldiers who fell sick or wounded on the Crimean Peninsula were treated at the base hospital at Scutari, some 300 miles away from the battlefield, in the Bosphorus Strait. Soldiers completed the journey across the Black Sea crammed into the holds of hospital ships. Many, however, would not survive the voyage. Records from the hospital ship *Shooting Star* indicate that 47 of her 103 passengers died on the journey from Balaklava to Scutari.<sup>13</sup>

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<sup>11</sup> "If there is any point at which the people of," *The Times* February 15, 1855.

<sup>12</sup> Quoted in Christopher J. Gill and Gillian C. Gill, "Nightingale in Scutari: Her Legacy Reexamined," *Clinical Infectious Diseases* 40, no. 12 (June 15, 2005): 1799-1805, <https://www.jstor.org/stable/4484299>.

<sup>13</sup> "The Story of the Campaign," *Glasgow Herald*, March 2, 1855.

Moreover, those who made it to the base hospital could expect little improvement in their condition. As one scholar asserts, "[The Scutari] hospitals existed largely to segregate patients with fever from their healthy compatriots. Soldiers were not sent to Scutari to be healed so much as to die." In her memoir, Nurse Sarah Terrot recalled how "one poor fellow neglected by the orderlies because he was dying...was very dirty, covered with wounds, and devoured by lice. I pointed this out to the orderlies, whose only excuse was, 'It's not worthwhile to clean him: he's not long for this world.'"<sup>14</sup> Like the miserable conditions reported aboard British medical vessels in the eighteenth century, the environment of base hospitals and hospital ships during the Crimean War prompted numerous reforms.

One of the most notable figures to emerge from the Crimean War was British nurse Florence Nightingale. Considered by many to be the founder of modern nursing, Nightingale was instrumental in modernizing medicine in Britain. During the first year of conflict, Nightingale was volunteering as a nurse in London amidst a city-wide cholera outbreak. It was there that Nightingale developed specific ideas about nursing that she took with her to Scutari in November 1854. Believing that patients would fare better if they were well-fed, comfortable, and clean, she set to work against the three things which she believed destroyed the British forces in Crimea—"ignorance, incapacity, and useless rules."<sup>15</sup> Nightingale based each of her reforms on a single principle: cleanliness. She made sure that casualties disembarking the hospital ships in Scutari received fresh linens, as opposed to the previous system of reusing soiled linens. She developed a prototypical system of triaging patients to

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<sup>14</sup> Robert Richardson, ed., *Nurse Sarah Anne with Florence Nightingale at Scutari* (London: John Murray Ltd., 1977) quoted in Gill and Gill, "Nightingale in Scutari," 1800.

<sup>15</sup> Florence A. Nightingale, *A Contribution to the Sanitary History of the British Army during the Late War with Russia* (London, Harrison and Sons, 1859).

ensure the maximum potential for survival for those in critical states. Finally, she promoted an increase in overall hygiene by removing human waste from the wards each day as well as intermittently laundering soldiers bed linens and clothes. While Florence Nightingale could not save every casualty that entered the Scutari hospital during the war, her forward-thinking approach to medicine influenced its application in both the private and the military sectors.<sup>16</sup>

While the Crimean War raged in the Balkans and Florence Nightingale was busy catapulting military medicine into the modern age, more troops of the expansive British Empire prepared for conflict in the far reaches of East Asia. Beginning in October of 1856, the Second Opium War matched British and French forces against troops from China's Qing Dynasty. It occurred as a result of British dissatisfaction with the opium trade, which they opened with China following the First Opium War, which lasted from 1839 to 1842. While it was a notable moment in the diplomatic and economic histories of China and Great Britain, it was also an important milestone in the history of British hospital ships. In 1860, as fighting came to a close, Great Britain introduced the world's first steam-powered hospital ships, HMS *Mauritius* and HMS *Melbourne*. The impressive amenities and medical capabilities of these vessels laid the framework upon which future Anglo-American hospital ships were constructed. Furthermore, in the aftermath of the Opium Wars, they became shining examples of the need for such vessels as a permanent part of the fleet.

On January 21, 1860, *The Illustrated London News* published an article titled, "Hospital Ships for China." In what is one of the few surviving descriptions of the two vessels, the article illustrates the ships and recounts how the British government had been working to supply ships for the expedition to China. It notes that "Besides the *Himalaya* and

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<sup>16</sup> Gill and Gill, "Nightingale in Scutari," 1801-1802.

a number of other large vessels for the conveyance of troops, ammunition, and stores, two splendid screw steam-ships have been specially equipped and fitted out in the most complete manner as hospital ships. They are the *Melbourne* and *Mauritius*, each registering over 2000 tons.” It goes on to describe many amenities aboard the ship that signal major advancements from the earlier hospital ships of the Crimean War. The *Melbourne* had enough beds to hold 120 patients and 20 crewmembers and in keeping with some familiar ideas about naval medicine, “The greatest attention has been paid to ventilation of this part of the ship.” In addition to the comfortable bays in which to house her casualties, *Melbourne* was also fitted with a state-of-the-art operating room “judiciously placed in the centre of the ship, having a large skylight over it which admits plenty of light for the surgeons and dispensers of medicine.” Finally, the cover of the skylight was removable, “and directly underneath it stands the operating table; so that wounded men requiring surgical aid may be passed through the opening on the main deck directly to it.” Concerning the *Mauritius*, the article notes that “the general arrangements are much the same,” and that “both ships reflect the highest credit on their captains and officers.”<sup>17</sup>

*Melbourne* and *Mauritius* ushered in the age of the modern hospital ship. At the same time, they demonstrated the potential for using medical vessels in combat. In 1862, the *British Medical Journal* published an article reflecting on the medical history of The Opium Wars. In this reflection, one of the major highlights was “the inauguration of two noble hospital ships,” both fitted out with “the finest medical and surgical appliances the finest London hospitals possess.” The article also boasts of the “the unspeakable advantage to an army on active service of being attended by hospital ships of the size and equipment of the

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<sup>17</sup> “Hospital Ships for China,” *The Illustrated London News*, January 21, 1860.

*Mauritius* and *Melbourne*.” The ships made such a deep impression that a Dr. Muir submitted “that they should form a constituent part of the hospital equipment of [the British] army.”

However, the age of modernity was not confined within the bounds of Great Britain. It stretched across the Atlantic to the United States. In the same decade that Britain introduced its new hospital ships, American medical vessels experienced a renaissance of their own. While the age of sail had not necessarily witnessed the emergence of categorical hospital ships, constant development in military and maritime medicine through the course of the Crimean and Opium Wars led to the appearance of bonafide hospital ships beginning in the 1860s. In the same way, the Civil War helped promote the emergence of American hospital ships that had a great deal of influence on their predecessors in the twentieth century.<sup>18</sup>

The Civil War was an experience in which, for the first time, the American military had to deal with a massive number of battlefield casualties and they faced Larson’s “perennial problem.” Like their twentieth-century successors, some hospital ships during the Civil War also referred to as hospital transports, operated under the command of the navy while the army oversaw others. However, the responsibility for these vessels was also divided between three entities: the U.S. Sanitary Commission in Washington, D.C., the Western Sanitary Commission in St. Louis, Missouri (both forerunners of the American Red Cross), and the Quartermaster’s Medical Department. President Abraham Lincoln created the U.S. Sanitary Commission on June 13, 1861, and placed Frederick Law Olmstead at its helm.

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<sup>18</sup> “Medical History of the War in China,” *British Medical Journal* 2, no. 99 (November 22, 1862), 540, <https://www.jstor.org/stable/25199293>.



Serving under the War Department, the Sanitary Commission was responsible for aid and relief of wounded and sick military personnel.<sup>19</sup>

It was during this period, and under the guidance of Olmsted's Commission, that American hospital ships took the first steps toward modernity and began developing and transforming into the vessels that would appear in twentieth-century combat. Jack McCallum asserts that "The use of hospital ships began after the Battle of Belmont (November 7, 1861) in Missouri." The use of water transport was necessary for there were no hospitals nearby, rail transportation was unavailable, and road conditions were poor. He argues, "Although transport by water was faster and less traumatic than bouncing along rutted dirt roads, conditions were far from ideal." John Haller elaborates on these conditions in his history of military medicine during the Civil War. He explains that hospital transports were indeed a convenient means for transporting casualties, but lacked key elements of comfort. For example, in the eastern theater, many hospital transports did not even have mattresses. Furthermore, evidence suggests that complications from hospital gangrene were commonplace as a result of the boat's dampness and overcrowded conditions. From this, it is difficult for one to see how these ships were dissimilar from their earlier British counterparts which acted as floating barges of suffering for the convalescing instead of sanctuaries of repose.<sup>20</sup>

In 1863, the Sanitary Commission released a report to the general public regarding their hospital transport program titled, *A Memoir of the Embarkation of the Sick and Wounded from the Peninsula of Virginia in the Summer of 1862*. The authors expressed their

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<sup>19</sup> Massman, *Hospital Ships*, 16.

<sup>20</sup> John Haller Jr., *Battlefield Medicine: A History of the Military Ambulance from the Napoleonic Wars through World War I* (Carbondale, IL: Southern Illinois University Press, 2011), 49-51.

hope that their “little volume” would influence the public and lead them “to truly comprehend what the rebellion costs.” While at the same time, inculcate “a right spirit of humane provision against the unnecessary suffering of war.”<sup>21</sup> This compilation of letters, penned by six Commission members who served aboard the Union hospital transport *Daniel Webster*, is a vital piece of evidence to assist in understanding how American militaries of the nineteenth century relied, in part, on hospital transports to evacuate the massive volume of battlefield casualties that they experienced.

The environment of the eastern United States shaped the Union, and Confederate armies need for hospital transports. As we will see in Chapter 2, environmental circumstances often necessitated the presence of a floating hospital where topography made it difficult to establish field hospitals. During the Civil War, however, the Commission’s report asserts, “A sudden transfer of the scene of active war from the high banks of the Potomac to a low and swampy region, intersected with a net-work of rivers and creeks, early in the summer of 1862, required appliances for the proper care of the sick and wounded which did not appear to have been contemplated in the government’s arrangements.” In order to remedy this deficiency, the Commission approached the office of the Quartermaster-General and requested to utilize a number of transport steamboats from his department which had been lying idle. The Commission received their first vessel, the *Daniel Webster*, on April 25, 1862. *Daniel Webster* was a former Pacific Coast steamer with a small capacity but was strong enough to make the ocean passage from Virginia to New York or Boston. Once

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<sup>21</sup> Frederick Law Olmsted, *Hospital Transports: A Memoir of the Embarkation of the Sick and Wounded from the Peninsula of Virginia in the Summer of 1862* (Boston, Mass.: Ticknor and Fields, 1863), xii.

refitted for service as a hospital transport, she was ready to begin receiving battlefield casualties.<sup>22</sup>

*Daniel Webster* received her first patients on May 3, 1862. At nightfall, the sick and wounded men were delivered to the transport aboard the *Wilson Small*, “a boat of light draught, fitted up as a little hospital, to run up creeks and bring down sick and wounded to the transports.”<sup>23</sup> As one of the Commission members recalled, each of the thirty-five patients was “carefully lifted on board and swung through the hatches on their stretchers. In half an hour they had all been tea’d and coffeed and refreshed by the nurses, and shortly after were all undressed and put to bed clean and comfortable, in a droll state of grateful wonder.”<sup>24</sup> However, not everyone who found themselves aboard the *Daniel Webster* had such pleasant experiences. A letter from an anonymous member of the Sanitary Commission recalled that one evening came aboard “the sickest men I ever saw,—crazy and noisy, soaked, body and mind, with swamp-poison, and in a sort of delirious remembrance of the days before the fever came,— days of mortal chill and hunger,— screaming for food, for something ‘hot,’ for ‘lucifer matches’ even.”<sup>25</sup> In another instance, the Union transport *Ocean Queen* was on its way to the mouth of the York River to be turned over to the Sanitary Commission for conversion. When she arrived, however, she was loaded with 900 typhoid patients. To make matters worse, the vessel was entirely devoid of medical equipment and food. These

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<sup>22</sup> Olmstead, *Hospital Transports*, 16.

<sup>23</sup> Olmsted, *Hospital Transports*, 23.

<sup>24</sup> Olmsted, *Hospital Transports*, 25.

<sup>25</sup> Lucifer matches, or “lucifers” were a type of “strike anywhere” strip match popular during the Civil War; Olmsted, *Hospital Transports*, 130.

accounts illustrate the often varying conditions aboard a hospital transport during the Civil War.<sup>26</sup>

In the western theater, the Quartermaster's Medical Department recognized the potential of the Mississippi River and its tributaries to act as a natural network for hospital transports. Thus, they quickly began refitting river steamboats with hospital facilities. The number of casualties that these ships transported is often staggering. Out of this handful of extraordinary hospital transports, two ships, the *D.A. January* and *City of Louisiana*, stand out. The *D.A. January*, in particular, is notable not only for the number of casualties she was able to transport, but also for her advanced design which was undoubtedly influenced by her eighteenth-century predecessors, and inspired those vessels that followed in her wake.

The U.S. Navy purchased *D.A. January* in April 1862. She was the first hospital ship purchased by the American military. *D.A. January* began her life in 1857 and served as a passenger riverboat in St. Louis before undergoing conversion into a hospital ship. After the conversion, she could carry 150 beds in each of her three wards as well as house patients under awnings on her deck. Her original architectural drawings also suggest that there were laundry facilities onboard, as well as steam-powered fans that helped provide adequate ventilation in the spaces below deck. Also, the ship featured pipes which passed through ice chests to provide cold water from the tap. Finally, the transport boasted a spacious operating room which was certainly uncommon for hospital ships in that era. The ship's mortality rate best demonstrates the efficacy of these amenities. In the aftermath of the Battle of Shiloh, *D.A. January* transported six loads of wounded from Pittsburg Landing north to hospitals in St. Louis and Keokuk, Iowa. Through the course of her wartime service, *D.A. January*

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<sup>26</sup> Massman, *Hospital Ships*, 16; Olmsted, *Hospital Transports*, 49.

transported 23,738 battlefield casualties to hospitals along the Ohio, Missouri, and Illinois rivers with a mortality rate of only 2.3%.

Similarly, Union hospital transport *R.C. Wood* (previously known as the *City of Louisiana*) proved extremely useful in combat. In a two year period, from April 1863 to April 1865, it managed to travel some 34,800 miles. Across thirty-three trips, it carried 11,024 sick and wounded between New Orleans, Vicksburg, Memphis, St. Louis, and Louisville.<sup>27</sup>

These two vessels represent an enormous evolution of hospital ships during the period of the American Civil War. While smaller transports in the east certainly made a considerable impact to those whom they saved, the larger transports of the west are more appropriate examples of the direction in which the American hospital ship program was trending. One vessel, however, the *Red Rover*, eclipsed both the *D.A. January* and *City of Louisiana* in terms of size and amenities. *Red Rover*, in conjunction with Great Britain's *Melbourne* and *Mauritius*, represents the final step in the evolution of hospital ships from small, sail-powered vessels where casualties went to die, to massive floating hospitals, capable of efficiently transporting and treating large numbers of casualties. They represent a link between the hospital ships of the mid-nineteenth century and those appearing before the Great War.

In December 1863, *The Wisconsin State Register* called *Red Rover* "one of the finest floating hospitals in the United States,"<sup>28</sup> and her journey to achieving such high praise was

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<sup>27</sup> Jack McCallum, "Hospital Ships," in Spencer C. Tucker, ed., *American Civil War: The Definitive Encyclopedia and Document Collection* (Oxford: ABC-CLIO, LLC, 2013), 944; Haller Jr., *Battlefield Medicine*, 48-51.

<sup>28</sup> "The Mississippi River Fleet," *The Wisconsin Register*, December 5, 1863.

notable. *Red Rover* began her life as a side-wheel river steamer in the Confederate States of America. She was captured by the Union gunboat *Mound City* while serving as a floating barracks during the Battle of Island Number 10. Following her capture, she was sent to St. Louis to undergo conversion into a hospital transport for the Union. Like her counterparts in Great Britain, *Red Rover* was fit with several modern amenities. First, the ship covered its windows with gauze to act as a screen against ash and smoke. At the same time, the permeable material would not present an impediment to the ship's ventilation. *Red Rover* could also hold 300 tons of ice, which chilled the water and cooled the wards. Finally, she boasted a fully equipped operating room, an elevator to move patients between decks, and a small group of volunteer nurses from the Catholic Sisters of the Holy Cross. These women were the first to serve in such a capacity in the U.S. Navy.<sup>29</sup>

Unlike *Melbourne* and *Mauritius*, however, *Red Rover* had a 32-pounder gun mounted to the bow to help defend her from any potential threats. Postbellum changes to international laws regarding hospital ships mandated that they sail unarmed in order to benefit from legal protection against their enemies. However, the lack of such restraints during the Civil War made it legal for hospital transports to carry weapons. Evidence estimates that during her two and a half years of service on the Mississippi, Ohio, Cumberland, and Tennessee Rivers, *Red Rover* transported nearly 1,700 wounded soldiers and suffered a total of only 151 deaths.<sup>30</sup>

The American hospital transports which appeared during the Civil War are estimated to have carried a total of approximately 150,000 Union casualties from 1862 to 1865. In the

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<sup>29</sup> McCallum in Tucker, *American Civil War*, 944.

<sup>30</sup> McCallum in Tucker, *American Civil War*, 944.

south, the Confederate government was never able to establish a system of hospital transports successfully. While it is difficult to draw any concrete conclusions about the impact that Union hospital transports may have had on the outcome of the conflict, the experiences and lessons learned by the military during the Civil War helped sow the initial seeds of what would eventually sprout into large-scale maritime medicine in the United States.<sup>31</sup>

### **Hospital Ships and International Law**

The physical development of hospital ships, however, would have meant very little if world leaders had not worked to establish international laws that protected these vulnerable vessels from enemy combatants. International laws and treaties addressing military and civilian conduct during times of conflict have a rich history dating back to ancient civilizations. Many historians and legal scholars have addressed the development and impact that these agreements have had. International law concerning hospital ships, however, did not appear until the turn of the twentieth century at the Hague Convention of 1899 and 1907 and the Geneva Conventions during those same years. In many cases, these conventions covered much of the same ground and influenced one another in their approach to dealing with hospital ships. Nonetheless, the protections that these laws afforded to military hospital ships were critical to their successful application in the world wars and, therefore, must be understood.<sup>32</sup>

Most legal scholars and political philosophers agree that the Hague Conventions of 1899 were based mainly on the Lieber Code, issued by President Abraham Lincoln in 1863,

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<sup>31</sup> McCallum in Tucker, *American Civil War*, 945.

<sup>32</sup> For more on the history of humanitarian law in armed conflict, see Dieter Fleck, ed., *The Handbook of Humanitarian Law in Armed Conflict* (New York: Oxford University Press, 1995), 1-38.

and the First Geneva Conventions of 1864.<sup>33</sup> Both of these earlier attempts sought only to apply humanitarian law to armed conflict within their own geographical proximities, the United States and Western Europe, respectively. Alternatively, the Hague Conventions of 1899 hoped to institute humanitarian law in armed conflicts on a more global scale. Drawing on these earlier attempts, The Hague Conventions of 1899 addressed several topics of supreme military importance. Apart from hospital ships, world leaders considered the legality of using asphyxiating gas and expanding bullets on the battlefield, as well as utilizing balloons to drop projectiles and explosives.<sup>34</sup>

Convention III of the Hague Conventions of 1899, titled “For the adaptation to maritime warfare of the principles of the Geneva Convention of August 22, 1864,” is most important for understanding the development of laws meant to protect military hospital ships. The Convention of 1864 focused on the “amelioration of the condition of the wounded in armies in the field.” The Hague Convention of 1899 merely extended those protections of land warfare to war on the seas. Of the 14 Articles related to hospital ships, five are particularly important in helping to understand the various protections afforded to hospital ships. First, and perhaps most notably, Article I provides the inceptive formal definition of military hospital ships and briefly outlines the conditions of their immunity from attack by enemy combatants:

Military hospital ships, that is to say, ships constructed or assigned by States specially and solely for the purpose of assisting the wounded, sick or shipwrecked, and the names of which shall have been communicated to the belligerent Powers at the

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<sup>33</sup> For more, see John Fabian Witt, *Lincoln's Code: The Laws of War in American History* (New York: Free Press, 2012).

<sup>34</sup> James Brown Scott, ed., *The Hague Conventions and Declarations of 1899 and 1907: Accompanied by Tables of Signatures, Ratifications, and Adhesions of the Various Powers, and Texts of Reservations* (New York: Oxford University Press, 1915), ii.



beginning or during the course of hostilities, and in any case before they are employed, shall be respected and can not be captured while hostilities last.<sup>35</sup>

Article II extended these same protections to private hospital ships— namely, those operated by international Red Cross or Red Crescent organizations— but added that those ships should be “furnished with a certificate from the competent authorities, declaring that they have been under their control while fitting out and on final departure.” Likewise, Article III further extended these protections to hospital ships of neutral countries, provided they meet the definition outlined in Article I. Article IV requires that “the ships mentioned in Articles I, II and III shall afford relief and assistance to the wounded, sick, and shipwrecked of the belligerents independently of their nationality.” It also mandates that “The [warring parties] engage not to use these ships for any military purpose,” and that “[Hospital ships] must not in any way hamper the movements of the combatants.” Additionally, it warns that “During and after an engagement they will act at their own risk and peril.” Finally, the article conveys the rights of belligerents and asserts that they will have a “right to control and visit [hospital ships]; they can refuse to help them, order them off, make them take a certain course, and put a commissioner on board; they can even detain them, if important circumstances require it.”<sup>36</sup>



Figure 1.2 America's first purpose-built hospital ship, USS Relief (AH-1), showing the distinguishing marks of a designated hospital ship. Source: U.S. Navy Naval History and Heritage Command (Photo #80-G-K-3708).

<sup>35</sup> Brown, *The Hague Conventions*, 164.

In the same way that Article I is crucial for defining military hospital ships, Article V is critical because it outlines the distinguishing features that military hospitals had to adopt in order to be readily detectable and therefore protected from attack by enemy combatants (Figure 1.2). The article requires military hospital ships to distinguish themselves “by being painted white outside with a horizontal band of green about a meter and a half in breadth.” The ships mentioned in Article II and III (being private ships or ships of neutral countries) should be distinguished with the same white exterior, but with a band of red rather than green. In order to further promote visibility and detectability, the ships lifeboats and other small crafts were to be emblazoned with the same distinguishing features. Lastly, Article V ordered that “All hospital ships shall make themselves known by hoisting, together with their national flag, the white flag with a red cross provided by the Geneva Convention.”<sup>37</sup>

The protections afforded to military hospital ships by the Hague Conventions of 1899 were subsequently amended in 1907, as advances in military technology required renewed conversations on specific topics like chemical weapons and modified ammunition. Amendments to the articles concerning hospital ships were scarce but still noteworthy. For instance, an amendment to Article V obligated all military hospital ships, who wished to “ensure by night the freedom from interference to which they are entitled,” to burn all of their lights in order to “render their special painting specifically plain.” Article VII, which originally protected the lives, freedom, and personal property of any religious, medical, or hospital staff on board, was altered to include provisions to protect sick wards, “in the case of a fight on board a warship.” Likewise, a 1907 amendment to Article VIII, initially requiring

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<sup>36</sup> Brown, *The Hague Conventions*, 165.

<sup>37</sup> Brown, *The Hague Conventions*, 166.

hospital ships to care for and protect any casualty they brought aboard, regardless of allegiance, stated that "Hospital ships and sick wards of vessels are no longer entitled to protection if they are employed for the purpose of injuring the enemy."<sup>38</sup>

In other words, hospital ships carrying arms, munitions, troops, or other matériel of war forfeited their protections under international law and were fair targets for enemy belligerents. This amendment, in particular, could often prove troublesome for Anglo-American hospital ships as it provided a convenient pretext for overly suspicious enemies to impede, pursue, and in some cases destroy, their defenseless victims— as was the case with HMS *Llandoverly Castle* in the summer of 1918. As these laws reveal, hospital ships were unique vessels with unique responsibilities and, therefore, required different protections.<sup>39</sup>

### **Hospital Ships during the Spanish-American War**

The final decade of the nineteenth century witnessed massive developments not only in American hospital ships but in the navy at large. In his short history of the U.S Navy, maritime historian Craig Symonds argues that the 1890s were a time of significant growth for the American fleet. He attributes this progress to three things. First, Congress allocated funding for the construction of three top of the line battleships—*Indiana*, *Massachusetts*, and *Oregon*. The introduction of these ships among the Navy's fleet was a critical step towards modernization. The second contributing factor to the rapid rise of America's power was the publication of Alfred Thayer Mahan's *The Influence of Sea Power upon History, 1660-1783*. Mahan suggested that possession of a large battleship fleet was vital in allowing Great Britain to capture and consolidate the most expansive and powerful empire on the planet. To

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<sup>38</sup> Brown, *The Hague Conventions*, 167.

<sup>39</sup> Brown, *The Hague Conventions*, 168.

better understand this, one must look at Symond's final point: the U.S. Census report of 1890. According to him, the 1890 census revealed that America's western frontier had vanished and the only potential for growth was to adopt a national attitude of imperialism and plant the American flag on foreign soil. For these aspirations, Mahan supplied the blueprint. For the nation to develop, the navy had to develop with it. The period of the Spanish-American War played an important part of this evolution. During this era, American military hospital ships entered a new age; one which would prepare them for use in the following decades.<sup>40</sup>

The Spanish-American War began on February 15, 1898, in Cuba, when an explosion in her hold sent the *Maine* and 260 Americans to the bottom of Havana Harbor. While the explosion is believed to have been caused by the detonation of coal dust in the bunker, many imperialist-minded Americans used the incident as a pretext for war with Spain, a former world power that was quickly in decline. They advocated war in hopes of expanding American interests in the Caribbean as well as other parts of the world. On April 21, American ships established a blockade of Cuba. On the 25<sup>th</sup>, Congress officially declared war on Spain. In the four day interim, however, American hospital ships took a big leap toward modernity, when the Navy commissioned the former *Creole* as its first USS *Solace* (AH-2). The American military approach to hospital ships would never be the same.<sup>41</sup>

Consistent with the approaches to military hospital ships which existed at the time of the Spanish-American War, the U.S. Navy purchased the ocean steam liner *Creole* from the Cromwell Line on April 7, 1898 in order to convert it into a hospital ship. The conversion

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<sup>40</sup> Craig L. Symonds, *The U.S. Navy: A Concise History* (New York: Oxford University Press, 2016), 61-62.

<sup>41</sup> For more on the origins of the Spanish-American War, see David Trask, *The War with Spain in 1898* (Lincoln: University of Nebraska Press, 1996); Massman, *Hospital Ships*, 19.

process took place in Norfolk, VA and lasted only 16 days. While *Solace* was not the first American hospital ship to appear in the 1890s, as she was barely beaten out by USS *Relief* (AH-1), *Solace* was the first American hospital ship to hoist the flag of the Geneva Convention and carry it into battle with a foreign enemy. This event is an essential milestone in the history of American hospital ships. From then on, the declarations of international law protected these vessels which were primarily concerned with providing humanitarian aid during the course of the fighting. Massman notes that “On its first trip out, the USS *Solace* (AH-2) brought back to Norfolk 400 wounded Spanish prisoners. The second trip returned with a full load of army men with yellow fever.” These accounts help illustrate what vital resources hospital ships represented. In all, the U.S. Army and Navy operated seven hospital ships in the course of the Spanish-American War. Like *Solace* (AH-2), many of the ships were converted passenger liners. One ship, SS *Missouri*, had even served as a cattle transport ship before her owner, B.M. Baker donated her to the U.S. government. While the ship was little more than an empty shell when the government received it, following a massive conversion effort, *Missouri* had facilities for 326 patients and 153 staff.<sup>42</sup>

Another important emergence during the Spanish-American war was the first appearance of privately funded hospital ships. International law afforded privately funded hospital ships many of the same protections as those owned by the army and navy. The only difference was that privately funded ships were to paint a red band around their hull as opposed to the green paint of military vessels. A major proponent of these privately funded ships was Clara Barton and the American Red Cross (ARC). In the wake of the Civil War, Clara Barton was an outspoken advocate for the introduction of a Red Cross Society in the

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<sup>42</sup> Massman, *Hospital Ships*, 20.

United States. As sanitary commissions dissolved, other entities were needed to ensure humanitarian aid was available for American troops who became casualties of war. In 1881, Barton successfully established the American Red Cross and the organization contributed heavily during the Spanish-American War.<sup>43</sup>

Relying on her indomitable spirit, experience gained as a battlefield nurse during the Civil War, as well as a vast network of powerful political connections, including President William McKinley, Barton and the ARC were able to supply five hospital and hospital supply ships of their own. Like their military counterparts, the ARC's hospital ships were converted from various types of passenger ships. During the conflict, these ships sailed back and forth from the U.S. to Cuba carrying medical supplies furnished by the ARC. There is no evidence to suggest that they, or the ships under military control, were ever threatened with hostilities during the fighting.<sup>44</sup>

From their earliest iterations as little more than floating warehouses of the dead and dying, to sophisticated, modern vessels with the capability to care for hundreds of casualties, hospital ships certainly made valuable contributions to powers engaged in warfare. Moreover, they neatly parallel the rise of modern medicine in the United States and Great Britain, and updates in medicine were crucial for continued progress in the development of hospital ships. These developments occurred just in time for the greatest conflict the world had ever known, the First World War. This conflicts represent the golden age of Britain's hospital ships and their stories, as well as those who served and recovered aboard them, must be told.

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<sup>43</sup> Marian Moser Jones, *The American Red Cross from Clara Barton to the New Deal* (Baltimore, MD: Johns Hopkins University Press, 2013), 3-4.

<sup>44</sup> Massman, *Hospital Ships*, 20.

## Chapter Two: British Hospital Ships in Global Combat, 1896-1918

In 1915, Anne Donnell, a nursing sister of the Australian Army Nursing Services, found herself serving aboard a hospital ship in the far reaches of the eastern Mediterranean off the coast of a rocky peninsula called Gallipoli. With dreadful weather outdoors, Sister Anne sat quietly in her cabin waiting patiently to spring into action as the next batch of wounded soldiers made their way from the beaches of the peninsula to the hospital ship in the bay. After the war, Sister Anne sat down to write her recollections of her time in the service. In four years, she worked as an Allied nurse in places like Marseilles, Cairo, Malta, Lemnos, and Alexandria. It was her experience at Gallipoli, however, that left the most lasting impact on her.

“In that terrible weather,” she wrote, “with wind travelling 100 miles an hour, and rain and sleet, all seems so pitifully hopeless...during those fearful days our thoughts were constantly with the boys of the Peninsula and wondering how they were faring; but little did we realize the sufferings until the winds abated and they began to arrive with their poor feet and hands frostbitten.” As Donnell recalled, hundreds of men were unable to crawl away to safety as their bodies were paralyzed from the cold. Sister Anne wrote that the soldiers at Gallipoli endured many agonies: “Sentries were found dead in their posts, frozen and still clutching their rifles...their fingers were too frozen to pull the trigger. And some we have in hospital are losing both feet, some both hands.” Ending her remarks, Donnell remarked that the whole situation was “all too sad for words, hopelessly sad.”<sup>1</sup>

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<sup>1</sup> Anne Donnell, *Letters of an Australian Army Sister* (Sydney, AU: Angus & Robertson, 1920).

The fighting at Gallipoli during the First World War witnessed the most extensive use of British hospital ships during the first half of the twentieth century. Poor pre-battle planning and unique factors in the physical environment of the peninsula meant that hospital ships became responsible for evacuating and treating any soldier who fell from illness or enemy fire. They became incredibly important in the overall context of the battle. By the time of the Allied evacuation, in 1916, one could argue that the performance of their hospital ships were the only part of the campaign that worked in favor of Britain and her Dominions. Before assessing their performance at Gallipoli, however, it is useful for one to first look at pre-war theories of British medical vessels in order to understand how these ships were meant to operate in war zones.

### **Pre-War Theories of British Hospital Ships**

#### *Conversion or Purpose-Built? Two Opposing Views*

As the Spanish-American War loomed across the Atlantic and the American military was on the verge of realizing the potential application of modern medical vessels in combat, observers in Great Britain began advocating for the construction and inclusion of hospital ships as part of the Royal Navy's fleet. One of the earliest, and perhaps most ardent, advocates for modernizing Britain's approach to hospital ships was Dr. P. Murray Braidwood. In an 1896 article, published by the renowned British medical journal, *The Lancet*, Dr. Braidwood exposed the deficiencies present in the Royal Navy's hospital ship program and presented a detailed plan, complete with illustrations, outlining his recommended alterations. While it is unclear precisely to what extent Braidwood's recommendations shaped Great Britain's hospital ship program in the years leading up to the



First World War, his article is critical necessary to gain a complete understanding of theories surrounding the development of twentieth-century hospital ships.<sup>2</sup>

Braidwood set the stage for his article with a scathing review of Britain's position in naval medicine arguing that the "ever-recurring screen of ignorance euphemistically termed 'experience' obscures at present the state of our Naval Medical Service (NMS)." With his paper, Braidwood aimed to "point out a better way of preparedness to meet emergencies." In his view, Britain had no good answer for medical evacuation if suddenly met with a war outside of their colonial sphere. At the time, Britain, like the United States, relied on the conversion system to supply their armed forces with hospital ships; a process which Braidwood believed required vast alteration. He railed against conversion arguing that when the British government declared war, "we meet our suddenly incurred responsibility by makeshifts." The "makeshifts" to which Braidwood referred were passenger-carrying steamships from large shipping companies which the government subsidized "at an enormous cost" and then "knocked about (converted is the official phrase) to suit hospital purposes." He underscored the unacceptability of this method by explaining that most of the passenger steamers were "often unwieldy, with corners, crevices, and angles of all descriptions admirably calculated to house and retain objectionable peculiarities, and often needing repair."<sup>3</sup> Braidwood believed that purpose-built hospital ships would help bolster the woefully unprepared NMS and used the remainder of his article to outline what he saw as the best approach to constructing them.

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<sup>2</sup> Braidwood, P. Murray, "Hospital Accommodation by the Use of Ships (Hospital Ships)," *The Lancet* 147, no. 3788 (April 4, 1896): 914-918. [https://doi.org/10.1016/S0140-6736\(01\)60839-0](https://doi.org/10.1016/S0140-6736(01)60839-0).

<sup>3</sup> Braidwood, "Hospital Ships," 914.

Braidwood first recognized the need for purpose-built hospital ships during the Anglo-Egyptian War of 1882 while analyzing the deficiencies of the NMS in the transportation and treatment of the wounded at sea. He argued that the NMS is "very expensive" and yet "seldom answers the purpose from want of a sufficient number of surgeons and nurses to supply the fleet and of the necessary room on board a fighting vessel for attending to the sick and wounded." The issue of treatment space aboard fighting ships as a justification for purpose-built hospital ships is one that would reappear in the decade prior to World War I. Braidwood also pointed out that "our first line of defense, our warships, is being supplemented, but no regard has yet been paid to affording necessary medical aid to those who may suffer when taking part in such defense." For this purpose, Braidwood believed that hospital ships were an absolute necessity.<sup>4</sup>

After a brief examination of the historical relationship between naval warfare and medicine, including a mention of the United States Sanitary Commission's significant contribution to wartime medicine during the American Civil War and the formation of Red Cross Societies, Braidwood began his most compelling arguments for the inclusion of purpose-built hospital ships as part of the Royal Navy. "The hospital ship," he wrote, "is to be regarded as an integral part of the fleet of war. It ought never to be wanting, and should accompany the fleet as the ambulance or field hospital the army. As long as hospital ships and rafts are wanting the NMS will be incomplete." While Braidwood's plans to implement what he aptly called the Naval Ambulance Association (NAA) were certainly ambitious, it is important to remember that he published this paper before the Hague and Geneva Conventions and, therefore, cannot take into consideration those protections and restrictions

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<sup>4</sup> Braidwood, "Hospital Ships," 914-915.

that international law would ultimately afford military hospital ships. As a result, Braidwood's suggestion that the large, open-air upper deck of the ship could be "utilized for transporting infantry troops" would have ultimately violated international law.

Braidwood also understood that some might question why the Royal Navy would suspend their conversion approach in favor of purpose-built hospital ships. He merely reminded them that "such vessels are very costly in their conversion from one line of work into another, and they cannot be as efficient as hospital ships arranged *ab initio* [from the beginning] and built for the purpose." Finally, Braidwood further cemented his idea by pointing to the "well known and generally acknowledged" fact among medical professionals that "patients recover better when treated in a house specially arranged and built for the purpose. This holds equally true for the treatment of sick and wounded at sea. A passenger steamer converted into a hospital ship can *never* be equally efficient with a vessel arranged and built for this special purpose."<sup>5</sup>

Having outlined his case for the inclusion of purpose-built hospital ships in the NMS, what were Braidwood's specific ideas for the layout and construction of these vessels? In what ways were they to differ from their prototypical forerunners, such as the *Mauritius* and *Melbourne*, which appeared during Britain's mid-nineteenth century wars? The first, and arguably the most critical, difference between Braidwood's more modern floating hospital and those of the 1860s was capacity. While *Melbourne* was capable of housing 120 patients and 20 crew members, Braidwood's proposed ship would afford accommodation for "250 sick and wounded and [carry] sufficient stores to build and equip a temporary shore hospital." Next, the scale of Braidwood's ships would be considerably more significant than

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<sup>5</sup> Braidwood, "Hospital Ships," 915, emphasis in original text.

that of its predecessors. Weighing 2000 tons each, *Mauritius* and *Melbourne* were indeed large vessels.

On the other hand, Braidwood's proposal called for ships that were 325 feet long, 50 feet wide, and had a depth of 25 feet. Each ship's total tonnage would equal approximately 3,722. Based on these figures, Braidwood intended Great Britain's twentieth-century hospital ships to be near twice the size of their earlier adaptations. Even so, he assured readers that his proposed vessel would be "of light draught and would be able to ascend most rivers, so that if war were raging at a seaboard or near a large river or lake one of the steamers could sail up to a spot nearest the seat of battle and receive any sick and wounded, whilst it could also convey the necessaries for erecting on shore a hospital to accommodate 300 patients." Here, yet again, Braidwood demonstrated why he believed purpose-built hospital ships were the obvious alternative to converted passenger steamers.<sup>6</sup>

While the scale of Braidwood's proposed hospital ships was certainly grander than those previous vessels, there were also important similarities and differences in the interior and exterior layout. Among the differences, perhaps most important was Braidwood's recommendation concerning the layout of the wards. Unlike older hospital ships, such as HMS *Victor Emanuel*, Braidwood's design called for several patients to "be treated in one compartment and watched over by a nurse or nurses who, from living next to this compartment or ward, have a constant oversight of its inmates." This was a recommendation that may not have been possible while operating under the conversion doctrine as the interior layout of passenger cruise liners did not lend themselves to the creation of large, undivided wards. Furthermore, many who proposed specialized medical vessels after the turn of the

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<sup>6</sup> Braidwood, "Hospital Ships," 915.

century cited a similar issue while making a case against treating battlefield casualties aboard warships. With purpose-built hospital ships, however, the NMS could easily care for large numbers of casualties in a single, specially dedicated area.<sup>7</sup>

Although Dr. Braidwood suggested substantial differences in the layout of hospital ship wards, several of his propositions mirrored those found on earlier ships like *Melbourne* and *Mauritius*. First, the issues of ventilation and light aboard the ship remained matters of chief importance. To promote an ample amount of both, Braidwood recommended “continuous skylights arranged along the outside of the walls.” He noted, however, that the skylights would “contract the cubic space and make the wards on the deck above of a smaller size than they would otherwise be.” To keep light and ventilation from requiring the sacrifice of precious space in the wards, Braidwood pointed out that ventilation of the lower decks may also be provided for “by means of openings or windows in the vessel’s side which must necessarily be closed in bad weather.” Though like *Mauritius* and *Melbourne*, Braidwood recommended that skylights be placed at various points along the upper deck to allow natural light to enter the upper wards. He also states that two ventilation shafts may be added to pull fresh air from the top deck into the lower wards that most require it.<sup>8</sup> Another feature which remains constant between Braidwood's plans and British hospital ships from the mid-nineteenth century is the cranes, needed to pluck casualties from a smaller transport vessel

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<sup>7</sup> HMS *Victor Emanuel* served as a British hospital ship in China from 1873 to 1899. Before being converted to a hospital ship, she participated as a ship of the line in the Anglo-Ashanti wars which spanned a majority of the nineteenth century. For a first-hand account of *Victor Emanuel* and her actions as a hospital ship, see “Report of the Sanitary Commission on H.M.S *Victor Emanuel* and her Invalids,” *The Lancet* 103, no. 2642 (April 18, 1874): 550-551, [https://doi.org/10.1016/S0140-6736\(02\)45258-0](https://doi.org/10.1016/S0140-6736(02)45258-0).

<sup>8</sup> Braidwood, “Hospital Ships,” 916.

and lower them down through the ship and into their designated ward. Although on these more modern ships, the lifts would be steam powered.<sup>9</sup>

Finally, Braidwood turned his attention to the medical staff required for his proposed vessels and suggested that above all else, the comfort of patients should be of paramount concern. Regarding comfort, he recognized that “Whilst very great advance has been made during recent years, especially since the Crimean campaign and the civil war in America, in the treatment of wounds and accidents among our shore population and in the proper conveyance of such wounded persons to hospital, very little attention has been given to the comfort of patients treated ‘on board ship.’” To serve this purpose, Braidwood recommended the presence of “an efficient naval *medical* service, but also that of an equally efficient naval *nursing* service,” comprised of nurses and medical men, educated in their “special work” and who “devote their entire energies” to completing it.<sup>10</sup>

While Dr. Braidwood's recommendations concerning the layout, design, and crew of his hospital ships were undoubtedly essential points of his argument to note, perhaps his most significant point was the cost difference between the conversion method and the building of hospital ships from the keel up. It is clear from an 1884 edition the *Journal of the Hospitals Association* that Braidwood had made an early attempt to discern the difference in price between the two approaches. In the article, simply titled “Hospital Ships,” Braidwood outlined his conclusion that constructing purpose-built hospital ships would place less stress on the nation’s purse than the present conversion system. In a fiery criticism of Britain’s military spending, he asserted that “If a Government is allowed to expend a quarter-of-a-

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<sup>9</sup> Braidwood, “Hospital Ships,” 918.

<sup>10</sup> Braidwood, “Hospital Ships,” 918; Comfort of patients aboard hospital ships appears to have been an important consideration in the years leading up to the First World War.

million of pounds on the building and equipment of destructive vessels like *Agamemnon* and *Ajax*, it will not be blamed, but rather commended, for spending £60,000 or £80,000 in the construction of a hospital ship.”

More than a decade later, in January 1897, Dr. Braidwood, still seeking to convince naval planners to adopt his design for hospital ships, echoed this sentiment in a short article published in *The British Medical Journal*. In it, he alluded to the fact that cost had been presented as the most significant argument against his purpose-built hospital vessels and wrote that "if it be justifiable to spend millions on life destroyers, money should not be wanting for a naval ambulance association." This time, however, Braidwood took his argument one step further. Having surely observed the United States' massive naval expansion that took place during the final two decades of the nineteenth century, Braidwood remarked: "Surely we are not going to let the United States Government be the first to add ambulance ships to its navy." From this remark, it is clear that some early advocates of British hospital ships saw them not only as critical components in the evacuation of battlefield casualties, but also realized their potential contribution to Great Britain's naval, and therefore, world power.<sup>11</sup>

As ardently as he may have tried, the historical record does not suggest that military leaders ever fully adopted Dr. Braidwood's recommendation for purpose-built hospital ships. In fact, the conversion of passenger steamships and obsolete troopships continued through the opening years of the new century, and on both sides of the Atlantic, well into the following decades. *The British Medical Journal* provided a detailed description of one such vessel, the *Nubia*, in an article published in June 1900. Like the ships which Dr. Braidwood

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<sup>11</sup> P. Murray Braidwood, "An Ocean Ambulance," *The British Medical Journal* 1, no.1883 (Jan. 30, 1897): 303.

strongly opposed in his writing, *Nubia* began its life as a passenger liner for P&O Cruises before serving as a troopship on the Indian Service. At 6,000 tons, this massive vessel was ultimately refitted for service as a hospital ship during the Second Boer War in South Africa. As the article suggests, this ship was ideal for conversion based on her “unsurpassed height between decks, and natural ventilation by ports, supplemented by steam exhaustion.” Under the orders of the Naval Transport Department and the supervision of Commander Holland, *Nubia's* conversion took only ten days. In that time, its ten wards (including a ward and cabins for officers) housed hundreds of cots, hammocks, and beds that allowed for a total capacity of 478 persons (436 non-commissioned officers and 42 officers).<sup>12</sup> As the article points out, *Nubia's* capacity was “very nearly the accommodation of a general hospital at the base,” which held 500 beds. Unfortunately, however, the medical staff aboard *Nubia*, a majority of which were refugees from the Transvaal, quickly realized that the use of swinging hammocks in the convalescent ward was a mistake as it was “difficult to send the proper kind of cases for hammocks from the numerous hospitals up-country.” As a result, the convalescent wards were refitted with fixed cots thus lowering the total number of beds to 314; still 50 beds more than the wards proposed by Dr. Braidwood just a few years earlier.<sup>13</sup>

Evidence from *Nubia's* service record also refutes another of Braidwood's claims, namely that converted ships would not be as efficient at treating battlefield casualties when compared with his purpose-built vessels. During its service in the Second Boer War, *Nubia* “received wounded direct from the battlefields on several occasions—from Spion Kop, Potgieters, Pieters, and from the fighting into Ladysmith.” From January 5 to March 31,

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<sup>12</sup> “The Hospital Ship ‘*Nubia*,’” *The British Medical Journal* 1, no. 2059 (Jun. 16, 1900): 1495, <http://www.jstor.org/stable/20264882>.

<sup>13</sup> “The Hospital Ship ‘*Nubia*,’” 1495.



approximately 1,500 men passed through the ship. The article states that of these men, only “One officer and six or seven men died, chiefly from enteric fever and dysentery contracted in the field.” What is perhaps more impressive than this mortality rate, however, is that although a considerable number of men were “shattered by the hardships of the campaign,” and unable to return to the field, “large numbers of both sick and wounded passed up to the front again, having recovered rapidly.”<sup>14</sup>

These rapid recoveries were aided in part by *Nubia*’s cleanliness which “nothing could have exceeded” as well as the ship doctor’s masterful manipulation of the ship’s state-of-the-art x-ray apparatus. The article points out that with the x-ray machine, a technology which had only existed for a mere five years, “numerous bullets, pieces of shell, etc, [were] detected and removed.” Based on this piece of evidence, it would appear that Britain’s converted hospital ships in the early twentieth century had the potential to become reasonably proficient at collecting battlefield casualties and providing effective treatment that allowed the soldiers to return to the front. In fact, at the same time *Nubia* underwent its ten-day conversion, the British Admiralty Board converted four other vessels—*Lismore Castle*, *Acova*, *Orcana*, and *Dunera*—in the shipyards of South Africa.<sup>15</sup>

### ***Treatment Onboard Fighting Ships: Ninnis v. Clayton***

The year 1900 was a watershed moment for the development of military hospital ships. Following the Hague Convention of 1899, international law protected hospital ships, thus providing military and medical thinkers with a rough framework upon which they could more accurately mold their theories about these vessels. The intense effort on behalf of these

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<sup>14</sup> “The Hospital Ship ‘*Nubia*,’” 1496.

<sup>15</sup> “The Hospital Ship ‘*Nubia*,’” 1496.

minds yielded many clearly formulated approaches to the practice of converting passenger liners into hospital ships and their applications in the theater of war. Beginning in 1900, the hospital ships of the First and Second World Wars began to take shape.

Among the handful of prominent visionaries who took to Britain's medical journals to present their ideas for military hospital ships, perhaps none was more influential than Inspector-General Belgrave Ninnis. At the turn of the twentieth century, Dr. Ninnis was an elder statesman in the field of naval medicine. Born in London in 1837, Ninnis spent a large part of his career as a surgeon in the Royal Navy before retiring in 1897. In the course of his lengthy career, he also served as Staff-Surgeon aboard HMS *Discovery* during Captain Sir George Nares's British Arctic Expedition of 1876.<sup>16</sup> In his retirement years, however, Ninnis was an outspoken advocate of specially designated hospital ships which would allow for the treatment of battlefield casualties somewhere other than aboard a warship. In one of his publications on the subject, titled "Floating Hospitals," Ninnis outlined his beliefs about the need for separate hospital ships arguing that "the retention of the sick and wounded on board a modern fighting ship in wartime is not only undesirable for the sound and the wounded, the sick and the healthy but is likewise insanitary and depressing." Furthermore, he believed it impossible for the onboard surgeon to be able to perform his duty in the cramped environment of a fighting ship. Lacking natural light and fresh air, as well as being susceptible to enemy fire, Ninnis believed that fighting ships must be supplemented "by one or more vessels devoted entirely to the care and treatment of the sick. Ninnis made no distinction as to whether or not these ships should be converted or purpose-built."<sup>17</sup>

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<sup>16</sup> "Naval and Military Medical Services," *The British Medical Journal* 2 (September 11, 1897): 686, <https://doi.org/10.1136/bmj.2.1915.686-f>.

He followed his opening remarks by outlining three critical components of his proposed vessels:

In order that the greatest advantages should accrue to the sick and wounded, I consider it essential that 1.) These vessels should be floating hospitals, the treatment, and care of the sick and wounded being their sole and only use. 2.) That the arrangements should be such as to embody all the essentials of a small but perfectly equipped land hospital, suitable for both medical and surgical cases, infectious fevers expected. 3.) That the propelling power, whilst sufficient to enable the vessel to keep within signaling distance of the fleet to which it should be attached, should be so arranged as to leave ample space for the wards.<sup>18</sup>

Like his eighteenth-century predecessors, Ninnis seems to have been concerned with ventilation and separation of the sick aboard his ship. In several instances, he stresses his belief that “The wards should be absolutely without communication with one with the other, and that each should have direct independent air communication with the upper deck.” In addition, his recommendation on the placement of the ship’s engine reflects the opinion of Dr. Braidwood who believed that one way to achieve the utmost comfort for patients onboard a hospital ship was to place the engines “out of the way, as near as possible to the stern of the vessel.”<sup>19</sup>

Dr. Ninnis also made several innovative recommendations which ultimately helped shape the construction of British hospital ships at the beginning of World War I. First, he called for “beds or cots, swinging by short slings, but capable of being fixed by means of iron stays, metal stanchions head and foot supporting the whole.” He also insisted that “Operation wards should be on the upper deck and immediately adjoining a lift well, which should pass directly into the surgical ward. This lift should be of sufficient area to contain a mattress of

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<sup>17</sup> Belgrave Ninnis, “Floating Hospitals,” *The British Medical Journal* 2, no. 2121 (August 24, 1901), 456, <http://www.jstor.org/stable/20269296>.

<sup>18</sup> Ninnis, “Floating Hospitals,” 456.

<sup>19</sup> Braidwood, “Hospital Ships,” 916.

the same size as those in use in the ward and also by an attendant.” Moreover, in the wake of the Great War as the United States began work on its first purpose-built hospital ship, U.S.S. *Relief* (AH-1), it appears that Dr. Ninnis' writings may have influenced American shipbuilders. Indeed, a survey of the original architectural plans for *Relief* (AH-1), reveals large elevator shaft—one of four total—positioned immediately beside the entrance to the operating rooms which would allow for the convenient movement of casualties from the lower deck wards to the upper deck.<sup>20</sup> Lastly, Ninnis believed it was “most essential” that electricity be used to light the ship. As he noted, “the power required for producing this would be utilised for various other purposes, as is done in our larger passenger steamers.”<sup>21</sup>

While Belgrave Ninnis advocated for the inclusion of non-combative floating hospitals, converted or otherwise, in the fleet of the Royal Navy, some of his contemporaries believed that with the proper adjustments naval surgeons could offer sufficient medical treatment aboard fighting vessels. Immediately following Dr. Ninnis' article, five fellow surgeons posed questions for the retired Inspector-General. Of these five, two related directly to the treatment of casualties aboard warships. First, Surgeon-General Michael O'Dwyer expressed that he wished to hear Ninnis address “whether in a modern man-of-war, considering the demands of antiseptic surgery it was possible or fair to the wounded to attempt to treat [casualties] aboard.” Likewise, Fleet Surgeon G. Kirker pointed out that while the goal of hospital ships was to evacuate the wounded after action, “in all probability, the numbers would be so great that hospital ships would not be able to receive them all.” As a

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<sup>20</sup> “Plans for the Hospital Ship U.S.S. *Relief* (AH-1),” Ship Engineering Drawings, ca. 1940-ca. 1966; Records of the Bureau of Ships, 1940-1966, Record Group 19; National Archives Building, College Park, Maryland [hereafter referred to as NACP]

<sup>21</sup> Ninnis, “Floating Hospitals,” 457.

result, "some would have to be treated on board their own ships." Kirker believed that in order to accomplish this task, warships needed "some place to carry out this treatment with a reasonable chance of success."<sup>22</sup>

The historical record indicates that O'Dwyer and Kirker were not the only ones who questioned the necessity of specially designated hospital ships in the Royal Navy as outlined by Braidwood and Ninnis. After all, were sailors who were injured while fighting the enemy aboard a warship to be transferred to a hospital ship instead of receiving prompt treatment by medical staff on their own vessel? In an article written for the *British Medical Journal*, Surgeon F.H.A. Clayton expressed his belief that the treatment of casualties could take place aboard a fighting ship. He stated simply, "In naval warfare, all arrangements for the succor of the wounded must be subject to the condition that they do not in any way impair the efficiency of the ship as a fighting machine." Clayton argued that while treating the wounded aboard fighting ships is difficult "due principally to the occupation of nearly all the space below the armoured deck by magazines and engine rooms," these difficulties could be overcome with a handful of alterations. He also made it clear that the differences in size, armament, and construction of British warships make it "impossible to lay down rules universally applicable."<sup>23</sup>

Clayton admitted that providing treatment to the sick and wounded aboard a fighting ship comes with its own set of limitations. He pointed out that during an engagement, the naval surgeon will find himself in a vulnerable situation and "can merely take all possible

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<sup>22</sup> Ninnis, "Floating Hospitals," 457.

<sup>23</sup> F.H.A. Clayton, "The Disposal of Wounded in Naval Actions," *The British Medical Journal* 2, no. 2121 (Aug. 24, 1901): 454; see also, D. Walker Hewitt, "The Treatment Of Wounded in Naval Warfare," *The British Medical Journal* 2, no. 2799 (Aug. 22, 1914): 357-359.

measures to avert impending death from hæmorrhage, shock, or other causes, disinfect and dress wounds, remove foreign bodies, apply support to fractured limbs, give restoratives or morphine, or otherwise add to his patient's comfort." Besides, the caregiver must be aware of "The dust and concussion produced by the guns of his own ship," as well as "the possibility of the many paralysing accidents to which she is liable."<sup>24</sup>

To combat these dangers, Clayton suggested the addition of a number of dressing stations placed throughout the ship. This idea, he noted, was based on a system developed by the Japanese Imperial Navy. Conforming to the Japanese model, Dr. Clayton asserted that the dressing stations should be located as forward and aft in ship as possible, as opposed to concentrated in one area, in hopes of avoiding "the risk of such disaster as that in the *Hujei*, where one shell accounted for all of the medical staff." Furthermore, he outlined four necessary conditions of these warship dressing stations. First, "The removal of patients to [dressing stations] should not interfere with the working of guns or supply of ammunition." Second, "They should be protected from enemy fire." Next, "They should be accessible from those parts of the ship where men are most likely to get hurt." Finally, "They should be cool, clean, well-lighted, roomy, and lofty."<sup>25</sup>

Even if it were possible to create a handful of comfortable dressing stations to treat casualties aboard fighting ships, it would not be enough for those men who required more than simple dressings. For this, Dr. Clayton recommended the addition of an operating room and sick quarters. Conceding that "In a space of 400 feet by 75 by 30, crammed with engines and stores of all sorts, and inhabited by 800 men, a perfect operation theater cannot be

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<sup>24</sup> Clayton, "The Disposal of Wounded in Naval Actions," 455.

<sup>25</sup> Clayton, "The Disposal of Wounded in Naval Actions," 455.

expected," he suggested that, if possible, surgeons wait to perform their operations until after the action has ended. Mirroring the notions of many of his predecessors and contemporaries, Clayton argued that these improvised operating theaters should be "large, well ventilated and lighted, and not much in use during an engagement, such for instance as the captain's cabin, ward room, and sick bay could be stripped of their fittings and thoroughly cleansed following the completion of operations, the spaces would return to their original use."<sup>26</sup>

Based on these recommendations, one might think that hospital ships, which were explicitly designed to handle even the most advanced medical procedures, would be the clear choice when compared to Clayton's hastily assembled dressing stations and improvised operating rooms. In the closing sentences of the article, Clayton addressed the use of hospital ships but provided his readers with an important reminder: "The value of hospital ships to accompany fleets in time of war is so universally conceded that it seems unnecessary to do more than refer to it. It must, however, be remembered that on foreign stations most ships even then would have to rely upon their own resources."<sup>27</sup>

Each of these thinkers—Braidwood, Ninnis, and Clayton—were critical to shaping Britain's ideas about what a military hospital ship should be. After the Great War, their ideas migrated across the Atlantic and also played an essential role in the development of America's first hospital ships. Although there are variations between each of their visions, several common threads still appear. These threads must be understood in order to determine whether or not the British and American hospital ships that went into battle during the First and Second World Wars performed to the expectations of their visionaries. The first

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<sup>26</sup> Clayton, "The Disposal of Wounded in Naval Actions," 455-456.

<sup>27</sup> Clayton, "The Disposal of Wounded in Naval Actions," 456.

commonality that weaves its way through each figure's writings is the belief that hospital ships were necessary to a nation's fleet. Another common feature was that these floating treatment facilities (whether they be on specially designated hospital ships or aboard fighting ships) should be well-lit, well ventilated, and above all else clean.

Hospital ships should strive to provide the utmost comfort for patients while also attending to as many casualties as possible. Each of these men placed their trust in the international laws which were put in place to protect hospital ships. In their minds, the Red Cross insignia and the articles of The Hague and Geneva Conventions would provide ample protection against any predatory actions on the part of an enemy combatant. The wars of the early twentieth century, however, differed vastly from those fought before. On the battlefields of the First and Second World Wars, even the floating bastions known as hospital ships were not exempt from the wrath of combat.

### **British Hospital Ships during the First World War: The Gallipoli Campaign, 1915-1916**

#### *Failure of Command*

“The country is broken,” leader of the Allied Mediterranean Expeditionary Force (MEF), General Sir Ian Hamilton, wrote from the eastern Mediterranean theater in the fall of 1915:

Mountainous, arid, and void of supplies; the water found in the areas occupied by our forces is quite inadequate for their needs: the only practicable beaches are small, cramped breaks in impracticable lines of cliffs; with the wind in certain quarters no sort of landing is possible; the wastage, by bombardment and wreckage, of lighters and small craft, has led to crisis after crisis in our carrying capacity, whilst over every single beach plays fitfully throughout each day a devastating shell fire at medium ranges.<sup>28</sup>

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<sup>28</sup> General Sir Ian Hamilton, “Operations in the Dardanelles: The Difficulties of the Medical Service,” *The British Medical Journal* 2, no. 2856 (Sep. 25, 1915): 482-483.



This passage, from a dispatch outlining the difficulties that the British medical services (including the Dominions of Australia and New Zealand) faced at Gallipoli, illustrates the hell that Allied forces had to endure throughout the campaign. In another way, it unknowingly outlines some of the factors, namely inadequate preparation and harsh environmental conditions, which forced Britain's hospital ships to play a vital role in the eastern theater. This short description sets the stage for analyzing their performance during World War I.

When assessing the performance of British hospital ships during the First World War, it may seem insufficient to focus one's entire attention on a single campaign which took place relatively early in the conflict. However, the Gallipoli campaign, which lasted for more than ten months between February 1915 and January of 1916, offers a useful window through which to gain an understanding of the roles and performance of Britain's hospital ships during the Great War. For one thing, in contrast with the Western Front in Europe, where most hospital ships were tasked with ferrying casualties the short distance across the English Channel, the Middle Eastern theater required a much longer and often more arduous evacuation route. British evacuees from the Dardanelles, who were expected to recover within a matter of weeks, faced a challenging four-hour journey to the Allied base hospital on the Greek island of Lemnos. Those with more severe injuries were forced to endure an agonizing three and a half day trip to the Egyptian port city of Alexandria, or six days to Malta. Casualties bound for England would have to remain aboard the hospital ship for more than a week.<sup>29</sup> Furthermore, notoriously poor pre-campaign planning on the part of MEF and

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<sup>29</sup> Hallett, *Veiled Warriors*, 140-141.

embarrassingly inaccurate casualty projections meant that Allied medical services were woefully unprepared to treat the massive number of casualties that fell from Turkish bullets as well as those who succumbed to sickness and disease in the network of unsanitary and insect-ridden trenches.

Additionally, the physical environment of the Dardanelles and Gallipoli Peninsula required more significant numbers of ocean-going treatment facilities. Considering the role of the environment, both at Gallipoli and in the upcoming discussion of the Pacific theater during the Second World War will allow for a greater understanding of the importance of Anglo-American hospital ships in early twentieth-century combat.<sup>30</sup> With a jagged coastline characterized by small, rocky beaches and eclipsed by soaring cliff faces, Britain's medical services found it nearly impossible to establish viable treatment facilities on the land. Therefore, the only alternative was to implement an evacuation system which allowed casualties to be removed from the beachheads aboard small, flat bottom boats known as "lighters," and transported to the hospital ships that sat anchored off the coast. While the journey from the beach to the hospital ships was short, it was often extremely perilous. During the winter months, the rough waters of the Aegean Sea made it difficult to transport the wounded. Compounded with these environmental hazards, Turkish artillery and small arms fire often rained down on the small vessels as they fought against the swells to make their way to the ships. Even the hospital ships themselves were not immune from the occasional artillery shell.

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<sup>30</sup> For more on the geography of the Gallipoli peninsula, see Peter Doyle and Matthew R. Bennett, "Military Geography: The Influence of Terrain in the Outcome of the Gallipoli Campaign, 1915," *The Geographical Journal* 165, no. 1 (March 1999): 12-36.

Based on the fact that fighting in the Dardanelles necessitated such a large force of hospital ships to supplement the difficulties of the land-based medical services, the Gallipoli Campaign of 1915-1916 represents the “high water mark” in the use of Britain’s hospital ships during World War I. In the many decades since 1916, historians have produced a rather robust body of literature addressing the performance of Allied forces at Gallipoli. Therefore, the goal here is not to “refight” the campaign. The Gallipoli campaign represents the greatest test of British hospital ships during the First World War. During the fighting, these vessels did more than live up to the expectations of their early theorizers, like Ninnis and Braidwood. By the time the grossly mismanaged battle ended with an Allied evacuation in 1916, the hospital ships were the only component of Britain’s entire medical service that made a positive impact on the conflict.<sup>31</sup>

In 1914, Winston Churchill, then First Lord of the Admiralty, devised the Gallipoli campaign as an attempt to break the deadlock on the Western Front. The plan called upon the Royal Navy’s fleet of warships to steam up the Dardanelle Straits, which connect the Aegean Sea with the Sea of Marmara, and capture Constantinople. This would, in turn, open the Eastern Front to Allied troops and relieve pressure on Russia while also strangling the supply line that ran to the Central Powers. Moreover, many in the Admiralty hoped that successful execution of the plan would crush the will of the Ottomans to continue fighting on the side of the Central Powers. While this plan was undoubtedly ambitious and had the potential to drastically alter the course of the war’s final years, as historian Christine Hallett points out,

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<sup>31</sup> For more on the history of the Gallipoli Campaign and Allied performance during the fighting, see Peter Hart, *Gallipoli* (New York: Oxford University Press, 2014); Tim Travers, *Gallipoli, 1915* (Stroud, UK: The History Press, 2009); Patrick Garipey, *Garden of Hell: Battles of the Gallipoli Campaign* (Lincoln, NE: Potomac Books, 2014); and Philip Haythornthwaite, *Gallipoli 1915: Frontal Assault on Turkey* (Oxford, UK: Osprey Publishing, 1991).

the campaign in the Dardanelles turned out to be just one more of the Allies' "costly, destructive—and ultimately worthless" attempts at achieving a breakthrough in the east. After the initial naval attack failed to break the Turkish defenses, the Allies conducted a series of amphibious landings in April and then again in August of 1915, hoping to defeat the Ottoman forces on the ground (Figure 2.1). Following a complete failure of command by General Sir Ian Hamilton, which ultimately resulted in his removal, Allied troops evacuated the peninsula during the winter of 1916. Throughout the ten months of fighting, British forces, as well as those of her dominions in Australia and New Zealand, sustained approximately 250,000 casualties.<sup>32</sup>

In recent histories of the campaign, the primary point of criticism has been the pre-campaign planning that took place at Allied headquarters on Lemnos. Of the many blunders committed by the MEF, the failure to create an accurate casualty projection, and therefore failure to provide adequate resources for medical treatment was perhaps the most egregious. In his writings on the Gallipoli campaign, Mark Harrison, a historian of Britain's combat

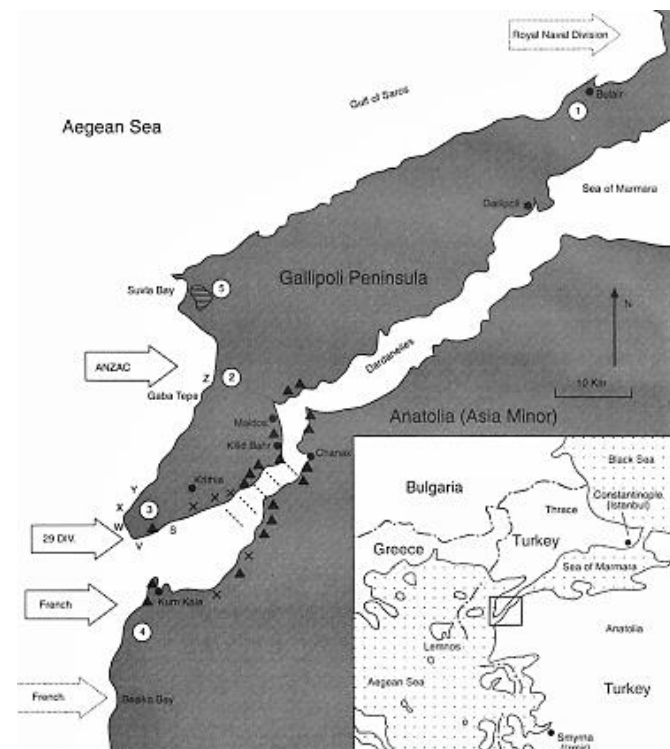


Figure 2.1 Map of Gallipoli and Dardanelles, showing landing options for the 1915 Campaign as well as the main landings and feints made on April 25, 1915. Source: Peter Doyle and Matthew R. Bennett, "Military Geography: The Influence of Terrain in the Outcome of the Gallipoli Campaign, 1915," *The Geographical Journal* 165, no. 1 (March 1999): 15.

<sup>32</sup> Hallett, *Veiled Warriors*, 127.

medicine during the First World War, remarked that “On the Western Front the medical services reached a level of efficiency and sophistication unprecedented in British military history, but in other theaters of the war their performance was, to say the least, mixed.” The other theaters to which Harrison refers are Salonika, East Africa, and Gallipoli. He argues that the performance of the medical staff in these areas “produced medical catastrophes reminiscent of those in South Africa and the Crimea.” In preparation for the Gallipoli campaign, Hamilton and his officers worked to create casualty projections for the attack. Simply defined, casualty projections are attempts by military planners to project how many casualties (killed and wounded) their forces will sustain during a given military action. They consider many factors including geography as well as the offensive and defensive capabilities of the enemy. In the case of the Gallipoli campaign, a number of drastically underestimated projections appeared before the battle. This, in turn, meant that Allied forces did not see the need to have large numbers of hospital ships or other medical treatment facilities readily available for the fighting. It was only after the conflict escalated that General Sir Ian Hamilton recognized the need for an increased number of hospital ships.<sup>33</sup>

The failure of command that occurred concerning medical arrangements for Gallipoli resulted in part from illness as well as from infighting and personal politics between the leaders of the MEF. During the planning phase of the first amphibious landing, the senior ranking Medical Officer (MO) was Commander of Britain’s Defence Medical Services’ (DMS) Surgeon-General W.G. Birrell. Upon arrival in the Mediterranean, Birrell became sick and was forced to remain on base in Egypt while Hamilton and Lieutenant-Colonel Alfred Keble, Birrell’s assistant, continued to Allied headquarters on the island of Lemnos.

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<sup>33</sup> Harrison, *The Medical War*, 176-177.

Acting in Birrell's stead, the comparatively inexperienced Keble was responsible for producing accurate casualty projections for the planned assault. Keble's lack of experience worried his superiors, and upon arrival at Lemnos, he was not provided with adequate information to execute his duty. In fact, according to his statement before the Dardanelles Commission, he did not have a lighter to go between ships, nor was he able to go ashore.<sup>34</sup>

Furthermore, while he made numerous attempts to contact General Hamilton regarding the offensive, the commander never responded. After more than a week in what amounted to solitary confinement aboard his ship, a staff officer informed Keble that HQ had completed the casualty projections without him, and had already made what they believed were appropriate medical arrangements. In total, Hamilton and his staff projected that the amphibious assault on the unforgiving beaches of Gallipoli would result in a combined loss of 3000 soldiers both for Britain and the forces of the Australian and New Zealand Army Corps (ANZAC). In order to treat these men, they made arrangements for three hospital ships to anchor off the coast. At the time, they could not have possibly recognized the gravity of their miscalculations. By nightfall on April 25, the opening day of the assault, the 29<sup>th</sup> Division of the British Army alone experienced a loss of more than 3,000 casualties.<sup>35</sup>

Faced with mounting casualties, HQ hastily revised their arrangements to include a number of troop transports, or "black ships," to arrive in the eastern Mediterranean and assist in evacuation efforts. However, as the official history of Britain's medical services at Gallipoli notes, these transports were only equipped to handle 7,500 "lightly wounded" casualties. Moreover, first-hand accounts given to the Dardanelles Commission after the

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<sup>34</sup> Harrison, *The Medical War*, 176.

<sup>35</sup> Harrison, *The Medical War*, 174-175.

campaign reveal that these troop transports were vastly different than designated hospital ships. According to Colonel C.M. Begg's statement, regarding the transport ship *Seang Choon*, the vessel was "totally unsuitable for carrying seriously-wounded cases. She was a very old ship and should have had a thorough overhaul even before she could be made suitable for the accommodation of lightly wounded. The ship's hospital had 31 beds, but most of the wounded were put 'tween decks...chiefly on and under tables... With 700 cases aboard, the ship was grossly over crowded; there was no operating room available, and the staff of 20 orderlies was utterly inadequate. It is clear from his statement that Col. Begg would have preferred to be placed on a hospital ship which was better suited for its task of treating casualties. Also, wounded soldiers tended not to feel safe aboard the "black ships." As historian Mark Harrison notes, "Once on board the transports, the wounded feared that they would be liable to attack from submarines, since the hastily improvised vessels were neither painted nor registered as hospital ships."<sup>36</sup>

The problem of safety and overcrowding, however, was not exclusive to the makeshift medical transports. A number of accounts from soldiers, and more often nurses, reveal that hospital ships themselves experienced high levels of overcrowding which ultimately impacted their ability to provide useful medical treatment. In Signaler Ellis Silas' post-war memoir, he recalled his experience aboard the British hospital ship *Galeka*: "This is not a proper hospital ship, there is only accommodation for 150 wounded – we have on board some 500 or 600, many very terrible cases and the filth is awful." Likewise, on August 9, one of Britain's hospital ships, HMHS *Assaye*, took on more than 800 wounded men for evacuation from Cape Helles, even though there were only six nurses on board. One of the

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<sup>36</sup> Harrison, *The Medical War*, 180. Soldiers referred to troop transports as "black ships" due to their colors which contrasted with the bright white paint of the protected hospital ships.

nurses, Eveline Vickers-Foote, recalled the difficulty of receiving casualties while under constant fire from Turkish artillery and stated that “I do really think the Turks could have hit us if they liked, but it seemed as if they wanted us to behave as a Hospital Ship.”<sup>37</sup>

While reports like that of Vickers-Foote seem to indicate that the Ottomans did not respect the Red Cross markings of hospital ships, nor did they operate under the guidelines of international laws like the Geneva Conventions, other first-hand Allied accounts paint an entirely different picture of their Middle Eastern foes. In a letter home, soldier Basil Brooke explained that “The old Turk is a great gentleman. He never shoots at the hospital ships in the bay, or at the hospitals, very different from our friend the Bosch.”<sup>38</sup>

In that same vein, historian Emory Massman explains that “One reason the Dardanelles operation went off so smoothly, as far as evacuating wounded to hospital ships was concerned, was because the Turks were remarkably clean fighters who never disregarded the Geneva Convention or hampered removal of the injured.” Here the historical record presents a bit of a dilemma. Did Turkish forces fire on hospital ships even though it was a violation of international law? The evidence suggests that German submarines often fired on hospital ships indiscriminately, a subject which will be discussed briefly at the end of this chapter, but conflicting reports involving the Turks are certainly less clear. To help clarify, it is necessary to sift through more first-hand accounts to determine the truth. Some of the most

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<sup>37</sup> Ellis Silas, *Crusading at ANZAC A.D. 1915* (London: British-Australasian, 1916), 82, <https://nla.gov.au/nla.obj-39180701/view?partId=nla.obj-39188719#page/n81/mode/1up>; Letter from Sister Eveline Vickers-Foote to family, 1915, quoted in Hallett, *Veiled Warriors*, 141.

<sup>38</sup> Letter from Basil Brooke to family, 1915, quoted in Martin Gilbert, *The First World War: A Complete History* (New York: Macmillan Press, 2004), 171; “Bosch” was a pejorative term used by Allied soldiers in reference to the Germans.



useful eyewitness accounts from aboard hospital ships in the Gallipoli Bay come from the nurses who treated the sick and wounded received from the peninsula.<sup>39</sup>

The nurses of Great Britain, and her Dominions, that served aboard hospital ships at Gallipoli were fundamental to the eventual success of evacuations relative to the initial gross mismanagement regarding Allied medical arrangements. As Christine Hallett posited, “Nurses on board hospital ships in Gallipoli Bay probably came closer to fighting than any other female participants in the First World War.”<sup>40</sup> This assertion is illustrated by the account of Sister Daisy Richmond who was nearly killed by a Turkish bullet on August 11. While receiving casualties from the peninsula, Richmond was “speaking to one boy,” and “moved away to another patient when a bullet hit him and lodged in his thigh.” As she recalled, “it just missed.”<sup>41</sup>

On the opening day of the battle, another Allied nurse wrote in her diary that it was “red letter day” as they sat at anchor off the coast of Gaba Tepe. At the same time, the nurse wrote that artillery shells were “bursting all around.”<sup>42</sup> And in one particularly revealing entry from August 1915, Sister M.E. Webster, working aboard the British hospital ship *Gloucester Castle*, recounted the beauty of the peninsula during the day, with deeply blue gullies and the sea and sky which “glow with wonderful tints.” At nighttime, however, this peaceful scene would change. As she described it: “as darkness falls, lights spring out up and

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<sup>39</sup> Massman, *Hospital Ships of World War II*, 22-23.

<sup>40</sup> Hallett, *Veiled Warriors*, 140.

<sup>41</sup> Diary excerpt of Sister Daisy Richmond, August 11, 1915, quoted in Cheryl Mongan and Richard Reid, *We Have Not Forgotten: Yass & Districts War, 1914-1918* (Milltown Research and Publications, 1997), 152.

<sup>42</sup> Red letter day refers to the opening day of the ANZAC invasion of Gallipoli. Sister Ella Tucker, “AANS, Hospital Ship *Gascon*, off Gallipoli, 25 April 1915,” quoted in Jan Bassett, *Guns and Brooches: Australian Army Nursing from the Boer War to the Gulf War* (New York: Oxford University Press, 1997), 44.

down the hill-side like busy fireflies. The insistent tapping of machine guns destroys the silence of the night and the sharp reports of the snipers...sometimes we find stray bullets embedded in the wood-work on board.” When one considers that the Geneva Convention required hospital ships to run fully illuminated at night, it becomes clear how this bright white vessel, without arms with which to defend itself, could become an inviting target for Ottoman marksmen. Indeed, nursing aboard a hospital ship during the heat of combat was a dangerous profession.<sup>43</sup>

For these nurses though, the fear of enemy fire was rivaled only by the horrors of war that they experienced below deck while treating the wounded. On April 25, 1915, following fierce fighting between the Ottoman forces of General Mustafa Kemal and Allied ANZAC soldiers, Sister Ella Tucker remembered how “The wounded from the landing commenced to come on board at 9 am and poured into the ship's wards from barges and boats. The majority still had on their field dressing, and a number of these were soaked through. Two orderlies cut off the patient's clothes and I started immediately with dressings. There were 76 patients in my ward, and I did not finish until 2 am.” In a subsequent entry from May, Sister Tucker’s words serve as a gruesome depiction of the nurse’s work: “Every night there are two or three deaths, sometimes five or six; it’s just awful flying from one ward into another ... each night is a nightmare, the patients’ faces all look so pale with the flickering ship’s lights.”<sup>44</sup>

Likewise, Sister Lydia King explained that she would “Never forget the awful feeling of hopelessness” that she often felt while performing her duty. Solely responsible for the care of

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<sup>43</sup> From M.E. Webster, *Notes on the Gallipoli Campaign to Dardanelles Commission, 1916*, quoted in Hallett, *Veiled Warriors*, 140.

<sup>44</sup> “Diary excerpt of Sister Ella Tucker, April 25, 1915” quoted in Marianne Barker, *Nightingales in the Mud: The Digger Sisters of Great War, 1914-1918* (Crow’s Nest, Australia: Allen and Uwin, 1989), 30.

more than 250 patients aboard the hospital ship *Sicilia*, many of whom had wounds too awful for her to describe, Sister King commented that “One loses sight of all the honour and glory [of battle] in the work that we are doing.”<sup>45</sup>

Soldiers also recorded their enemy’s approach to combat. In another account, which refutes the characterization of the Ottomans as clean fighters, Signaler Ellis Silas of the MEF recounts his journey from the beaches of Gallipoli to the relative safety of the hospital ship *S.S. Galeka*. Once he reached the on-shore casualty clearing station, which he describes as “a scene of well-ordered confusion,” where scores of wounded littered the narrow beach and waited for transport to a hospital ship, assuming they were not gunned down before they disembarked. As he pointed out, these evacuation operations could not be carried out “until well after sundown, for the enemy is sending a continuous rain of shells in this direction.” During the difficult and time-consuming process, Silas recalled how many soldiers were “gasping out their lives before they [could be] transferred to the boats.” Once cleared from the chaotic beach, the wounded were loaded onto the lighters and began their journey toward the distant hospital ships. Silas remembered how he and the rest of the wounded were “towed from ship to ship; always receiving the same reply, ‘Full up.’” Upon finding a ship with available space, the men, still in their lighter, were lifted aboard the ship using derricks which were originally designed to lower a passenger liner’s lifeboats into the water in the event of an emergency. In this case, the process was simply reversed. In his account, Silas expressed his thankfulness for the calm weather and smooth seas citing the account of a fellow soldier who mentioned that “during the choppy seas of the last few days the wounded suffered terribly when being put aboard the hospital ship.” Environmental forces were ever present

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<sup>45</sup> Diary excerpt of Sister Lydia King, 1915, quoted in Rupert Goodman, *Our War Nurses* (Queensland, Australia: Boolarong Press, 1988), 39.

during the battle and often impacted military action. Silas concluded his entry: "Even right out here an occasional shell comes buzzing through the air and drops close alongside - it would really be rough luck to get hit so far away from the firing line after having been in such thick scrimmages."<sup>46</sup>

Once aboard the hospital ships, however, some soldiers did not find the solace they so desperately sought. In a diary entry from April 28, a young midshipman named Robert Dickinson recounted the scene aboard one of Britain's hospital ships. "Her decks are a perfectly awful sight--hundreds of dying and wounded men lying about quite unattended. The very limited medical staff are quite unable to cope."<sup>47</sup> In another instance, Sergeant Charles Nicol wrote from another hospital ship that he had "stopped one," meaning he had caught a piece of flying shrapnel. In his case, it was more than just a piece, "One piece shattered my right wrist, another made a big flesh wound in my right shoulder, and another grazed my left shoulder," he wrote. Nicol also recounted how he was then taken to a hospital ship where they amputated his right hand and put 13 stitches into his right shoulder causing him to feel like "a bit of a wreck." However, Nicol did try to make light of his injuries when he wrote: "I think that the gentle enemy might have been content to smash my left hand, and thus save me the tedious job of learning to write with it."<sup>48</sup> In another account, a sergeant attached to the medical services and serving aboard a hospital ship recalled that after the first night of fighting, casualties began coming aboard around midnight. To his recollection, some

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<sup>46</sup> Silas, *Crusading at ANZAC*, 79-80.

<sup>47</sup> Joe Shute "Letters from Gallipoli: An Officer's Tale of Bloodshed and Defeat," *The Telegraph* April 25, 2015 (accessed December 3, 2018), <https://www.telegraph.co.uk/history/world-war-one/11561043/Letters-from-Gallipoli-an-officers-tale-of-bloodshed-and-defeat.html>.

<sup>48</sup> Letter from Sgt. Charles Nicol to family, May 3, 1915, quoted in David Hastings, "Letters from Hell: Gallipoli Heroes in Their Own Words," *The New Zealand Herald* April, 25, 2015 (accessed December 3, 2018), <http://anzac100.nzherald.co.nz/#Armistice>.

of the soldiers “had their legs off, other lads no arms or hands, some were without fingers or toes. A lot of poor fellows had terrible head wounds. Some had their ears blown off, and others their eyes shot out. Nearly all had to be operated on, and this was done by lamp light.”<sup>49</sup>

For other soldiers, hospital ships did seem to represent the bastion of safety and comfort that their original advocates intended them to be. On May 3, 1915, one Gallipoli veteran wrote to his family that he had “been wounded in the right shoulder,” but was “progressing finely.” According to his letter, which he penned while convalescing aboard an unnamed hospital ship, he and his comrades were “very comfortable here indeed. Nice soft beds and attendants that spoil you.”<sup>50</sup> Likewise, Royal Marine Harry Askin wrote of a pleasant experience he had aboard the hospital ship *Gascon* after being evacuated from Gallipoli: “I had my wound properly dressed and cleaned and then passed out. I hadn't even time to realize that I was on a soft, clean spring bed and that a real Englishwoman, young and nice, had dressed my wound. I went right away and must have slept at least twenty hours.” Indeed, for some men, Britain’s Great War hospital ships at Gallipoli met the intentions of early theorizers, like Braidwood and Ninnis, who believed that providing comfort, above all else, should be the vessel’s paramount goal.<sup>51</sup>

These accounts reveal that some soldiers experienced their time aboard hospital ships in the eastern Mediterranean in vastly different ways. While some men commented on the

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<sup>49</sup> Quoted in “Saving ANZACs- The Heroic Role of Medics at Gallipoli,” *Australian Medical Association*, May 5, 2015 (accessed December 3, 2018), <https://ama.com.au/ausmed/saving-anzacs-%E2%80%93-heroic-role-medics-gallipoli>.

<sup>50</sup> Letter from Bert Smythe to his family, May 3, 1915, *Smythe Family Index* (accessed December 3, 2018), [http://www.smythe.id.au/letters/15\\_15.htm](http://www.smythe.id.au/letters/15_15.htm).

<sup>51</sup> Jean Baker, *A Marine at Gallipoli and On the Western Front: First in, Last Out- The Diary of Harry Askin* (Barnsley, UK: Pen and Sword Publishing, 2015), 38-39.

inefficient and ill-supplied medical staff and others recoiled at the filth and extreme suffering they witnessed, others appreciated the simple comfort of a soft bed and a friendly face. In the end, the conditions aboard the hospital ships, no matter how horrid, were nothing compared to the environment that soldiers had to endure while on the peninsula. Harsh climate, unforgiving geography, and hordes of insects made life on “Cape Hell,” a term which many soldiers used to refer to Cape Helles, feel much too close to the fire and brimstone of the real thing.<sup>52</sup>

### *Hospital Ships and the Environment of the Gallipoli Peninsula*

The environment was one of the primary reasons that hospital ships played such an active role in removing casualties from the Gallipoli Peninsula. Unable to establish viable field hospitals on the coastline’s narrow beaches, which often fell under Turkish fire, hospital ships were the only option for handling the massive volume of sick and wounded soldiers who needed evacuation, unlike the Western Front where field hospitals and ambulance trains allowed for a handful of alternative removal methods. Moreover, as seasons changed and the unforgiving temperatures of the winter months transitioned into unrelenting heat during the summer months, soldiers came aboard hospital ships suffering from exposure and other climate-related illnesses. Coupled with the often harsh climate and lack of fresh water and food supplies, as well as abysmal sanitation on the part of British and ANZAC forces, meant that the spread of disease was rampant.<sup>53</sup> Neither were these diseases limited to just the

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<sup>52</sup> As the campaign wore on, many Allied soldiers began to refer to Cape Helles as “Cape Hell” because of the often hellacious fighting and living conditions that they experienced there.

<sup>53</sup> Regarding the intensity of the climate and the shortage of food supplies, John Hargrave, in his post-war memoir, recalled that many soldiers awaiting evacuation at Suvla Bay were “like skeletons, their ribs prominent and their faces black with sunburn.” In John Hargrave, *The Suvla Bay Landing* (London, 1964), 114.

fighting men. Some accounts reveal that once hospital ships took aboard men suffering from various maladies, the ailment spread to the nurses and orderlies, as well as to other soldiers who suffered only from superficial wounds. Considering the environmental components at play during the Gallipoli campaign will help provide a richer context in which to view Britain's Great War hospital ships.

The physical environment of the Gallipoli peninsula was vastly different from anything that Allied soldiers may have experienced on the Western Front or in other theaters of the war. The climate and vegetation on Gallipoli are typically Mediterranean. During the winter months, mean air temperatures fall between 44 and 48°F. The hot summers, however, are characterized by air temperatures often exceeding 80°F. While these temperatures may seem manageable, when coupled with strong winds in the winter and severe drought during the summer, they present a potential disaster to anyone who is unprepared for exposure to them. The vegetation in the area consists mostly of "low, dense, herbaceous and aromatic shrubs of garrigue type."<sup>54</sup>

The landscape of the Gallipoli peninsula is characterized by a series of elevations which Allied soldiers often had to scale while advancing on the Turkish forces. Some densely vegetated slopes feature extremely pronounced gullies and deep ravines as a result of seasonal rivers formed by heavy rain. Most of the peninsula's rivers are seasonal leaving many of the area's valleys dry for much of the year. This also meant that fresh water was challenging for Allied troops to acquire. As a result, men often suffered from dehydration

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<sup>54</sup> "Garrigue" describes a type of low-growing soft-leaved scrub that grows in the Mediterranean; Peter Doyle and Matthew R. Bennett, "Military Geography: The Influence of Terrain in the Outcome of the Gallipoli Campaign, 1915," *The Geographical Journal* 165, no. 1 (March 1999): 17.

which could become extremely dangerous when combined with common battlefield diseases like diarrhea and dysentery. In many cases, the combination proved fatal.<sup>55</sup>

From the opening actions of the campaign to its bitter end in the winter of 1916, the environment played a critical role. Even the initial series of Allied landings, which were scheduled to take place on April 23, 1915, had to be delayed for two days owing to poor weather conditions and rough seas. At the same time, the failure of leadership compounded these harsh environmental factors. General Hamilton and his staff, who had so irresponsibly mismanaged the pre-campaign medical arrangements, also failed to procure adequate preparatory reconnaissance concerning the physical layout of the peninsula. In fact, the leaders of the MEF gathered much of their information concerning geography and terrain from tourist guidebooks that they had purchased at shops in Alexandria.<sup>56</sup> As a result, they possessed minimal knowledge, if any, regarding geography, terrain, and fresh water supplies, and failed to achieve, much less exploit, any tactical advantages during the campaign (Fig 2).

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<sup>55</sup> Doyle and Bennett, "Military Geography," 18, 33.

<sup>56</sup> Doyle and Bennett, "Military Geography," 12.



To make matters worse, the various landing points selected by the MEF leaders were perhaps the most geographically disadvantageous points from which to begin an amphibious assault. While Suvla Bay, on the northern point of the peninsula, would have been the best choice for a landing due to its wide beaches and locally available supply of fresh water, MEF headquarters rejected the location as it was too far away from their objective on the Kilid Bahr Plateau. Instead, they

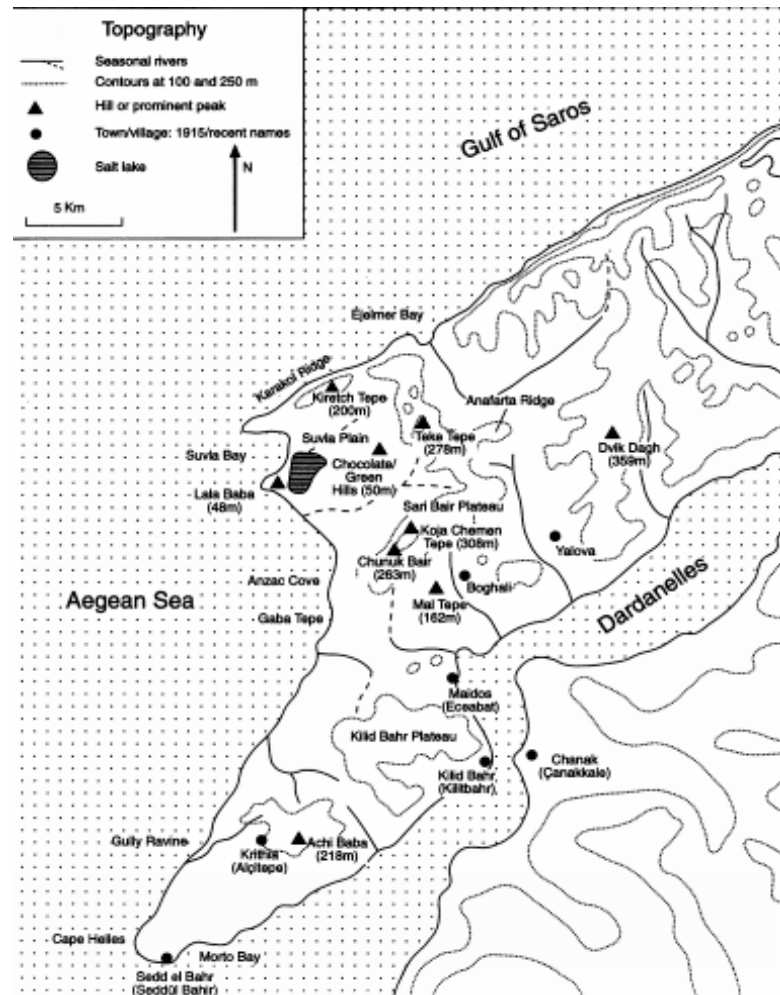


Figure 2.2 Topography of the Gallipoli Peninsula. Source: Peter Doyle and Matthew R. Bennett, "Military Geography: The Influence of Terrain in the Outcome of the Gallipoli Campaign, 1915," *The Geographical Journal* 165, no. 1 (March 1999): 20.

chose landing positions on the south-west point of the peninsula where the steep inclines rose almost immediately out of the sea. The most prominent of these perilous heights, Achi Baba, was the stronghold of the Ottoman defenses and quickly became the focal point of General

Hamilton's attack. Facing the impregnable Turkish defenses, Allied soldiers unsuccessfully attacked four times before abandoning their goal.<sup>57</sup>

References to the hellacious environment on the peninsula, as well as the repulsive conditions of the Allied trench network, appear time and again in the letters and memoirs of the soldiers who were there. In an October 1915 letter to a business associate, Captain Harold Cronin described the landscape of the Dardanelles: "The country is really quite pretty and just like the hills and valleys of South Wales, but there are no brooks or rivers. It rains hard for a month each year usually about this time and then there is no more until the next rainy season." He went on to explain that these looks were deceptive and that the country was not as healthy as it may have appeared. "There are millions and millions of flies here," he wrote, "and they are all over everything. Put a cup of tea down without a cover, and it is immediately covered with dead ones, they are all around your mouth and directly you open it to speak or to eat in they pop." Cronin also described the trenches which were "narrow and smelly and one is being potted at and shelled all the time." His letter also reveals a bit of information about hospital ships. As he explains, "All the hospital work is done on board a ship that stands in the bay. If the cases are serious or lengthy, they are transferred to one of the hospital ships that calls daily and then go to either one of the bases or back to England."<sup>58</sup>

Other accounts too referred to the wretched environment in which the soldiers were forced to live. Sergeant Major George Shipley of the 10<sup>th</sup> Middlesex Regiment noted that he and his men were "all parched with the heat and no water" due to poor planning on the part

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<sup>57</sup> For more on numerous failed assaults on Achi Baba, see T.H.E. Travers, "Command and Leadership Styles in the British Army: The 1915 Gallipoli Model," *Journal of Contemporary History* 29, no. 3 (July 1994): 403-442, <https://www.jstor.org/stable/260767>.

<sup>58</sup> Letter from Lieut. H.W. Cronin to Mr. Welsh, October 3, 1915, The National Archives of the UK [hereafter referred to as TNA]: Great Western Railway Company: Miscellaneous Books and Records, RAIL 253/516.

of MEF leaders.<sup>59</sup> For 31 year old Thomas H. Watts, life in the depressing trenches where “the dirt will persist in falling on your face when you are trying to sleep and when it rains you’re up to your knees in no time,” had him pining for “a rub at a bed and roof, also a drop of beer perchance.”<sup>60</sup> Watts also expressed his feelings that Mother Nature herself had trapped the Allied soldiers on the island leaving them no way out: “We have the sea on three sides and the Turks on the fourth, so we truly are between the devil and the deep sea.” For these men, environmental conditions on the island often represented another enemy with whom they were constantly at war.

At the same time, the land-based medical services were at the mercy of the natural world and had to adapt their work to meet those restrictions. In a letter on December 4, 1916, Sgt. A.L.G. Whyte recalled how providing medical care on the narrow beaches was a task to “make angels weep.” Furthermore, while working in a stationary hospital “pitched right on the sand of the sea-shore,” with total casualties often doubling its capacity, Whyte noted that the intense southwest winds on the peninsula meant that the medical tents were often subject to collapsing on top of their inhabitants.<sup>61</sup>

On the hospital ships, nurses also recorded their patients who suffered from exposure to the brutal environment. Commenting on one batch of casualties that she received while working onboard the British hospital ship *Braemar Castle*, Sister Jentie Paterson noted that she had taken on several patients who were filthy with mud and lice as well as “frostbites, awful ones.” The impact of intensely cold winter weather meant that some soldiers would

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<sup>59</sup> Letter from Sgt. Maj. George Shipley to Nic (Boyce), November 8, 1915, TNA: Great Western Railway Company, RAIL 253/516.

<sup>60</sup> Letter from Thomas Watts to Arthur, June 18, 1915, TNA: Great Western Railway Company, RAIL 253/516.

<sup>61</sup> Letter from Sgt. A.L.G. Whyte to Mr. Hope, December 4, 1915, quoted in Harrison, *The Medical War*, 194.

lose their hands or feet to frostbite. Frostbite, however, was only one of many maladies that Sister Paterson encountered. In the one group alone, there was “one Captain with Enteric [typhoid] bad. 3 bad malarial fevers, 2 bad feet frost bitten. 1 gunshot thigh. 1 nerves, complete wreck.”<sup>62</sup>

As Paterson’s account illustrates, in addition to frostbite and enemy bullets, disease presented another major concern to the Allied forces. Illnesses like dysentery and diarrhea decimated the population of fighting men. Throughout the campaign, approximately 110,000, or one third of the entire MEF, contracted disease and had to be evacuated from the peninsula. Of these, nearly 40,000 suffered from dysentery or diarrhea--referred to among the soldiers as “The Gallipoli Gallop.” During the warmer months, these diseases spread among the Allied forces like wildfire. In September 1915 alone, approximately 800 cases of dysentery were evacuated from the peninsula every day.<sup>63</sup> There were two factors which primarily contributed to the rapid spread of enteric infections from which most soldiers suffered: the lack of fresh water and the abundance of insects.

Without fresh water, soldiers often became dehydrated and were unable to clean their living spaces, their clothes, or themselves— leading to infections from lice. In an October 1915 letter to his mother, Capt. W. Brown explained that “All the water we got came from ships, and is pumped from tank lighters into canvas troughs, about a mile along the beach from us.” With a ration of only three pints per day, Brown lamented: “I never felt so uncomfortable in my life...The sensation of thirst is almost painful.”<sup>64</sup>

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<sup>62</sup> Diary excerpt of Sister Jentie Paterson, 1915, quoted in Hallett, *Veiled Warriors*, 144.

<sup>63</sup> Harrison, *The Medical War*, 195.

<sup>64</sup> Letter from Capt. W. Brown to mother, October 7, 1915, quoted in Harrison, *The Medical War*, 196.

Flies, as a result of partially or entirely unburied corpses, were also significant carriers of disease. In a memo that ultimately made its way to members of the British Parliament, Brigadier-General Sir A.H. Murdoch described the awful scene. “The flies are spreading dysentery at an alarming rate... We must be evacuating 1000 sick and wounded men every day,” he wrote. “When the autumn rains come and unbury our dead, now lying under a light soil in our trenches, sickness must increase. Even now the stench in many of our trenches is sickening.” As the only means of evacuation from the peninsula, hospital ships, their medical staff, and casualties already on board were continuously exposed to the threat of disease as new patients came aboard.<sup>65</sup>

Sister Charlotte La Gallais illustrated the extent to which Allied nurses found themselves exposed to disease. As she explained in her diary, hospital ships received casualties with the “mud, flies, and creepers” still clinging to their unwashed bodies and uniforms. Attempting to stop the spread of disease throughout the ship, nurses would bathe, feed, and hydrate the soldiers to the best of their abilities. For months La Gallais repeated the pattern of receiving, bathing, feeding, and hydrating the soldiers. Eventually, however, one of the microscopic enemies found its way on to her. After days of feeling ill, La Gallais discovered that she was suffering from “fleas and crawlers,” causing her to scratch at her skin until it was “nearly raw.”<sup>66</sup>

Regardless of the perils that they faced, the effort of nurses working on British hospital ships during the Gallipoli campaign saved the lives of countless sick and wounded. According to medical historian Christine Hallett, “It is highly likely that the work undertaken

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<sup>65</sup> Letter from Brig. Gen. Sir A.H. Murdoch, 1915, quoted in Hastings, “Letters from Hell,” <http://anzac100.nzherald.co.nz/#Hanging>.

<sup>66</sup> Diary excerpt from Sister Charlotte Lagallais, quoted in Hallett, *Veiled Warriors*, 145.

by the earliest nurses onboard hospital ships improved patients' chances of survival." For providing expert assistance to surgeons and offering basic nursing care to the wounded, these women, and the duties they performed, should be viewed with the same respect as the soldiers who assaulted the beaches of Cape Helles and engaged the Turks on the slopes of Achi Baba.<sup>67</sup>

The medical services at Gallipoli shows that hospital ships and their staffs were important to the outcome of the campaign. During the action in the Dardanelles, HMHS *Rewa* alone evacuated and treated more than 20,000 soldiers; carrying them back to England or distributing them at base hospitals in the Mediterranean. Likewise, on August 9, 1915, HMHS *Soudan* received nearly 1,500 patients from the peninsula. Hospital ships allowed the medical services to provide some semblance of effective treatment to casualties, in the face of extremely harsh environmental factors and gross mismanagement on the part of military leaders. Without their presence in combat operations, the military loss at Gallipoli may have turned into an all-out catastrophe for the British war effort.<sup>68</sup>

In all, 34 British hospital ships came to the rescue of Allied forces during the Gallipoli campaign, and in the vision of some of their earliest supporters, many of these vessels were converted passenger liners. The largest, and perhaps most notable of these conversions was HMHS *Britannic*. At 47,000 tons, with room for 4000 patients, she was an exact duplicate of her fellow White Star Liner, the ill-fated steamer RMS *Titanic*. As the evidence suggests, nurses on board the ships also sought to make their patients as comfortable as possible while providing lifesaving medical care aboard specially designated

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<sup>67</sup> Hallett, *Veiled Warriors*, 145.

<sup>68</sup> Massman, *Hospital Ships*, 22.

vessels. In terms of meeting the expectations outlined by their earliest advocates, the hospital ships at Gallipoli surpassed the expectations of Ninnis and Braidwood. Without the floating bastions in the bay, thousands more Allied bodies would still lie interred on the beaches and in the trenches beneath the towering heights of Gallipoli.

### **A False Security: German Attacks on British Hospital Ships during World War I**

As actions at Gallipoli demonstrated, British hospital ships served invaluable roles in the combat theaters of the First World War while never firing a shot. This did not mean, however, that hospital ships never found themselves on the receiving end of enemy weaponry. As a number of accounts in the previous section show, Turkish forces did, in fact, fire on Britain's medical vessels while they collected casualties off the coast of Gallipoli. These attacks, in part, foreshadowed one of the main defects of early twentieth century hospital ships which ultimately played a role in their declining use in combat following the Second World War—namely, the ink and paper armor afforded to hospital ships under international law. Laws such as the Geneva Conventions were not strong enough to protect hospital vessels against unscrupulous enemy combatants. While the Ottoman actions at Gallipoli clearly illustrate this point, so too do the German submarines which preyed upon British hospital ships throughout much of the war

This work began by recounting the German attack on HMHS *Llandoverly Castle* in June 1918. Unfortunately, the war crimes committed by Captain Helmut Brümmer-Patzig and his crew were not isolated incidents. In fact, on a return trip from England to Gallipoli, the aforementioned *Britannic* struck an enemy mine and sank to the bottom of the Aegean. Fortunately, there were no patients on board at the time and though 28 died, 1,100 passengers survived. As the war continued, so too did enemy violence against clearly marked hospital

ships. Eventually, the British decided to remove the distinctive Red Cross markings that emblazoned the hull of their hospital ships. Instead, they painted them ordinary combat colors and placed them inside their trans-Atlantic convoys. This decision drastically cut down on the German's predatory behavior, but not before a number of British hospital ships, their patients, and their crews met their fate at the hands of German torpedoes.<sup>69</sup>

During the course of the war, German submarines torpedoed eight clearly marked British hospital ships. In addition, four more vessels sustained considerable physical damage and loss of life when they struck German mines. Among these numerous cases, HMS *Llandoverly Castle* was certainly the most egregious and represented the largest loss of life aboard a hospital ship during the Great War. Apart from this instance, there are two other U-boat attacks that stand out as particularly costly—the torpedoing of HMHS *Lanfranc* and HMHS *Glenart Castle*.<sup>70</sup>

The German attack on the *Lanfranc* occurred on the evening of April 17, 1917 at around 8 p.m., while the ship worked to bring home wounded British veterans from the Western Front. As she approached the southern coast of England, a torpedo ripped through the vessel's port side. Unlike the sinking of the *Llandoverly Castle*, where the submarine had surfaced prior to attacking, survivors of the *Lanfranc* recalled that their first intimation of the attack came from the sudden violence of the explosion.<sup>71</sup> Unique from other hospital ships attacked by German submarines, however, the *Lanfranc* was carrying between 160 and 170 wounded German prisoners whom the British had captured while conducting operations on

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<sup>69</sup> Massman, 23.

<sup>70</sup> Unknown Author, *The War On Hospital Ships: With Narratives of Eye-Witnesses and British and German Diplomatic Correspondence* (London: T. Fisher Unwin, Ltd., 1918), 31.

<sup>71</sup> "Anxious Germans in The *Lanfranc*," *The Times*, April 23, 1917.



the Western Front. The U-boat attack on the *Lanfranc* claimed the lives of 34 individuals—19 British and 15 Germans. In addition, 152 German prisoners were plucked from the water by British patrol vessels that came to the rescue after *Lanfranc* sank. In *The Times*, journalists rebuked this “culmination of savagery” on the part of the German. In their eyes, attacking clearly marked hospital ships and claiming the lives of soldiers and women, as well as German prisoners, had “no justification in any conceivable distortion of international law, nor in the most brutal creed of necessity.”<sup>72</sup>

In the year following the attack of the *Lanfranc*, Germany continued its policy of unrestricted submarine warfare in earnest and on February 26, 1918, the German U-boat *UC-56* fired a torpedo into the hull of Great Britain’s hospital ship *Glenart Castle*. According to a nearby fisherman who witnessed the attack, the vessel took only eight minutes to disappear beneath the choppy surface of the sea. In that time, only seven lifeboats made it into the water with 32 survivors. In all 162 staff, nurses, and crew members lost their lives. Among the dead was a nurse named Kate Beaufoy who was a veteran of both the Second Boer War and the Gallipoli Campaign. In his sermon the following day, Bishop of London Arthur Winnington-Ingram lamented to his congregation, “We know now from what happened yesterday that there is no repentance for the most awful crimes of violence which have again been enacted... The cries of the drowning nurses will echo in our ears forever and will brand us as a nation of cowards if we ever cease to strive that such appalling wickedness may be impossible forever.”<sup>73</sup>

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<sup>72</sup> On this same day, a German submarine also attacked HMHS *Donegal* as she carried wounded English soldiers across the English Channel. This attack resulted in the loss of 29 British soldiers and 12 of the ship’s crew, “Hospital Ships Torpedoed,” *The Times*, April 23, 1917.

<sup>73</sup> “*Glenart Castle* Torpedoed,” *The Times*, March 1, 1918.

In its brutality, the sinking of *Glenart Castle* closely mirrored the ensuing torpedoing of *Llandoverly Castle* in June 1918. In the weeks that followed the *Glenart Castle* attack, ships in the Channel came across the lifeless bodies of a number of staff and crew members of the encounter with *UC-56*. On March 10, the body of a junior officer was found floating near the spot of the attack. According to *The New York Times*, the young man was “found to have two gunshot wounds, one in the neck and the other in the thigh. There was a lifebelt on the body.” This evidence seems to suggest that after the attack, the U-boat may have surfaced and attempted to cover up its crime by executing survivors. No other bodies were ever recovered.<sup>74</sup>

Following the end of the war in November 1918, the British Admiralty sought to hunt down and charge with war crimes those German U-boat captains who attacked clearly marked hospital ships. The British arrested Kapitänleutnant Wilhelm Kieseewetter following the armistice and placed him in the Tower of London. Unfortunately, however, the British government’s legal department held “that England had no right to detain Kieseewetter during the life of the armistice.” Until a peace agreement was reached, Kieseewetter could not be charged with his crimes. Ultimately, Kieseewetter, who was also suspected of torpedoing the British Channel steamer *Sussex* in March 1916, never faced trial for his crimes. During the Second World War, he resumed command of a U-boat at the age of 62.<sup>75</sup>

German attacks on defenseless British hospital ships which were protected by international law represented the first signs to military leaders on both sides of the Atlantic that twentieth-century wars were to be conducted in different ways than those of the past. In

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<sup>74</sup> “Evidence That Germans Fired On Hospital Ships Boats,” *The New York Times*, March 10, 1918.

<sup>75</sup> “Admiralty Stirred By German’s Release: Britain’s Legal Department Frees U-Boat Captain Who Sank Hospital Ship,” *The New York Times*, December 2, 1919.

these new wars, bullets, torpedoes, and landmines did not discriminate. The idea of protection under international law became watered down and to the Germans, unrestricted submarine warfare truly meant unrestricted. War in the new century would be hell, and as the First World War proved, the Red Cross markings were no longer enough to protect hospital ships from the hellfire that sought to engulf them from below and above.

### Chapter Three: American Hospital Ships in Global Combat, 1917-1945

#### *The Attack of Comfort*

Late in the evening on April 28, 1945, the USS *Comfort* (AH-6) was hard at work evacuating casualties from the island of Okinawa in the Pacific Ocean. By then, the vicious Battle of Okinawa, which pitted American ground forces against staunch Japanese defenders, had been raging for nearly a month and the numbers of American casualties were steadily rising. For *Comfort*, and her compliment of 300 Navy and 220 Army personnel including 38 Army nurses, the mission was simple—evacuate and treat as many American casualties as possible. Earlier that afternoon, *Comfort* did just that. With more than 600 patients filling her wards to capacity, the brightly illuminated hospital ship, fully clothed in the trappings of Geneva Convention protections, steamed hurriedly toward the Allied base hospital on the island of Guam.<sup>1</sup>

Several hours after dusk, on calm water and under the light of a full moon, *Comfort*'s crew heard the distant drone of an airplane engine coming in their direction. After several minutes, the plane came into view and began to circle the ship at an altitude of around 500 feet. After several passes across the bow and stern, the plane tilted its nose toward the ship. In a matter of seconds, fire engulfed the vessel's starboard side as crewmembers and nurses scrambled to save the lives of hundreds of patients as well as their own. This fire, however, was not caused by a mechanical failure on the part of the ship, nor was it the result of an accident in one of the ship's wards. The explosion that rocked *Comfort* on the evening of

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<sup>1</sup> Harold F. Fultz, "Forest Fires, Lightning, and the Moon," *U.S. Navy Medicine* 75, no. 4 (July-August 1984): 9-18.

April 28, claiming the lives of 29 people while injuring 33 others, was the result of a *kamikaze* attack by a Japanese pilot.<sup>2</sup>

Japanese *kamikaze* attacks sought to inflict as much damage as possible on an enemy vessel. In theory, the sacrificing of one Japanese life in exchange for hundreds, or possible thousands, of Allied lives seemed to make sense. In the case of the suicide attack on *Comfort*, the pilot could not have chosen a more damaging spot upon which to crash aboard. Slamming directly into the starboard side amidships, the pilot struck the vessel's superstructure as well as three operating rooms where surgeons, doctors, and nurses were operating on patients late into the night. The plane pierced the main and second decks and when the bomb on board the plane exploded it ripped a massive hole in the decks as well as the superstructure (Fig. 3.1). Thanks to quick action by her crew, as well as a bit of luck, *Comfort* survived the attack and was able to limp her way into Guam where she underwent repairs.<sup>3</sup>

The attack on *Comfort* sent shockwaves through the soldiers on board as well as through Americans on the home front. Waking up the morning after the attack, readers of *The Washington Post* were greeted by the headline: "Vessel Heavily Damaged: 29 Die as U.S. Hospital Ship is Bombed South of Okinawa." The column explained that "The *Comfort* was operating under full hospital ship procedure— fully marked with American Red Crosses plainly painted in large red blocks against her white background. She was fully lighted."<sup>4</sup> On the west coast, however, the rhetoric of the journalist Vern Haugland was much harsher. In

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<sup>2</sup> Dale P. Harper, *Too Close for Comfort* (Bloomington, IN: Trafford Publishing, 2006).

<sup>3</sup> "USS *Comfort*- War History," File Number 302078221, World War II War Diaries, Other Operational Records and Histories, ca. 1/1/1942- ca. 6/1/1946, Records of the Office of the Chief of Naval Operations, 1875-2006, Record Group 38, National Archives at College Park, MD [hereafter referred to as NACP].

<sup>4</sup> "Vessel Heavily Damaged: 29 Die as U.S. Hospital Ship is Bombed South of Okinawa," *The Washington Post* April 30, 1945 (accessed March 12, 2019), *Gale Primary Sources*.

his column for *The Los Angeles Times*, carrying the headline “Jap Suicide Plane Blasts Hospital Ship,” Haugland condemned the *kamikaze* attack as “one of the most dastardly actions of the war.” In this column too, the author went to great lengths to clarify that the hospital ship was operating within the confines of the Geneva Conventions: “There was no chance for any kind of mistake as the attack on the unarmed vessel was in bright, full moonlight. The ship was brightly lighted and had clear markings identifying her as a hospital ship.”<sup>5</sup>

For those who survived the attack, the shock was much more intense and immediate. Having escaped the fighting on the cavernous hills of Okinawa, wounded soldiers longed for the safety of a hospital ship where the stress and pressures of combat no longer existed—or so



Figure 3.1 Nurse surveying kamikaze damage aboard the hospital ship *Comfort (AH-6)* May 1945. Source: United States Navy, “Navy Hospitals on the Move,” *All Hands* (April, 1967), 22.

they thought. Even those who were left physically uninjured by the attack dealt with the psychological ramifications. In her account of the scene, Second Lieutenant Louise Campbell commented that “The hardest thing for the men to take was the fact that nurses had been killed, injured, and horribly burned. They kept talking about it and muttering threats against an enemy that would willfully do such a thing.”<sup>6</sup>

<sup>5</sup> Vern Haugland, “Jap Suicide Plane Blasts Hospital Ship: 29 Killed Aboard U.S.S. *Comfort* in Attack off Okinawa,” *The Los Angeles Times* April 30, 1945 (accessed March 12, 2019), *Gale Primary Sources*.

<sup>6</sup> Harper, *Too Close for Comfort*, 65.

The attack on *Comfort* was not an isolated incident. While *kamikaze* attacks on hospital ships were fairly rare occurrences during the war, as the tactic was only first introduced during the Battle of Leyte Gulf in October 1944, Japanese pilots were known to harass clearly marked hospital ships. In June 1945, while serving in Saipan, American soldier Ted Kiely wrote a racially charged letter to his mother condemning the actions of the Japanese. After sustaining an injury and being loaded onto a hospital ship, a process which took several hours thanks to continual delays caused by attacking enemy fighters, Kiely wrote, “I had hardly arrived [on board] when those goddamned Japs came back and started attacking the hospital ships too. They love to do things like that and yet there are some people back home who want to give them an ‘easy’ armistice. They ought to be exterminated and I hope I will see the day when they are.” Kiely then reported that the attackers were driven off after several hours “but not until one of them crashed into a hospital ship nearby.” Kiely’s letter not only sheds light on the racial undertones that characterized much of the Second World War in the Pacific, it also helps illustrate the vulnerability of the unarmed American hospital ships and helps to explain why military hospital ships experienced rapid change after the Second World War.<sup>7</sup>

Following the conclusion of fighting in the First World War, the United States military began its initial construction on what would, by the end of 1945, become a fleet of nearly 40 Army and Navy hospital ships. Making an appearance in every theater of combat

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<sup>7</sup> Letter from Ted Kiely to his mother, Mrs. Julia Kiely, New York, New York, from Saipan, June-July 1945. “World War II,” *The State Historical Society of Missouri Digital Archives*, <https://digital.shsmo.org/digital/collection/wwii/id/10773/rec/4>.

\*Not to be confused with USS *Comfort* (AH-6) which served in the Pacific Theater of the Second World War or with USNS *Comfort* (T-AH-20) that currently serves as one of two hospital ships in the United States Navy. For hospital ships, it is especially important to know the vessels hull classification symbol as a number of these vessels have shared identical names throughout history.

across the globe, these vessels played a critical role during the Second World War. This chapter will briefly examine the development of the American hospital ship program during the interwar period as well as its experience through the period of conflict. It will then assess the role of U.S. Army and Navy hospital ships during the fighting against the Japanese that occurred in the Pacific Theater. Examining the actions of American hospital ships in that theater will provide the most useful information needed to determine whether or not these vessels were important individual components in the larger combat operation. Like Britain's hospital ships in the Eastern Mediterranean Theater of the Great War, American medical vessels in the Pacific were under more stress than anywhere else throughout the conflict. Facing a tenacious enemy in harsh, tropical environments, where the resources of the medical services were often stretched to their breaking point, wounded American soldiers relied on floating medical vessels to supply them with protection from the Japanese as well as the medical attention that they so desperately needed.

The experience in the Pacific precipitated a number of changes in the American approach to hospital ships. As the war ground on, clearly marked Geneva Convention hospital ships, with their sparkling white hulls and hallmark red crosses, became targets for enemy combatants. At the same time, there were simply not enough hospital ships to evacuate the number of casualties that littered the beaches of Pacific islands like Okinawa, and Iwo Jima. In response, American medical services adapted the relationship between the battlefield and the Geneva hospital ships clad only in the ink and paper armor of international law. They found their solution in the conversion of smaller ships, known as LSTs (Landing Ship, Tank) into improvised surgical and first aid centers to supplement the struggling hospital ships. Furthermore, as military technology advanced through the Second World War



and into the 1950s and 60s, evacuation by airplanes and helicopters provided useful solutions to a number of tactical and logistical problems that the hospital ship of the early 1900s seemed to present.

### **The Development of United States Hospital Ship Program, 1917-1945**

During the First World War, the United States Navy maintained three hospital ships—USS *Comfort* (AH-3)\*, USS *Mercy* (AH-4), and USS *Solace* (AH-2). While *Solace* dated back to the Spanish American War, and was, according to one journalist, “utterly inadequate for the demands upon it,” the United States requisitioned two east coast liners early on in the war and converted the pair into *Comfort* and *Mercy*.<sup>8</sup> In 1917, after entering the war on the side of the Allies, the US planned to send *Comfort* and *Mercy* across the Atlantic in the early months of 1918. The threat of destruction posed by the indiscriminate torpedoes of German U-boats, however, caused the Americans to reconsider. As a result, the two newly converted hospital ships were kept safe in ports at Norfolk and New York where they each operated as a base hospital until October 5, 1918. On that date, the US Navy finally sent *Comfort* to aid in the evacuation of American soldiers from the Western Front in France. However, the German submarines still presented a considerable danger and thus the Americans required a bit of trickery in order to slip across the Atlantic unharmed. To do this, *Comfort* left the east coast as a troop transport with its brilliant white hull and signature Red Cross markings masked beneath a thick layer of grey paint. As an added layer of protection, she travelled as part of an Allied convoy which grouped together troop and merchant ships with a naval escort to protect against the threat of the predatory German U-boats. Upon her arrival in Brest, France, *Comfort* raised the Red Cross flag and once again became a hospital ship

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<sup>8</sup> “Army and Navy Gossip: Merchant Ships for Hospital Duty,” *The Washington Post* October 17, 1917 (accessed March 15, 2019), *ProQuest Historical Newspapers*

protected under international law. However, the warring parties were able to sign the Armistice of November 11, 1918 before *Comfort* left the European Theater which allowed her to carry wounded American soldiers back home without fear of being attacked.<sup>9</sup>

Following in the wake of the global disaster known as the Great War, the United States military had to make important decisions about what they would do with their small fleet of hospital ships now that peace had once again been restored. Naval historian Emory Massman notes that *Mercy* (AH-4) survived at least until the 1930s when she was tied up at the Port of Philadelphia and used to shelter homeless Americans during the Great Depression. As for *Comfort* (AH-3), her post-war story was a bit more complex. After the war, she returned to her previous life as a passenger-liner before resuming service in the Second World War as an Army transport ship (USAT *Agwileon*) in 1942. In August 1943, Atlantic Basin Iron Works in New York converted *Agwileon* back to her former set-up as a hospital ship. This time around, however, the former Navy hospital ship *Comfort* reemerged as the United States Army Hospital Ship (USAHS) *Shamrock*. Upon reentering the medical fight in World War II, *Shamrock* served in the Mediterranean Theater and was able to move 11,989 casualties from the battlefield back to the United States between September 1943 and mid-February 1944. She returned to the Mediterranean in early May 1944 and evacuated more than 6,000 additional patients before returning permanently to the United States in September of that same year. Although she was slated to undergo ventilation alterations before continuing her mission in the Pacific Theater, by the end of 1945, the need for hospital ships had greatly diminished and *Shamrock* was decommissioned before 1946.<sup>10</sup>

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<sup>9</sup> Massman, *Hospital Ships*, 23.

<sup>10</sup> Roland W. Charles, *Troopships of World War II* (Washington, D.C.: The Army Transportation Association, 1947), 349.

Finally, USS *Solace*, the seasoned veteran who had been the first American hospital ship to fly the Red Cross flag of the Geneva Convention in 1898, continued her service into the early 1920s and for a few years after the war was the only hospital ship across all of the world powers which remained active during peace time. Although *Solace* did not make the trans-Atlantic journey to a combat theater during World War I, she was still a critical part of the evacuation chain for American soldiers returning to the United States. On January 1, 1919, *Solace* steamed to New York to assist the USAT *Northern Pacific* which had run aground on Fire Island with a full-load of wounded veterans from France. *Solace*'s goal was to remove as many of the stranded casualties as possible and ferry them safely into New York. Upon her arrival, stormy weather and rough seas delayed the rescue effort by two days. On January 4, *Solace* took on 504 patients, even though her berthing capacity was only about 200, and safely carried them into the harbor. *The New York Times*, praised the rescue effort. The rescue of the *Northern Pacific* and her cargo of veterans from the Western Front represented the culmination of *Solace*'s military career which spanned more than two decades. Following her decommission on July 20, 1921, *Solace* sat at the Philadelphia Naval Yard until November 1930 when she was finally sold for scrap metal.<sup>11</sup>

As the Boston Metals Company of Baltimore, Maryland physically disassembled the hull of the USS *Solace* (AH-2), at the same time they symbolically dismantled the final remaining vestige of America's pre-twentieth century hospital ship program. During the decades between the First and Second World War, the United States hospital ship program experienced a sort of renaissance. Not only did the military work to construct its first

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<sup>11</sup> "Solace I (AH-2)," *Dictionary of American Naval Fighting Ships* [hereafter referred to as DANFS], Naval History and Heritage Command, <https://www.history.navy.mil/content/history/nhhc/research/histories/ship-histories/danfs/s/solace-i.html>; "Soldiers All Off *Northern Pacific* 247 Badly Injured Are Safely Transferred In Navy Litters on Hospital Ship *Solace*," *The New York Times*, January 5, 1919.

purpose-built hospital ship, USS *Relief* (AH-1), it also modified the ways in which it approached the need for Geneva-protected medical vessels. During the 1920s and 30s, the Army and Navy moved almost entirely away from allocating funds and other resources to the construction of hospital ships. As a result, when war came knocking in 1941, it was nearly 2 years before either the Army or the Navy was able to field a specially designated hospital ship.<sup>12</sup>

*The Red Cross Renaissance: Changes in America's Hospital Ship Program, 1917-1945*

The change in the American hospital ship program between the world wars began with the laying down of the second USS *Relief* (AH-1) at the Philadelphia Navy Yard on June 14, 1917.<sup>13</sup> For the first time in its history, the United States military allocated both time and resources toward the construction of a purpose-built hospital ship. Ultimately, it would become an important link between the First and Second World War as it served all around the globe from her commission on December 28, 1920 until it was sold for scrap on March 23, 1948. On its exterior, *Relief* was nearly indistinguishable from the hospital ships of World War I. In accordance with the Geneva Conventions, it wore gleaming white paint on her hull, which was cut in half by a thick green band to signify that it was operating as a military hospital ship, and carried Red Cross markings on its port and starboard sides as well as on its bridge and its single towering smoke stack. Inside, however, *Relief* was the most medically and technologically advanced hospital ship on the seas.<sup>14</sup>

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<sup>12</sup> Massman, *Hospital Ships*, 7.

<sup>13</sup> Not to be confused with the USS *Relief* which served during the Spanish-American War.

<sup>14</sup> Massman, *Hospital Ships*, 283-285.

In the August 1927 issue of *Popular Science Monthly*, sandwiched neatly between an article on the mental capacity of earthworms and a column arguing against the theory of evolution, sat a half-page blurb about the ultra-modern features one could find on board *Relief*. With a capacity for 550 patients, “A trip to the *Relief* now replaces a lengthy voyage to a land institution—and the vessel is said to be better equipped than many hospitals.” She boasted a 75-foot wide daylight operating room, a dental cabin, an x-ray room, and a fully-stocked dispensary with enough supplies for six months of service.<sup>15</sup> In addition, *Relief* boasted two passenger elevators as well as two freight elevators. The main elevator allowed access to all of the decks, from the medical store rooms in the ship’s hold all the way up to her superstructure and with a rated capacity of 3,500 pounds, the elevator was large enough to transport patients between decks. A secondary elevator connected the contagious wards with the main deck. This allowed soldiers with disease to be moved directly to the contagious ward with minimal chances of getting other soldiers sick. The third elevator ran from the main deck to cold food storage rooms, as well as the ship’s morgue. The fourth and final elevator was used for transporting baggage and ran between the main deck and the baggage room. Indeed, *Relief* was the closest thing to a land-based hospital on the sea that had ever been constructed. While the US military was taking its first steps toward developing its new hospital ship program with the construction and launch of USS *Relief* (AH-1), it was still to determine the roles of the Army and the Navy in the operation of these vessels. Would the branches have to co-operate in the movement of battlefield casualties away from the front lines? Answering this question took nearly a decade and was answered only at the expense of precious time and resources. Furthermore, resistance to change and inter-branch cooperation

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<sup>15</sup> “Modern Hospital Sails with U.S. Fleet,” *Popular Science Monthly* 111, no. 2 (August 1927): 35.

stunted the once promising development of hospital ships in the United States. By the dawn of the Second World War, such inconsistent planning and lack of inter-branch cooperation led to a serious shortage of Geneva-protected vessels as American casualties started to rise around the globe.<sup>16</sup>

During the peacetime of the 1920s and 30s, the military relied on its fleet of troopships to return sick or injured soldiers from various points around the world. With no wars actively raging, the army, by way of the Army Transport Service (ATS), accomplished this task relatively easily, relying only on the small medical wings found aboard every troop transport. At that moment, there was little need for a fleet of specialized and specifically designated floating hospitals. At the same time, the Navy was equally content to rely on their own troopships to transport sick and wounded sailors. In fact, they did not plan to operate *any* Geneva-protected hospital ships. The Navy most likely reached their decision based on the amount of time, money, and resources it took to build, or convert, specifically designated hospital ships. Following the 1941 attack on Pearl Harbor, the Navy channeled all of their spare funds toward rectifying the shortage in shipping caused by the destruction of the Japanese bombs.<sup>17</sup>

When America entered the war, however, it became painfully clear that the medical wards aboard troopships would be insufficient for dealing with the number of casualties that required evacuation from distant, foreign theaters. However, the American military brass were resistant to the idea Geneva hospital ships, whether converted or purpose-built, and

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<sup>16</sup> Massman, *Hospital Ships*, 284-285. Massman goes into extensive details concerning the ship's cost as well as its engines, and technical specifications.

<sup>17</sup> "World War II Hospital Ships," World War II U.S. Medical Research Centre, <https://www.med-dept.com/articles/ww2-hospital-ships/>.

continued using troopships to transport their wounded through the first year and a half of the war. Between the attack on Pearl Harbor and the first army hospital ships coming online in June 1943, “hospital ships” operated without the protections of the Geneva Convention. The polar opposite of their Geneva-protected counterparts, these ships were painted grey and ran unilluminated in order to blend in with the fleet of warships and hopefully avoid being attacked by the enemy. One can only speculate as to why leaders were so resistant to the introduction of clearly marked hospital ships. Perhaps the reason had to do with a lack of financial resources considering that the conversion process for each ship cost more than \$1 million. In May 1942, the Army requested authorization to use clearly marked and legally protected hospital ships to evacuate their casualties. In addition, they also requested that six unfinished hulls, which sat unfinished in American shipyards, be completed as hospital ships. The Joint Chiefs of Staff denied their request citing a scarcity of war ships and the inability to sacrifice additional hulls for service as hospital ships.<sup>18</sup>

Ultimately, however, the Army gained permission to convert a number of hulls into hospital ships, and when the first Geneva-protected medical vessels of World War II appeared in June 1943, it was primarily as a result of increasing action—as well as casualties—in distant theaters like the Pacific. Even though the task of converting a ship to serve as a floating hospital was costly, both in terms of time and money, and military planners were hesitant to divert their attention from the construction of warships and other battlefield technologies like tanks and airplanes, by the end of 1943 three converted hospital ships had entered the service. In the following year, fifteen more entered the field of battle, and in 1945, American shipyards churned out six more vessels for service. At the same time, it was

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<sup>18</sup> Massman, *Hospital Ships*, 8-9; Thomas Helling, *Desperate Surgery in the Pacific War: Doctors and Damage Control for American Wounded, 1941-1945* (Jefferson, NC: McFarland & Co., Inc., 2017), 385-387.

during the war that the Army and Navy determined that they would operate hospital ships independently of one another. While this certainly seems to be a confusing approach, the differences make more sense when explained in the Army's detailed history of the Medical Services in Japan. In this official record, it explains that "The Navy hospital ships were truly floating hospitals, with complete medical, surgical, and neuropsychiatric facilities aboard; additionally, by stocking medical supplies, the Navy ships could act as resupply points for other vessels." On the other hand, "The Army hospital ships were less elaborate, for they were conceived as evacuation vessels—hospital transports—and served effectively in that role, returning about a sixth of the 388,000 evacuees to the United States during 1944 and the first half of 1945." In total, the United States Army operated 24 hospital transports throughout the war. These ships served around the world, evacuating American casualties from combat operations in Europe, North Africa, and the Pacific. On the other hand, the US Navy operated 15 hospital vessels that served exclusively in support of American military operations in the Pacific which were characterized by naval warfare on the seas and amphibious attacks led primarily by the US Marine Corps (see Appendix A).<sup>19</sup>

In his 1944 report on army hospital ships in the Second World War, Harold Larson went to great lengths to explain the complex path that the American hospital ship program experienced in the interwar period through the opening years of the conflict. He posited that "during World War I the Navy took charge of the return of the sick and wounded to the United States." When it seemed that this trend may continue into the Second World War, Larson recalled how Colonel Louis Milne of the Army "advanced many arguments against

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<sup>19</sup> Mary Ellen Condon-Rall and Albert E. Cowdrey, *US Army In World War II, The Technical Services, The Medical Department: Medical Service in the War Against Japan* (Washington, D.C.: Center of Military History, United States Army, 1998), 388-389.



such a transfer.” Furthermore, Col. Milne stated that “a satisfactory medical service cannot be established or maintained on a transport not wholly under control of the Army.” Indeed, it appears that infighting among the military branches led to much delay and indecision regarding how hospital ships would be used in the war as well as which branch would be in charge of said operations.<sup>20</sup>

Even though the development of the American hospital ship program before and during most of the Second World War was often complicated and led to severe shortages of medical vessels in a number of battles across the Pacific Theater, the vessels that it was able to produce ultimately played an invaluable part in saving the lives of thousands of American servicemen. The following section will assess the performance of hospital ships in one of the most significant battles that occurred during the Pacific war: Iwo Jima. As in the discussion of the Gallipoli Campaign, the goal here is not to re-fight the battle, but rather to use it in more general terms to demonstrate that although their numbers were lower than military leaders might have wanted, American hospital ships performed well in the combat zone. Indeed, they were important components of warfare in the Pacific.

This section will consider Allied planning before the battle with particular attention given to the medical services. On-shore medics could do little more than provide superficial care for the sick and wounded. In order to receive skilled medical attention, hospital ships were an absolute necessity. A brief examination of the physical environment of the island will reveal some of the hardships that soldiers faced, as well as how seaborne medical transports were absolutely vital to the success of the American invasions and the subsequent evacuation of casualties. Finally, this section will highlight the gradual movement away from

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<sup>20</sup> Larson, *Army Hospital Ships*, 10-12.

the Geneva-protected hospital ship and toward the use of modified LSTs and airborne evacuations that became standard operating procedure for battlefield evacuation in the closing half of the twentieth century.

### **American Hospital Ships in the Pacific Theater, 1945**

#### *Battle of Iwo Jima, February-March, 1945*

Although his report on Army hospital ships concluded in 1944, Harold Larson provided an overview of the current situation of the war at that time and outlined what he called “The Problem of the Pacific.” The problem, was that mounting casualties in the combat theater were overwhelming the three Navy hospital ships—*Comfort* (AH-6), *Hope* (AH-7), and *Mercy* (AH-8)—which had been assigned to the service of the Army in the area. “By January 1944,” Larson wrote, “it became apparent that additional hospital ship space would be required for the Pacific.” By 1945, three additional Army hospital ships made their way to the Pacific thus increasing the overall number of vessels in the theater. However, at the Battle of Iwo Jima, in early 1945, only four hospital ships were present to receive battlefield casualties.<sup>21</sup>

After successfully making their way across the islands of the South and Central Pacific, and seizing key points like the Gilbert, Marshall, and Mariana Islands through costly and bloody engagements at Tarawa, Saipan, Eniwetok, and Guam, US forces fixed their sights on obtaining a staging area for aerial bombardment of the Japanese mainland. The small island of Iwo Jima, some 750 miles south of Tokyo, presented the perfect staging ground. Moreover, the island’s Japanese defenders had already completed part of the work

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<sup>21</sup> Larson, *Army Hospital Ships*, 63-64.

for the Americans by constructing airfields for use in their own aerial attacks during the previous year. By seizing the island's three Japanese controlled airfields, Iwo Jima would become, for all intents and purposes, an unsinkable American aircraft carrier permanently anchored off the southern coast of Japan. From this "carrier," the United States would be able to launch B-29 Superfortress heavy bombers, escorted by P-51 Mustangs, against the heavily defended island of Okinawa, as well as the Japanese mainland itself.<sup>22</sup>

The responsibility for invading and capturing the island fell in large part to the 5<sup>th</sup> Amphibious Corps of the United States Marines. In preparation for the Marine assault on Iwo Jima (codenamed Operation Detachment), ensuring the availability of adequate medical resources became a top priority. Field medics of the Fifth Amphibious Corps would be responsible for providing emergency medical care to troops who sustained injuries during the invasion of the island. The day after the invasion commenced, two Navy hospital ships, *Solace* (AH-5) and *Samaritan* (AH-10), arrived at Iwo Jima to assist in the clearing of casualties. The responsibility for evacuating casualties fell to a number of troop transports which sat waiting off the coast of the island. These transports were ill prepared to carry and treat the large number of casualties that fell in the opening phases of the battle. Fighting on Iwo Jima was brutal, and in order to supplement the struggling medical services, hospital ships became a dire necessity.

In a March 1945 column for *Life*, Robert Sherrod, a war correspondent for *Life* and *Time* magazines recalled the carnage he witnessed on the opening day of the invasion. "It was sickening to watch the Jap mortar shells crash into the men...along the beach...lay many dead." Of these dead men, Sherrod noted that "They had died with the greatest possible

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<sup>22</sup> Condon-Rall and Cowdrey, *Medical Services in the War Against Japan*, 385.

violence.” Sherrod covered the American war effort across thousands of miles of the massive Pacific Theater, but nowhere else had he seen “such badly mangled bodies. Many were cut squarely in half. Legs and arms lay 50 ft. away from anybody.” After the invasion was over, Sherrod hopped aboard a troopship which would carry him to his next assignment. Once onboard, one of the doctors told him “that 90% of the wounded will require major surgery.” It became clear that the American military’s lack of foresight with regard to its hospital ship program after the First World War had a negative impact when it found itself embroiled in dangerous amphibious invasions during the Second.<sup>23</sup>

On Iwo Jima, members of the land-based medical services fared little better than the wounded men they were tasked to treat. In one particularly brutal scene, which occurred on the third day of the fight, a landing group of Marines came across one of the handful of aid stations on the island. They immediately noticed that the aid station had been hit. “There were broken plasma bottles hanging from rifles and a long stream of bandage unrolled neat and white across the black sand. Cots and crates and blankets were all smashed together and big, tarry clots of blood and flesh were plastered over everything.”<sup>24</sup> Another young medical officer recalled in his post-war writings that “There was usually one doctor manning an aid station, but all he did was sort of duck, slap on bandages, try to stop hemorrhages, and get the guy to where somebody else could do definitive care.” Furthermore, he remarked that “Everything was dirty and in the open, so it was tough to try to do any type of skilled medicine during the actual battle.” While intense combat raged between the Marines and the

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<sup>23</sup> Helling, *Desperate Surgery in the Pacific*, 254; Robert Sherrod, “Iwo Jima: The First Three Days,” *Life*, March 5, 1945, 44.

<sup>24</sup> Corrado Cagli, “Rest Camp on Maui: A Story,” *Harper’s*, July 1946, 83-90.

Japanese, as with the British at Gallipoli, military forces at Iwo Jima were continuously engaged with that ever present third army—the environment.<sup>25</sup>

*Sulphur Island: The Environment and the Battle of Iwo Jima*

In the months leading up to the battle on Iwo Jima, both sides understood that the small island carried major strategic importance. With their fleet having been essentially destroyed during the Battle of Leyte Gulf in October of the previous year, the Japanese goal at Iwo Jima was to slow down the American advance toward the home island. Under the direction of Lieutenant General Tadamichi Kuribayashi, a garrison of more than 20,000 Japanese soldiers set to work using the environment of the island to their defensive advantage. In the volcanic soil of Iwo Jima, Japanese soldiers constructed a tunnel network which stretched more than 11 miles. Complete with command and observation posts, as well as recessed firing positions for heavy artillery, these tunnels provided natural protection and a subterranean home for the island's defenders. As a result of their successful alliance with nature, Iwo Jima would become the only battle of the Pacific War in which the attackers

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<sup>25</sup> "Interview with Vice Admiral George Davis," quoted in Helling, *Desperate Surgery*, 261.

suffered higher casualties than the defenders.<sup>26</sup> In terms of its physical geography, Iwo Jima was unique (Figure 3.2). On the southern half of the island, the 556 ft. Mount Suribachi, a dormant volcano and home to more than 2,000 dug-in Japanese soldiers, dominated the

landscape. From the base of Suribachi, the ground to the north rose steadily in a series of steps which housed the three airfields. On the northernmost part of island, the loose, sandy terrain fell into a series of winding gorges and canyons.

The harsh geography and terrain of Iwo Jima limited the number of options available to the American invasion force. While the island lacked any coral

reefs, which had caused a great

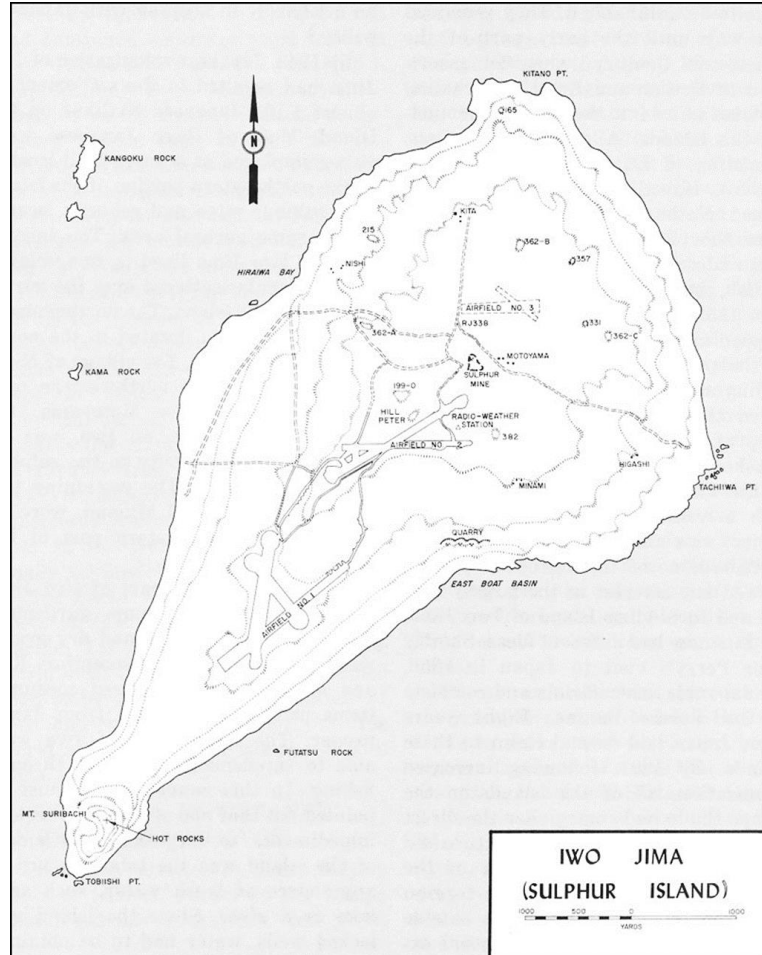


Figure 3.2 United States Marine Corps map of Iwo Jima. Source: <https://www.ibiblio.org/hyperwar/USMC/USMC-C-Iwo/index.html>.

deal of problems at early amphibious landings such as those at Tarawa, its steep and sharply terraced beaches left few viable landing locations. Ultimately, the Americans selected a

narrow strip of beach on the southeast side of the island as the point of their initial thrust.

This spot would provide them the greatest potential for a successful invasion of the island.<sup>27</sup>

<sup>26</sup> Michael Stephenson, ed., *Battlegrounds: Geography and the History of Warfare* (Washington D.C.: National Geographic, 2003), 88-89.

<sup>27</sup> Stephenson, *Battlegrounds*, 89.

After landing on the beach, they aimed to push forward and cut off Mt. Suribachi and the southern tip from the rest of the island. After firmly establishing themselves in this location, they would push north and drive the Japanese into the sea. However, the loose, volcanic soil on the island made it difficult for landing parties to make their way off the beaches. Corporal Edward Hartman, a rifleman in the 24<sup>th</sup> Marines remarked that moving across the thick granules “was like trying to run in a vat of coffee grounds.” Lt. Charlie Hatch, a Marine dentist, noted that “When you tried to run from one shell hole to another for cover, just a few yards made you winded.”<sup>28</sup> To make the situation even more unpleasant, the island reeked with the stench of rotten eggs caused by natural sulfuric gases that emanated from inside the volcanic island in a yellow-brown mist. Mixed with the smell of thousands of rotting corpses, the smell of the island remained with several veterans for decades after the war ended.<sup>29</sup>

The unforgiving tropical moonscape of Iwo Jima, with enemy combatants tunneled beneath it, made it difficult for land-based medics to establish aid stations and provide necessary medical care to the rising number of casualties. Narrow, dangerous beaches also meant that casualties needed to be cleared away as soon as possible or risk ending up like the men described by Robert Sherrod. The complicated environmental factors at Iwo Jima meant that hospital ships would once again be required to carry wounded American soldiers away from the frontlines of battle.

In October 1944, Admiral Chester W. Nimitz, Commander in Chief of the U.S. Pacific Fleet and the Pacific Ocean Areas, sent a memo to Admiral William Halsey and

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<sup>28</sup> Alice T. Clark and Robert D. Eldridge, “Heroes of Iwo Jima,” *Marine Corps Gazette*, March 2006.

<sup>29</sup> Paul Fattig, “Nothing Was As Bad As Iwo Jima,” *Mail Tribune*, February 18, 2012.

expressed his concerns about casualties sustained in amphibious action and the role of hospital ships. In it, he wrote that “Better evacuation performance would be achieved by having hospital ships soon after [amphibious attacks commence] and stand in as close to the beach as possible...In other words, the hospital ships would be used as floating hospitals earlier in the assault phase rather than as floating ambulances later.” In the mind of Admiral Nimitz, the difficulty in establishing hospital facilities on land meant that medical vessels were needed to act as permanent hospitals off the coast. Instead of continuing with the familiar “scoop and sail” tactics, meaning that a hospital ship received casualties and then left for the nearest base hospital, in his plan the hospital ship would *become* the base hospital. With casualty numbers rising from the numerous amphibious assaults across the Central Pacific, Admiral Nimitz believed that the presence of hospital ships would not only enhance the care of the wounded, but help increase the morale of the soldiers on shore.<sup>30</sup>

The Battle of Iwo Jima was the first opportunity for Nimitz’s plan to be put into action, although it was not successfully implemented until the ensuing Battle of Okinawa in the following month. While *Solace* and *Mercy* did not arrive to the island until the day after the initial invasion began, they performed incredibly well and certainly met the expectations for a hospital ship outlined in the opening decades of the twentieth century. Upon her arrival to Iwo on February 23, *Samaritan* received her full capacity of 609 patients in just a few hours and took off for the Allied base hospital in Saipan. Of those 609 patients, only eight died during the course of the journey.<sup>31</sup> The *Solace* too had a positive impact on casualty evacuation proceedings at Iwo Jima. Arriving on February 23, it received 639 casualties and

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<sup>30</sup> “Memorandum from Nimitz to Halsey, October 1944,” quoted in Helling, *Desperate Surgery*, 263.

<sup>31</sup> Helling, *Desperate Surgery*, 263.



departed for the Marianas the next day. In total, *Solace* completed three runs between the Marianas and Iwo Jima. In that span, it was able to treat a total of 1,887 men. In all, American hospital ships at Iwo Jima successfully evacuated and cared for 4,879 casualties during the course of the battle. According to one observer, “the care and evacuation of casualties [at Iwo Jima] was handled better than at any previous operation in the central Pacific area.”<sup>32</sup>

The commendable performances of *Solace* and *Samaritan* were incredibly important for the American evacuation at Iwo Jima. However, the lack of even more badly needed hospital ships in the combat area necessitated a bit of improvisation on the part of American medical planners. At the same time, when the two hospital ships left the island to carry their passengers to distant base hospitals, this left a massive gap in the medical services that needed to be filled. Military leaders found the answer to their problem in the form of versatile, well-armed landing ships known as LSTs.

First utilized in the Pacific at the Battle of Peleliu in the final months of 1944, LST vessels converted into floating hospitals (LST(H) for hospital) were used by American forces to supplement the lack of specially designated hospital ships. LSTs were ocean-going vehicles with a large bow door that would fold out into a ramp and allow for the loading and unloading of cargo. Americans relied on LSTs in support of amphibious invasions in nearly every combat theater of the Second World War. They played a critical part in the invasion, and subsequent casualty evacuations, at Iwo Jima (Figure 3.3).

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<sup>32</sup> David A. Lane, “Hospital Ship Doctrine in the United States Navy: The Halsey Effect on Scoop and Sail Tactics,” *Military Medicine* 162, no. 6 (1997): 388-395.

Although originally designed to carry large combat tanks from the sea to the shore, LSTs could also be utilized to carry smaller vehicles, as well as troops, if necessary. American Mark II LSTs were 327 feet long and 50 feet wide. With a loaded draught of 8ft 2in, these cargo haulers could travel into extremely shallow water before lowering their massive ramp and loading or unloading their cargo. In addition to their versatility, they were also armed. The LST's on-board arsenal included one 76mm cannon, six 40mm anti-aircraft guns, six 20mm guns, two .50cal machine guns, and four .30cal machine guns. In short, LSTs did not fall under the Geneva Convention protections afforded to specially designated hospital ships like *Comfort* and *Samaritan*.<sup>33</sup>



Figure 3.3 Five LSTs and one Landing Ship, Medium (LSM) unloading cargo on the dark sandy beaches of Iwo Jima. Mt. Surabachi can be seen looming in the background. Source: Mitch Weiss, "Gunboats in Hell: Battle at Iwo Jima," Army Times Magazine, February 17, 2018, <https://www.armytimes.com/news/2018/02/17/gunboats-in-hell-battle-at-iwo-jima/>.

During the Battle of Iwo Jima, the Americans relied on LST(H)s to carry casualties from the clearing stations on the beaches to the hospital ships, or more often troop transports, that waited out at sea. On average, this journey took approximately six hours. However, in some cases it could take as long as fifteen hours. One of the primary functions of the LST(H) during this time was to separate casualties based on their severity. Surgeons and medical staff

<sup>33</sup> Helling, *Desperate Surgery in the Pacific*, 254.

onboard the vessels would treat those men who required immediate lifesaving attention while they were being ferried to the large ships waiting offshore. For those suffering from minor injuries, the staff onboard the LST(H) would provide the necessary medical treatment and send the soldier back to the beach as quickly as possible so that they might rejoin the fight. In order to adequately serve these functions, hospital LSTs had to be refit with many of the same technologies and apparatus that one would find on a hospital ship.<sup>34</sup>

Following a number of minor alterations after a fairly unimpressive initial appearance at Peleliu, the LST(H)s at Iwo Jima were much improved. Five surgeons manned each vessel, accompanied by dozens of corpsmen. The vessel housed an operating room, complete with surgical table, lights, and instruments, and could accommodate up to 400 patients. As the battle commenced, American military leaders did not suspect that the lack of hospital ships would present such a serious problem and believed that the allocated medical resources would be able to provide sufficient care. Thankfully, the LST(H)s performed even better than the designated hospital ships—especially during the opening days of the invasion before *Solace* and *Samaritan* arrived.<sup>35</sup> In the first and second day of the fight, the LST(H)s were overwhelmed with the number of casualties requiring medical attention, but were still able to provide necessary care. By the afternoon of the second day, LST(H)s had received, in sum, more than 4,956 casualties; almost 100 more than the total number of casualties carried by two designated hospital ships across the entire engagement.<sup>36</sup>

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<sup>34</sup> Condon-Rall and Cowdrey, *Medical Services in the War Against Japan*, 386-387.

<sup>35</sup> Helling, *Desperate Surgery*, 254-255.

<sup>36</sup> Helling, *Desperate Surgery*, 264.

American hospital ships and LST(H)s at Iwo Jima were undoubtedly essential to the success of casualty evacuations. It was not the ships, however, that provided the medical attention that thousands so desperately needed. Rather it was the surgeons, doctors, and nurses onboard who worked for days on end to ensure that as many men as possible made it home. In his history of doctors and damage control in the Pacific Theater of World War II, Dr. Thomas Helling, a professor of surgery and former member of the US Army Medical Corps, describes some of the challenges that combat surgeons faced as new battlefield technologies led to some of the most gruesome injuries imaginable. As he explains, “Many men at Iwo Jima suffered abdominal trauma [as a result of high explosives]—colon disruptions, liver bleeding, kidney damage—that carried some of the highest death rates of any war wound.” In a period of 50 hours, a Stanford trained surgeon named Frederic Shidler, performed extensive operations on twelve consecutive abdominal wounds. Eight of the men had intestinal injuries that required repair, one Marine had eviscerated about four feet of small bowel, two colons had to be repaired and exteriorized, and one man sustained a rectal injury which required repair and colostomy. Dr. Helling comments that “to the lay person such surgical feats aboard a ship were astounding. It was as if God himself was guiding their hands.”<sup>37</sup>

At the end of the fighting, on March 26, 1945, the struggle for Iwo Jima had become the bloodiest conflict of the entire Pacific War. According to historian John Costello, “Only 216 Japanese were taken alive out of a garrison of 20,000.” On the other side, wresting Iwo Jima from the hands of General Kuribayashi and his men cost the Marines 25,000 wounded and 6,000 dead, a casualty rate of 1.25 to 1 that was the highest in the history of the branch.

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<sup>37</sup> Helling, *Desperate Surgery*, 265.

The massive amount of blood spilled to gain a few square miles of foul-smelling lava rock certainly foreshadowed what was still to come at the penultimate conflict on the island of Okinawa. There, too, hospital ships would play a critical role in the evacuation of American wounded.<sup>38</sup> At Iwo Jima, however, the performance of US Navy hospital ships and LST(H)s ensured that thousands of soldiers found their way off the island alive. The American experience on Sulphur Island also helped establish the blueprint that they would use to evacuate casualties in the ensuing battle of Okinawa. One which ultimately opened the door for the United States to end the war in the Pacific. In the same way that Britain's hospital ships at Gallipoli three decades earlier had managed to keep an isolated failure of command from spiraling into a conflict wide catastrophe, American hospital vessels, both inside and outside of the protections of international law, saved thousands of lives which may have otherwise been lost. With these facts in mind, it becomes clear that Anglo-American hospital ships involved in the First and Second World Wars of the early twentieth century were invaluable components of combat operations. To those whose lives they saved, they surely symbolized the Good Samaritan. They were bastions of comfort, solace, mercy, and repose.

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<sup>38</sup> For more on the hospitalization and evacuation of Americans at Okinawa, see chapter 16 of Roy E. Appleman, James M. Burns, Russell A. Gugeler, and John Stevens, *U.S. Army in World War II, Okinawa: The Last Battle, The War in the Pacific* (Washington, D.C.: Center of Military History, 1993).

**Epilogue:  
Hospital Ships in the Second Half of the Twentieth Century**

In the summer of 2005, Dr. Arthur M. Smith published an article in the *Naval War College Review* titled, “Has the Red Cross-Adorned Hospital Ship Become Obsolete?” Having served as a medical officer in the US Navy during the Vietnam War, Smith wonders whether the Geneva-protected hospital ship has run its course. In his introduction, he explains that his article is in response to an earlier piece by Richard Grunawalt, titled “Hospital Ships in the War on Terror: Sanctuaries or Targets?” in which he argues that modern hospital ships protected under the Geneva Convention should “be armed with encrypted communications, machine guns, defensive chaff, and Phalanx missiles” in order to protect themselves from attacks by enemy combatants. Smith agrees with Grunawalt, but takes his suggestions one step further. Instead of simply adding offensive and defensive capabilities to hospital ships protected by international law, Smith suggests that international law should be removed altogether. To support his argument, Dr. Smith cites the performance of American LST(H) at Iwo Jima and Okinawa: “LSTs were able to provide sophisticated surgical care in relatively safe environments close to shore. Operating without Geneva Convention protection, they performed effectively, even under fire.”<sup>1</sup>

In many ways, Smith is correct to question whether or not Geneva protected hospital ships have become obsolete. For example, in the wake of the Second World War, the United States fleet of 39 Army and Navy hospital ships shrank drastically. Today, the Navy operated *Comfort* (T-AH-20) and *Mercy* (T-AH-19) are the only two hospital ships at America’s

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<sup>1</sup> Arthur M. Smith, “Has the Red Cross-Adorned Hospital Ship Become Obsolete?” *Naval War College Review* 58, no. 3 (Summer 2005): 121-131; Richard Grunawalt, “Hospital Ships in the War on Terror: Sanctuaries or Targets?” *Naval War College Review* 58, no. 2 (Winter 2005): 89-119.

disposal. In Great Britain, there are no longer any Geneva-protected hospital ships. What, then, were the changes that occurred during the course of the later twentieth-century to precipitate such a large drop in the use of and need for hospital ships? How exactly did hospital ships make the transition from bastion to burden?

One might answer these questions in several ways. First, by the end of World War II, the protections of the Geneva Convention and international law represented a hindrance to the effective use of hospital ships on the front lines of combat operations. Second, advances in technology pushed the old, outdated hospital ships of the early 1900s into the background. With the improvement of military aircraft, like planes and helicopters, massive lumbering ships were no longer the preferred method of evacuation. Finally, and perhaps most interestingly, the decline in the military application of hospital ships is due in part to the changing nature of warfare. Compared to conflicts like the American Civil War, which often produced several thousand casualties per battle, warfare in the twenty-first century is relatively tame. As a result, casualty evacuation generally especially for sickness and disease, is no longer as highly prioritized as it has been in past conflicts.

*Nailed to the Red Cross: The Hindrance of Geneva Markings*

In 1945, an article published in *All Hands*, an informational bulletin for naval personnel, provided some of the earliest discussion as to whether or not it was time to move away from the Geneva Convention markings that adorned the exterior of American hospital ships. In a column titled, “‘Immune to Attack’—?” author Dick McCann wrote that “‘Supposedly, hospital ships are immune from attack. They are always painted white with a wide green band painted around the hull and large Red Crosses marking them for identification.’” After explaining that these markings originated in the Hague and Geneva

Conventions of the early 1900s, and were intended to protect hospital ships from enemy violence, McCann lamented: “However, in both World War I and World War II, hospital ships have been hit.”<sup>2</sup>

Aside from the fact that the protections of international law seemed to be rather useless at safeguarding hospital ships from the nefarious whims of enemy combatants, the attention that they brought to the vessel—and more importantly those around it—had the effect of isolating brightly painted and full-illuminated hospital ships from the rest of the fleet. Hospital ships stood out when grouped together in a crowd. This ran directly against the goals of warships who sought to remain undetectable to enemy fighters (Figure 3.4). As

a result, by World War II, the markings meant to protect hospital ships from danger actually put them into positions where they were forced to travel on their own without the nearby protection of an armed escort. As Admiral Nimitz mentioned in his 1944 memo to Halsey:



*Figure 3.4 Even at great distance, the white exterior of the Samaritan (AH-10) is easily visible in the mass assembly of grey-hulled ships off the coast of Iwo Jima, 1945. Source: Mitch Weiss, “Gunboats in Hell: Battle at Iwo Jima,” Army Times Magazine, February 17, 2018, <https://www.armytimes.com/news/2018/02/17/gunboats-in-hell-battle-at-iwo-jima/>.*

“Amphibious commanders do not like brilliantly illuminated hospital ships in the immediate vicinity of the objectives.” Furthermore, in his post-war reminiscence on his time as

<sup>2</sup> Dick McCann, “Our Growing Mercy Fleet,” *All Hands* (August, 1945): 11.



Commander of *Comfort* (AH-6) Harold F. Fultz wrote about a series of natural forest fires that raged for weeks in the costal hardwood forests of New Guinea and the Philippines. He explained that light from the blaze often allowed ships to spot dangerous navigational hazards in the water before they caused damage to the ship. “Perhaps no type of vessel benefited more from these natural lighthouses than a hospital ship. Steaming almost continuously and alone...she needed every possible clue to check her position.” Here, again, the “blinding illumination” required by hospital ships for protection under international law forced them to travel away from the rest of the fleet. Indeed, the writings of McCann, Nimitz, and Fultz seem to suggest that by the end of the Second World War, the ink and paper armor provided by international law had helped turn those vessels into burdens.<sup>3</sup>

*Saviors from Above: The Introduction of Airplane and Helicopter Evacuation*

The second factor that led to the gradual decline of hospital ships after the Second World War was the introduction of new evacuation methods, namely the helicopter, and the improvement of existing technologies like the airplane. The comparative speed, safety, and efficiency of airborne medical evacuations played a part in pushing the hospital ship away from the forefront of military leaders’ minds. Even during the Battle of Iwo Jima, airplanes were used to evacuate battlefield casualties. One squadron of R4D Transport (twin engine C-47 Skytrains) and one squadron of Navy sea planes, staffed by five medical officers and 24 nurses, evacuated 2,237 patients from the island during the course of the battle.<sup>4</sup>

During the Korean and Vietnam Wars which followed in the decades after World War II, the helicopter developed into one of the primary means of casualty evacuation. Able

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<sup>3</sup> Lane, “Hospital Ship Doctrine in the United States Navy,” 391; Fultz, “Forest Fires, Lightening, and the Moon,” 11-13.

<sup>4</sup> Helling, *Desperate Surgery*, 273.

to access virtually any point on a battlefield, regardless of environmental obstacles, military helicopters provided a new level of flexibility to the medical services. Hospital ships, however, were not entirely phased out after the Second World War. On the contrary, veterans of World War II, like *Consolation*, *Haven*, and *Repose* assumed new positions in the evacuation chain. Instead of having to be present on the front lines to receive casualties from seaborne transport vessels, with retrofitted helipads the ships could now anchor far away from the combat zone while a constant stream of helicopters delivered battlefield casualties directly onto their decks. This system began during the Korean War and has continued through to the modern day. In this role, the usefulness of hospital ships started to return. Although they were no longer the glorious saviors that reached out and plucked the wounded soldiers from the fires of Gallipoli and Iwo Jima, in this new capacity they would still be able to provide care to those whom the helicopters delivered.<sup>5</sup>

#### *Decreasing Costs: Warfare in the 21<sup>st</sup> Century*

Finally, the ever-changing face of warfare is one of the major factors that has contributed to the historical ebb and flow of hospital ships utility in combat. According to statistics provided by Friends Committee of National Legislation, in the nearly two decades since 2001, 45,170 U.S. troops have been wounded in war. In that same period, 6,241 troops have been killed in war. When one compares those figures to the 25,000 wounded and the 6,000 killed in a period of just over a month on Iwo Jima, and the more than 160,000 British casualties incurred in ten months at Gallipoli, it becomes clear that war in the twenty-first century is no longer as costly, in terms of human life, as it was in the twentieth. As a result,

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<sup>5</sup> Lane, "Hospital Ship Doctrine in the United States Navy," 393.

the need for large fleets of hospital ships is no longer as pressing as it was during the conflicts of the early 1900s.<sup>6</sup>

Today, the United States is still grappling with questions concerning their two aging hospital ships. As recently as June 2018, an article published in *Stars and Stripes* magazine carried the headline “Navy’s Hospital Ships Will Remain Afloat Despite Talks of Scrapping One to Cut Costs,” signaling that the burden of these vessels may once again be increasing. On the other side of the Atlantic, Great Britain is considering reacquiring hospital ships for its fleet. In January 2019, Member of Parliament Penny Mordaunt proposed that some of the country’s foreign aid budget be used to construct hospital ships to provide humanitarian aid in disaster zones. At present, providing humanitarian relief, as opposed to treating battlefield casualties, is the primary function of all existing hospital ships. For example, although *Comfort* (T-AH-20) and *Mercy* (T-AH-19) entered the Persian Gulf during Operation Iraqi Freedom (2003), they mostly provided medical care to Iraqi civilians and prisoners of war in need of attention. After the terrorist attacks of September 11, 2001, *Comfort* responded to New York City where she provided shelter, food, laundry services, and treatment to relief workers.<sup>7</sup>

In the history of warfare, hospital ships stand out as interesting figures. In the early twentieth century, the great European powers battled one another in a bitter arms race which ultimately led to the outbreak of the first world-wide conflict. Their goal was to ensure that

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<sup>6</sup> “Cost of War: By the Numbers,” *Friends Committee on National Legislation* October 7, 2011 (accessed March 20, 2019), <https://www.fcni.org/updates/costs-of-war-by-the-numbers-396>.

<sup>7</sup> Caitlin Doornbos, “Navy’s Hospital Ships Will Remain Afloat Despite Talks of Scrapping One to Cut Costs,” *Stars and Stripes* June 21, 2018 (accessed March 20, 2019), <https://www.stripes.com/news/us/navy-s-hospital-ships-will-remain-afloat-despite-talks-of-scrapping-one-to-cut-costs-1.534161>; George Allison, “New British Hospital Ships Proposed,” *United Kingdom Defence Journal* January 7, 2019 (accessed March 20, 2019), <https://ukdefencejournal.org.uk/new-british-hospital-ships-proposed/>; “Navy Hospital Ship USNS *Comfort* to Return from Operation Iraqi Freedom,” *U.S. Navy’s Military Sealift Command* June 10, 2003 (accessed March 20, 2019), <https://www.msc.navy.mil/publications/pressrel/press03/press26.htm>.

their nations maintained the greatest military capacity to inflict fatal damage on anyone who challenged their supremacy. At the exact same moment, individuals like Belgrave Ninnis, P. Murray Braidwood, and F.H.A. Clayton sought to develop a means for saving the lives of those who war intended to eviscerate. The military hospital ship and the men and women that served aboard them were to provide a small beacon of light to the men on shore who were in desperate need of a savior. During the First and Second World Wars, these ships performed their duties with courage and tenacity. In the face of German torpedoes and Japanese *kamikazes*, hospital ships kept their beacons lit. They became bastions to those sick and injured soldiers who found themselves on distant, foreign beaches fighting against man and nature. Though no longer a priority among modern militaries, hospital ships were invaluable components to those that fought in the wars of the early twentieth century. They provided life-saving treatment to soldiers who would have otherwise perished—suffering and alone—far, far from home.

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**APPENDIX A:  
ROSTER OF U.S. ARMY AND NAVY HOSPITAL SHIPS DURING THE SECOND  
WORLD WAR**

Hull Designation	ARMY	Patient Capacity
USAHS	<i>Acadia</i>	787
USAHS	<i>Aleda E. Lutz</i>	778
USAHS	<i>Algonquin</i>	454
USAHS	<i>Blanche F. Sigman</i>	590
USAHS	<i>Charles A. Stafford</i>	706
USAHS	<i>Chateau Thierry</i>	484
USAHS	<i>Dogwood</i>	592
USAHS	<i>Emily H.M. Weder</i>	738
USAHS	<i>Ernest Hinds</i>	288
USAHS	<i>Ernestine Koranda</i>	722
USAHS	<i>Frances Y. Slanger</i>	1,628
USAHS	<i>Jarrett M. Huddleston</i>	582
USAHS	<i>John J. Meany</i>	582
USAHS	<i>John L. Clem</i>	286
USAHS	<i>Larkspur</i>	592
USAHS	<i>Louis A. Milne</i>	952
USAHS	<i>Marigold</i>	758
USAHS	<i>Republic</i>	1,242
USAHS	<i>Seminole</i>	454
USAHS	<i>Shamrock</i>	543
USAHS	<i>St. Mihiel</i>	504
USAHS	<i>St. Olaf</i>	586
USAHS	<i>Thistle</i>	455
USAHS	<i>Wisteria</i>	588
<b>NAVY</b>		
AH-1	<i>Relief</i>	550
AH-5	<i>Solace</i>	450
AH-6	<i>Comfort</i>	400
AH-7	<i>Hope</i>	400
AH-8	<i>Mercy</i>	400
AH-9	<i>Bountiful</i>	477
AH-10	<i>Samaritan</i>	394
AH-11	<i>Refuge</i>	626
AH-12	<i>Haven</i>	802
AH-13	<i>Benevolence</i>	800
AH-14	<i>Tranquility</i>	802
AH-15	<i>Consolation</i>	800

AH-16	<i>Repose</i>	800
AH-17	<i>Sanctuary</i>	796
AH-18	<i>Rescue</i>	792

*Source:* Table compiled by author using information gathered in Emory A. Massman, *Hospital Ships of World War II: An Illustrated Reference* (Jefferson, NC: McFarland & Co. Inc., 1999).

### **Vita**

Andrew J. Franklin was born in Asheville, North Carolina. He graduated from Enka High School in Candler, North Carolina in June 2013. The following autumn, he entered Campbell University to study History and participate as a member of the Fighting Camels football team. In May 2017, he was awarded the Bachelor of Arts degree in History with a concentration in pre-law studies. In the fall of 2017, he accepted a research assistantship in History at Appalachian State University and began study toward a Master of Arts degree. He earned his M.A. in May 2019. Upon graduation, Mr. Franklin began work toward earning his Juris Doctorate as the F. Leary and Joy Davis Leadership Scholar at Campbell University's Norman A. Wiggins School of Law in Raleigh, North Carolina.