

ABSTRACT

Douglas S. Jones. TOO MUCH TOP FOR ITS BOTTOM: THE HISTORICAL AND ARCHAEOLOGICAL IDENTIFICATION OF THE USS *CASTINE* AND THE SIGNIFICANCE OF U.S. GUNBOATS IN THE EARLY STEEL NAVY. (Under the direction of Dr. Brad Rodgers) Department of History, December 2007.

In 2005, archaeologists investigated shipwreck Site 15170, located off the Louisiana coast in the Gulf of Mexico. Through a combination of archaeological and historical investigation, this previously unidentified site was determined to be the remains of the USS *Castine*, a Navy gunboat that was built in 1892 and foundered in 1924. *Castine* was an early example of the steel warships that replaced obsolete wooden vessels of the post-Civil War Navy. This thesis will first examine the mix of political, economic, and technological elements that precipitated the creation of this so-called New Navy at the end of the 19th Century. These factors include the United States's desire to create a more powerful and far-reaching naval influence in pursuit of an expansionist foreign policy, and the technological advances in steel production and steam engineering that enabled this pursuit. Concurrent with the development of the New Navy was the development of Bath Iron Works, the nationally significant naval shipbuilding firm that constructed *Castine* as its first vessel and the first steel ship built in Maine.

This study will also document the historical significance of *Castine*, by tracing its career from construction through its naval service in the Spanish-American War, Philippine Insurrection, Boxer Rebellion, peacetime "gunboat diplomacy" operations,

World War I, and, finally, its sinking as a commercially-operated fishing barge. These events will be used to illustrate the role of gunboats within the U.S. Navy fleet at that time. Gunboat service in the early steel navy has typically been under-recognized as a significant factor in U.S. naval operations and American geopolitics.

Finally, this thesis will document the archaeological and historical investigations of Site 15170 that led to its positive identification as the *Castine*. The wreck retains a high degree of archaeological significance and has been nominated to the National Register of Historic Places.

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OF THE USS *CASTINE* AND THE SIGNIFICANCE OF
U.S. GUNBOATS IN THE EARLY STEEL NAVY

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INTRODUCTION

In 2003, the Minerals Management Service (MMS) contracted with PBS&J's Cultural Resources Division to conduct National Register of Historic Places (NRHP) evaluations of submerged archaeological sites on the Gulf of Mexico Outer Continental Shelf (OCS).¹ The study was designed to investigate and evaluate unidentified side-scan sonar targets previously detected by petroleum-industry remote-sensing surveys. MMS is a bureau of the United States Department of the Interior and has regulatory responsibility for mineral exploration and development in the Gulf of Mexico. That responsibility includes considering the effects of MMS-permitted undertakings on archaeological sites of the OCS.

Over two field sessions in May of 2004 and 2005, PBS&J and MMS archaeologists conducted remote-sensing and diver investigations on 14 targets. One target, visited in May 2005, was an unknown shipwreck located approximately 20 miles off the Louisiana coast, in 115 feet of water. Over the span of 3 days, PBS&J conducted a remote-sensing survey of the site, followed by diver-conducted recording of the vessel's dimensions and hull characteristics, temporary recovery and photographing of a small number of artifacts, and Remotely Operated Vehicle (ROV) videography of selected site features.

¹ Jeffrey M. Enright, Robert Gearhart, Doug Jones, and Jenna Enright, "Study to Conduct National Register of Historic Places Evaluations of Submerged Sites on the Gulf of Mexico Outer Continental Shelf," ed. Minerals Management Service U.S. Department of the Interior, Gulf of Mexico OCS Region (New Orleans, LA: PBS&J, 2006).

Archaeologists found the wreck to be largely intact, metal-hulled, and sitting upright on its keel. During the course of the field investigation, it was discovered that the vessel was possibly the wreck of the SS *Castine*, a merchant steam vessel that foundered in 1924. Further investigation revealed, however, that prior to her commercial employment, *Castine* had served a long and distinguished career as a U.S. Navy gunboat.

Gunboats were hardly the navy's glamour ships, and, thus, are easily overlooked when attempting to catalog the many successes of the modern fleet. Considerably more ink is spilled examining the ascendants of the pre- and post-dreadnaught battleships and, later, the submarine and aircraft carrier. These were the vessels that drove all arguments about strategy, technology, and spending in the post-Civil War navy. A closer look at *Castine*, however, reveals a ship that, in its own way, played perhaps just as significant a role in establishing America's status as a respected naval power in the early 20th century.

Castine, and her sister ship *Machias*, were constructed at Bath, Maine's, Bath Iron Works in 1892. Both ships were early entrants into the so-called New Navy that replaced the rotting and neglected U.S. fleet after the Civil War. The New Navy represented a shift from obsolete wooden warships designed for coastal defense, to a faster, more powerful, modern steel fleet capable of initiating offensive operations overseas. This was a radical departure in U.S. naval ideology, brought about by those within the White House and the Navy Department who favored an increasingly imperialistic foreign policy. With America's emergence as both a political and military world power after the Civil War, isolationism was no longer a viable option. But in order to compete on the world stage, the U.S. needed a navy capable of projecting American military power

around the globe. The navy that the U.S. actually *had* at the start of the last quarter of the 19th century, was incapable of projecting power much beyond our own coastline.

Beginning in the 1880s, however, a combination of political, economic, and technological factors culminated in building a new steel fleet. Most notably, steady advances in steam engineering and domestic steel production enabled warships of ever-increasing size, speed, armor, and gun-power.

In an effort to keep pace in an international arms race, the U.S Navy soon became centered around a fleet of battleships and armored cruisers, with subordinate roles filled by torpedo boats, destroyers, and gunboats. *Castine* was one of the first new steel gunboats and, beginning with its construction in 1892, this thesis will examine the historical significance of *Castine*, both in terms of its own specific accomplishments, and in its role as a New Navy gunboat. The construction of *Castine* was significant in itself; it was the first steel ship built in Maine, and the first vessel of any kind to be built at Bath Iron Works. This represented the culmination of centuries of shipbuilding expertise in that community, as well as the efforts of General Thomas Hyde to develop Bath Iron Works into a premier steel shipyard. The launching of *Castine* and *Machias* ushered in an era of naval shipbuilding in Bath that continues to this day.

Following its construction, *Castine* began a 27 year naval career, serving as a combatant in major naval conflicts including the Spanish-American War, the Philippine Insurrection, the Boxer Rebellion, and World War I. Between wartime assignments, *Castine* cruised extensively in the Caribbean and Latin America, protecting American economic and political interests as a symbol of the far-reaching military potential of the U.S. Navy. The cumulative career of *Castine* paints a portrait of a largely anonymous

warship that nevertheless had a lasting impact on U.S. naval operations and global geopolitics.

Using *Castine* as a template, this thesis will also examine the underappreciated role of gunboats within the larger fleet. Battleships and large armored cruisers were unquestionably the most powerful and intimidating symbols of American naval prowess during the early 20th Century, but *Castine* and her fellow, lightly-regarded gunboats handled much of the actual work. During times of peace, gunboats were sent to maintain the peace; during times of war, gunboats were among the Navy's first line of defense. Despite the focus on a large battle fleet, very few U.S. naval engagements between 1892 and 1919 were decided by big-gun battleships and cruisers. Instead, smaller warships conducting blockade operations and commerce protection often carried the day. Gunboats, with their characteristic endurance, shallow drafts, and sizeable armaments, were able to operate in coastal and inland combat zones that larger warships could not reach.

The 30 year period spanning *Castine*'s career was also characterized by numerous U.S. territorial acquisitions and burgeoning worldwide economic interests. This brought American businesses into many unstable, developing countries, particularly in Latin America. Inevitably, local revolutions and power struggles put American lives and property at risk, necessitating a military response from the U.S. government. Frequently, a simple show of force was all that was needed to quell a revolution, but in other cases, naval vessels were required to fire on insurrectionists, evacuate American citizens, or land detachments of Marines. Large warships were again ill-suited for these types of operations, being either too expensive or too ineffective in coastal waters to perform the

necessary tasks. Gunboats were conceived for these types of operations, however, and they spent significant parts of their careers protecting American interests overseas.

Due to their jack-of-all-trades nature, gunboats were also able to prolong their careers by being easily adaptable to a wide range of applications. Rapid advances in gun, engine, and armor technology, rendered most larger warships obsolete after only a few years. Gunboats, on the other hand, were small and inexpensive enough to operate, so they were often converted to training ships, revenue cutters, or, in *Castine's* case, a submarine tender and then an anti-submarine vessel. This study will show, however, that gunboats were never considered an indispensable part of the fleet, despite their wide-ranging application to both a peacetime and wartime navy. Gunboat commands were often seen as unworthy of senior officers, and almost no funding was directed at gunboat construction after 1900.

After concluding service in World War I, *Castine* was sold into private ownership as a commercial fishing barge. In 1924, while being towed to Sabine, Texas, for demolition, *Castine* suffered an internal explosion and sank in the Gulf of Mexico, where it laid, undiscovered, until 2005. This thesis will document the archaeological examination of the wreck, and the historic research that led to its identification as the *Castine*. This study will further detail the historical and archaeological significance that justifies *Castine's* nomination to be a federally protected shipwreck on the National Register of Historic Places.

CHAPTER I: BUILDING THE NEW NAVY AND THE GUNBOAT *CASTINE**From Old Navy to New*

In 1881, the United States, a battle-tested republic that had survived the Civil War, had a population of 50 million, the benefits of vast, seemingly-unlimited natural resources, and a booming industrialized economy. It also had a navy that was rotting at its moorings, and, if it were actually needed, was probably incapable of more than a token coastal defense. The U.S. Navy – a world-class naval power only fifteen years earlier – had become a twelfth-rate fighting force, unable to match guns or armor even with fleets the likes of Chile and Argentina, let alone European naval titans Great Britain and France. Furthermore, this condition seemed to concern almost no one in the public or political spheres, including many career officers whose ships were falling apart beneath them.

Following the Civil War, the U.S. Navy was allowed to fall into a sudden and steep state of disrepair. Between 1865 and 1870, the number of active Navy vessels was reduced from nearly seven hundred to only fifty-two.¹ Much of this downsizing was justified, since the majority of vessels in service during the war had been converted merchantmen, tugs, and ferry boats purchased for use in the naval blockade of southern ports. Once the war was over, they served no further military purpose. Others, such as the shallow-draft western river steamers, were too specialized to be of use in the postwar navy. Of the vessels that remained, most were steam frigates, sloops, and gunboats –

¹ Craig L. Symonds, *Historical Atlas of the U.S. Navy* (Annapolis, Maryland: Naval Institute Press, 1995). 105.

converted wooden sailing ships served by dilapidated engines and outdated muzzle-loading broadside cannons. The oldest of these were actually more serviceable, since they predated the war and had been built during a time when craftsmanship mattered and supplies of oak were plentiful.² The newer vessels were of poor quality, having been constructed hastily with unseasoned timber – an unavoidable concession to the sudden demands of the war. Between 1865 and 1874, twenty-one vessels were added to the Navy, but only one was larger than 3,000 tons displacement, and only the five smallest were built of iron. The rest were mostly slow wooden-hulled cruisers mounting muzzle-loading broadside guns, and were no improvement over the vessels they were intended to replace.³

This technological stagnation was of little concern to many in the naval establishment. The officer corps was dominated by Civil War heroes who viewed steam power as a nuisance and favored a return to the glory days of sail. They retained the isolationist view that the Navy was best employed for coastal defense and commerce raiding, and that the ships they had at their disposal were more than adequate for that task.⁴ In contrast, European navies were in a prolonged period of transition and experimentation. Most naval powers were developing large oceangoing warships alongside low-freeboard coastal defense monitors. New ideas on gun caliber, design, and

² Commander John D. Alden, *The American Steel Navy* (Annapolis, Maryland: Naval Institute Press, 1972). 3.

³ *Ibid.*; Robert Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905* (Greenwich: Conway Maritime Press Ltd., 1979). 114.

⁴ Alden, *The American Steel Navy*. 3-4.

placement, as well as ordnance and armor, were constantly being tested and refined. In his volume on the 19th-Century steam navy of the United States, naval engineer Frank Bennet remarked that "the youngest of the great nations was, by its naval representation, the most ancient."⁵ The result was a country left vulnerable to any foreign navy that wished to make a hostile visit to our shores.

The American public was also disinclined to alter the status quo. Still suffering from a postwar hangover and the woes of Reconstruction, few were eager to increase military spending, no matter what the justification. The overwhelming public interest was in railroad development and expanding the country's western frontier. Furthermore, there *was* no immediate threat of a foreign invader, and the prevailing lesson from the Civil War was that, if such a threat materialized, the Army was entirely capable of countering it. If a navy was needed at all, the thinking went, one could be improvised just as quickly as it was in 1861.⁶

William Hunt was one of the few public figures who saw the folly in this argument. When he took office as President James Garfield's Secretary of the Navy in the spring of 1881, he convened an Advisory Board to report on the immediate issues facing the navy. Questions the board was to answer included the number, types, and sizes of new vessels needed; their material of construction; the preferred type and size of machinery; the necessary ordnance and armament; and the appropriate equipment and

⁵ Frank M. Bennett, *The Steam Navy of the United States: A History of the Growth of the Steam Vessel of War in the U.S. Navy, and of the Naval Engineer Corps* (Pittsburgh, Pennsylvania: Warren & Co., 1896). 772.

⁶ Alden, *The American Steel Navy*. 3; Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 115.

rigging for each. After 5 months of closely surveying the present condition of the fleet, the Advisory Board modestly proposed that all that was needed were sixty-eight new warships at a cost of \$30 million.⁷

Though the board recognized the need for new ships, many of the same arguments about sail vs. steam power, and wood vs. steel construction remained unresolved. Of the sixty-eight vessels proposed, twenty were slated to be wooden cruisers with full sail power. This was an economic decision as much as an ideological one, as many board officers had realistic doubts about domestic steel-production capabilities that were still in their infancy.⁸

Secretary Hunt was replaced by William Chandler in the fall of 1881, after President Garfield was assassinated and his successor, Chester A. Arthur, paid off some political debts (Hunt was rewarded for his efforts by being named the new Minister to Russia). Secretary Chandler submitted the Advisory Board's recommendations to Congress in his 1881 Annual Report, but the response was somewhat less than had been hoped. In the naval appropriation bill approved on 5 August 1882, Congress authorized only two new steel, full steam and sail-powered cruisers, to be constructed with whatever funds were left over from the Navy's annual budget.⁹ A second Advisory Board was established to oversee this work, and they soon recommended a revision of Congress's

⁷ Bennett, *The Steam Navy of the United States: A History of the Growth of the Steam Vessel of War in the U.S. Navy, and of the Naval Engineer Corps.* 773-774.

⁸ Alden, *The American Steel Navy.* 13.

⁹ Bennett, *The Steam Navy of the United States: A History of the Growth of the Steam Vessel of War in the U.S. Navy, and of the Naval Engineer Corps.* 775-776.

appropriation. The board proposed building the smaller of the two approved cruisers (4,000 tons), and adding three even smaller cruisers (2,500 tons each) and a dispatch vessel. In the following bill of 3 March 1883, Congress denied approval of the dispatch vessel, but appropriated \$1.3 million for four new steel cruisers, with some minor modifications in size. This marked the birth of the United States's modern steel fleet, which would thereafter be known as the New Navy.¹⁰

The four approved vessels, *Atlanta*, *Boston*, *Chicago*, and *Dolphin*, were popularly referred to as the ABCD ships. The 1,485-ton *Dolphin* was the smallest of the lot and the first to be completed, in 1885. The *Atlanta* and *Boston*, at 3,189 tons each, followed in 1886 and 1887, respectively, and the 4,500-ton *Chicago* completed the program in 1889 (Figure 1.1). None of these vessels were of much use as fighting ships; they were too small, slow, and unprotected to pose a serious threat to any modern warship. Their significance lay in their embodiment of modern naval construction techniques, and as the first steps of the Navy's steel era. Apart from the steel hulls, the ABCD ships exhibited the further new innovations (by American standards) of double bottoms, a vast network of cellular, watertight, internal compartments, and armaments of 5-, 6-, and 8-inch breech-loading rifles. All but *Dolphin* employed a watertight steel protective deck over their machinery spaces and magazines.¹¹

At the outset, the U.S. steel industry was still incapable of producing steel in quantities sufficient to provide side-armored ships. This was one of the major

¹⁰ Alden, *The American Steel Navy*. 13

¹¹ *Ibid.* 15-16.

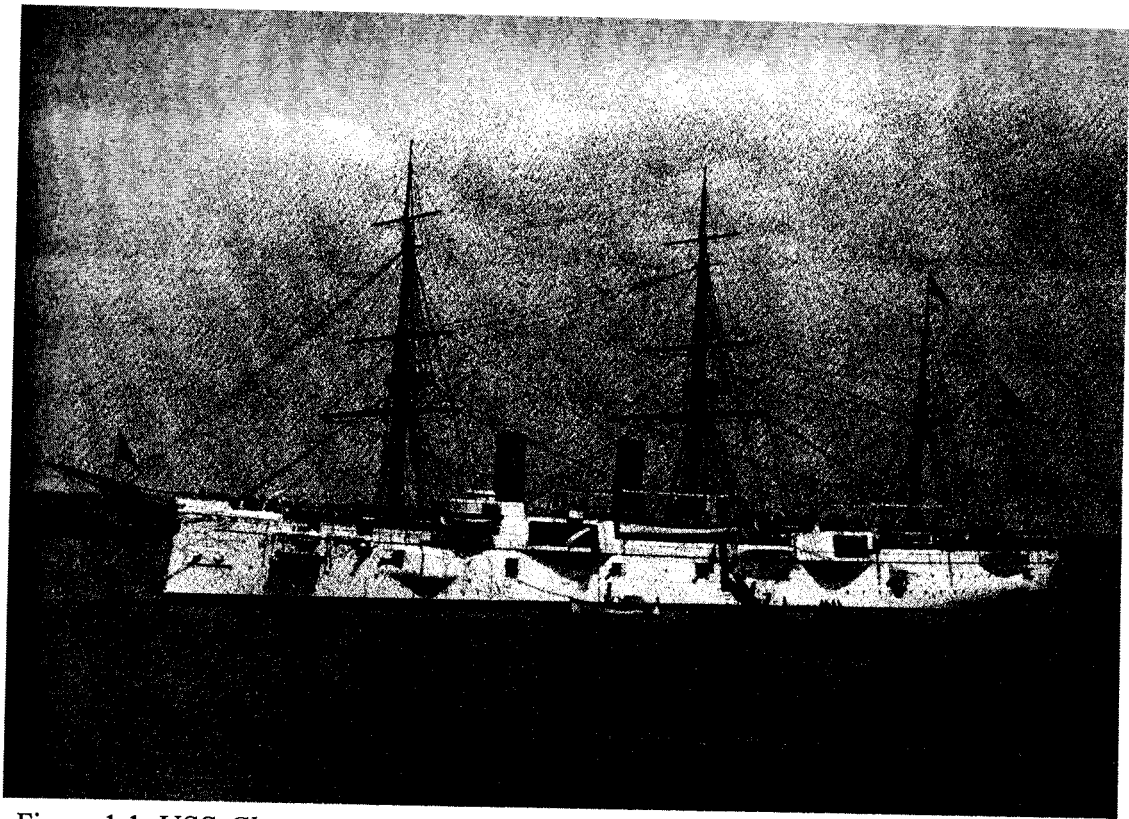


Figure 1.1: USS *Chicago* (Alden, Commander John D. The American Steel Navy. Annapolis, Maryland: Naval Institute Press, 1972)

deficiencies of the new American fleet. As the decade advanced, however, so did a symbiotic progression of armor, armament, and engineering capabilities. During this period, a back-and-forth technological struggle between gun power and armored resistance was waged. Prior to the U.S. naval renaissance, armament consisted of antiquated cast-iron smoothbores and muzzle-loading rifles. In 1878, Commodore William Jeffers, head of the Bureau of Ordnance, developed reinforced, steel breech-loading rifles (based on German designs), capable of firing armor-piercing projectiles. These new weapons utilized a new, slow-burning brown gunpowder that offered a vast

improvement in muzzle velocities over the fast-burning black powder that characterized Old Navy guns.¹²

As gun calibers and muzzle velocities increased, improvements in armor plating followed. U.S. mass-production of steel was not realized until introduction of the Bessemer process in 1856. Even then, the U.S. industrial base was not equipped to produce steel in thicknesses required for armored ships. After the Civil War, the Navy Department began to order steel in large enough quantities to entice manufacturers to expand their production facilities.¹³ The resulting boom in steel manufacturing is at least part of the reason why names like Andrew Carnegie and J.P. Morgan are recognizable today.

By 1890, nickel-steel and face-hardened armor that was virtually impenetrable by contemporary ordnance had been developed. As steel armor became increasingly cheaper, stronger, and lighter, weight aboard naval vessels was redistributed to carry bigger guns, larger coal supplies, and more armor. Accordingly, the size and speed of warships also steadily increased, necessitating improvements in engine power. The engines selected for the ABCD cruisers (based on Old Navy practice) were the horizontal, back-acting, compound type, which were necessarily placed below the waterline for protection. These engines had to be placed in-line, which resulted in longer engine rooms and reduced effectiveness of the ship. With the advances in armor protection, however, engines could now be placed vertically, side-by-side and above the

¹² Ibid. 205.

¹³ Ibid. 197.

waterline.¹⁴ When Commodore George W. Melville was promoted to head of the Bureau of Engineering in 1887, he spearheaded – against some conservative opposition – the naval transition to vertical triple-expansion engines. This engine-type revolutionized U.S. naval performance in the coming decade, and was first adopted for the famous battleship *Maine*, which launched in 1889.

The Fleet

In both U.S. and international ideology, the armored, big-gun battleship was the centerpiece of naval strategy. “It is only through battleships,” remarked Rear Admiral Philip Hichborne, Chief of the Bureau of Construction and Repair, “that an enemy can be met and vanquished before he has even sighted our coast.”¹⁵ This argument was a reflection of the writings of Captain (later Rear Admiral) Alfred Thayer Mahan, whose seminal 1890 treatise *The Influence of Sea Power Upon History, 1660-1783*, helped to define the course of naval development for many of the world’s navies. *The Influence of Sea Power* was a collection of lectures that Mahan had compiled while he was president of the Naval War College. Mahan became renowned for presenting an intellectual justification for the naval development that many countries had already begun. The essence of Mahan’s thesis was that sea power, or control of the seas, was the determining factor of national greatness. Mahan expressed his ideas in both military and economic terms, but maintained that the only way to seize and retain control of the seas was a dominant navy. He rejected the Old Navy idea of a spread-out fleet designed for defense

¹⁴ Robert Gardiner, ed., *Steam, Steel & Shellfire: The Steam Warship 1815-1905* (Edison, New Jersey: Chartwell Books, Inc., 1992). 176.

¹⁵ Alden, *The American Steel Navy*. 77.

only. Instead, he theorized that a navy should be a concentrated fighting force with a capacity and willingness for offensive operations in foreign waters. Furthermore, Mahan argued that the strategic pursuit of a wartime navy should be twofold: to isolate an enemy country from its maritime commerce (by naval blockade); and to engage the enemy fleet in ship-to-ship combat.¹⁶

Mahan's ideas were enthusiastically received both at home and abroad. Though he was only a middling combat officer, Mahan became a world-renowned naval strategist on the heels of *The Influence of Sea Power*. He went on to write dozens of books and over a hundred articles addressing maritime history and naval theory. Ironically, his theories on sea power were a major influence on the German and Japanese navies that Allied forces would have to contend with in two 20th-Century world wars.¹⁷ One of the primary lessons imparted from Mahan's writings on fleet tactics was that – all else being equal – the victorious navy would be the one with larger, more-powerful ships. By extension, this meant a fleet centered on battleships. The first battleships in the New Navy were the *Maine*, and *Texas*, launched in 1892 (Figure 1.2). Both vessels were authorized in 1886. They each retained an armored deck and belt, and carried either 10-inch (*Maine*) or 12-inch (*Texas*) guns mounted *en echelon* amidships. They were considered coastal or second-class battleships, but at only about 6,000 tons each they would more accurately have been classed as armored cruisers in European navies.¹⁸

¹⁶ Alfred Thayer Mahan. *The Influence of Sea Power Upon History, 1660-1783* (Boston: Little, Brown and Company, 1890).

¹⁷ Symonds, *Historical Atlas of the U.S. Navy*. 107.

¹⁸ Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 139.

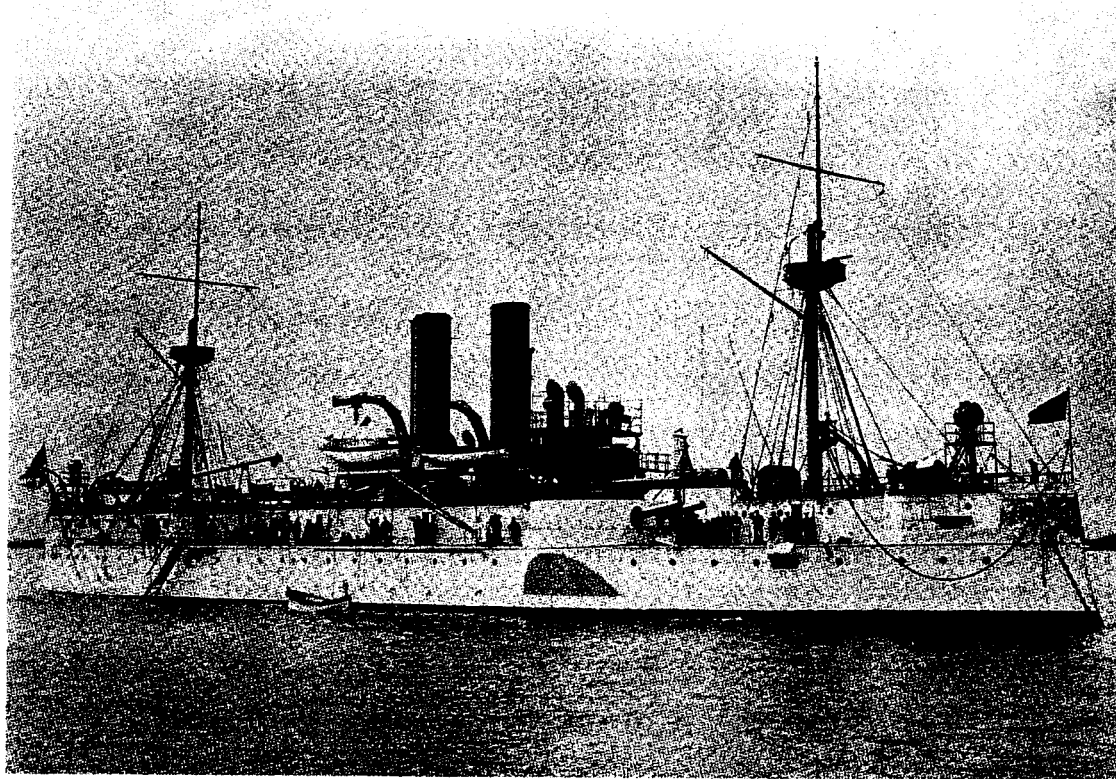


Figure 1.2: Battleship *Maine* (Alden, Commander John D. The American Steel Navy. Annapolis, Maryland: Naval Institute Press, 1972)

Battleship building programs resumed in 1890, due partly to Mahan's theories, and proceeded slowly until a flurry of new construction followed the Spanish-American War. By 1905, the U.S. had a total of 25 battleships (all between 10,000 and 16,000 tons) that had been built or authorized.¹⁹

Subordinate to the battleships were the protected cruisers. Early versions of these vessels were built on the lessons learned from the ABCD cruisers. Fourteen new cruisers were authorized between 1883 and 1888, and this second-generation was the first to employ many of the evolving warship technologies. Gone were the full-sail rigs and

¹⁹ Ibid. 137.

compound engines of the ABCD ships (Figure 1.3). The protective deck was thickened and extended the entire length of the hull, rather than just over the machinery and magazine spaces. Furthermore, armament became more homogenized, allowing for increased effectiveness of the batteries. These vessels were designed primarily for commerce raiding and engaging the enemy's converted merchant cruisers, and were characterized by their speed and cruising range. Triple expansion engines of up to 18,000 horsepower enabled these ships to reach speeds over 21 knots – the fastest in the fleet at the time. This desire for speed eventually led to design problems, however. Escalating construction costs led the Navy to limit the size of these vessels, but not the required speeds. This in turn resulted in engines that were far too large for the available hull space. Overcrowded engineering spaces and poor ventilation often produced engine-room temperatures in excess of 200°F.²⁰ With the developments in armor technology through the 1880s, it also became apparent that the protected cruisers were too large, yet too weak to be of significant service. After 1888, their production all but ceased until the turn of the century.²¹

Taking the place of the protected cruiser was the armored cruiser, first introduced in 1888. These had a belt of side armor in addition to their protective steel deck. Though they had less armor and gun power than the battleships, the armored cruisers had greater speeds and cruising range. The first armored cruisers in the U.S. were based on European designs, but without much apparent thought toward practical use. The British viewed

²⁰ Alden, *The American Steel Navy*. 56.

²¹ Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 137.

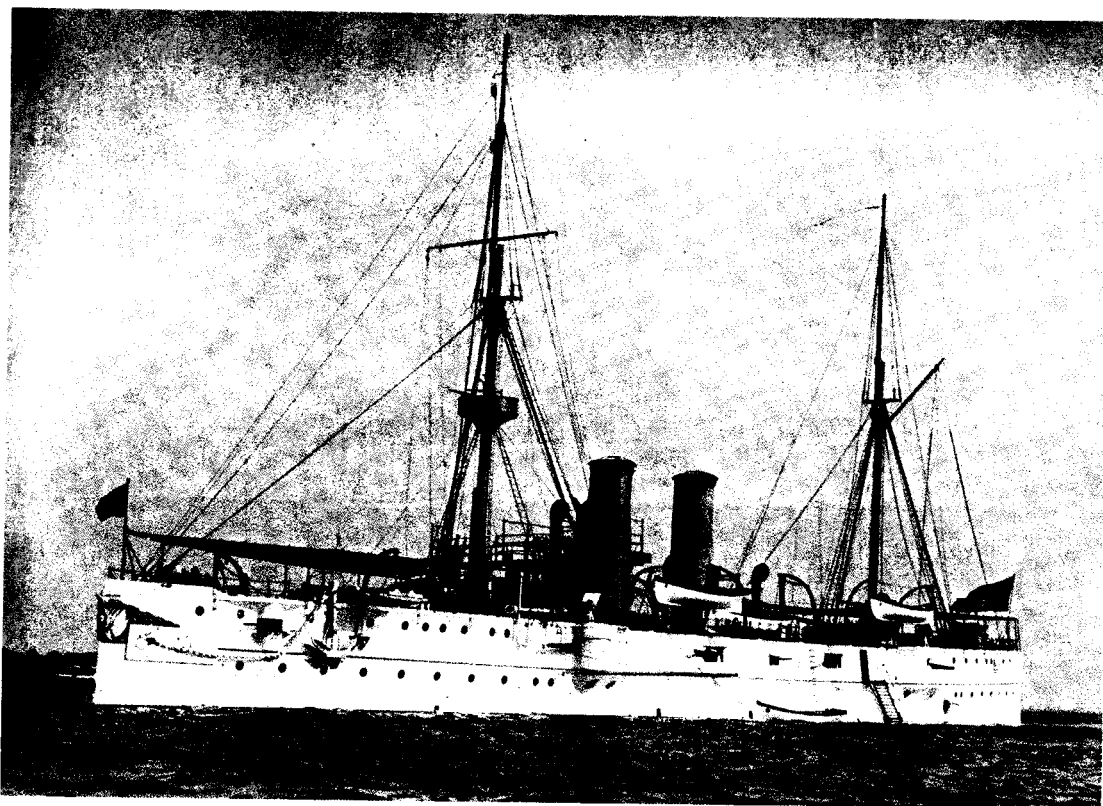


Figure 1.3: Protected cruiser *Raleigh* (Alden, Commander John D. *The American Steel Navy*. Annapolis, Maryland: Naval Institute Press, 1972)

their armored cruisers as “fast arms of the battle fleet,” intended to face any enemy ship short of a battleship.²² Other European navies used them as glorified protected cruisers for showing the flag in times of peace and raiding enemy commerce in times of war. The U.S. adopted a combination of both strategies. The first armored cruiser in the New Navy was the *New York*, authorized in 1888 and completed in 1893 (Figure 1.4). It displaced 8,200 tons and was 380 ft. long, the largest ship in the Navy to date. The *New York* was a very successful ship, having a highly praised combination of armament, protection, speed, and cruising range. It had a main battery of 8-inch rifles mounted in turrets, and

²² Alden, *The American Steel Navy*. 65, 157

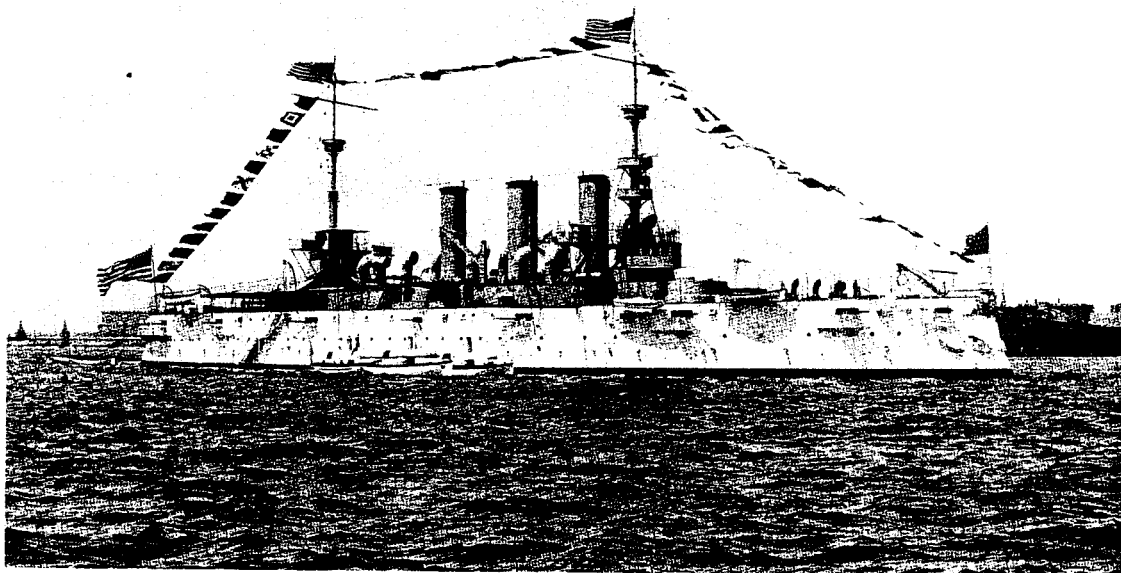


Figure 1.4: Armored cruiser *New York* (Alden, Commander John D. The American Steel Navy. Annapolis, Maryland: Naval Institute Press, 1972)

four triple-expansion engines producing 17,000 horsepower, 21 knot speed, and a 10,000 mile range. A similar cruiser, the *Brooklyn*, was authorized in 1892, but no more were ordered until 1899, when 11 were authorized over a 3-year period. This surge was due partially to the notable performance of *New York* and *Brooklyn* in the Spanish-American War, and partially to a concurrent expansion of armored cruiser development in the Royal Navy.²³

Marking a significant step down in combat capabilities were the torpedo boats and, later, the torpedo boat destroyers. The Americans had used small warships mounting spar torpedoes as far back as the Civil War, but modern torpedo boats awaited

²³ Ibid. 157.

development of the self propelled torpedo. British engineer Robert Whitehead invented a self-propelled torpedo in the late 1860s and European navies quickly introduced this new weapon into their fleets. England built its first high-speed torpedo boat in 1877, and by the end of the century there were hundreds of similar vessels throughout Europe. In 1892, England had 186 torpedo boats, France 220, Russia 152, Germany 143, and Italy 129.²⁴ Because they were seen primarily as a coast-defense weapon, however, the U.S. was slow to adopt this technology. Navy officials reasoned that the relatively remote U.S. coast was unlikely to be attacked. Though the Naval Advisory Board had recommended their construction in 1881, the first U.S. torpedo boat was not authorized until 1886. The early versions were small, fast, and lightly armed, except for multiple above-the-waterline torpedo tubes (Figure 1.5). They ranged from approximately 16 to 100 tons. The smallest were deployed from battleships for use in fleet action, but these soon proved to be too small and slow for effective use. In the mid 1890s, the U.S. finally began to follow the European lead, and twenty-seven new torpedo boats were authorized between 1894 and 1898. These were larger vessels, ranging from 140 to 210 tons, but their use was discredited following the Spanish-American War. The torpedo boats were too small to stay at sea for long periods, and too fragile to withstand rough seas. Their high-powered, compact engines also required skilled engineers, which were still in short supply at the time. Most importantly, they stood no chance in battle against virtually any enemy

²⁴ Ibid. 103.

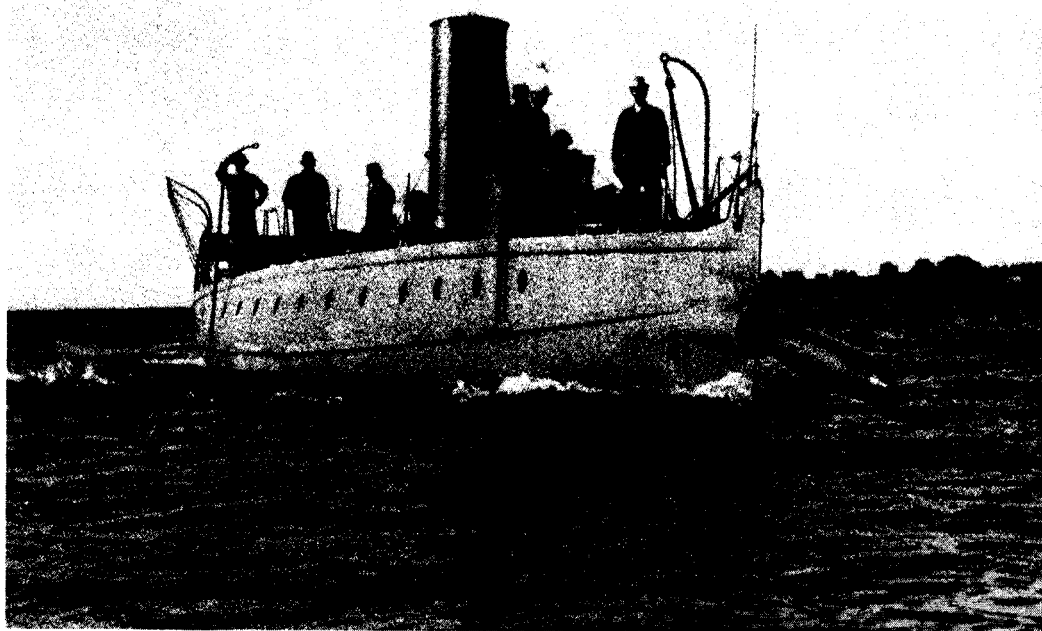


Figure 1.5: Experimental torpedo boat *Stiletto*, shown launching a Whitehead torpedo (Alden, Commander John D. *The American Steel Navy*. Annapolis, Maryland: Naval Institute Press, 1972)

warship, except in the rare instance of a surprise attack. No more torpedo boats were authorized in the U.S. after 1898.²⁵

Not surprisingly, the late development of torpedo boats led to the delayed introduction of torpedo boat destroyers. The first of these vessels was introduced in England in 1885. There were already 90 destroyers in the Royal Navy when the first U.S. destroyer was authorized in 1898.²⁶ Because of a lack of operational experience with

²⁵ Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 137.

²⁶ Alden, *The American Steel Navy*. 149.

these vessels, the first U.S. versions were based on European designs or evolved from experimental torpedo boats. Most were 240-250 ft. long, and roughly 400 tons. They used rapid-fire guns and usually mounted two torpedo tubes, and had triple-expansion engines capable of producing speeds approaching 30 knots.²⁷ The rounded "turtleback" bows of British design were eventually replaced with high forecastle decks for increased speed and better seakeeping qualities (Figure 1.6). Like many early New Navy designs, the first destroyers proved of limited application to the battlefleet. They were simply too small, particularly in the Pacific where supply stations were widely spaced. They were generally well-built boats, however, and many survived until well into the 20th Century, providing a template for the larger destroyers used against German U-boats in World Wars I and II.²⁸

Finally, completing the New Navy fleet strength were the patrol gunboats. Apart from the torpedo boats and destroyers, gunboats were among the smallest regular warships in the fleet. Due to their size and limited firepower, gunboats were often looked upon disapprovingly by senior officers. Nevertheless, these underappreciated vessels arguably performed more actual service than any other class of warship. They were designed to operate independently for extended periods in foreign stations, were relatively inexpensive to build and operate, and were powerful enough to suppress native uprisings in third world countries where American interests were at risk. From the beginning of the New Navy through World War I, gunboats were responsible for

²⁷ Ibid.

²⁸ Ibid. 149-150.

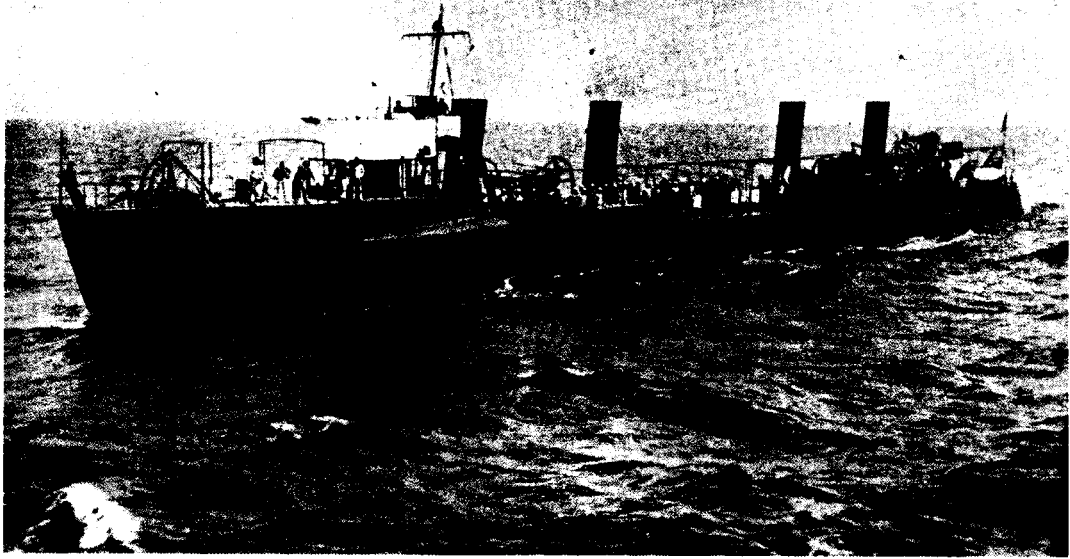


Figure 1.6: Torpedo boat destroyer *Paul Jones* (Alden, Commander John D. *The American Steel Navy*. Annapolis, Maryland: Naval Institute Press, 1972)

“showing the flag” in more far-reaching stations than even the larger and more celebrated armored and protected cruisers.²⁹

Gunboats were generally divided into two categories based on size: the smaller ones ranged between 800 and 1,200 tons, and the larger exceeded 1,300 tons (Figure 1.7).³⁰ Their service responsibilities necessitated shallow drafts, enabling them to traverse coastal waterways and inland river passages. They were too small to carry armor plating and instead used only a protective deck, albeit one that was usually thinner than those in the protected cruisers. Their protection was supplemented by extensively

²⁹ Ibid. 39.

³⁰ U.S. Naval Historical Center, *Online Library of Selected Images, Spanish American War: U.S. Navy Ships -- Gunboats and Torpedo Boats*. <http://www.history.navy.mil/photos/events/spanam/gb-tb.htm>. 1998

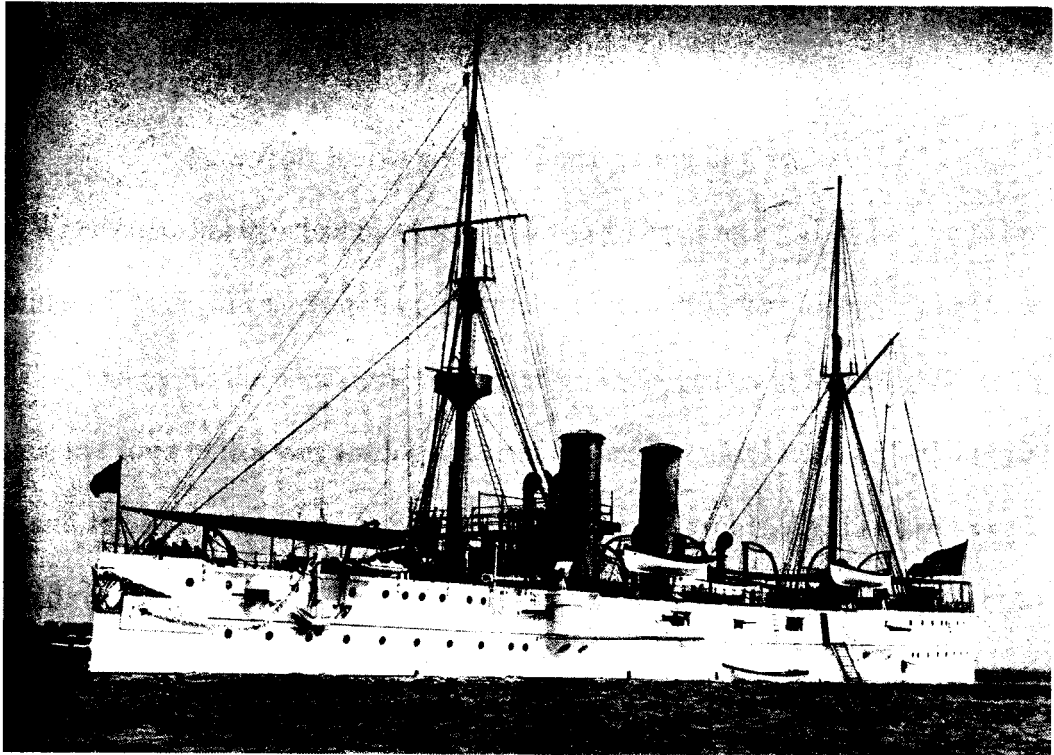


Figure 1.7: Gunboat *Machias* (Alden, Commander John D. The American Steel Navy. Annapolis, Maryland: Naval Institute Press, 1972)

compartmentalized interior spaces, housing thick coal supplies. Armaments were relatively heavy for these small ships, typically comprising some combination of 6-inch rifles and 4-inch rapid-fire guns. Each also mounted an above-waterline torpedo tube in their bows, though a shortage of torpedoes prevented their actual use. They had an open well deck amidships which reduced displacement but also made for crowded and wet living conditions for the crew, particularly when carrying detachments of Marines or harboring refugees. Gunboats 1 and 2 – the *Yorktown* Class – were authorized in 1885, and two more followed in 1887. When Benjamin Tracy was named secretary of the navy in 1889, he put a temporary halt to gunboat production in favor of more battleships and

cruisers, but not before Congress had authorized construction of Gunboats 5 and 6, *Machias* and *Castine*.³¹

Bath Iron Works and the Construction of Castine

When choosing the creators of the New Navy, department officials went to the wellsprings of American shipbuilding talent in order to fulfill their requirements in steel ships. Fortunately for the citizens of Bath, Maine, when it came to building two new gunboats, the government was willing to take a few geographical leaps of faith in that regard, and spread the wealth to some as-yet-unproven shipyards. This surely was a calculated risk, as the shipbuilding history of Bath was as old as the shipbuilding history of the country itself. The first oceangoing vessel built by English-speaking people in the New World, *Virginia of Sagadahoc*, was launched a few miles south of Bath at the mouth of the Kennebec River in 1607.³² Over the following 3 centuries, Bath builders evolved from producing mostly small coastal and short-haul ocean schooners and brigs, to rolling out massive 3,000-ton, oceangoing wooden square-riggers.³³ The rapidly developing American economy created a demand for merchant shipping that Bath shipyards were repeatedly able to meet, with their access to deep water and a seemingly unbounded supply of ship timber in the Kennebec River watershed. During the 1850s, local shipbuilders produced 175,000 tons of merchant shipping, and Bath's Patten family

³¹ Alden, *The American Steel Navy*. 39-40.

³² Ralph L. Snow, *Bath Iron Works, the First Hundred Years* (Bath, Maine: Maine Maritime Museum, 1987). 12

³³ *Ibid.* 12-16

owned the largest fleet of vessels under the U.S. flag.³⁴ There have been more shipyards to occupy Bath's 3-mile-long waterfront along the Kennebec – known as the Long Reach – than in any other comparable stretch of land in North or South America; a distinction that has earned the community the title City of Ships.³⁵ So it wasn't without cause that the Navy Department turned to the Bath Iron Works in 1889 to construct Gunboats No. 5 and 6. Still, it was either unshakeable confidence in the talents of Bath shipbuilders, or questionable generosity, that led the navy to select a shipyard that had been in business less than a decade, and had yet to launch a single steel-hulled vessel. Or, for that matter, any vessel at all.

The Bath Iron Works was founded along the banks of the Kennebec by the insatiably ambitious General Thomas Worcester Hyde in 1884. General Hyde was a Civil War hero and gilded businessman, the quintessential local boy who made good. Hyde was highly intelligent, the well-educated son of a successful Bath businessman. After graduating from high school and leaving behind an unsatisfying liberal arts education at Bowdoin College, Hyde enrolled at the University of Chicago where he studied technology. He was just finishing his senior year when Fort Sumter was fired upon and the Civil War began.

After completing his studies, Tom Hyde returned to Bath, anxious to join the fighting. When the call came for volunteers, Hyde had a business associate convince the governor to authorize Tom's recruitment of a company of infantry. Tom Hyde was

³⁴ Ibid. 13, 15

³⁵ Ibid. 12

commissioned captain of the company he assembled, and spent the remainder of the war *working his way up the ranks. First as a major, and then a lieutenant colonel of the 7th* Maine Volunteer Infantry, Hyde commanded infantry units at Second Bull Run, South Mountain, Antietam (where he earned the Medal of Honor), and at Gettysburg, Wilderness, and Petersburg. When the war ended in 1865, Hyde had been brevetted a brigadier general by General-in-Chief of the Union Armies, U.S. Grant. Tom Hyde was only 24 at the time.³⁶

After the war, General Hyde briefly considered becoming a career officer, but he soon retired from military service and embarked on the only other logical pursuit for a man of his drive and leadership abilities: going into business for himself. In October 1865, General Hyde took over ownership and operation of the Bath Iron Foundry from his cousin. At the time the firm employed only seven workmen, a single melting furnace, and a small pattern shop.³⁷

General Hyde (as he continued to be known to friends and townspeople for the rest of his life) may not have picked the best time to embark on a new business venture for which he had no previous experience. A post-war economic recession lasted nationwide until 1867, and continued to linger in Bath until 1873, due, in part, to the drastic reduction in American merchant shipping operations brought on by the ravages of the war and the resultant insurance rate hikes. General Hyde ran a stable if not hugely profitable operation, however, and initially put what little money he made into furthering

³⁶ Ibid. 18-21

³⁷ Ibid. 21-23

his business. In the 1870s, he began adding powered deck machinery (much of it his own design) to the company's established product line of simple iron castings for local shipbuilders. Within a few years, Hyde-built steam capstans and windlasses were receiving international acclaim, and had become the gold standard for powered deck machinery.³⁸

The success of Bath Iron Foundry's products enabled Hyde to steadily purchase additional land, expand production facilities, and hire more workers. By 1884, Hyde had large iron and brass foundries, a blacksmith shop, machine shop and pattern shop, administrative offices, and 56 full-time employees. In October of that year, he incorporated the business as the Bath Iron Works, Limited, and sold company stock to family and a few friends, keeping himself as the majority stockholder.³⁹

Though General Hyde and the Bath Iron Works were enjoying moderate success, this was a tense time for many Bath shipbuilders and citizens. The technological advances in steam machinery and iron and steel ship construction were swiftly rendering Bath's typical wooden-hulled steamers obsolete. British engineers were at the forefront of this new technology, and by 1880 British-flagged merchant vessels outnumbered U.S. vessels in this country by more than a 10-1 margin.⁴⁰ In order to remain competitive in the global market, it was clear that American shipbuilders would need to adapt to the available technology.

³⁸ Ibid. 26-27.

³⁹ Ibid. 28-29.

⁴⁰ Ibid. 32

But this situation was not obvious to all, and there were several obstacles to overcome. Firstly, the cost of establishing a modern iron and steel shipyard was prohibitive; in 1884, it was estimated that the initial investment required to produce such a facility ranged between \$200,000 and \$1,000,000, compared with just \$15,000 to \$20,000 for a comparable-sized wooden shipyard.⁴¹ Without an increase in the demand for American-built iron and steel shipping, investors would have little incentive to risk such sums on a new enterprise. Secondly, Bath's culture was firmly ingrained in the wooden shipbuilding tradition and, consequently, many in the town were reluctant to abandon their trade in pursuit of a subjective idea of progress. General Hyde was among the first and few of Bath's civic leaders to realize that the town's survival required its shipbuilders to transfer their skills to a new medium. Hyde saw that the future was in steel shipbuilding, not wood.

A vocal minority of Bath businessmen agreed with Hyde's assessment. Addressing a meeting of the town's most prominent citizens, shipbuilder William Rogers lectured, "wooden ships must give way to iron vessels; it [is] bound to come as we live in a world of improvements. The time [is] not far distant when a wooden vessel [will] cost as much as an iron one, and then Bath must build iron vessels or none at all."⁴² Towards this end, Hyde felt that the first step was to establish a marine engine and boiler shop. Hyde, along with his friends and business associates Arthur Sewall and Guy Goss, reasoned that a just-around-the-corner demand for auxiliary-powered sailing vessels

⁴¹ Ibid. 33; Henry Hall, *Report on the Shipbuilding Industry of the U.S.* (Washington, D.C.: Department of the Interior, Census Office, 1884). 199.

⁴² Snow, *Bath Iron Works, the First Hundred Years*. 36.

(built, conveniently, at Goss's own Goss, Sawyer & Packard shipyard) would provide the necessary contracts to make such an enterprise profitable in a few years time. Once established, the three entrepreneurs fantasized, they could sit back and wait for the iron ship contracts to follow. In 1882, Hyde and his associates spearheaded a stock sale for their new venture, the Goss Marine Iron Works, promising 10% profits and a 500-man workforce within 3 years. To the surprise of no one but the idealistic investors, the undercapitalized firm failed to get out of the red during its entire 6-year existence. Contracts for auxiliary-powered sailing vessels never materialized, and that, combined with a sudden crash of grain shipping rates, forced the Goss, Sawyer & Packard shipyard to be bought and reorganized as the New England Shipbuilding Company in 1884. The Goss Marine Iron Works was added to the New England Shipbuilding Company's holdings the following year, with the latter company's investors clinging to the hope that the facilities could be combined into a profitable iron shipbuilding plant. The financial straits of the combined operation were too much to overcome, however, and by 1888 the New England Shipbuilding Company was again reorganized, this time as the New England Company.⁴³

Needing immediate cash, the directors of the New England Company decided to sell off the Goss Marine Iron Works portion of the business. General Hyde, who was a major stockholder and creditor of both the New England Shipbuilding Company and the Goss Marine Iron Works, saw a golden opportunity and offered to purchase the iron

⁴³ Ibid. 36-39.

works from the New England Company for \$35,000 and an equivalent cancellation of inherited debt.⁴⁴

Hyde had already lost a considerable amount of money on the Goss Iron Works, but his reasoning for buying the foundering company was threefold. First, though the company had been a financial disaster, it was a technologically proficient producer of marine engines and boilers. General Hyde's cousin, Charles Hyde, was a gifted M.I.T.-trained steam engineer and superintendent of the Goss Marine Iron Works. Under his supervision, the company produced the first triple-expansion steam engine built in the United States, as well as a number of compound and single-expansion engines, boilers, and air compressors.⁴⁵ Second, General Hyde's Bath Iron Works had exceeded the production capabilities of its Water Street facilities, yet the demand for its powered capstans and windlasses was only increasing. In addition to its boiler shop, machine shop, and foundry, the acquisition of Goss Marine Iron Works gave General Hyde a sizeable waterfront property in which to expand.⁴⁶ Finally, General Hyde was a keen observer of the country's naval status, and he recognized that possibly the only things in worse condition than the fleet itself were the Navy's own shipyards that would soon have to produce new warships. Hyde was positioning himself for the inevitable federal appropriations that would be forthcoming for building a new fleet.

⁴⁴ Ibid. 40.

⁴⁵ Ibid. 40

⁴⁶ Ibid. 41

Hyde renamed the Goss Marine Iron Works the South Division of the Bath Iron Works, and soon had it up and running again, building and repairing marine engines and boilers. He also had the South Division construct a larger boiler for the company's own engine shop, increasing the amount of machinery able to be operated at the plant.⁴⁷

Within a short time, he was also bidding on shipbuilding contracts. The first few attempts were rejected, though Hyde was persistent enough to win subcontract awards for producing several new vessels' boilers.⁴⁸ In November 1888, Bath Iron Works was awarded its first shipbuilding contract, for the Maine Steamship Company's new steamer, *Cottage City*. General Hyde's winning bid was for \$160,000, though he subcontracted construction of the wooden hull to the New England Company for \$70,000 and the agreement that all windlasses, capstans, and other iron work would be purchased from Bath Iron Works. Construction of *Cottage City* was plagued by material shortages and a foundry fire, but the ship was finally completed and delivered in May 1890.⁴⁹

With that act, Bath Iron Works technically had produced its first ship, though it had yet to construct a hull. To remedy this, General Hyde began to further expand the floor space and machinery of the South Division, providing necessary resources for constructing steel ships. The general's hard work soon paid off; in the summer of 1889, Bath was visited by President Benjamin Harrison, and his secretary of the navy, Benjamin F. Tracy. Both were touring Bath shipyards as guests of General Hyde's friend

⁴⁷ Ibid. 43

⁴⁸ Ibid. 43.

⁴⁹ Ibid. 44

Arthur Sewall. A few weeks prior to the President's visit, the Navy's chief constructor, Philip Hichborn, had also come to Bath, specifically to inspect Bath Iron Works.

Hichborn recognized the shipyard's limitations inherent in its relative inexperience, but was nonetheless impressed by its potential. In his report to Secretary Tracy, Hichborn recommended that:

...it would be valuable to afford them encouragement by granting them a slight extension of time for the construction over that exacted from firms long established and whose facilities, by long experience, have been developed to their utmost capacity. This suggestion is made in view of the fact that it is to the interest of the Government to encourage to the fullest extent within its power the shipbuilding industry of the country so that, when emergency compels the Government to demand the assistance of private establishments, the latter may be fully equipped for the construction of modern vessels of war.⁵⁰

General Hyde received a copy of this report and, so-emboldened, entered the bidding for two new 1,000-ton Navy gunboats. The bids were opened in January 1890, and heads were hung low at Bath Iron Works when they realized Moore and Sons of Elizabethtown, New Jersey, had underbid them by more than \$70,000. Word soon spread, however, that Moore and Sons could not meet the Navy's production deadline, and that the contract might be awarded to another firm. On the last day of February, General Hyde's long commitment and foresight toward bringing a steel shipyard to Bath

⁵⁰ Ibid. 45

was finally rewarded, as the Navy announced that Bath Iron Works would get the gunboat contract, at a cost of \$318,500 per vessel.⁵¹

Now it was time for General Hyde to actually finish building his shipyard. Hyde immediately set about expanding his facilities; by March he was building new offices, a drafting department, furnace building, plate shop, mould loft, and a second machine shop. He added property from the former Treat and Lang Mill, in order to provide space for constructing new vessels. By June, foundations for new shipways were completed, and the keel blocks would soon follow (Figure 1.8).⁵²

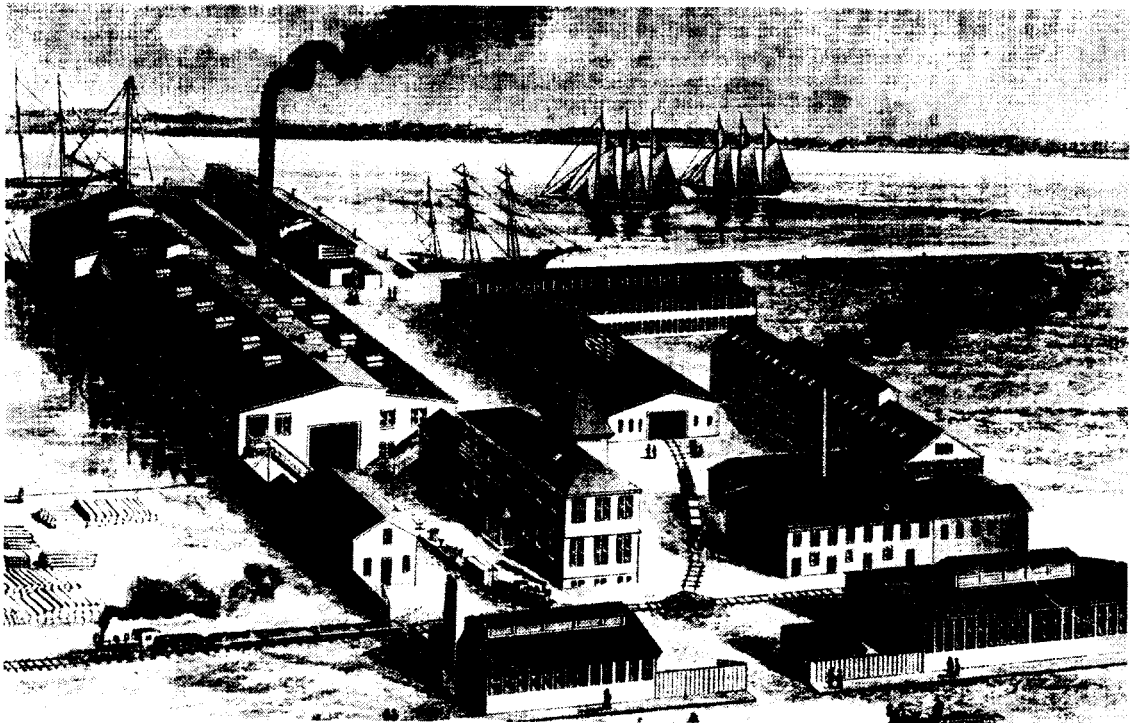


Figure 1.8: Artists depiction of the Bath Iron Works ca. 1890 (Ralph L. Snow, *Bath Iron Works, the First Hundred Years*. Bath, Maine: Maine Maritime Museum, 1987)

⁵¹ *Ibid.* 46

⁵² *Ibid.* 47

On 2 January 1891, the keel for the first Maine-built steel vessel, *Machias* (also designated Gunboat No. 5), was laid at Bath Iron Works. The keel for her sister ship, *Castine* (Gunboat No. 6), was laid just over a month later on 4 February (Figure 1.9). Both gunboats were named after Maine towns, and not only did they represent the first vessels built by Bath Iron Works, they also were the first steel-hulled vessels built in the entire state.



Figure 1.9: *Castine* and *Machias* under construction (Courtesy of Bath Iron Works)

The two vessels composing the *Machias* Class of gunboats, shared an identical design. Each had a 1,050-ton displacement, and measured 190 ft. long by 32 ft. beam, with a 12-ft. draft. They were schooner rigged with fore- and mainmasts capable of

flying a total sail area of 6,083 square ft.⁵³ Additionally, the vessels had poop and forecastle decks with an open gun deck in between, an athwartship bridge, and a longitudinal bridge connecting the poop and forecastle. Over the gun deck, each vessel carried seven boats – a 30-ft. steam cutter, two 24-ft. whale boats, a whale boat gig, two 30-ft. motor sailing launches, and a 16-ft. dinghy.⁵⁴

The main battery consisted of eight, 4-inch, breech-loading rapid-fire rifles. Six were mounted in armored sponsons projecting from each side of the gun deck, and the remaining two were pivot-mounted along the centerline, on the topgallant forecastle and poop decks (Figure 1.10). The secondary battery comprised four, 6-pounders – two in sponsons under the topgallant forecastle, and two on the poop deck over the after sponsons. There were also two, 1-pounders firing directly aft from the after cabin, a Colt .30-caliber automatic amidships, and a Howell torpedo tube fitted through the stem and discharging above the waterline.⁵⁵

Castine and her sister ship were powered by twin vertical, inverted, direct-acting, triple-expansion engines, producing a combined 2,200 horsepower, and designed by Commodore George W. Melville, chief of the Bureau of Steam Engineering (Figure 1.11).⁵⁶ Each engine was fed by its own marine locomotive boiler, designed by Bath Iron Works. The Bath Iron Works design had an increased grate and heating

⁵³ J.K. Barton, and R.G. Denig, "The Contract Trials of the U.S. Gunboats *Machias* and *Castine*," *Journal of the American Society of Naval Engineers* 4 (1893). 847.

⁵⁴ Ibid.

⁵⁵ Ibid.; Bureau of Construction and Repair, Scientific and Computing Branch "Ship's Information, U.S.S. *Castine* (Naval Historical Center, Ships History Files, Washington, D.C.).

⁵⁶ *New York Times*, "Quick Work on the *Marblehead*," November 19, 1892.

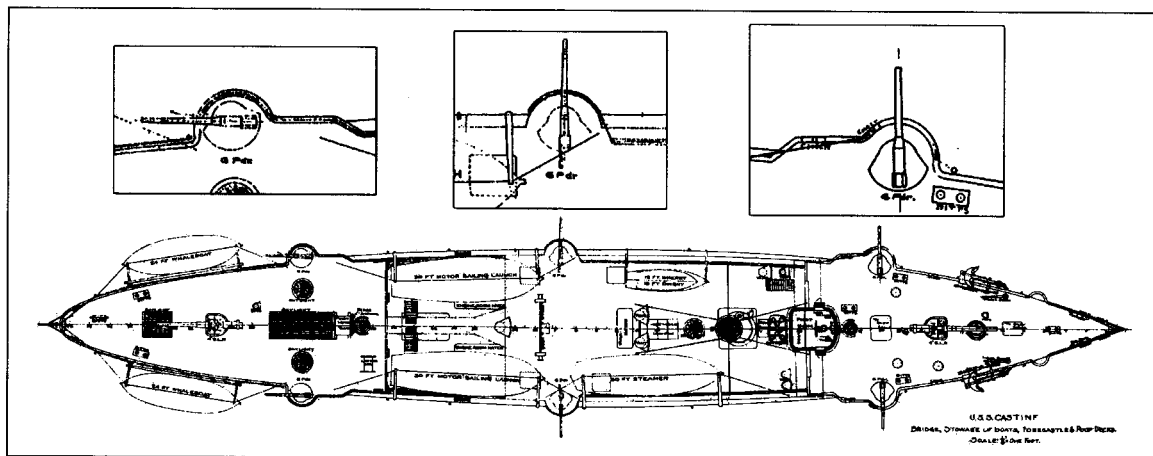


Figure 1.10: Ship plan showing layout of guns on *Castine* (National Archives and Records Administration, 1909)

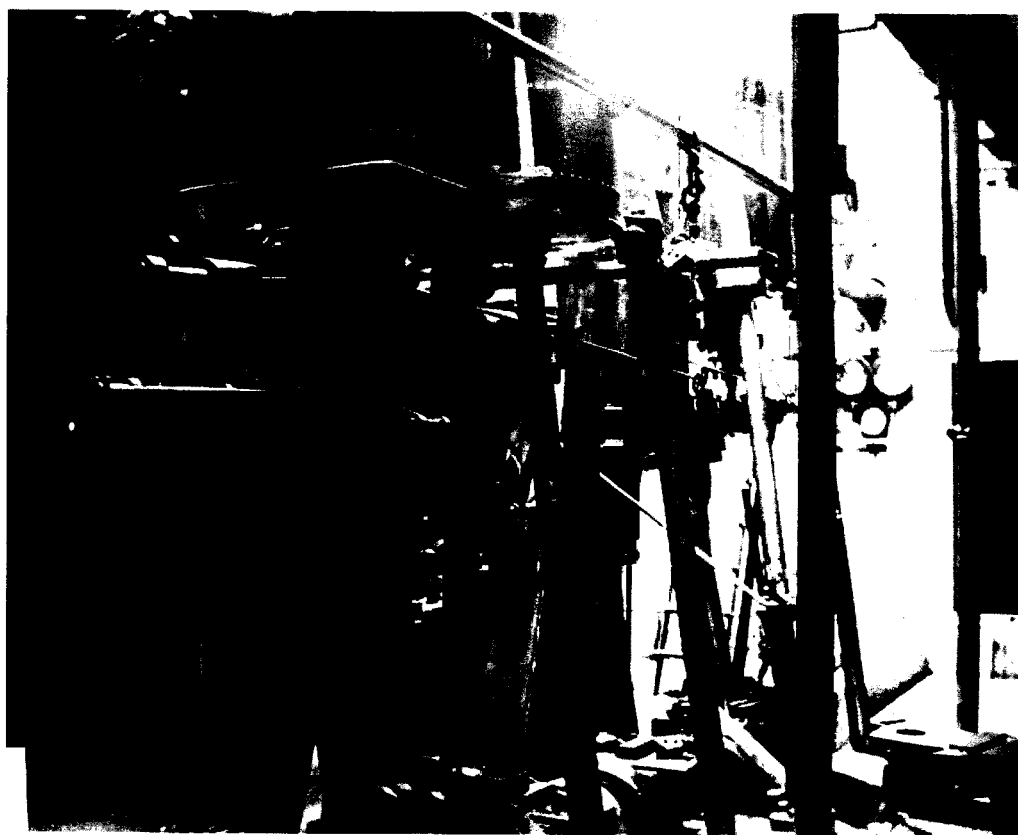


Figure 1.11: Engine room of *Castine* (Courtesy of The Mariner's Museum).

surface relative to the standard fire-tube boilers originally intended for the gunboats, and the substitution was made with the approval of the Bureau of Steam Engineering.⁵⁷ The windlass and capstan engine were also designed by Bath Iron Works, or rather by Thomas Hyde, himself. *Castine* and *Machias* were the first naval vessels to use the Hyde Steam Capstan Windlass, and Navy engineers seemed to be impressed with the results (Figure 1.12).⁵⁸ The coal capacity of the vessels was 173.28 tons, spread through 13 coal bunkers – sufficient to steam 2,452 nautical miles at full speed (13 knots), or 4,633 nautical miles at 10 knots.⁵⁹

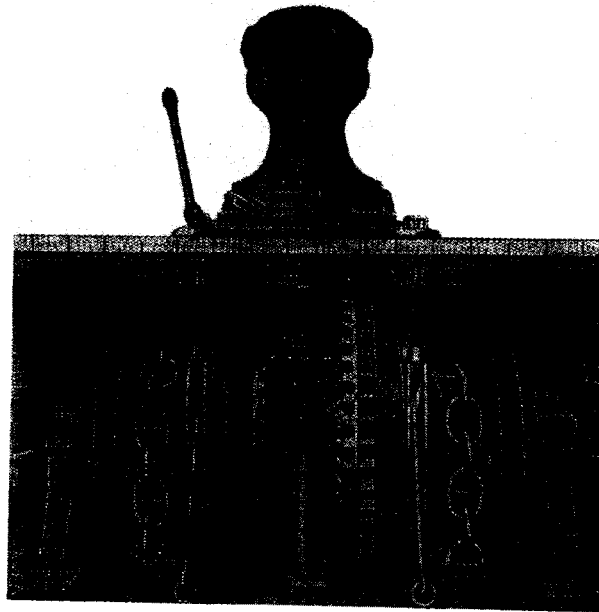


Figure 1.12: Example of a Hyde steam capstan and windlass (Courtesy of Bath Iron Works)

⁵⁷ Barton, "The Contract Trials of the U.S. Gunboats *Machias* and *Castine*." 848-849.

⁵⁸ *Ibid.* 857.

⁵⁹ *New York Times*, "Gunboat *Castine* Is a Racer," September 16, 1893.

Apart from the boilers and steam capstan windlass, the *Machias* Class gunboats were completely of a Navy design – one that had apparent flaws from the start. Immediately upon inspecting the Navy's design William Pattee, Bath's nationally renowned wooden-ship designer and the man hired to loft and mould the two gunboats, remarked that the design had "too much top for its bottom."⁶⁰ His warnings went unheeded, however, and the gunboats were built as designed; *Machias* was launched on 9 December 1891, and *Castine* followed on 11 May 1892 (Figure 1.13). The launching was a gala event for a town obviously proud of its place in shipbuilding history. Local steamboat and railroad services lowered their passenger rates that day, helping to attract 10,000 people to witness the launching. Among General Hyde's personal guests were Chief Constructor Hichborn and his 16-year-old daughter Martha, who christened the vessel.⁶¹

Material shortages delayed the outfitting and machinery installation of *Castine* longer than expected – 17 months total – but by September 1893, she was ready for her speed trials. A course approximately 30 miles long was laid out between Stratford Shoal and Saybrook Lighthouse in the Long Island Sound.⁶² *Castine* needed to make two round-trip laps of the course at an average speed of 13 knots or greater to meet the contract requirements. For Bath Iron Works, either a \$5,000 bonus or penalty was at stake for every quarter knot above or below the contract speed. This proved to be no obstacle at all for *Castine*, which completed the run at a 4-hour-average speed of 16.032

⁶⁰ William Avery Baker, *A Maritime History of Bath, Maine and the Kennebec River Region* (Bath, Maine: Marine Research Society of Bath, 1973), 786

⁶¹ *New York Times*, "Launch of the Castine," May 12, 1892.

⁶² Barton, "The Contract Trials of the U.S. Gunboats *Machias* and *Castine*." 862.

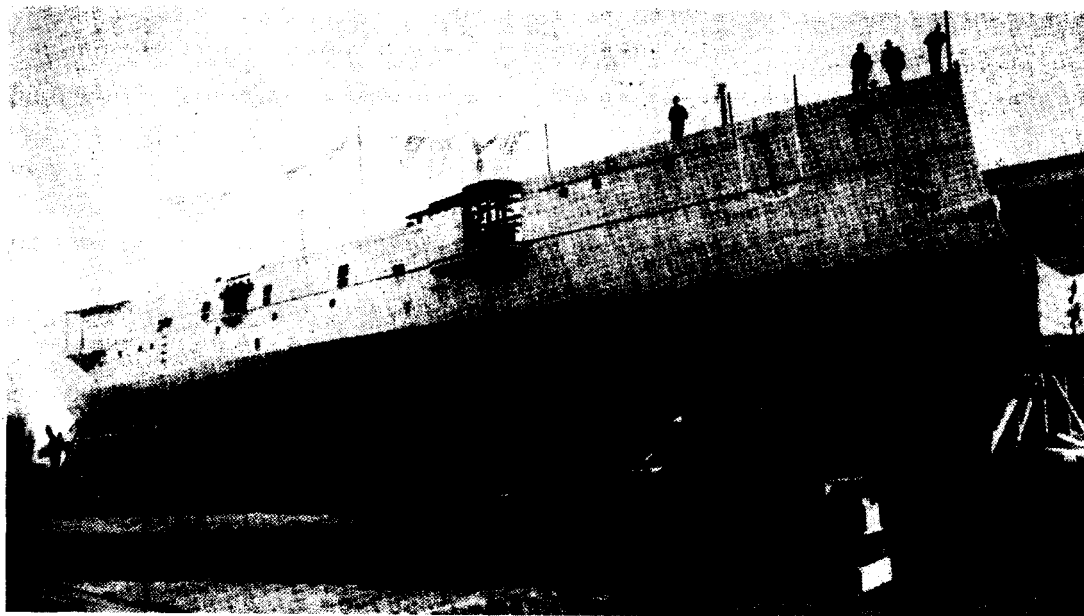


Figure 1.13: Launch of the *Machias* (Courtesy of Bath Iron Works).

knots. That surprising speed was partially obtained when the Bath Iron Works engineers “accidentally” allowed the forced-draft boiler pressure to exceed the $\frac{1}{2}$ -inch trial limit. Navy engineers conceded that *Castine* would still have exceeded the speed requirements even at the stipulated boiler pressure, and both parties agreed to a compromise official speed of 15.61 knots – enough to earn Bath Iron Works a \$60,000 bonus.⁶³ *Machias* had similar, though slightly slower results over the same course 2 months earlier. A substantial amount of credit for the gunboats’ speed was given to the Bath Iron Works-designed locomotive boiler. The Bath Iron Works boilers’ enlarged plate-heating surface provided an increased evaporation rate over the *total* heating surface of the standard fire-tube boiler.⁶⁴

⁶³ Ibid. 864.

⁶⁴ Ibid. 865.

Castine returned triumphantly to Bath with as much fanfare as had accompanied its launching a year and a half earlier; local citizens lined the Bath Iron Works wharf waving all types of brooms.⁶⁵ In addition to surpassing the contract speed, *Castine* also made a “clean sweep” of its other trial requirements: fuel and water consumption, maneuverability, operation of deck and auxiliary machinery, and the quality of the hull, machinery, and fittings.⁶⁶ On 16 October 1893, the sixth gunboat of the New Navy was turned over to the New York Navy Yard to be prepared for service in the South Atlantic Station (Figure 1.14). Shortly thereafter, it became apparent that William Pattee had known what he was talking about when he made his ominous prediction.



Figure 1.14: *Castine* docked at Bath Iron Works (Courtesy of the Maine Maritime Museum)

⁶⁵ Snow, *Bath Iron Works, the First Hundred Years*. 57.

⁶⁶ *Ibid.* 56.

Both *Castine* and *Machias* had surpassed expectations for seaworthiness during their respective speed trials. At that time, however, neither vessel had been equipped with its battery, masts, or collection of boats – to say nothing of its complement of officers and crew, supply stores, ordnance, fuel, and other equipment. Once this extra weight was added at the Navy Yard, the gunboats were found to list 8-10 degrees from wind alone while at anchor, and as much as 14 degrees when the boats were rigged out.⁶⁷ It turns out they had *substantially* too much top for their bottoms.

This imbalance, unfortunately, was not limited just to the Bath Iron Works gunboats. Poor designs also caused serious stability problems in the battleship *Massachusetts*, and in the gunboats *Montgomery*, *Marblehead*, and *Detroit*, the latter having already been commissioned and put to sea on a foreign station before it was discovered that she had far more to fear from a strong wind than from enemy artillery.⁶⁸ The various Navy Department bureaus wasted no time in blaming each other for the fiasco, each accusing the others of making unauthorized design or weight changes in the vessels. Secretary of the Navy Hilary Herbert quickly convened a special investigation by a board of five bureau chiefs from the department: those of the Bureau of Yards and Docks, Bureau of Equipment, Bureau of Ordnance, Bureau of Steam Engineering, and Chief Constructor Hichborn.⁶⁹ Their task was to thoroughly inspect each vessel and

⁶⁷ Ibid.

⁶⁸ *New York Times*, "Top Heavy without a Doubt," October 31, 1893.

⁶⁹ *New York Times*, "Very Expensive Blunders," November 1, 1893.

report their findings. In all the affected vessels, the issue was determined to be an insufficient metacentric height, caused mainly by overly heavy batteries.

A vessel's metacenter is the point where the upward force of buoyancy intersects with a line through the center of gravity. The metacentric height is the distance of the metacenter above the center of gravity, and its value determines a ship's ability to right itself in rough seas. The lower the metacenter, the more likely a vessel will stay at equilibrium, no matter what direction its keel is pointing; a higher metacenter causes a more forceful righting tendency. Stability in a seaway is not the only consideration when establishing a metacenter, however. A warship that rolls heavily in rough seas may be extremely seaworthy, but will have obvious limitations as a gun platform. Naval engineers had to find a compromise metacentric height that was high enough for a ship to right itself, but low enough that the guns could be aimed and fired steadily and deliberately.⁷⁰ A metacentric height of 25 inches or more was typical of a sufficiently stable war vessel. Anything less than 10 inches was cause for concern. The metacentric height of *Castine* and *Machias* was calculated to be practically zero.⁷¹

The stability board soon determined that the fault for this blunder lay squarely with the Bureau of Construction. Ample correspondence was found documenting the Bureau of Ordnance's requests to increase gun sizes on the assorted vessels. These letters questioned whether the requested changes would adversely affect the ships' stability. In

⁷⁰ *New York Times*, "Our Unstable War Vessels," February 11, 1894.

⁷¹ *New York Times*, "Is the *Machias* Unstable," October 26, 1893.

all cases, then-Chief Constructor T.D. Wilson inexplicably responded that the changes would not substantially alter the metacentric heights.⁷²

Now that the problem was isolated, the debate began concerning how exactly to resolve it. For some the solution was simple: reduce the guns. Many felt that the gunboats were entirely over-armed for their intended duties of scouting and police service in Asiatic and South Atlantic waters. As one unnamed naval official complained to the *New York Times*, "We made them fast, and for this reason gave them a fine model; then we tried to make them fighting ships instead of gunboats, for which the appropriation was made, and now we must take off some of the battery or else let them go to sea with the knowledge that they are unseaworthy."⁷³ He noted that the secondary batteries of *Machias* and *Castine* were originally designed for two, 3-pounders, two, 37-mm rapid-fire guns, and one, 1-pounder, instead of the heavier four, 6-pounders and additional 1-pounder actually installed. This same official criticized Commodore Folger, chief of the Bureau of Ordnance, for being "noted for crowding a gun into every nook in a ship where one could be placed and then calling attention to how much superior the batteries of our ships were to those of similar ships in foreign navies." He went on to point out that foreign navies often placed their supposedly inferior batteries lower in the vessel than did *Castine* and *Machias*, and yet still had well-documented stability problems.⁷⁴ This official was among many to advocate removing the 4-inch rifles from the poop and

⁷² *New York Times*, "Our Defective Warships," November 2, 1893.

⁷³ *New York Times*, "Top Heavy without a Doubt."

⁷⁴ *Ibid.*

forecastle, and additionally to reduce the number of machine guns, substitute the heavy masts for light ones, remove the steam launches and perhaps another boat (since the crew would be reduced along with the battery), shorten the smoke pipe, and possibly remove Hyde's steam capstan.⁷⁵

Other recommendations for improving the gunboats' stability included adding 20 tons of cement as ballast, ballasting with pig iron, hipping the vessels, or lengthening them. Naval Engineer William Clason conducted a study for the stability board on the advisability of ballasting *Machias* and *Castine* vs. hipping (that is, increasing the vessels weight and width by adding wooden ribs near the waterline and covering them with steel plates).⁷⁶ Clason concluded that hipping would have the more beneficial effect compared to ballasting, as it would be a permanent solution and would not significantly increase the draft. He added that lengthening the ships was also not an effective solution, because it would slow the vessel, be more expensive, the vessel would still be unstable when the coal hatches were empty, and, in any case, wouldn't increase the metacenter as much as hipping. Clason did not have many friends among his superiors, however (he introduced his report by defending himself against accusations that he had been anonymously criticizing the department in the press), and whether because of personal vendettas or scientific reasoning, most of his suggestions were overruled. Rather than hipping the gunboats, it was decided to cut them in half and add an additional 14 ft. at their center. In addition, the armor was removed from the sponsons, lighter pole-masts were substituted

⁷⁵ Ibid.

⁷⁶ William P. Clason, "U.S.S. *Machias*: Report of Board on Stability," (New York: U.S. Navy Yard, 1893).

for the original heavier masts, the smokestack was shortened by 10 ft., and the 30-ft. steam cutter was replaced with a 26-ft. pulling cutter (Figure 1.15).⁷⁷ The coal capacity was increased by 85 tons, which had the twofold benefit of adding weight to the vessel and increasing the gunboats' cruising radius.⁷⁸ The stability board confirmed Clason's misgivings, however, and admitted that the additional length did not guarantee better stability, particularly when the coal bunkers were empty. Water tanks were added to help offset the problem.⁷⁹

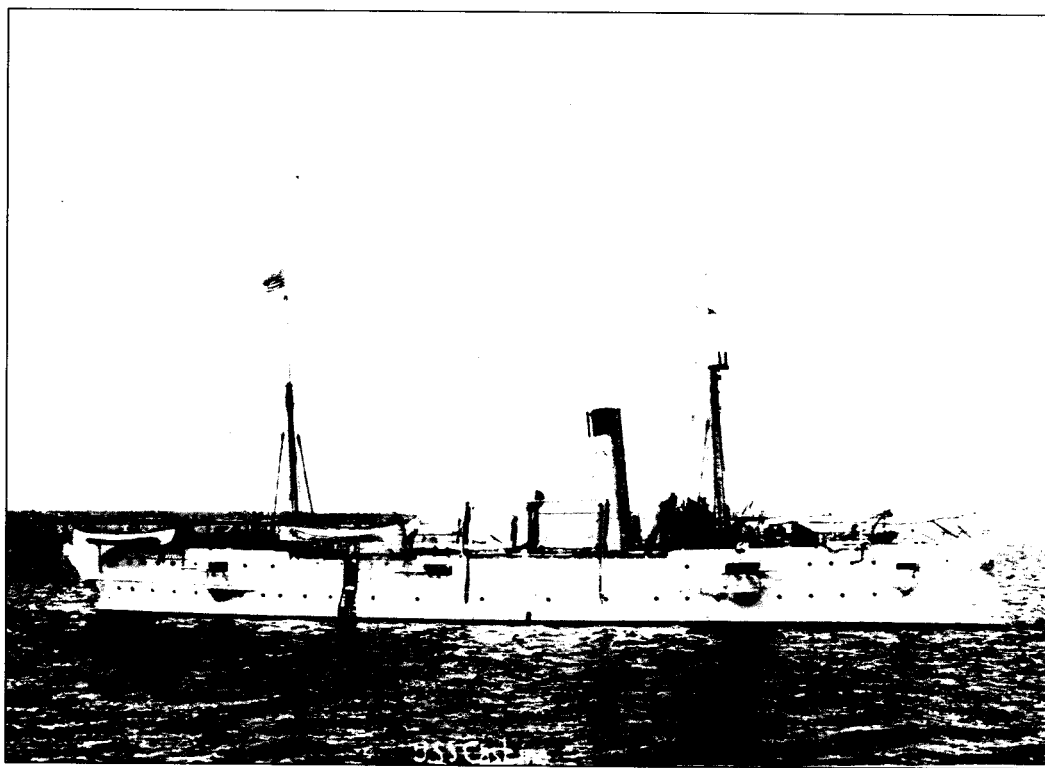


Figure 1.15: *Castine* after hull lengthening (Courtesy of the Naval Historical Center, Photo No. NH 2087)

⁷⁷ *New York Times*, "Gunboats *Machias* and *Castine*," January 27, 1894.

⁷⁸ *New York Times*, "The Remedy in Coal and Water," January 21, 1894.

⁷⁹ *Ibid.*

Clason was not alone in objecting to this solution. One well-informed reporter criticized the decision to lengthen the vessels by pointing out that it would ruin the ships' lines, which are based on a fixed ratio of length-to-width-to-draft.⁸⁰ He railed against altering one without adjusting the other two, saying this "seems like building a ship by the mile and cutting off a piece whenever you want it, and putting on a bow and stern, and calling the product a man-o-war."⁸¹ A resulting decrease in speed and engine efficiency would be unavoidable.

The stability board stood by their decision, and the repairs, conducted at the Norfolk Navy Yard, progressed as planned. On 22 October 1894, *Castine* was commissioned at the New York Navy Yard – almost a year after her delivery from Bath. The small gunboat that had been an afterthought of Alfred Thayer Mahan's New Navy was set to embark on a headline-making career that would defy its inauspicious beginnings and outlast most of its larger, more-grandiose siblings in the fleet.

As for Bath Iron Works, launching the two *Machias* Class gunboats marked the beginning of a century-long relationship with the Navy. Since the construction of Maine's first steel-hulled ships, over half of Bath Iron Works' 425 shipbuilding contracts have been for navy vessels.⁸² This prolific output peaked during World War II when Bath Iron Works supplied one-quarter of the U.S. Navy's destroyer fleet; more destroyers than were built for the entire Japanese Navy during the same time. From 1941 to 1944, Bath

⁸⁰ New York Times, "Our Unstable War Vessels."

⁸¹ Ibid.

⁸² Andrew C. Toppan, *Bath Iron Works* (Portsmouth, New Hampshire: Arcadia Publishing, 2002). 7-8.

Iron Works launched an average of one new destroyer every 17 days. Beginning with the launching of *Castine* and *Machias*, Bath Iron Works' mutually beneficial relationship with the Navy has also been vital to the economic development of both the town of Bath and the entire state of Maine. Today, Bath Iron Works' facilities cover over 60 acres, and the company is the largest private employer in the state.⁸³

⁸³ Bath Iron Works, *Company Overview*. <http://www.gdbiw.com/>. N.D

CHAPTER II: *CASTINE* IN WAR AND PEACE

Had *Castine* and *Machias* not “developed a regrettable tendency to turn bottom up in a seaway,”¹ they would likely have been deployed to the Asiatic Station upon their delivery to the Navy in 1893. By the time their hull lengthening was completed in October 1894, however, *Castine*’s services were required elsewhere. While *Machias* was sent to China, it was speculated that *Castine* was bound for service on the South Atlantic Station, specifically to assist with growing tensions in Nicaragua. Great Britain refused to acknowledge the Nicaraguan government’s jurisdiction over the Mosquito Coast, and had begun assembling their vessels off the port of Bluefields. In turn, the U.S. also sent a small patrol to Bluefields to protect American interests.² *Castine* was already scheduled to begin a 3-year cruise in the South Atlantic, and as such, was one of the vessels considered for this service. *Castine* first had to undergo her final post-lengthening inspection and sea trial to ensure that she was, in fact, ready to put to sea. A board was appointed for this purpose, and on 20 December *Castine* passed her official test off Sandy Hook, Long Island.³

Castine was given her complement of 153 men, comprised of 130 crew, 12 marines, and 11 officers under the command of Commander Thomas Perry. Except for a few final public relations stops, she was ready for service on a foreign station. Christmas

¹ *New York Times*, “*Machias* Will Sail for China,” September 22, 1894.; *New York Times*, “To the China Station,” February 19, 1893.

² *New York Times*, “Ordered to Bluefields,” November 28, 1894.; *New York Times*, “Strong Fleet to Bluefields,” November 29, 1894.

³ *New York Times*, “Official Test of the *Castine*,” December 21, 1894.

was spent in *Castine's* namesake, where the citizens of Castine, Maine, had requested the gunboat's presence to bestow the officers with a silver punch bowl. This rankled some among the citizenry, who objected to the spirit (so to speak) of the gift on the grounds that Maine was a Prohibition State. Moderation prevailed, however, due most likely to the majority of Castine's townspeople agreeing more with the *Philadelphia Record* reporter who editorialized, "the relation of a silver punch bowl to punch is not necessarily more intimate than is that of a Prohibition State to prohibition."⁴

By 11 January 1895, *Castine* had received her orders, but, unexpectedly, the Navy did not direct their new vessel to join the South Atlantic Squadron. Instead, *Castine* was ordered to the east coast of Africa, the first of many assignments for which the gunboat was conceived: protecting American interests on foreign soil. In this instance there were two separate developments that required *Castine's* immediate attention. The first concerned an American consul in Mozambique, named Hollis, who had killed a Kaffir for breaking into his kitchen during the night. Consul Hollis was tried by the local government and sentenced to 6 months in prison, before he appealed to the Royal Government and was released on bail.⁵ The second concern involved monitoring an expedition of French soldiers who had bombarded a Hovas fort at Tamatave, Madagascar. Madagascar's export trade with the U.S., principally in India rubber, was second only to its export trade with Great Britain.⁶ Accordingly, the U.S. had

⁴ *New York Times*, "Rather Neatly Put," *Quoted from the Philadelphia Record*, October 1, 1893.

⁵ *New York Times*, "Article 4 -- No Title," January 12, 1895.

⁶ *Ibid.*

considerable interests to protect in that country. *Castine* finally departed New York in early February and embarked to east Africa via the Azores, Gibraltar, through the Suez Canal to Aden, Zanzibar, then arriving in Mozambique in April.⁷ Before arriving at Mozambique, Consul Hollis was acquitted of the charges against him, and *Castine* was free to refocus its attention on the situation in Madagascar, which had grown even more complicated since *Castine* left New York in February. American ex-Consul Waller had been imprisoned for providing the Hova (the governing aristocratic class of the island's majority Merina race) with information concerning the French operations against them, and *Castine* was charged with assuring that justice was served in his case.⁸ *Castine's* interference in the matter irritated the French, who especially objected to Commander Perry dealing officially with the Hova's authority rather than with the French command. At the time, the U.S. did not recognize the French protectorate over Madagascar, and this state of affairs led to an embarrassing international incident and nearly to American bloodshed. When first arriving at the port of Tamatave, Commander Perry refused to salute the French flag. This was done with the tacit approval of the American consul and the Navy Department, with the understanding that only the native government need be saluted. A few days later, with this perceived insult still grating at the French authorities, Commander Perry attempted to land a shore party to meet with the American consul. Upon doing so, they were accosted by French military officials, who refused their entry. The ensign in charge of the shore party objected, rightly insisting that they had been

⁷ A.R. Lawrence, "USS *Castine*, 1891-1921," (Naval Historical Center, Ships History Files, Washington, D.C., 1921).

⁸ *New York Times*, "English Saluted at Tamatave," August 23, 1895.

granted formal permission to enter the port. A physical altercation began, but cooler heads eventually prevailed and the Americans returned, unharmed, to *Castine*. It appears that Commander Perry and his officers were justified in demanding entry to Tamatave, and the next day the port's French representatives proffered a full apology to Commodore Perry and the American consul.⁹ The offending French officer was sentenced to 20 days solitary confinement, and sent back to France with loss of promotion.¹⁰ Perhaps fortunately, ex-Consul Waller had already been deported to France prior to *Castine*'s arrival, giving Commander Perry nothing to negotiate and preventing any further escalation of hostilities.

Though the Consuls Hollis and Waller affairs were effectively concluded, *Castine* continued to cruise the waters off east Africa until the end of September, at which time Commander Perry received orders for the South Atlantic Station. *Castine* departed Capetown on 25 September, rounded the Cape of Good Hope, made a brief stop at St. Helena Island, and joined the South Atlantic Squadron, along with the protected cruiser *Newark* and the Civil War gunboat *Yantic*, in Pernambuco, Brazil, on 13 October.¹¹ For the next year, *Castine* cruised in South American waters, mostly off Brazil, Panama, and the West Indies, before returning to Norfolk, Virginia, in November 1896. For the next 6

⁹ *New York Times*, "An 'Incident' At Tamatave," August 25, 1895.

¹⁰ *New York Times*, "Capt. Lavoisot Sentenced," September 1, 1895.

¹¹ Lawrence, "USS *Castine*, 1891-1921."

months *Castine* underwent repairs and conducted drills off the east coast of the U.S. She was assigned a new commanding officer, Commander R.M. Berry, in December.¹²

The Spanish-American War

In March 1897, *Castine* resumed cruising in South American and West Indian waters, where she remained until March 1898, when the gunboat was redirected to Key West and Cuba. The Spanish colony was then the focus of escalating hostilities between the U.S. and Spain. Diplomatic relations between the United States and Spain had been strained since the First Cuban Insurrection from 1868 to 1878, when groups of Americans supported filibusters running military supplies to Cuban insurrectionists.¹³ Though a treaty was eventually reached, America continued to support the independence-seeking Cubans. In 1893, Cuba plunged into a deep depression following a rise on tariffs for sugar imported in the U.S., which the U.S. Congress enacted in response to America's own concurrent economic depression. Cuban citizens blamed this depression on Spanish and American competition, and once again the call for independence was sounded. Revolutionaries began offensive operations in 1895, and Spain responded quickly and cruelly with military action and forced reconcentration of Cuban civilians.¹⁴ When diplomatic negotiations eventually resumed, an impasse was reached and rioting erupted in Havana in January 1898. Concerned for the safety of its citizens, President William

¹² Unknown, "Historical Sketch of the U.S.S. *Castine*," (Naval Historical Center, Ships History Files, Washington, D.C., 1925).

¹³ Michael J. Crawford, Mark L. Hays, and Michael D. Sessions, *The Spanish American War, Historical Overview and Select Bibliography*. www.history.navy.mil/biblio/biblio7/biblio7a.htm. 1998

¹⁴ *Ibid.*

McKinley sent the battleship USS *Maine* to Havana harbor in order to provide protection for Americans and to not-so-subtly remind the Spanish crown that a quick end to the conflict was in everyone's best interest. After 3 weeks in Havana without incident, a massive explosion on the night of 15 February ripped through the *Maine's* powder magazines, sinking the ship and killing 266 sailors. Without assigning blame, a U.S. Navy board of inquiry concluded that the explosion was caused by a mine that detonated under the ship, though Spain denied these claims. Many questioned the nature of the explosion, believing that it may have emanated from inside the vessel.¹⁵ In 1976 Admiral Hyman Rickover conducted an investigation into the incident and concluded that the explosion was caused by spontaneous combustion in the ship's coal bunkers.

After the destruction of *Maine*, the scales of diplomacy began to tip irretrievably towards a war with Spain. The Navy was fully prepared for this outcome due to considerable foresight amongst its leadership; Naval War College students and Navy Department officials had been preparing for a hypothetical war with Spain since 1894. After several modifications, a polished War Plan emerged. Three main components were calculated to assure the defeat of Spanish rule in Cuba: using gunboats and other small, fast auxiliary vessels to establish a tight blockade of Cuban ports; joint Army and Navy operations against Havana and Puerto Rico; and destruction of the Spanish fleets both in

¹⁵ U.S. Naval Historical Center, "The Destruction of the USS *Maine*."
<http://www.history.navy.mil/faqs/faq71-1.htm>. 2003

the Atlantic and Pacific.¹⁶ Before the war started, the Navy had presciently determined how it would be won.

While President McKinley publicly pursued a diplomatic solution to the conflict, U.S. warships were quietly being assembled in Key West and nearby Caribbean ports. This naval maneuvering for war with Spain actually commenced a full month before the *Maine* incident. As early as 11 January, vessels in the South Atlantic and European waters were instructed to take up positions within a short cruising distance of Cuba and Spain, respectively.¹⁷ On 21 February, *Castine* and the other vessels of the South Atlantic Squadron – the cruiser *Cincinnati* and gunboat *Wilmington* – received orders to move from off Para, Brazil, to Barbados. Officially, this was because the vessels needed coal but were unable to get it in Para due to a yellow fever outbreak.¹⁸ In reality, this was to put a squadron within striking distance of Cuban ports, and to scout for any incoming Spanish vessels.

The Navy Department continued to deny the assemblage of vessels was a prelude to war, but by the end of March, Key West contained the largest collection of U.S. warships in one location since the Civil War. This fleet was composed of the armored cruiser *New York*, the flagship of Rear Admiral William T. Sampson; battleships *Massachusetts*, *Indiana*, *Iowa*, and *Texas*; cruisers *Detroit* and *Marblehead*; gunboats

¹⁶ Mark L. Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War" (paper presented at the Congreso Internacional Ejercito y Armada en El 98: Cuba, Puerto Rico y Filipinas, March 23, 1998).

¹⁷ *New York Times*, "The Wide-Awake Navy," November 24, 1898.

¹⁸ *New York Times*, "Navy Ready for an Emergency," February 23, 1898.

Nashville and *Annapolis*; dispatch boat *Fern*; naval tugs *Leyden* and *Samoset*, and the torpedo boats *Dupont*, *Cushing*, *Porter*, *Winslow*, *Foote*, and *Ericsson*. *Castine*, *Wilmington*, *Cincinnati*, and *Newport* were close-by in Caribbean waters.¹⁹ The three South Atlantic Squadron vessels were finally called to Key West on 25 March, as were the three vessels of the European Squadron: the cruiser *San Francisco*, and gunboats *Helena* and *Bancroft*. This left no U.S. warships remaining in either South American or European waters.²⁰

The majority of the vessels assembled at Key West, including *Castine*, were considered members of the North Atlantic Squadron (Figure 2.1). This squadron was responsible for offensive action against Spanish forces in Cuba and Puerto Rico. At Hampton Roads, Virginia, a Flying Squadron, under Commodore Winfield Scott Schley, was organized to protect the U.S. coast against the inevitable arrival of Admiral Pasqual Cervera's Spanish fleet. The Northern Patrol Squadron was organized for the same reason, but to patrol between the Delaware capes and Bar Harbor, Maine.²¹ The fourth naval squadron, and the one to complete the Navy's two-front war plan, was Admiral George S. Dewey's Asiatic Squadron, which was in Hong Kong and positioned to attack the Philippines.

At the outbreak of war, the maximum fighting force of the navy totaled 73 warships (Table 1), including 18 gunboats – the second largest amount of any one type of

¹⁹ *New York Times*, "The Big Fleet at Key West," March 17, 1898.

²⁰ *New York Times*, "Article 1 - No Title," March 25, 1898.

²¹ Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War".

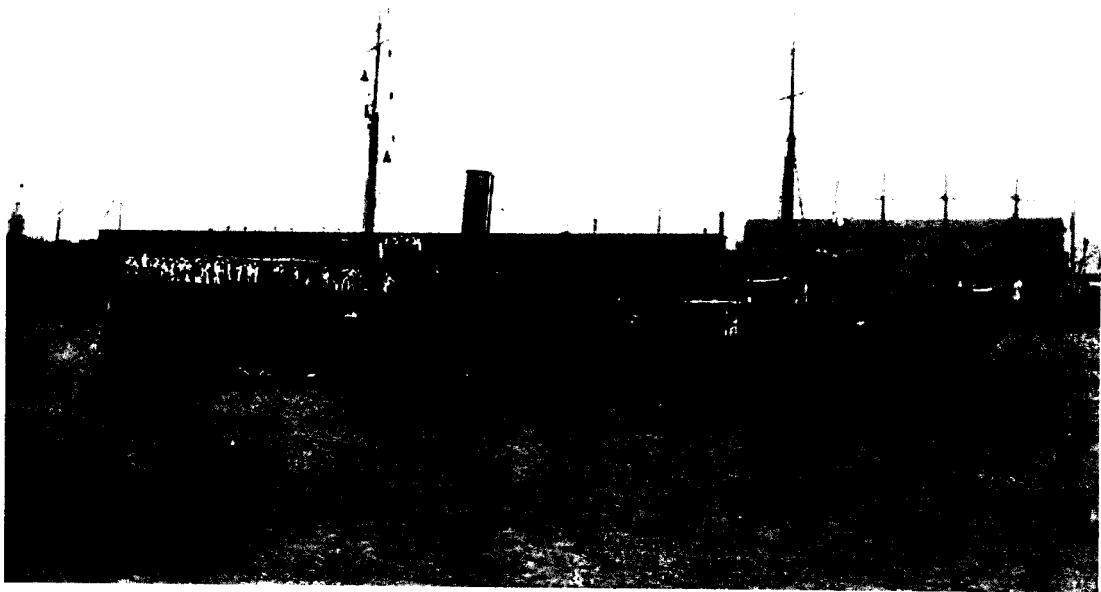


Figure 2.1: *Castine* in port, 1898 (Courtesy of the Naval Historical Center, Photo No. NH 99961)

Table 1: Number of Ships in the U.S. Navy
at the Beginning of the Spanish-American War²²

Vessel Type	No.	Vessel Type	No.
Battleships	11	Destroyers	4
Monitors	6	Torpedo Boats	18
Armored Cruisers	2	Patrol Gunboats	17
Cruisers	16	Other	3

vessel, next to torpedo boats. In Key West alone, there were three armored ships, three monitors, one protected cruiser, two unprotected cruisers, seven gunboats, one armed yacht, six torpedo boats, and five armed tugs.²³ In contrast, Admiral Cervera's Spanish

²² Robert Gardiner, ed., *Conway's All the World's Fighting Ships, 1906-1921* (London: Conway Maritime Press, Ltd., 1985). 137.

²³ Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War".

fleet was composed of only four armored cruisers and three torpedo-boat destroyers, plus a dilapidated group of gunboats guarding the Cuban coast. In the Philippines, Admiral Dewey had four cruisers, two gunboats, and a revenue cutter versus Rear Admiral Patricio Montojo's single modern cruiser that was half the size of Dewey's flagship, a wooden cruiser, and five gunboats.²⁴

By 21 April 1898, McKinley's negotiations with Spain had reached an impasse, and, with congressional approval, he ordered the Navy to begin a blockade of Cuba. Spain responded by declaring war on 23 April, and Congress reciprocated on 25 April, retroactive to the start of the blockade on the 21st.²⁵ The bluejackets idle in Key West had been awaiting these developments for weeks, and by the morning of the 22nd Sampson was already taking his squadron past the Florida Straits bound for Cuba. Dewey was equally eager for action; he took his ships from Hong Kong on the 27th, and arrived at Manila Bay on the 30th. The following morning, he engaged Admiral Montojo's fleet, which was at anchor in the bay. In less than a day Dewey's fleet destroyed Spain's entire Pacific fleet while not receiving a single artillery hit to his own vessels.²⁶

Because of a shortage of coal colliers, and with the Atlantic Fleet divided between *Key West and Hampton Roads*, Admiral Sampson was initially instructed to limit his blockade to the north coast of Cuba between Cardenas and Bahia Honda, and Cienfuegos

²⁴ Symonds, *Historical Atlas of the U.S. Navy*. 110.

²⁵ Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War".

²⁶ Symonds, *Historical Atlas of the U.S. Navy*. 110.

on the south coast (Figure 2.2).²⁷ Within 3 days, *Castine* intercepted the *Paquette Habana*, the first of the gunboat's three prizes during the war (*Antonio y Paco* and *Pinero* being the other two).²⁸ This singular action, though essentially inconsequential to the conduct of the war, would have a legal significance that long outlived the two vessels involved.

Paquette Habana was a 43-ft. licensed fishing sloop, with a three-man crew. It had left Havana on 25 March to begin a 25-day fishing trip to the west end of the island.²⁹ On her return voyage, loaded with "40 quintals of live fish," she was intercepted by *Castine* about 2 miles off Mariel, and eventually auctioned for \$490.³⁰ The fishermen denied that they were assisting the Spanish forces, and appealed to the U.S. Supreme Court arguing, in part, that under international law coastal fishing vessels were "exempt from capture so long as they devote themselves exclusively to fishing."³¹ Admiral Sampson had made his intentions towards fishing vessels clear when he wrote to Secretary of the Navy Long on 28 April:

I find that a large number of fishing schooners are attempting to get into Havana from their fishing grounds near the Florida reefs and coasts. They are generally manned by excellent seamen, belonging to the maritime inscription of Spain, who have already served in the Spanish navy, and who are liable to further service. As these trained men are naval reserves, have a

²⁷ Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War".

²⁸ *The Paquette Habana*, 44 L.Ed. 320 (1900).; *New York Times*, "Spanish War Prizes," April 10, 1900.; *Newark Daily Advocate*, "Castine's Capture," May 3, 1898.

²⁹ *The Paquette Habana*, 44 L.Ed. 320

³⁰ *Ibid.*

³¹ William S. Dodge, *The Story of the Paquette Habana: Customary Law as Part of Our Law*. <http://ssrn.com/abstract=847847>. 2005.

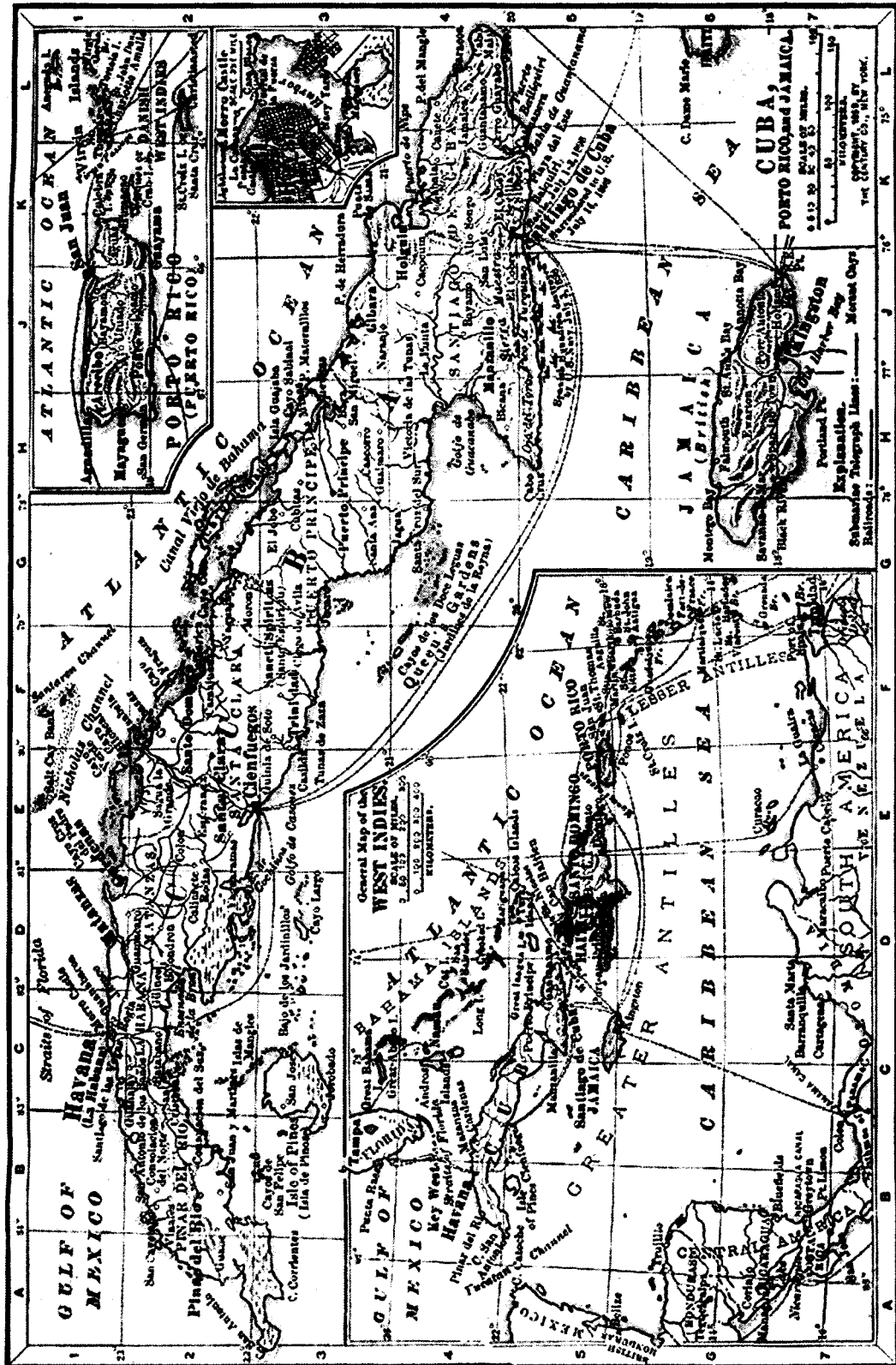


Figure 2.2: Cuba in 1898 (The Century Company)

semi-military character, and would be most valuable to the Spaniards as artillerymen, either afloat or ashore, I recommend that they should be detained prisoners of war, and that I should be authorized to deliver them to the commanding officer of the army at Key West.³²

Secretary Long agreed with Sampson but six Supreme Court justices didn't, and *Paquette Habana* was returned to its owners on the grounds that the U.S. was bound by customary international law and that under such standards coastal fishing vessels were exempted from capture. Partially as a result of this decision, twenty-three other prize vessels were released to their owners after the war.³³ This ruling has since become a landmark precedent for legal decisions concerning the applicability of international law to U.S. law, and is commonly cited in modern court cases.³⁴

On 29 April, the Navy Department received word that Cervera's fleet had sailed from the Cape Verde Islands off the western coast of Africa.³⁵ As his initial destination was unknown, Admiral Sampson took a portion of his fleet and sailed east in the hopes of intercepting Cervera before he reached Cuba. While Sampson pursued the Spanish fleet, Commodore Schley's Flying Squadron prepared itself for action along the U.S.'s East Coast. *Castine* and several of the smaller U.S. vessels remained behind, continuing the blockade of Havana, Mariel, Matanzas, Cardenas, and Cabanas. At the latter port,

³² Ibid.

³³ New York Times, "Spanish War Prizes."

³⁴ The vaguely written majority opinion, delivered by Justice Horace Gray, has an Achilles heel regarding the presence of a "controlling Executive act" that has allowed for a wide range of interpretations. In 2005, the Bush administration unsuccessfully used Justice Gray's ruling to argue that suspected terrorists and enemy combatants detained at Guantanamo Bay, Cuba, are *not* entitled to the protections of international law. (Dodge, *The Story of the Paquette Habana: Customary Law as Part of Our Law*. 24).

³⁵ Navy Department, *Annual Reports of the Secretary of the Navy* (Washington, D.C.: Government Printing Office, 1898).

Castine tested the resolve of Spanish forces by anchoring within a mile of their fortifications, and sending her steam cutter less than 1,000 yards from the fort to take soundings and observations. Spanish soldiers watched the operations closely from shore, but no shots were fired.³⁶

By 12 May, Sampson reached San Juan, Puerto Rico, and, under the suspicion that the Spanish fleet was inside the harbor, he immediately commenced shooting first and deciding on which questions to ask later. To the two most important questions – *do we have ground troops to hold the city in case of its surrender?* and (not necessarily in this order) *is Cervera here?* – the answer was no, and after a 2 ½-hour bombardment, Sampson turned his ships back towards Havana.³⁷

Two days later, Sampson received a dispatch informing him that Cervera was coaling off Curaçao, West Indies, and to return to Key West at once.³⁸ Figuring that Cervera's presence so far south indicated that he was not headed for America's eastern seaboard, the Navy Department ordered Commodore Schley to move his Flying Squadron to Key West and join Sampson. On 17 May, the Department learned that the Spanish fleet was transporting munitions for the defense of Havana, and was destined for either Havana, or a port connected to Havana by rail. As Cienfuegos was the only port that fit that description, the Flying Squadron was ordered to establish a blockade there as soon as possible.

³⁶ *New York Times*, "Castine Dares the Spaniards," May 4, 1898.

³⁷ Navy Department, *Annual Reports of the Secretary of the Navy*.

³⁸ *Ibid.*

Schley left Key West on 19 May with his flagship, *Brooklyn*, and *Texas*, *Massachusetts*, and *Scorpion*. *Castine*, *Iowa*, and the collier *Merrimac* sailed from Key West the next day and joined the Flying Squadron at Cienfuegos on the morning of 23 May. The same day, Schley received orders from Sampson that Cervera was likely in Santiago de Cuba, and that Schley should proceed there as soon as he was satisfied that the Spanish were not at Cienfuegos. Schley responded that he was not at all satisfied of the absence of Cervera's fleet, and that he would remain off Cienfuegos until further notice.³⁹ The following evening Schley sent *Marblehead* and *Eagle* (both of which had joined the squadron that morning) to a predetermined landing area to communicate with Cuban insurgents and deliver supplies.⁴⁰ The insurgents informed the officers present that the Spanish fleet was definitely *not* at Cienfuegos. With this information, Schley embarked for Santiago on the morning of 25 May, leaving *Castine* behind to continue blockade duties at Cienfuegos.⁴¹

When Schley reached Santiago on the evening of the 26th, he discovered the Spanish fleet anchored within the harbor. He spent the next several days fighting bad weather and supposedly low coal supplies. At one point he attempted to leave his station off Cienfuegos, in direct disobedience of Sampson's orders, to return to Key West for coal. After proceeding 40 miles towards Key West along the southern coast of Cuba, he

³⁹ Ibid.

⁴⁰ *New York Times*, "The Court's Report," December 14, 1901.

⁴¹ Ibid.

returned to Santiago the following day.⁴² The Flying Squadron remained in blockade off Santiago, and occasionally exchanged fire with shore batteries and Spanish men-of-war inside the harbor. With Cervera trapped inside Santiago, the stage was set for the second decisive fleet action of the war; the only question was when Cervera would make his move.

While the blockade of Santiago continued, Admiral Sampson was ordered to provide a convoy for the disembarkation of troops gathering at Tampa, Florida, and waiting for the order to advance on Santiago.⁴³ *Castine*, along with *Indiana*, *Detroit*, *Scorpion*, *Vesuvius*, *Panther*, *Hornet*, *Manning*, *Wampatuck*, *Eagle*, *Wasp*, *Annapolis*, *Helena*, *Bancroft*, and *Newport*, were assigned this duty, which must have seemed far easier on paper than it turned out to be in practice. In contrast to the naval leaders who began to prepare for the war 4 months before it began, army administrators did not begin their preparations until April – mere days or, at best, weeks before the declaration of war.⁴⁴ Then followed for the action-hungry troops two months of suffering in Tampa's sweltering heat, and confused orders that were often countermanded as soon as they were given.⁴⁵

⁴² Ibid. After the war, Schley was subjected to a court of inquiry for his actions surrounding the events at Santiago. He was found to have been derelict in a number of his duties, but was spared from further punishment.

⁴³ Navy Department, *Annual Reports of the Secretary of the Navy*.

⁴⁴ New York Times, "The Wide-Awake Navy."

⁴⁵ Stanhope Sams, "Breaking Camp at Tampa," *New York Times*, June 14, 1898.

In the early morning of 6 June, the order was finally received to load out for Santiago, and the result was hardly the model of efficiency expected of a professional military:

At once there was indescribable confusion. It was not the mere stir and bustle that must accompany even the most exact movements of an army, and which may readily be mistaken for confusion. It was confusion, unmistakable confusion.⁴⁶

This situation continued for 2 days, but by the evening of the 8th, the camp was packed up and the troops, horses, ammunition, and supplies were loaded into the converted coastal steamers being used as transport boats. Almost as soon as the first transports had made their way into Tampa Bay, the *Hornet* erroneously reported seeing Spanish ships while on patrol. The beleaguered troops were ordered to stand down. *Castine* was dispatched to bring back to port the transports at the vanguard, some of which were now several miles away.⁴⁷ One embedded journalist, who was as frustrated and anxious to see Cuba as the soldiers, captured the tormenting, bi-polar, vaguely comical scene thusly:

Excitement reached its culmination in the early afternoon, when several transports steamed down the harbor and sank below the horizon. All the troops thought the advance on Cuba had really begun, and cheer after cheer went up as the lucky ships steamed past their sisters anchored in the bay.

Suddenly the gunboat *Castine* shot from her anchorage and started after the disappearing ships. As she passed among the transports she signaled: "Order to sail revoked. Await further orders." Night fell before

⁴⁶ Ibid.

⁴⁷ *New York Times*, "Shafter's Army Off at Last," June 15, 1898.

she overtook the transports in the lower bay and turned them back to the harbor.

The expedition was over! Not a man had been lost! Eighteen or twenty horses had died in the stuffy, airless holds, and the others were ordered taken ashore.

The matter? Why, Spanish gunboats had been sighted off Cardenas, off Kingston, off Key West, off Dry Tortugas, off Havana, off the Florida coast – off every port in the waters of the Gulf, Caribbean, and the straits. They had suddenly covered the waters of the Gulf and two seas. And then, too, Cervera had escaped from Santiago – had not, indeed, been there at all! We learned more about the Spanish ships in two hours than we had learned before in two months. There was to be no expedition until all these ships had been hunted down, and our transports were huddled together in the slip like a covey of quail!⁴⁸

After 6 more days of waiting in Tampa, it was finally determined that the seas were safe for travel, and on 14 June more than 20,000 men – the largest invading army ever sent that distance from a single country⁴⁹ – steamed for Santiago. *Indiana* was the lead escort vessel, and the rest of the transport columns were surrounded by the remaining warships. *Castine* and *Hornet* were to act as dispatch boats and sentinels, steaming in and out of the column as necessary.

The transport fleet arrived off Santiago on 21 June, and General William Shafter immediately met with Admiral Sampson to discuss where to land the troops. The Marines had taken Guantanamo Bay a few days previous, giving the Navy a vital port for coaling and repairing their ships. In spite of this gain Sampson needed the shore batteries guarding Santiago disabled and the channel mines cleared before he could engage Cervera's fleet. Shafter agreed and a beach landing 20 miles east of Santiago, at

⁴⁸ Sams, "Breaking Camp at Tampa."

⁴⁹ *New York Times*, "Shafter's Army Off at Last"

Daiquiri, was chosen. At noon the following day, *Castine*, *New Orleans*, *Detroit*, *Wasp*, and *Suwanee* commenced shelling the fortifications at Daiquiri, receiving little resistance. Simultaneous bombardments at Catanas, Altares, and Aguadores, were implemented to disguise the actual location of the troop landing.⁵⁰ The troop landing at Daiquiri was as disorganized as its loading in Tampa. The navy vessels had to lighter most of the men and supplies ashore with their own boats.⁵¹ Still, the landing was made in one day, and on the 23rd, Shafter began his advance on Santiago. On 1 July, Shafter captured the high ground outside Santiago, thanks largely to the legendary bravery of Teddy Roosevelt and his Rough Riders at San Juan and Kettle Hills.

With no options remaining other than surrender, Cervera decided to make his escape. He charged out of the harbor on the morning of 3 July, and had all his vessels turn west towards Cienfugos. Cervera was outmatched in both horsepower and battery strength; he would be the second Spanish admiral of the war to lose his entire fleet in one day. All of Cervera's four cruisers and two destroyers absorbed heavy damage, and were run ashore to avoid sinking. In addition, the Spanish Navy suffered over 300 killed, 150 wounded, and 1,800 taken prisoner. The Americans lost only one killed and one wounded.⁵²

Castine did not get to participate in the Navy's victory at Santiago; after landing the troops at Santiago, it had returned to more mundane blockade duty off Havana, along

⁵⁰ *New York Times*, "Troops Landed near Santiago," June 23, 1898.

⁵¹ Navy Department, *Annual Reports of the Secretary of the Navy*.

⁵² Symonds, *Historical Atlas of the U.S. Navy*.

with *Prairie*, *Marietta*, and *Hawk*.⁵³ Commander Berry and his men did get into action when *Castine* joined a fire fight with shore batteries and Spanish gunboats at Mariel Harbor.⁵⁴ On the night of 4 July, *Hawk* sighted a four-masted Spanish steamer attempting to run the blockade and chased the steamer aground at the entrance to the harbor. When a prize crew approached the blockade-runner in *Hawk*'s boats, they were driven back by heavy rifle fire. *Castine* approached to give assistance, and was soon cornered by more heavy fire. The 5-inch guns at Martello Tower on the west side of the harbor, a sand battery on the east side, and two gunboats inside the harbor, opened up.⁵⁵ *Castine* skillfully maneuvered out of harm's way, and *Prairie* came to the rescue, silencing the Spanish batteries with her 6-inch guns. All three American vessels then fired continuously into the grounded blockade runner until it was riddled and in flames. The resulting explosions led the Americans to believe the steamer was carrying ammunition.⁵⁶

With the complete victory at Santiago, the navy's combat role was essentially over. The remaining months of 1898 were spent maintaining the blockade and transporting supplies to the army in Cuba and Puerto Rico. Santiago officially surrendered on 17 July and Puerto Rico was invaded on 25 July. Spain initiated peace negotiations the next day. Manila fell three weeks later, before U.S. or Spanish forces

⁵³ USS *Castine*, "Deck Log, July 3, 1898," (National Archives and Records Administration, Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations, 1801-1915.).

⁵⁴ *New York Times*, "Loss of the *Alfonso XII*," July 9, 1898.

⁵⁵ *Ibid.*; *Castine*, "Deck Log, July 5, 1898," (National Archives and Records Administration, Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations, 1801-1915).

⁵⁶ *New York Times*, "A Blockade Runner's Finish," July 13, 1898.

received word of a signed peace protocol, and then began four months of contentious negotiations to determine the price Spain would pay for their defeat. In December, representatives from Spain and the U.S. signed the Treaty of Peace in Paris, which, among other minor concessions, granted independence to Cuba, ceded Puerto Rico and Guam to the United States, and sold the Philippine Islands to the U.S. in exchange for \$20 million.⁵⁷

Spain was offended and embarrassed by the U.S.'s demands, but they were ultimately powerless to stop it without risking a resumption of the war. In particular, Spain objected to the transference of sovereignty over the Philippines. Spain's treaty commissioners felt this was an unmerited concession in a war that was ostensibly fought for Cuban independence. Not coincidentally, Filipino insurgents who had just finished fighting and dying for their independence alongside the Americans also objected to this development. Although the insurgents were violently opposed to remaining under tyrannical Spanish rule, they did not see any justification in simply exchanging Spanish masters for American ones, particularly since Cuba had been granted its freedom. On 1 January 1899, the insurgent leader General Emilio Aguinaldo was declared president of the new Philippine Republic. A month later on 4 February, after it became clear that the U.S. was not going to renounce its sovereignty or recognize Aguinaldo's presidency, shots were exchanged between American and Filipino outposts, and so began the three-

⁵⁷ Ivan Musicant, *Empire by Default: The Spanish-American War and the Dawn of the American Century* (New York: Henry Holt and Company, 1998). 626-627.

year Philippine Insurrection.⁵⁸ What had been a global but short-lived war with Spain spun into a localized but far bloodier and drawn-out conflict within the Philippine Islands.

The Philippine Insurrection

After fighting a war for Cuban independence in 1898, the U.S. returned to war in 1899 to prevent the Filipinos from gaining their own. This might seem ironic until one realizes that Cuba isn't next to China. Many American entrepreneurs were salivating at the thought of finally having a stepping stone or coaling station to access China's untapped markets. One letter-writer to Navy Secretary Long echoed the sentiments of many when he argued that annexation of the Philippines was economically justified under America's Manifest Destiny: "Even now," he wrote, "our domestic consumption cannot take more than seventy-five percent of our manufactured products...Hence the necessity of great foreign markets for such surplus."⁵⁹

In truth, President McKinley had serious reservations about this policy. He and anti-expansionists within his administration recognized the moral hypocrisy of U.S. dominion over the Philippines. McKinley had few realistic options. The Philippines had essentially fallen into America's lap after Dewey's sudden and surprising victory at Manila, and they would have to be dealt with responsibly. If not forced annexation, McKinley's only options were:

- 1) Restore Spanish sovereignty

⁵⁸ Ibid. 628-829.

⁵⁹ Ibid. 603.

- 2) Grant full independence
- 3) Walk away and leave the country vulnerable to partitioning and colonization by other imperial European nations.

The third option was the least desirable, if only because Germany was already waiting at the doorstep if the U.S. relinquished, and a German Pacific empire was in nobody's interest but the Kaiser's. The second option was impractical. The Philippines consisted of thousands of islands with dozens of different tribal groups and languages, battered by years of oppression and without a strong unifying sense of nationality. The immediate implementation of a capable and fair governing body was impossible.

McKinley did strongly consider variations of the first option; initially he desired only to retain control of the bay and city of Manila as a commercial center and naval base, and to return the remaining islands to Spain. His advisors warned him, however, that control of Manila without controlling of the rest of Luzon was, militarily speaking, a position of weakness rather than strength. Furthermore, a large defensive garrison would be needed with an enemy so close-by, and the economic interdependence of the island chain precluded isolating them from their commercial and political center at Manila.⁶⁰ Finally, McKinley could not in good conscience return the Philippine populace to a tyrannical government that was now bankrupt and had no ability to govern the islands in any case. McKinley determined to fight for the U.S.'s new possession and the armed forces were once again called into action.

⁶⁰ Ibid. 600.

During the Spanish-American War, there had been several conflicts between Army and Navy officers over which military branch had primacy of command and which deserved official recognition for certain victories, particularly at Santiago. During the Philippine Insurrection, the Navy's role was clearly defined from the start as a supporting one for the Army.⁶¹ This typically meant enforcing a blockade of the islands, providing artillery support for army operations, and transporting troops and supplies. In some instances navy and marine personnel were required to make intrusions into hostile areas where army units were unavailable.

In the early months of the conflict, the insurrection was mostly confined to Luzon, the northern island that is the largest in the Philippine Archipelago. As Aguinaldo's forces were dispersed from Luzon, the insurgency spread to southern islands, and the U.S.'s focus was widened accordingly. This complicated both army and navy operations. The Philippines consist of 8,000 islands spread out over 1,000,000 square miles, almost 90% of which is covered with water (Figure 2.3).⁶² With those geographic restrictions, naval operations required vessels that had both the firepower to repel land-based insurgents and the ability to navigate the innumerable shallow waterways and harbors within the archipelago. This meant gunboats, lots of gunboats. Admiral Dewey recognized this need early on and urgently lobbied the Navy Department to send as many

⁶¹ Vernon Leon Williams, "The U.S. Navy in the Philippine Insurrection and Subsequent Native Unrest, 1898-1906" (Ph.D. Dissertation, Department of History, Texas A&M, 1985). 101.

⁶² Commander Frederick L. Sawyer, *Sons of Gunboats* (Annapolis, Maryland: United States Naval Institute, 1946). 25-27.

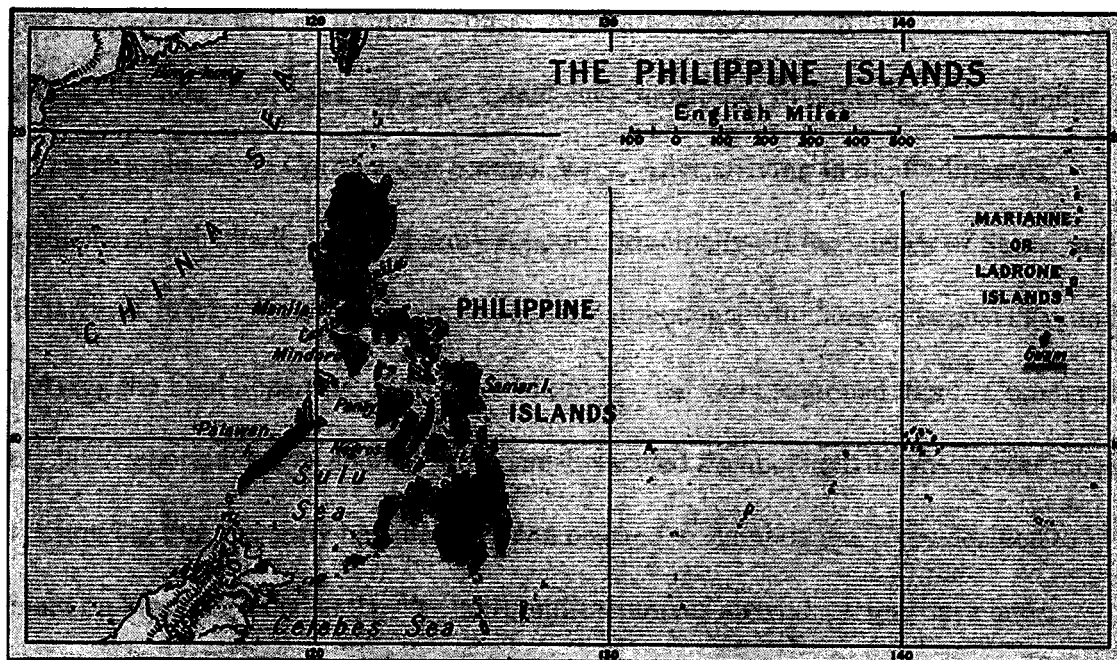


Figure 2.3: The Philippine Islands during the Philippine Insurrection (Stanford Geographical Establishment)

light-draft vessels as could be spared.⁶³ It was no coincidence that, at the outbreak of hostilities, eight of the nineteen vessels in Dewey's fleet were gunboats (three of which had been captured from the Spanish at Manila). The remaining vessels under Dewey's command included four protected cruisers, one unprotected cruiser, two monitors, and four supply steamers and colliers. On the way to Manila was the battleship *Oregon*, the cruiser *Raleigh*, collier *Scnidia*, distilling ship *Iris*, and gunboats *Princeton* and *Castine*.⁶⁴

Following the Spanish-American War, *Castine* had been sent to Boston for several months of repairs, and then was ordered back to Havana in December 1898. On 4 January, *Castine* was redirected from Havana to Manila to join Dewey's Asiatic

⁶³ *New York Times*, "Reinforcements for Otis," March 3, 1899.

⁶⁴ *New York Times*, "Ships in Dewey's Fleet," February 7, 1899.

Squadron. *Castine* arrived in Manila on 21 April after steaming through Puerto Rico, the Azores, Gibraltar, Port Said, the Suez Canal, and Singapore. In Gibraltar, Commander Berry was replaced by Commander Samuel Very. After arriving in the Philippines, *Castine* began blockade duty and army support, principally off the islands of Samar and Mindanao.⁶⁵ In May, *Castine* was cruising off Zamboanga, Mindanao's largest city, and observing the final departure of the Spanish troops that were stationed there. Commander Very later reported that as soon as the Spanish vacated Zamboanga, the insurgents moved in. Knowing that the army had already been ordered to Zamboanga, Very decided to remain on blockade outside the city until reinforcements arrived. A few days later, *Castine* captured six small boats attempting to escape from Zamboanga with supplies and loot from the abandoned Spanish fort. Prisoners from the failed escape attempt revealed to Very that the insurgents had retrieved a large number of the discarded Spanish arms, and were holding the garrison.⁶⁶

Zamboanga was the site of *Castine's* most notable achievement during the Philippine Insurrection. After Spanish forces evacuated, *Castine* maintained a blockade of the city and surrounding areas for most of the period between May and November 1899. The Philippine Islands were particularly vulnerable to blockade because all their inter-island communication and commerce was waterborne. Furthermore, due to variations in topography, individual islands were not self-sufficient. While some islands produced certain fruits and vegetables, others produced rice, and still others supplied

⁶⁵ Unknown, "Historical Sketch of the U.S.S. *Castine*."

⁶⁶ Vernon Leon Williams, "The U.S. Navy in the Philippine Insurrection and Subsequent Native Unrest, 1898-1906". 109-110.

hemp fiber. The islands' interdependence made it theoretically easy to isolate insurgent groups and cut off their food, armament, and clothing supplies. By the middle of November, *Castine* had been so effective at enforcing this strategy the Zamboangan population was starving and ready to surrender.

The local insurgency was led by two men named Alvarez and Calixto. Alvarez was the provincial president and insurgent political leader, Calixto was his military commander, and both men had helped Aguinaldo begin the insurgency in Luzon before being chased south. Though the two men held political and military control, they did not hold the allegiance of the local population, who considered the insurgents responsible for the debilitating effects of the blockade. On 15 November, Isodoro Midel, mayor of Tetuan, lured Calixto to a meeting where he promptly had the rebel shot.⁶⁷ Midel then went immediately to *Castine* to surrender Zamboanga and request Commander Very's occupation of the city. The following morning, Very anchored *Castine* off Zamboanga and sent a group of bluejackets and natives to hoist the American flag over the city. Calixto's remaining men fled without resistance, having earlier agreed to do so on the condition that the Americans and townspeople make a token show of force so the insurgents could run away with honor.⁶⁸

After occupying the town and fortifications, Very began the administrative obligations that were thrust upon many gunboat commanders during the Philippine Insurrection. First, Very facilitated the nonfatal surrender of Alvarez, and then he

⁶⁷ *North Adams Evening Transcript*, "Fall of Zamboanga," January 18, 1900.

⁶⁸ *New York Times*, "Navy's Work in the East," January 7, 1900.

oversaw a meeting of local town chieftains who formally deposed Alvarez as leader of the insurgency and elected Midel president of the new insular government established under American control.⁶⁹ At Very's request, army reinforcements were sent from the nearby island of Jolo. At the time, reports of the Zamboanga surrender were received with great satisfaction by President McKinley and his War Department. It was the principal city of Mindanao, the second largest island in the Philippines. With a population of nearly 22,000, the city and surrounding province dominated the southern half of the island, and the Spanish fortifications afforded the Americans an easily defended position with a naval station.⁷⁰ To McKinley and his advisors, Commander Very's capture of this important city was seen as the beginning of the end of hostilities.⁷¹ For his part, Commander Very was seen as a liberator amongst the Zamboangan citizens, and his respectful treatment of the populace, both before and after the surrender, was considered to be a significant factor in establishing pro-American sentiment in the region.⁷²

The Boxer Rebellion

Not everyone was as impressed by Commander Very and *Castine*, however. In his personal diary, Ensign William D. Leahy said of Very that he "is the most disagreeable person and has the worst ship in the navy."⁷³ Leahy made his comment after learning he would be assigned to *Castine* as one of his first post-academy assignments.

⁶⁹ *New York Times*, "The Surrender of Zamboanga," December 2, 1899.

⁷⁰ *New York Times*, "Insurgents Deliver a City," November 21, 1899.

⁷¹ *New York Times*, "Rebel Province Surrenders," November 27, 1899.

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⁷¹ *New York Times*, "Rebel Province Surrenders," November 27, 1899.

⁷² *New York Times*, "Navy's Work in the East."

⁷³ William D. Leahy, "Leahy Diary, 1897-1931," (Unpublished manuscript, Wisconsin Historical Society).

Incidentally, Ensign Leahy would finish his naval career as Fleet Admiral Leahy; he was one of four admirals, along with Chester W. Nimitz, Ernest King, and William Halsey, to receive the newly created five-star ranking in 1944. Leahy also later served as chief of naval operations, governor of Puerto Rico, and chief of staff for President Franklin D. Roosevelt.⁷⁴

Leahy joined *Castine* in December 1899, a month before the boat was ordered to Nagasaki for repairs. While en route to Japan, crippled engines and a fuel shortage forced Commander Very to detour into Shanghai. An outbreak of smallpox among the crew resulted in a forced quarantine for the entire ship. When notified of the quarantine, which would last two and a half weeks, Rear Admiral Watson, commander of the Asiatic Squadron, directed Very to remain in Shanghai for his repairs. Early in March, work was begun on *Castine*'s engines and boilers at the Oriental Docking Company, along the Woosung River.

Convenience was probably not the only rationale behind Admiral Watson ordering *Castine* to stay in Shanghai. By the spring of 1900, tensions between Western ministers and a radical Chinese sect named The Righteous and Harmonious Fists, or "Boxers," had reached a boiling point. Boxers were the violent representatives of a Chinese population that resented the ever-increasing encroachment of foreign imperial powers into Chinese soil. This resentment dated back to, at least, the Opium Wars with

⁷⁴ Paul D. Henriott, "United States Navy, Fleet Admirals, World War II-Era Navy." <http://www.rtccl.com/oakland/fleetadmirals.html#leahy>. 2005.

Britain (1839-1842), and was exacerbated by European and Japanese territorial and commercial concessions resulting from the Sino-Japanese War in 1895.⁷⁵

Prior to 1898, the U.S. had been left out of this economic free-for-all, which was at least a partial motivation for McKinley's decision to acquire the Philippines and advance an Open Door policy of equal access to Chinese markets for all western countries. The Boxers became increasingly angered at the Imperial Chinese government's inability to resist encroachment. In 1899, they began a series of violent attacks against foreign ministers and Chinese Christians. These attacks grew more severe and were virtually ignored by Chinese authorities, who publicly disavowed the Boxers but did nothing to stop them. On 9 March, a nervous Edwin Conger, American minister in the capital city of Peking, requested that the Navy make a demonstration in northern Chinese waters.⁷⁶ The Japanese and European legations made the same request, and an international force, consisting of naval and marine personnel, was assembled. By the first week of June, a force of 450 Americans, British, French, Italians, Germans, Japanese, and Russians had arrived to protect their respective legations in Peking. Within the next two weeks, another international force of 2,000 men, under the command of British Admiral Edward Seymour, began marching toward Peking from Tientsin, and allied warships shelled forts at Taku at the mouth of the Pei-ho River, that leads to Peking. These actions convinced the Chinese Emperor and Empress that a foreign invasion was under way, and

⁷⁵ U.S. Naval Historical Center, "The Boxer Rebellion and the U.S. Navy, 1900-1901," <http://www.history.navy.mil/faqs/faq86-1.htm>. 2000.

⁷⁶ Paolo E. Coletta, *A Survey of U.S. Naval Affairs, 1865-1917* (Lanham, Maryland: University Press of America, 1987). 100.

the Imperial Army was ordered to resist.⁷⁷ After marching halfway to Peking, Seymour's column was forced to retreat to Tientsin. On 21 June, Boxers and Imperial Chinese forces began a siege of the foreign legations and marines in Peking.

While the situation in Peking became dire, tensions in Shanghai also mounted. There had been no overt hostility towards the foreigners there, but the overriding sentiment was that trouble would center in Shanghai if and when Peking was taken.⁷⁸ By the end of July, the naval presence in Shanghai included two Dutch cruisers, one German cruiser, two Japanese gunboats, three British gunboats, one British destroyer, a French cruiser and gunboat, and *Castine*. On the other side were five Chinese warships 3 miles downriver, 1,300 Chinese soldiers, and 300,000 agitated natives. In case of attack, each allied ship was assigned to protect its respective national interests as well as certain strategic geographic areas. *Castine's* defense assignment included a group of missionaries located only a quarter mile from the Chinese army garrison.⁷⁹

Perhaps due to the preemptive placement of *Castine* and other warships, the Boxer Rebellion never materialized at Shanghai. At Peking, the vastly outnumbered Western, Russian, and Japanese legations were able to resist the siege for 55 days until an international army of 18,000 men fought their way up the Pei-ho River and into the city. This effectively ended the Boxer threat, but international forces continued to chase bands of rebels throughout northern China until February 1901. The Peace Protocol of Peking

⁷⁷ Symonds, *Historical Atlas of the U.S. Navy*. 116

⁷⁸ Leahy, "Leahy Diary, 1897-1931." 84

⁷⁹ *Ibid.* 79, 83.

was signed in September 1901, and Chinese authorities officially abolished the Boxer Society.⁸⁰

On 28 August 1900, *Castine* left its Shanghai outpost and steamed to Amoy to observe a situation developing between Japanese and British soldiers there. Reports of trouble had been exaggerated, however, and *Castine* was soon ordered to duty in the Philippines. After arriving in Cavite on 19 September, *Castine* and her crew discovered that hopes of "the beginning of the end" after the fall of Zamboanga had not been realized, and that the guerilla fighting was as bloody as it had been since the start of the war. *Castine* resumed assisting army operations suppressing the insurrection, going first to the island of Marinduque. There, an army detachment of 52 men had been ambushed and captured after chasing an armed band of insurgents. The survivors were eventually returned, but their weapons were not. The army retaliated by sending another 1,300 troops after the rebels, with *Castine* acting as a troop transport and providing armed boat crews to bring the soldiers ashore.⁸¹

In October, *Castine* was ordered to Iloilo for patrol and survey operations. The Navy department selected Iloilo as a potential site for a navy yard, and from November 1900 to March 1901, *Castine* conducted a careful survey of the harbor and approaching straits. This was a dangerous assignment that often left survey crews vulnerable to attack. At a minimum, insurgent gangs would destroy, at night, equipment and shore stations that the Americans had set up during the day. At other times, shore parties were forced to

⁸⁰ U.S. Naval Historical Center, "The Boxer Rebellion and the U.S. Navy, 1900-1901."

⁸¹ Leahy, "Leahy Diary, 1897-1931." 89-90.

take cover against withering enemy fire. Whenever possible, *Castine's* 6-pounder guns were brought to bear against insurgent positions. In one instance, a survey crew discovered a freshly dug enemy trench at their landing location that had just been abandoned due to *Castine's* well-placed artillery fire. Despite repeated attacks, no *Castine* crewmen were killed during the 5 months of survey on Iloilo.⁸²

Survey work was not uncommon for gunboats in the Philippines. The only charts available to the Navy had been captured from the Spanish, and those were dangerously inaccurate. After grounding on an unmarked shoal, the commander of the gunboat *Panay* remarked that, "Some of the surveys [made by the Spanish Navy] must have been made with a crystal ball while lying at anchor, for...in overhauling certain records of the cruising reports of these gunboats under Spanish rule it appears that the U.S.S. *Panay* was underway about as many days in a week as in one year during the Spanish regime."⁸³ Gunboat commanders, therefore, often had to take the time to create their own charts so that they could quickly provide support for army forces or find a safe harbor during a typhoon.

Castine completed its survey of Iloilo on 12 March and proceeded to Cavite for repairs. On 28 March, the USS *Vicksburg* also ported in Cavite, carrying insurgent president Aguinaldo, who had been captured in northern Luzon a few days earlier.⁸⁴ With Aguinaldo's capture and eventual capitulation, the Philippine Insurrection was effectively

⁸² Ibid. 92-99.

⁸³ Sawyer, *Sons of Gunboats*. 48

⁸⁴ Leahy, "Leahy Diary, 1897-1931." 101.

over. Insurgent groups throughout the islands began to surrender, though dedicated nationalists of varying competence would continue the fighting for several more years. The U.S. officially declared an end to hostilities in 1902.

Peacetime

After finishing repairs at Cavite, *Castine* was ordered back to the United States with a cargo of sick and short-time men. *Castine* left Cavite on 23 June and arrived at League Island (Pennsylvania) Navy Yard on 20 September, where she was decommissioned. *Castine* was placed back in commission on 12 November 1903 under the command of Commander Austin Knight, and given a complement of 256 sailors and marines. Then began a decade and a half of relatively peaceful service for the U.S. Navy. *Castine* spent this time employed in the types of non-combat service for which gunboats were always intended. Extended cruises directed at showing the flag and protecting American interests in various misbehaving banana republics were punctuated by shorter periods of decommissioning and domestic service.

From December 1903 to May 1904, *Castine* cruised the Gulf and Caribbean waters as part of the South Atlantic Squadron. In June 1904, *Castine* was sent to cruise the Mediterranean and off the west coast of Africa. In October of that year, *Castine* was brought back to the South Atlantic to continue cruising in the West Indies and along the east coast of South America.⁸⁵

⁸⁵ Anonymous, "Historical Sketch of the U.S.S. *Castine*," (Naval Historical Center, Ships History Files, Washington, D.C., 1925).

During the first decade of the 20th Century, Latin America and the Caribbean islands were a focal point of U.S. naval and foreign policy. It was thought that, if the U.S. were attacked by a foreign navy, the Caribbean would be the doorway through which they came. In addition to the United States, several European powers also had growing commercial interests in Latin America. Policy makers theorized that the endemic political and financial instability of most of these developing countries could invite European military intervention. The prevailing fear was that Germany, a burgeoning naval power, would use the pretense of protecting its interests to seize a Caribbean port. Germany would then have a staging area to launch offensive operations against the U.S. This fear was not unfounded; between 1898 and 1903, Germany developed several war plans that hinged on the seizure and retention of Puerto Rico or a port in the West Indies.⁸⁶

Based on the tenets of the Monroe Doctrine, President Theodore Roosevelt knew that he could not prevent foreign countries from protecting their interests or punishing Latin American countries for non-payment of outstanding national debts. But he was doggedly determined not to allow this potential encroachment to result in European territorial acquisition. Accordingly, Roosevelt reconsidered the U.S.'s role in overseeing Latin American politics. If the U.S. wanted to prevent European intervention, then it fell upon the U.S. to maintain order. Roosevelt stated, "If we are willing to let Germany or England act as the policeman of the Caribbean then we can afford not to intervene when gross wrongdoing occurs. But if we intend to say 'Hands off' to the powers of Europe,

⁸⁶ Richard W. Turk, "Defending the New Empire," *In Peace and War: Interpretations of American Naval History, 1775-1978*, ed. Kenneth J. Hagan (Westport, Connecticut: Greenwood Press, 1978). 188.

then sooner or later we must keep order ourselves."⁸⁷ On 6 December 1904, the President enunciated to Congress the Roosevelt Corollary to the Monroe Doctrine which established the United States as "an international police power" in Latin American affairs. This became the guiding principle of U.S. naval operations over the next decade.

One of the first tests of this new policy came in the Dominican Republic in 1904. Insurgent groups, believed to be financed by German merchants, were attempting to overthrow the constitutional government. Dominican President Carlos Morales was further besieged by several European nations to relinquish control of customs houses so that duties could be collected towards paying off foreign debt. Morales knew that this would bankrupt the government, leading to anarchy. Furthermore, American sugar plantation owners were being extorted with prohibitive export duties by some of Morales' own officials, and they appealed to the State Department for intervention.⁸⁸ *Castine*, along with *Chattanooga*, *Detroit*, and *Dixie*, was sent to the capital city of Santo Domingo to maintain order and protect against any disturbance from within or without the island.⁸⁹ At Morales' request, in February 1905 an agreement was reached whereby the United States would administer the customs receivership, doling out payments to European debtors as necessary. *Castine* remained on station in Dominican waters until August 1905.

⁸⁷ Ibid. 192.

⁸⁸ *New York Times*, "Morales Faces Crisis; Morales Is Discredited," March 23, 1905.; *New York Times*, "An Appeal for Protection," January 22, 1905.

⁸⁹ *New York Times*, "Untitled," March 24, 1905.

By 23 September 1905, *Castine* had returned to the States and was decommissioned on that date at the Portsmouth, New Hampshire, Navy Yard. *Castine* remained out of commission at Portsmouth for three years, before being recommissioned on 4 October 1908 under command of Commander John D. McDonald. For most of the next four years, *Castine* was employed as a submarine tender – a service that was entirely new to the U.S. Navy and one that was emblematic of the versatility expected of the early New Navy gunboats.

Castine was designated as the principal sub tender for the newly created Atlantic Submarine Flotilla. As a submarine “mother ship,” *Castine* was responsible for supplying and recharging the boats under her supervision. Submarines at that time used gasoline engines while on the surface and electric power while submerged. They had a subsurface cruising radius of 75 miles before it became necessary to recharge their batteries. Each submarine could recharge independently on the surface, but this required expenditure of large amounts of gasoline and the attendant labor of engineers who had to constantly monitor the engines. With a mother ship, however, the subs were relieved of these draining responsibilities by simply docking up to the parent vessel’s dynamo for recharging. This also allowed the submarine crews to board the larger tender and attain some relief from the cramped conditions aboard their own boat.⁹⁰

In September 1909, the Atlantic Submarine Flotilla, composed of the subs *Viper*, *Cuttlefish*, *Tarantula*, and *Octopus*, with *Castine* as tender, conducted two weeks of practice drills in Narragansett Bay, Rhode Island. These drills consisted of speed tests

⁹⁰ *New York Times*, “Submarines Popular with Navy Men,” February 2, 1908.

and both submerged and surface firing drills, with the submarines' Whitehead torpedoes being fired at imaginary targets from a 2,000 yard range. These were the first such submarine practice drills for the United States Navy.⁹¹ The following month, *Castine* and her brood participated in an international naval parade in the Hudson River, where they treated the shore-lining spectators to a sight most of them had likely never before witnessed:

While the guns of the *Castine* were peppering away [in salute of a newborn German Prince]...the four little submarines to which she is the official mother were nestling up to her sides. It was the first time in the history of the Hudson that a submarine parent had put her babies to bed and it proved to be one of the prettiest sights upper New York has seen in a long time. Each submarine flotilla is now accompanied wherever it goes by a parent ship, which is fitted with hooks, stanchions, bits, and bollards, to which the submarines, when the day's or night's work is done, are made fast.

The *Castine* came to anchor off 158th Street at 11 A.M., and those who were on the viaducts were surprised to see four funny-looking vessels slowly steaming up to her from the south. As each submarine came alongside the crew came up out of the shell, and in five minutes the vessel was securely made fast to the side of the mother ship. When it was all over the *Castine* was nestling two on either side, the *Plunger* and *Porpoise* being on her starboard and the *Viper* and *Tarantula* on her port. There is another roosting place far astern for the fifth submarine, the *Octopus*, which is not with the flotilla at present.⁹²

From 1912-1913, *Castine* was the flagship for the Atlantic Submarine Flotilla's commanding officer, a young lieutenant named Chester Nimitz. Along with William Leahy, Nimitz was the second of the original four, 5-star Fleet Admirals who spent early parts of their distinguished careers aboard *Castine*. Nimitz would go on to become one of

⁹¹ *New York Times*, "Submarines Have Contest," September 11, 1909.

⁹² *New York Times*, "Baby Prince Gets Hudson Fleet Salute," October 6, 1909.

the most accomplished and celebrated naval officers in U.S. history, serving as Commander in Chief of the Pacific Fleet that destroyed the Japanese Navy during World War II (Figure 2.4).

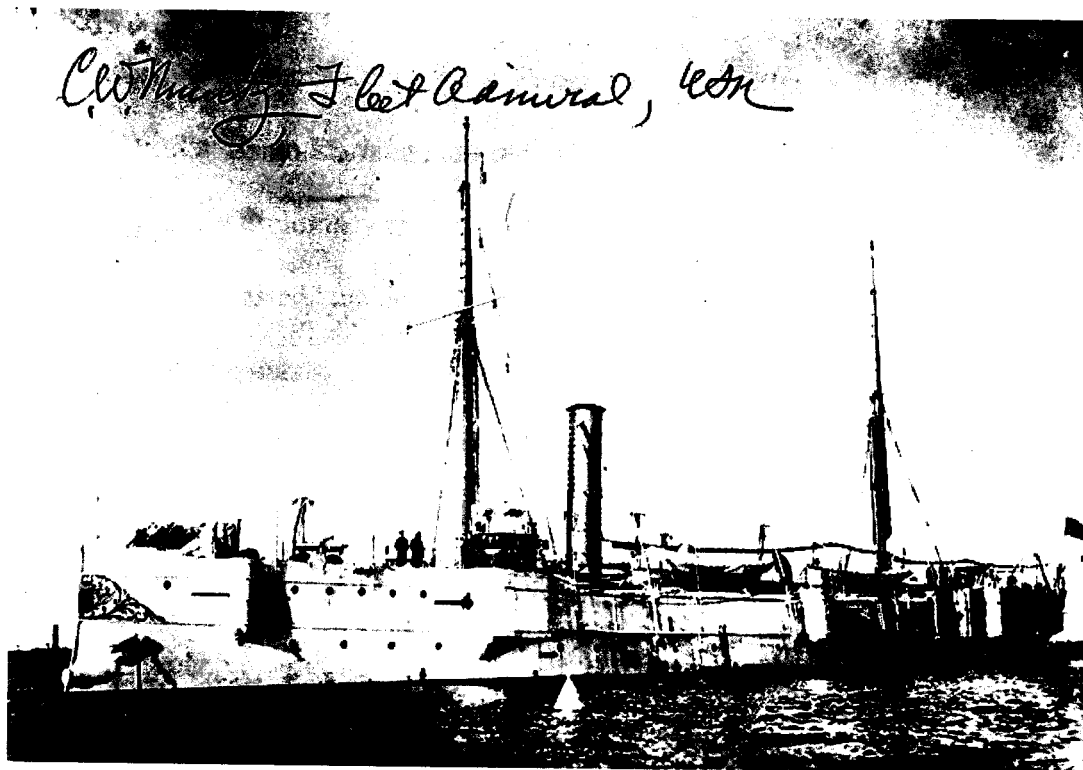


Figure 2.4: Photograph of *Castine*, autographed by Admiral Chester W. Nimitz (Courtesy of the Naval Historical Center, Photo No. NH 59098)

Castine ended its tenure as a submarine tender in 1913. After another short decommissioning period at the Boston Navy Yard, she was returned to service as a gunboat. Violent revolutions had once again erupted in the Dominican Republic and neighboring Haiti, and *Castine* was one of several ships sent to mediate. From May 1914-March 1917, *Castine* spent the majority of its time cruising between Santo Domingo, D.R., and Port-Au-Prince, Haiti, monitoring the conflicts and protecting American interests. Correspondence from the Commanding Officer of the Atlantic Fleet's Cruiser

Squadron illustrates a typical order received by *Castine*'s commander: "If in all respects ready for sea, proceed...to Macoris, D.R.....[T]ake such measures as may be necessary, in your opinion, to support the Constitutional Government, to preserve peace and order, and to protect lives and property of Americans and other foreigners."⁹³ On several occasions *Castine*'s commanding officer, Commander Bennett, acted in concert with the American consul at Santo Domingo to keep insubordinate Dominican officials in line, by means of both direct diplomacy and indirect displays of military intent. In February 1916, the consul dryly requested "the presence of a naval vessel at [Santo Domingo] as soon as possible to assist in emphasizing representations he has made to the Dominican Government."⁹⁴ In April 1916, Commander Bennett assisted the consul in mediating a power struggle that ensued after Dominican President Jimines was deposed and his Secretary of War and Navy ascended to the top office.⁹⁵ The following August, Commander Bennett received a confidential order to transport a detachment of 32 marines to San Pedro de Macoris, D.R., to capture Juan Calcano, an insurgent leader, and

⁹³ Commander, Cruiser Squadron, "Movement Orders for USS *Castine*, May 24, 1916," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056.).

⁹⁴ Commander, Cruiser Squadron, "Movement Orders for USS *Castine*, February 27, 1916." (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056.).

⁹⁵ Commanding Officer, USS *Castine* "Correspondence to the Secretary of the Navy (Operations), April 21, 1916," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056).

transport him back to Santo Domingo for imprisonment by the Navy Department at Fort Ozuma.⁹⁶

On 29 August, *Castine* gained further notoriety by being involved in one of the worst peacetime tragedies in U.S. naval history. On that date, *Castine* was anchored outside Santo Domingo with the armored cruiser *Memphis*. A few minutes before 4:00 p.m., officers on both ships noticed seas that were quickly building, despite almost no wind. Fires were burning in only one of *Castine*'s boilers, but Commander Bennett immediately ordered the second one fired and the ship readied for movement to deeper water. *Castine* had barely turned to seaward when massive waves began breaking in the ships' anchorage. Commander Bennett took his vessel straight in to the heavy seas, *Castine*'s bow and propellers alternately rising completely out of the water as the ship plowed up and over the battering waves.⁹⁷ Suddenly, two successive tsunamis in excess of 40 feet high swept into the anchorage. *Castine* was able to weather the first, but the second broke directly on top of the gunboat, smashing or carrying away all but one of the ship's boats and flooding the cabin, magazine, wardroom, and the steering engine room. The only thing that saved *Castine* from sinking on the spot was that the well-deck hatches, including ones leading to the engine-room, had all been fastened, though none of the officers later recalled having given an order to do so.⁹⁸

⁹⁶ Commander, Cruiser Force "Confidential Order to Commanding Officer, USS *Castine*, 21 August 1916" (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056).

⁹⁷ Captain Edward L. Beach, *The Wreck of the Memphis* (New York: Holt, Rinehart and Winston, 1966). 133.

⁹⁸ *Ibid.* 135.

This second wave had pushed *Castine* around so that the ship was then heading toward rocky shallows at the mouth of the Ozuma River, without enough sea space to correct its heading. Acting quickly, Commander Bennett ordered the engines to be backed, full, and *Castine* began to make slow progress towards deeper water, going stern-first into the still violent waves. Soon thereafter the steering gear and rudder broke and *Castine* was pushed broadside to the seas.⁹⁹ Witnesses on the *Memphis* later claimed that the ship was rolling almost 180 degrees beam-to-beam, and that its survival was a miracle.¹⁰⁰ *Castine*'s crew was able to re-fasten the rudder and fix the steering gear, however, and the gunboat eventually made it safely out to sea.¹⁰¹

Memphis was not as lucky. The cruiser had fired its boilers in advance of the largest waves, but almost immediately the main steam pipe burst, leaving the ship immobile and broadside to the sea. As the tsunami struck, men, equipment, and superstructures were swept clear of the deck, and the *Memphis* rolled to such an exaggerated degree that water washed down the stacks and extinguished the boiler fires.¹⁰² The ship, which drew 25 ft., was lifted up and over 5-ft. shallows, and dumped on rocks 5 ft. out of the water – a total loss (Figure 2.5). There were over 100 casualties from the two ships, including 41 killed. Twenty men died aboard a steam launch that was

⁹⁹ Kenneth M. Bennett, "Extracts from the Report of Commanding Officer Kenneth M. Bennett, of the U.S.S. *Castine*, Santo Domingo City, D.R., September 1, 1916." U.S. Naval Historical Center. Ships History Files, Washington, D.C.

¹⁰⁰ Beach, *The Wreck of the Memphis*. 141-142.

¹⁰¹ Kenneth M. Bennett, "Extracts from the Report of Commanding Officer Kenneth M. Bennett, of the U.S.S. *Castine*, Santo Domingo City, D.R., September 1, 1916."

¹⁰² *Frederick Post*, "Wrecking of the Memphis," November 29, 1916.



Figure 2.5: Cruiser *Memphis* on the rocks after being struck by a tsunami, 29 August 1916 (Courtesy of the Naval Historical Center, Photo No. NH 59921)

returning to the *Memphis* from shore leave, another eight drowned after three other boats (two from *Memphis*, one from *Castine*) capsized, and ten more died from burns or steam inhalation suffered after the *Memphis*' steam pipe burst.

Castine concluded its duties in Santo Domingo at the end of 1916, and was then dispatched to a special service squadron patrolling Mexican waters during the ongoing Mexican Revolution. This squadron was established in 1914, and was composed around battleships and armored cruisers performing blockade duty, with gunboats and other smaller vessels patrolling inshore Mexican rivers. *Castine* was assigned to the Mexican Patrol of the Fourth Squadron, and spent March – July 1917 cruising between Tampico and Vera Cruz. Along with *Tacoma*, *Wheeling*, and *Nashville*, the *Castine* spent days and

nights on river patrol, making "every endeavor to discover and capture or destroy enemy bases, submarines, and raiders."¹⁰³ Apart from one instance of capturing a Spanish steamer laden with 450 tons of arms and ammunition bound for insurrectionists,¹⁰⁴ *Castine's* service in Mexico was largely without incident.

World War I

While ships of the American Navy dealt with revolutions and other domestic issues, most of the world-power navies were enmeshed in a bloody European war. The First World War began in 1914 after the assassination of Austrian Archduke Ferdinand sparked hostilities between the Central Powers (Germany, Austro-Hungary, and the Ottoman Empire) and the Allied or Triple Entente Powers (the United Kingdom, France, and Russia). The fighting quickly escalated to include battlefronts in Eastern and Western Europe, the Middle East, and Italy.

Naval operations during the war were primarily defined by blockade duty and commerce raiding. The British Grand Fleet formed a distant blockade of the North Sea, keeping the German High Seas Fleet bottled up in Kiel. The result was a stalemate in which neither battle fleet assisted their respective army operations, or drew the other into a decisive fleet action. Unable to bring their battleships and cruisers to bear, the Germans instead relied on a program of destroying British merchant shipping with their U-boats.

¹⁰³ USS *Castine*, "War Diary, 15 April 1917," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056.).

¹⁰⁴ USS *Castine*, "Correspondence from Commanding Officer to Commander Mexican Patrol, 11 June 1917," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056.).

During the early war years, U-boats targeted only British ships passing within certain defined war zones around the British Isles. Passenger liners and merchant vessels from neutral countries were not attacked, though they were considered blockade runners and therefore subject to Prize Law if passing within those same war zones. Due to poor communications and indecisive leadership, however, this policy was largely ineffective. German political and naval leadership could never define their end purpose for the U-boat offensive, and therefore could not direct their officers on how best to achieve it. As a result, limited U-boat warfare had little effect on British commerce. The Germans were more concerned with keeping neutral countries, particularly the United States, from joining the war on the Allied side. Germany feared American involvement would bring about a quick Allied victory, and it was correspondingly attentive to America's diplomatic overtures and rights on the high seas.¹⁰⁵ Furthermore, Germany decided to focus its energies on winning the land war, which it was confident it could do quickly. If so, the Germans reasoned, then the naval war would be rendered moot, and the United States would be further dissuaded from entering a war already lost.¹⁰⁶

By 1917, however, the Allies had gained ground in Europe and German hopes for a quick victory had disappeared. In fact, Germany's situation had become dire, and several Admiralty officers lobbied for adopting unrestricted U-boat warfare against all

¹⁰⁵ Captain Dudley W. Knox, "American Naval Participation in the Great War (with Special Reference to the European Theater of Operations)." *Hearings before Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment, 1927-1928*. U.S. Congress. House. Committee on Naval Affairs, 70th Cong., 1st Session.
http://www.history.navy.mil/library/special/american_naval_part_great_war.htm.

¹⁰⁶ Robert Gardiner, ed., *Conway's All the World's Fighting Ships, 1906-1921* (London: Conway Maritime Press, Ltd., 1985). 137.

merchant shipping entering the war zone. They estimated that, within five months, this approach would scare off two-fifths of neutral shipping to England, and further reduce incoming tonnage by 39%.¹⁰⁷ Such a reduction of England's merchant tonnage would effectively starve the British Continental army, and break the back of the Allied war effort. Several German officers had advocated this approach since the start of U-boat operations, but were repeatedly overruled, mostly out of fear of U.S. retaliation. By the beginning of 1917, German feelings on this matter had changed. They now felt that unrestricted U-boat attacks would be so quickly decisive that the United States could not mobilize warships or merchant ships fast enough to be of any real assistance. They were almost proven right.

Germany officially declared unrestricted U-boat warfare on 1 February 1917. President Woodrow Wilson, increasingly antagonized by collateral damage to American ships and civilians during the restricted U-boat war, broke off diplomatic contact with Germany two days later. Over the next several months, U-boats hammered Allied shipping in the Atlantic and Mediterranean. In the year before unrestricted warfare was declared, U-boats destroyed approximately 2 million tons of Allied shipping;¹⁰⁸ by April 1917, U-boats were sinking 900,000 tons a month, while only 177,000 tons of new

¹⁰⁷ Paul G. Halpern, *A Naval History of World War I* (Annapolis, Maryland: Naval Institute Press, 1994). 338.

¹⁰⁸ Gardiner, ed., *Conway's All the World's Fighting Ships, 1906-1921*. 139.

construction were being added.¹⁰⁹ The Germans were sinking 167 ships for every U-boat that was destroyed, and British ships on a round trip to the Mediterranean had only a 1 in 4 chance of survival.¹¹⁰ That same month, an official dispatch from a British Ambassador revealed that "there is only food enough here to last the civil population not more than six weeks or two months."¹¹¹ On the brink of defeat, Allied forces made a desperate plea for immediate U.S. assistance in the form of destroyers, antisubmarine craft, and merchant tonnage. Recognizing the consequences of this new threat, the U.S. obliged, and on 6 April declared war on Germany.

American naval involvement primarily took the form of utilizing light, fast, and highly seaworthy vessels for patrol and convoy escort duties in U-boat threatened areas. Destroyers were the optimal vessels of this type; however, a shortage in their supply necessitated supplementing the fleet with converted yachts, gunboats, revenue cutters, small cruisers, and other similar vessels. Initially these vessels were used to patrol shipping lanes, where each destroyer was assigned a specific patrol area to force any submarines to stay submerged, hampering their ability to attack a passing supply ship.

¹⁰⁹ Knox, "American Naval Participation in the Great War (with Special Reference to the European Theater of Operations)." *Hearings before Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment, 1927-1928*. U.S. Congress. House. Committee on Naval Affairs, 70th Cong., 1st Session.

¹¹⁰ Halpern, *A Naval History of World War I*. 349.

¹¹¹ Knox, "American Naval Participation in the Great War (with Special Reference to the European Theater of Operations)." *Hearings before Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment, 1927-1928*. U.S. Congress. House. Committee on Naval Affairs, 70th Cong., 1st Session.

This method proved inefficient, owing to the large patrol areas and the shortage of available destroyers.¹¹²

As the number of antisubmarine vessels in-theater increased, however, the convoy system was implemented. Under this approach, merchant vessels were formed into large groups and escorted through the war zone by one or more antisubmarine craft. This was an "offensive-defensive" tactic in that it was primarily a defensive measure but allowed an immediate offensive response to any submarine attack.

Initially, there was much opposition to this strategy within both British and American commands. Skeptics felt convoys would do more harm than good, as they could only proceed at the speed of the slowest vessel; they provided a large target for any U-boat; there were not enough escort ships available; and they would be prone to collisions. These fears turned out to be unfounded, however, and the convoy tactic had immediate results. By 17 July, only one-half of one percent of the 10,000 ships convoyed had been lost.¹¹³

The principal bases for the American antisubmarine fleets were necessarily located near the primary shipping lanes at Queenstown (Ireland), Brest (France), and Gibraltar, along with smaller bases on the west coast of France. Detachments at Queenstown and Brest were the primary defenders of the sea transportation for the U.S. Army in Europe. The base at Gibraltar was the gateway for more shipping traffic than any other part of the world, and it comprised the largest contingent of U.S. antisubmarine

¹¹² Ibid.

¹¹³ Ibid.

forces. The Mediterranean was an attractive target for the German Admiralty because of the significant percentage of British, French, and Italian imports that passed through. Choke points at the Suez Canal, Malta, Crete, and Gibraltar, also made for easy hunting. Prior to declaring unrestricted war, U-boat casualties in the Mediterranean accounted for more than half of the worldwide tonnage losses. After unrestricted war began, the percentage of global losses in the Mediterranean decreased, but absolute numbers increased, peaking with 254,911 tons sunk in April 1917.¹¹⁴ For the Allies, Gibraltar was the key to maintaining communication lines for armies in Italy, Greece, Egypt, Palestine, and Mesopotamia. It was defended by British, American, French, Japanese, and Italian vessels. The American contingent was comprised of nearly 5,000 personnel and 41 vessels, including *Castine*.

While still in Mexico in July 1917, *Castine* received a Movement Order from the department that read:

Enemy submarine activity in the vicinity of Gibraltar necessitates strengthening the Allied Forces operating there. Enemy submarines are reported operating within a radius of five hundred miles from the Azores.¹¹⁵

A few days later, on 8 July, *Castine* received orders to "fit out for distant service," and the gunboat returned to New Orleans for repairs and supplies. By 1 August, *Castine* had reached Hampton Roads where she took on crates of ammunition, including 10 depth charges and detonators. On 5 August, *Castine* steamed out of Hampton Roads for

¹¹⁴ Halpern, *A Naval History of World War I*. 391.

¹¹⁵ USS *Castine*, "War Diary, Appendix, Month of July, 1917. Movement Order No. 1, Patrol Force, Atlantic Fleet," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056.).

Gibraltar, along with its old sister ship *Machias*. It was not long before *Castine*'s crew witnessed evidence of the U-boat destruction they were sent to counter. On 19 August, while still steaming towards Gibraltar from the Azores, *Castine* passed floating wreckage and an empty lifeboat labeled CHAR. SAND on one side and SIARAA on the other.¹¹⁶

Once in Gibraltar, *Castine* and the other escort vessels maintained an arduous and redundant routine. Their normal operational cycle involved steaming to a European or North African port where empty ships were waiting, scouting approaches to the port, organizing ships into a convoy, then leading the convoy through the war zone until the vessels dispersed towards their respective ports. The escort vessels would then pick up an inbound convoy of loaded supply ships, often as far as 300 miles off the European coast, convoy it east, and guard the ships as they dispersed to various ports. This process required 3-4 days, after which the crews would return to their home port and wait for the next outbound convoy.¹¹⁷

Larger cruisers at Gibraltar typically worked on the Atlantic approaches to the British Isles, alternating convoys between the eastern and western margins of the war zone. *Castine* and other smaller, slower escort ships stayed between Gibraltar and the transfer point at Oran, Algeria. Along this route, convoys stayed, as long as possible, within the territorial waters of Spain, whose neutrality Germany honored throughout the

¹¹⁶ USS *Castine*, "Deck Log, 19 August 1917," (Washington, D.C.: National Archives and Records Administration. Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations).

¹¹⁷ Knox, "American Naval Participation in the Great War (with Special Reference to the European Theater of Operations)." *Hearings before Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment, 1927-1928*. U.S. Congress. House. Committee on Naval Affairs, 70th Cong., 1st Session.

war. The unprotected voyage across the Mediterranean from Spain to Oran was made only at night, along pre-selected but constantly varying routes, while the convoys maintained lights-out and radio silence. The convoys regularly zig-zagged at various headings and speeds to disguise their route to any U-boats.

Castine's first convoy left Gibraltar on 26 August, and was successfully completed three days later. It was composed of an international collection of 14 merchant ships, additionally escorted by a British sloop, 3 destroyers, a motor launch, armed boarding steamer, and a special service vessel.¹¹⁸ This type of international force was representative of convoys escorted through Gibraltar. Upon first arriving at the port, *Castine's* commander had observed an Italian torpedo boat, a British destroyer and sub chaser, a French mine sweeper, a Norwegian vessel, and a Portuguese gunboat.¹¹⁹

An examination of *Castine's* deck logs from its time in Gibraltar shows that the convoy system was an unquestioned success in deterring U-boat attacks. The vast majority of *Castine's* convoys were completed without incident, though the gunboat did occasionally witness the aftermath of successful attacks and counter attacks. While on patrol on 8 November, *Castine* received an S.O.S. from the merchant ship *Benledi* that reported being chased, torpedoed, and heavily shelled by a U-boat, but gave no course or speed. *Castine* quickly changed direction towards the *Benledi's* last reported location. While en route, *Castine* passed through "considerable wreckage and...three [empty] life

¹¹⁸ USS *Castine*, "Deck Log, 26 August 1917," (National Archives and Records Administration. Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations).

¹¹⁹ USS *Castine*, "Deck Log, 24 August 1917," (National Archives and Records Administration. Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations).

boats adrift," but upon arriving at *Benledi's* suspected location found no further trace of the merchantman. Searches by other vessels also failed to locate survivors.¹²⁰ The previous month, *Castine* searched for a submarine attacked by the HMS *City of Belfast*. Approximately 12 miles off the coast of Cape De Gata, Spain, *Castine* found an oil slick with oil still rising, leading an ensign to speculate that this marked the final location of that submarine.¹²¹

Not surprisingly, vessels that traveled independently or could not keep up with convoys were most vulnerable. *Castine* lost one escorted ship on 1 December 1917. On a westbound convoy departing from Oran, the Greek ship *Minas* fell astern of the convoy, despite starting in the lead division. The following morning, *Castine* received word that *Minas* had been torpedoed and its crew was dropped off at Cape Tenez, Algeria. This was highly suspicious to *Castine's* commander, as Cape Tenez was 150 miles east of the convoy's position when *Minas* was still in formation at midnight, and also east of the convoy's departure point at Oran. Under the circumstances, Commander Asserson recommended a thorough investigation, and interrogation of *Minas's* officers and crew.¹²²

Only once did *Castine* directly engage an enemy U-boat. This occurred on 30 April 1918, while *Castine* was picking up survivors from the torpedoed SS *Kutsang*, westbound from Italy. At approximately 9:20 a.m., *Castine* sighted the U-boat's exposed

¹²⁰ USS *Castine*, "War Diary, 8 November 1917," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056).

¹²¹ USS *Castine*, "Deck Log, 15 October 1917," (National Archives and Records Administration. Record Group 24: Records of the Bureau of Naval Personnel, Logs of Ships and Stations).

¹²² USS *Castine*, "War Diary, Appendix, Month of December 1917," (National Archives and Records Administration. Record Group 45: Navy Subject File 1910-1927. USS *Castine*, Box 1056).

conning tower and gave chase, firing on the submarine with its forward four-inch .40 caliber rifle and two, 6-pounders. *Castine* got off ten shots, but was unable to close within range before the U-boat submerged and escaped.

After implementation of the convoy system in April 1917, the Germans' U-boat advantage in the Mediterranean and Atlantic was virtually nullified. By the end of 1917, worldwide submarine losses had dropped from a peak of around 900,000 in April to only 400,000 per month.¹²³ Losses in the Mediterranean were cut by more than half relative to their pre-convoy peak of 250,000 tons. These losses were still significant, and some months were worse than the preceding month, but the overall trend was downward. The sinkings continued to decrease into 1918; so much so that by October only 28,000 tons of Allied shipping were lost.¹²⁴ On 24 October 1918, German U-boats were ordered to cease all attacks and return home. *Castine* stayed on patrol at Gibraltar for two more months before leaving with its final convoy to the Azores on Christmas Day.

Sale and Sinking

After eighteen months at war, *Castine* finally returned to home waters, arriving at New Orleans on 20 January 1919. During June and July, American interests were threatened, once again, by petty revolutions and *Castine* returned to the Caribbean for short cruises off Costa Rica and Belize. By August, *Castine* had returned to New Orleans, its final port. The long-serving gunboat underwent its final decommissioning on 28 August 1919.

¹²³ Halpern, *A Naval History of World War I*. 365.

¹²⁴ *Ibid.* 399-400.

With the war concluded, the Navy Department began a program of decommissioning and selling-off scores of warships deemed no longer useful to the modern navy. Ships of *Castine*'s age were simply too expensive to repair and maintain considering their limited fighting ability. Assistant Secretary of the Navy Theodore Roosevelt, Jr. ordered almost two-hundred old warships, including the battleships *Maine*, *Missouri*, and *Wisconsin*, and the cruisers *Cincinnati*, *Minneapolis*, and *Raleigh*, sold to the highest bidders. *Castine* was also placed on the auction block.¹²⁵

Thus began *Castine*'s brief second-career as a commercial vessel, though for whom and for what purpose remains somewhat unclear. In October 1920, the Navy received two bids on the gunboat: one from the Inter-Colonial Steamship and Trading Company of New York for \$42,000, and a second from R. Bruce Sommerville, of Pensacola, who offered \$56,000, combined, for *Castine* and *Petrel*.¹²⁶ For unknown reasons, both bids were either refused or cancelled, and the ship was re-advertised the following year. On 5 August 1921, *Castine* was sold to A. Marx & Sons of New Orleans, for the far cheaper sum of \$12,500.¹²⁷ There is no further record of *Castine*'s service to A. Marx & Sons, though it appears they may have made a tidy profit. Department of Commerce documents from July 1923 show that *Castine* was sold to the Maritime

¹²⁵ *New York Times*, "Roosevelt Selling Obsolete Warships," July 7, 1921.

¹²⁶ *New York Times*, "Navy Gets Bids for 8 Ships," October 29, 1920.

¹²⁷ Bureau of Construction and Repair, "Ship's Information, U.S.S. *Castine*."

Trading Corporation, also of New Orleans, at an estimated value of \$40,000.¹²⁸ Those documents also list *Castine* as a fishing vessel.

Here, again, *Castine* did not stay with one owner very long. By the following month, correspondence between the Department of Commerce's Steamboat Inspection Service, and the Equitable Equipment Company of New Orleans, shows that *Castine* was then owned by the latter company. At that time, Equitable Equipment Company was attempting to ready the vessel for sea service, but was prevented from doing so by bureaucratic red tape. Steamboat Inspection Service surveyors would not certify *Castine* until its owners could produce documentation that the material used to construct its boilers had been previously inspected and passed by an agency inspector. Equitable Equipment's Vice President protested on the grounds that this was impossible, as the boilers had been built by the U.S. Navy in 1904, and that such documentation did not exist. He further noted that these unrealistic demands were costing his company great expense as long as *Castine* could not be put to service.

Perhaps these mounting costs explain why *Castine* was listed under yet another owner in August 1923. That month, the New Orleans Menhaden Company filed an Application for Official Number with the Department of Commerce, Bureau of Navigation.¹²⁹ The New Orleans Menhaden Company fished and supplied Gulf

¹²⁸ U.S. Department of Commerce, Bureau of Navigation "Master Carpenter's Certificate," (National Archives and Records Administration. Record Group 26: Records of the U.S. Coast Guard, Vessel Documentation Files, 1923).

¹²⁹ U.S. Department of Commerce, Bureau of Navigation "Application of Owner or Master for Official Number," (National Archives and Records Administration. Record Group 26: Records of the U.S. Coast Guard, Vessel Documentation Files., 1923).

menhaden, a source of commercial fishmeal. Unfittingly, *Castine* spent its final days carrying bulk cargos of menhaden through the Gulf.

As far as can be determined from the historic records, *Castine* made only one cruise for the New Orleans Menhaden Company; it was never completed. On 12 December 1924, the old gunboat was being towed as a barge to the Sabine River where it was to be dismantled. Shortly after entering the Gulf, an internal explosion forced the seven man crew to cut loose their tow, abandon ship, and take to the lifeboats. The crew was picked up by the Bisso Company towboat, *Barranca*, and *Castine* sank within about 20 minutes.¹³⁰ A subsequent investigation in New Orleans was unable to determine either the cause or source of the explosion, but did conclude it was not a boiler explosion. After the explosion, members of the crew sounded a distress signal and entered the engine and fire rooms, proving that the boilers could not have blown.¹³¹ With that, the gunboat's historic career came to an ignominious end. It settled to the bottom of the Gulf of Mexico, where its contributions to our country's naval history would be forgotten for another eighty-one years.

¹³⁰ *New Orleans Item*, "Old Fighting Ship Springs Leak and Goes Down in Gulf," December 13, 1924.; *New Orleans States*, "Famed Gunboat Sinks in Gulf," December 13, 1924.

¹³¹ Steamboat Inspection Service, "Annual Reports of Accidents Investigated, 1911-1937. Volume 15," (National Archives and Records Administration. Record Group 41: Records of the Bureau of Marine Inspection and Navigation, 1924).

CHAPTER III: FIELD INVESTIGATIONS

In 2003, PBS&J was contracted by the Minerals Management Service (MMS) to conduct National Register of Historic Places (NRHP) evaluations of submerged sites on the Gulf of Mexico (GOM) Outer Continental Shelf (OCS). The scope of the study included remote-sensing survey and diver investigation of selected side-scan sonar targets previously located by petroleum industry surveys. The study was further intended to assess the adequacy of current MMS archaeological site avoidance criteria; assess petroleum industry compliance with those criteria; and, if necessary, eliminate any potential archaeological sites from further concern. Over the course of two field sessions, in 2004 and 2005, PBS&J investigated fourteen target locations.¹

One of the selected targets, visited during the 2005 field session, was initially identified only as Site 15170 in the MMS Archaeological Resource Information database (ARI). The wreck site is located approximately 20 miles from the Port of Fourchon, Louisiana (Figure 3.1), and was first brought to MMS attention following a sonar survey conducted by Thales Geosolutions in 2001.² Analysis of sonar data indicated the wreck was approximately 170 ft. (52 m) long, 35 ft. (11 m) wide, and lying flush with the sediment line in 105 ft. (32 m) of water.

¹ Enright, "Study to Conduct National Register of Historic Places Evaluations of Submerged Sites on the Gulf of Mexico Outer Continental Shelf."

² Robert J. Floyd, "Email Communication to David Ball, Minerals Management Service, February 23, 2001."

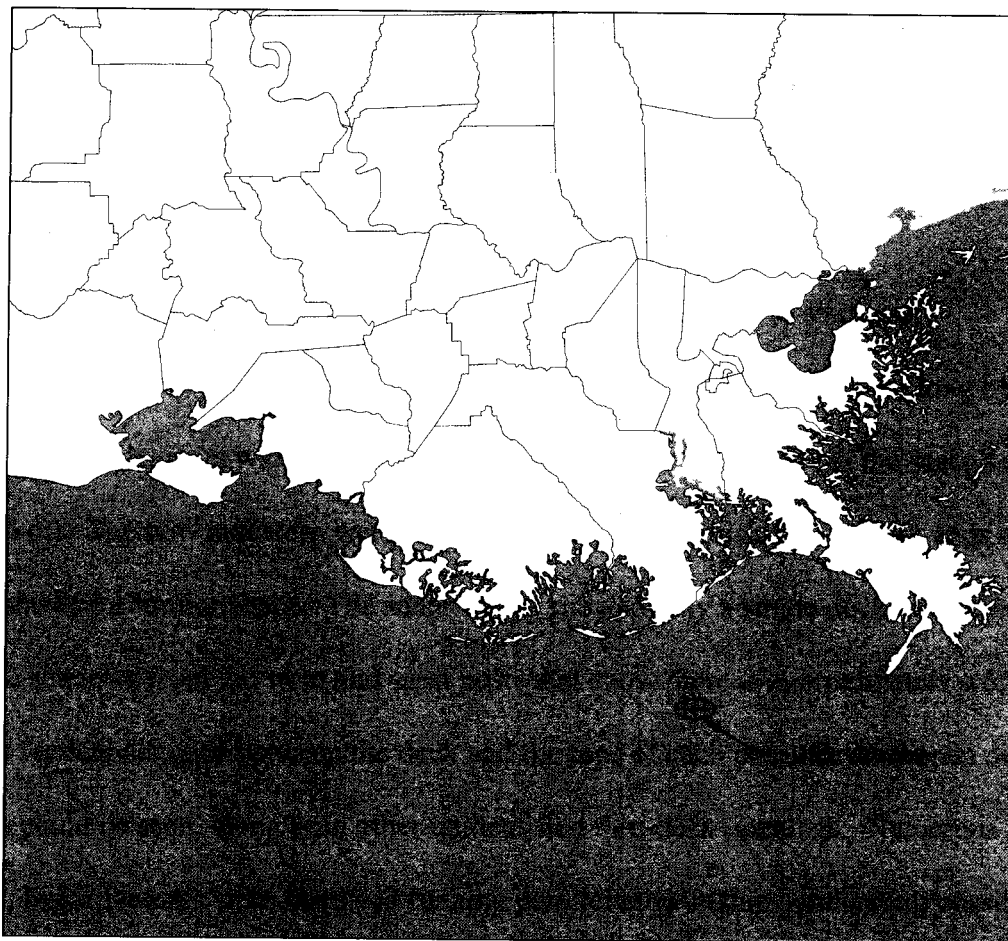


Figure 3.1: USS *Castine* wreck location

Remote-Sensing Investigation

PSB&J began investigating Site 15170 on 11 May 2005. The remote-sensing survey and dive operations were conducted aboard the M/V *Fling*, a 100-ft. aluminum-hulled crew boat converted to a charter dive boat by Gulf Diving, LLC in Freeport, Texas. Remote-sensing equipment included both proton and cesium magnetometers, a 500 kHz digital side-scan sonar, and a Seabotix Remotely Operated Vehicle (ROV).

The survey was conducted at a 100 ft. (30 m) transect spacing, over a 820 ft. (250 m) radius area, centered on the reported wreck location. The survey recorded a north-south dipolar magnetic anomaly with the negative portion of the dipole oriented

north (Figure 3.2). A small secondary, positive lobe was present northwest of the main negative lobe. The anomaly measured approximately 700 x 900 ft. (213 x 274 m). The relative amplitude of the anomaly ranged from +1,845 to -615 gammas. No additional anomalies were recorded within the surveyed area.³

The sonar data showed an intact vessel oriented northwest to southeast (Figure 3.3). Measured from the sonar imagery, the wreck was 223 ft. (68 m) long by 33 ft. (10 m) wide, at its widest point, with a maximum vertical relief off the seabed of 20 ft. (6 m). The bow and stern were not immediately distinguishable, as both ends of the vessel showed a similar shape. The sonar image showed only a single deck, but revealed acoustic shadows from the stem and stern posts that show there is approximately a 6.5-ft. (2.0 m) vertical distance between the deck and the tops of each post. Several open deck hatches could be seen, along with other unidentified thru-deck openings. Numerous narrow, linear features were observed running parallel athwartships, indicating possible exposed deck beams.

Diver Investigation

Immediately following the remote-sensing survey, PBS&J and MMS archaeologists spent 3 days (11-13 May) investigating Site 15170. Twenty-six dives totaling 11 hours, 34 minutes were conducted at depths ranging from 102 to 118 ft. (31 to 36 m). Additionally, 3 hours, 36 minutes of ROV footage were collected. Conditions on the site were less than optimal; visibility was generally less than 5 ft. (1.5 m) and

³ Enright, "Study to Conduct National Register of Historic Places Evaluations of Submerged Sites on the Gulf of Mexico Outer Continental Shelf." 72.

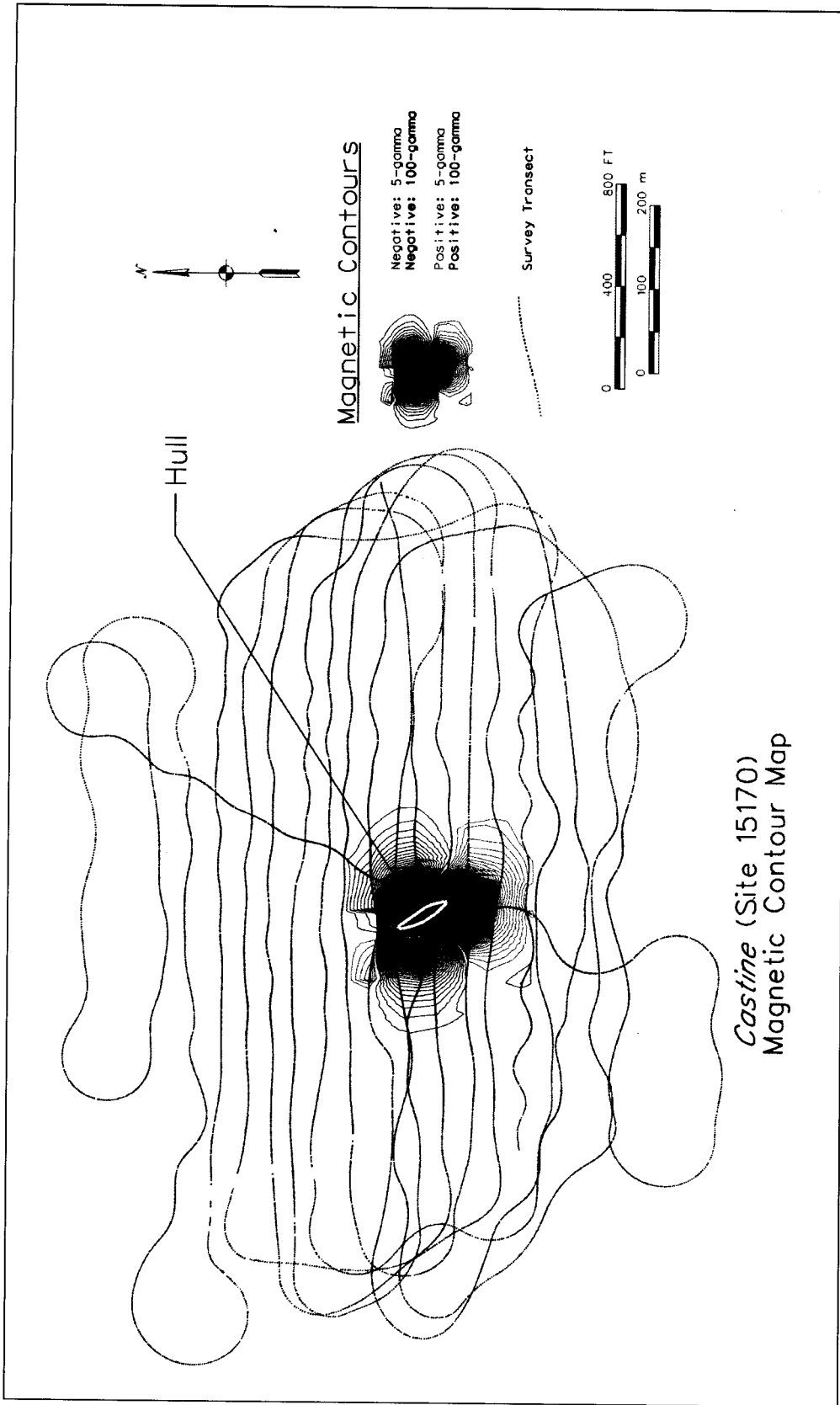


Figure 3.2: Magnetometer anomaly of Castine

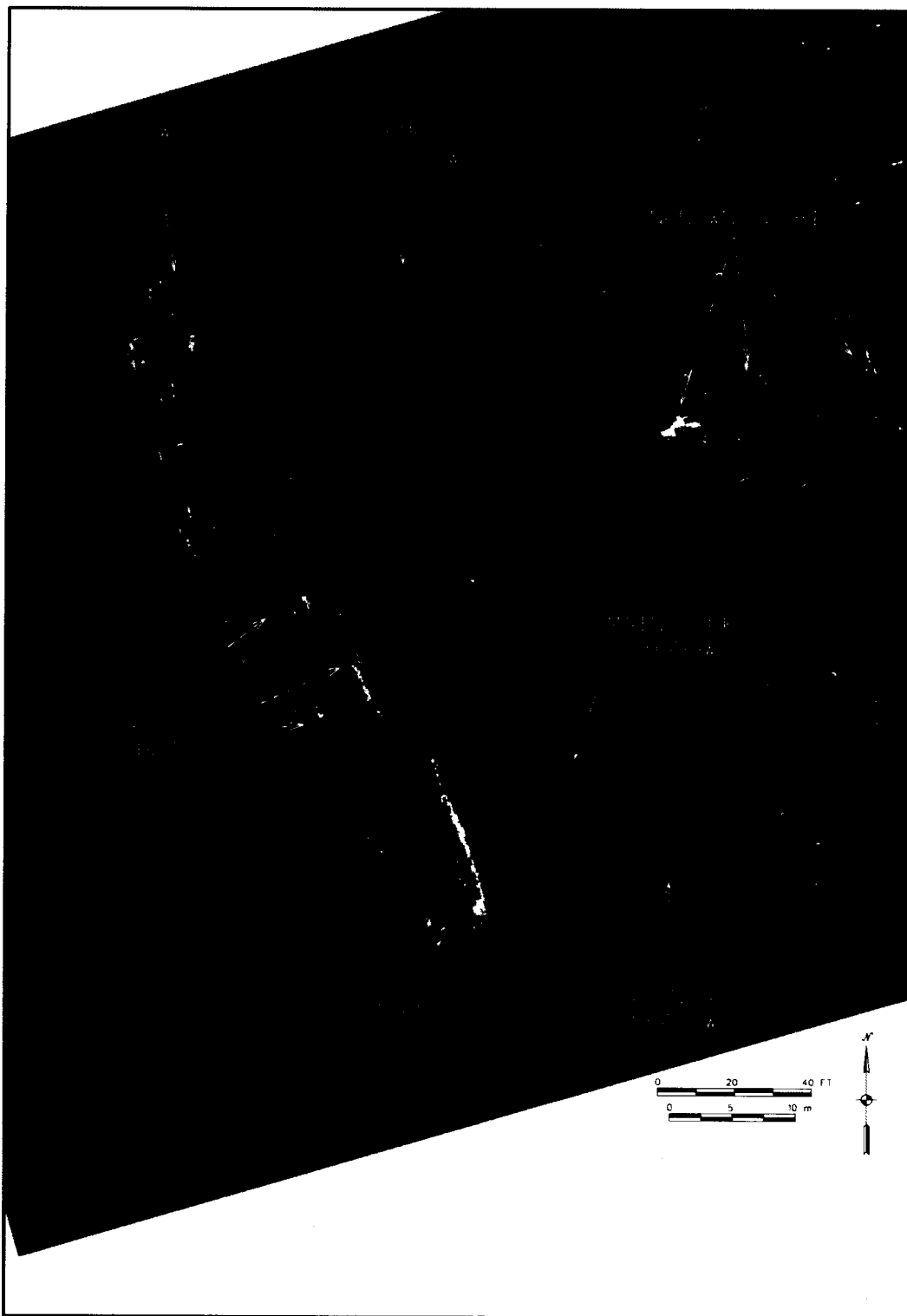


Figure 3.3: Side-scan sonar image of *Castine*

frequently less than 2 ft. (0.6 m). Although it is located in relatively deep water, the site's proximity to the Mississippi River outflow means there is a high concentration of suspended sediments in the water column, significantly limiting visibility. This condition was further exacerbated by the presence of accumulated sediments on exposed decking that were easily disturbed by diver activity, immediately eliminating whatever minimal visibility might have been available. Shrimp netting engulfed both ends of the wreck, further complicating dive hazards. Maximum bottom times were less than 25 minutes which, combined with the low visibility and divers' rate of air consumption, limited the area of the wreck that could be investigated in any one dive.

As the identity of Site 15170 was not previously known or suspected, investigative goals were initially focused on visual inspection to determine vessel type, function, general date of construction, cause of sinking, and to locate diagnostic features that might lead to vessel identification. Limited visibility and the sheer size of the wreck made for a disorienting introduction to the site, and the first day's dives added more questions than answers.

Initial dives confirmed that the vessel was metal hulled and in good condition. The deck and outer-hull plates were solid and still retained most of their metal, as they exhibited minimal erosion. Though the sonar record was inconclusive, diver observations determined that the wider and rounded south end was the stern and the much sharper north end was the bow. At both ends, there was a considerable amount of relief between the main deck and the tops of the stem and stern posts. This is confirmed in the sonar "shadow," which indicates the stem and stern extending approximately 6.5 ft. (2.0

m) above the main deck (see Figure 3.3). Excluding the bow and stern, there were no vertical features above the main deck. Even the gunwale was flush with the main deck.

Tape measures were stretched along and across the wreck, both to establish guidelines for divers and to provide a rough location of wreck features. While placing these lines, several intriguing deck features were observed. The first and most obvious features located by divers were the numerous open deck hatches along the length of the vessel. These hatches were of varying dimensions but relatively large, measuring several feet in length and width, possibly indicating a cargo-loading function. At least three other hatches were smaller, manhole-sized spaces, one completely open and two with keyed hatch covers (Figure 3.4). The divers' descent line fell into another type of hatch, which was larger than the manhole-sized hatches, yet did not appear to be cargo space. Visible inside this hatch, was what appeared to be part of a second deck approximately 3 ft. below the main deck, and yet a third deck at least 6 ft. or more below that.

The deck exhibited varying states of preservation. Steel deck plates were present over the majority of the deck, but exposed deck beams were visible in several areas. In at least one of these areas, divers observed an array of electrical wires, or possibly tubing of some kind, anchored to a support block that ran along the length of the deck beam. A diver also observed an area towards the stern that still retained wooden deck planking.

Miscellaneous objects observed on the deck and outer hull of the wreck included a broken brass cleat, steam tubes, copper wire, a possible engine block, and what appeared to be two large, parallel, cylindrical objects, approximately 10–12 inches (25–30 cm) in diameter, that were tentatively identified as pipes or possibly industrial-sized drill bits. It was speculated that the latter were perhaps intrusive and associated with



Figure 3.4: ROV image of hatch cover with keyed slots for opening and closing (on file at PBS&J, Austin, Texas)

offshore dredging operations, because they appeared more modern than the wreck itself, and because this was also clearly not a dredge boat.

The presence of seemingly anachronistic or intrusive objects on the deck was a source of repeated debate amongst the crew over the 3 days spent on-site. The feature that was initially the source of the most head scratching, however, was one that was clearly by design. While swimming the perimeter of the wreck, divers noticed an odd hull feature, the function of which was not immediately recognized. At several places along both port and starboard gunwales, a curvature in the hull was observed, forming what appeared to

be a bulge or blister along the outer hull. These features were several feet in radius and symmetrical, indicating they were purpose-built and not a hull deformity.⁴

At the conclusion of the first day's dives, MMS archaeologist Dave Ball searched the ARI database for other reported wrecks within the vicinity of Site 15170. One intriguing entry was for *Castine* (listed as ARI Site 562), reportedly sunk approximately 13 miles (21 km) from Site 15170. As listed in the ARI, *Castine* was a screw steamer built in 1893, but was otherwise of unknown construction or provenance. It was a tenuous lead, but one worth following, so a call was placed to PBS&J archaeologist Sara Hoskins, who had been unable to make the field trip and was still in PBS&J's Austin office. The following day, Ms. Hoskins conducted an internet search for *Castine*, and obtained a historical sketch of *Castine*, informing us that the vessel was a steel-hulled U.S. Navy gunboat built in 1893 and sunk due to unknown circumstances in 1924 while being towed as a commercial barge. The listed dimensions for *Castine* (204 ft. long and 32 ft. wide) closely matched the wreck dimensions as measured from the sonar data (223 ft. by 33 ft). Furthermore, Ms. Hoskins was able to describe over the phone several distinguishing hull characteristics that were visible in numerous available online photographs and drawings of the vessel. One of the first features to attract her attention was the presence of the four pairs of "bulges," as Ms. Hoskins described them, along the outer hull. These "bulges" were later identified as sponsons – defined as: "the part of a gun platform which partially projects over the side of a ship. Used to increase the arc-of-

⁴ Field notes: USS *Castine* diving operations, 11-13 May 2005. PBS&J.

fire of a gun position, especially toward the front or rear of a vessel.”⁵ With this information, the odds of the wreck being something other than *Castine* quickly diminished.

Initially, to meet the overall project schedule and budget, no more than one day was allotted for diving on any one target. Considering the potential historical significance of *Castine*, however, a field decision was made to continue investigating the wreck to gather as much information as possible for completing an NRHP evaluation. The remaining dives focused on documenting surface features, determining whether site data were consistent with its tentative identification as *Castine*, and collecting ROV footage. The minimal visibility negated a topside ROV operator’s ability to accurately navigate the vehicle, and so several ROV flights were manually guided by a diver using the ROV more like a handheld video camera.

Subsequent dives confirmed that there were four pairs of sponsons (Figure 3.5). Three of these pairs were uniform in size and located at the aft third, amidships, and forward third of the hull. The remaining two sponsons were smaller, by approximately half, and located on either side of the bow. This configuration matched the appearance of the hull as described to us by Ms. Hoskins. The starboard side amidships sponson (initially housing 4-inch rapid-fire rifles) had a diameter of approximately 5 ft. (1.5 m) along the hull length, and at its apex protruded approximately 2 ft. (0.6 m) outboard from the hull (Figure 3.6). A roughly 2-inch-wide (5-centimeter [cm]) rub rail ran along the top edge of the sponson. This rub rail was later determined to span the entire circumference

⁵ War Times Journal, "Battlefleet 1900; Pre-Dreadnought Naval Warfare: 1890-1905. Glossary of Terms."

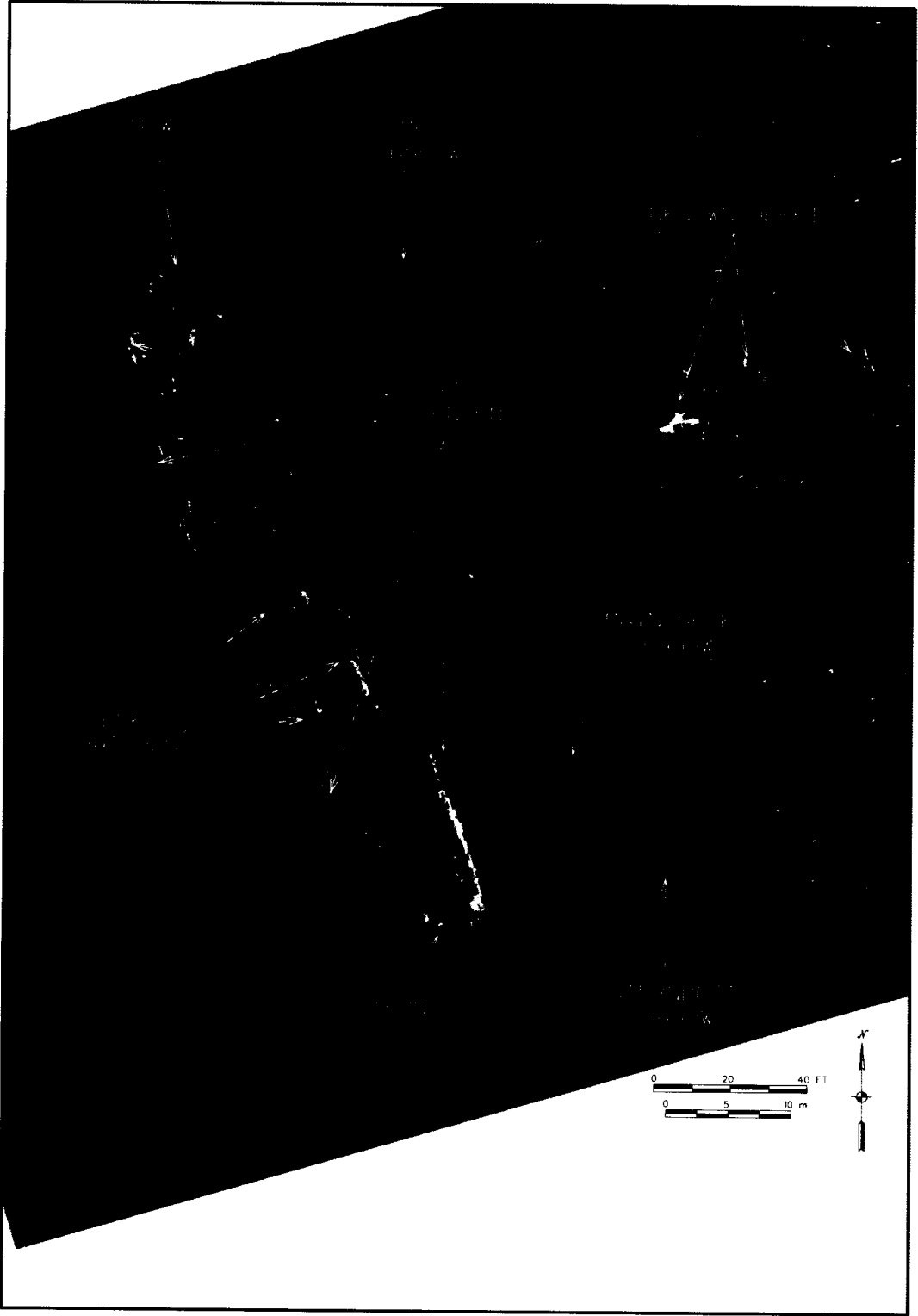


Figure 3.5: Side-scan sonar image of *Castine* showing gun sponsons

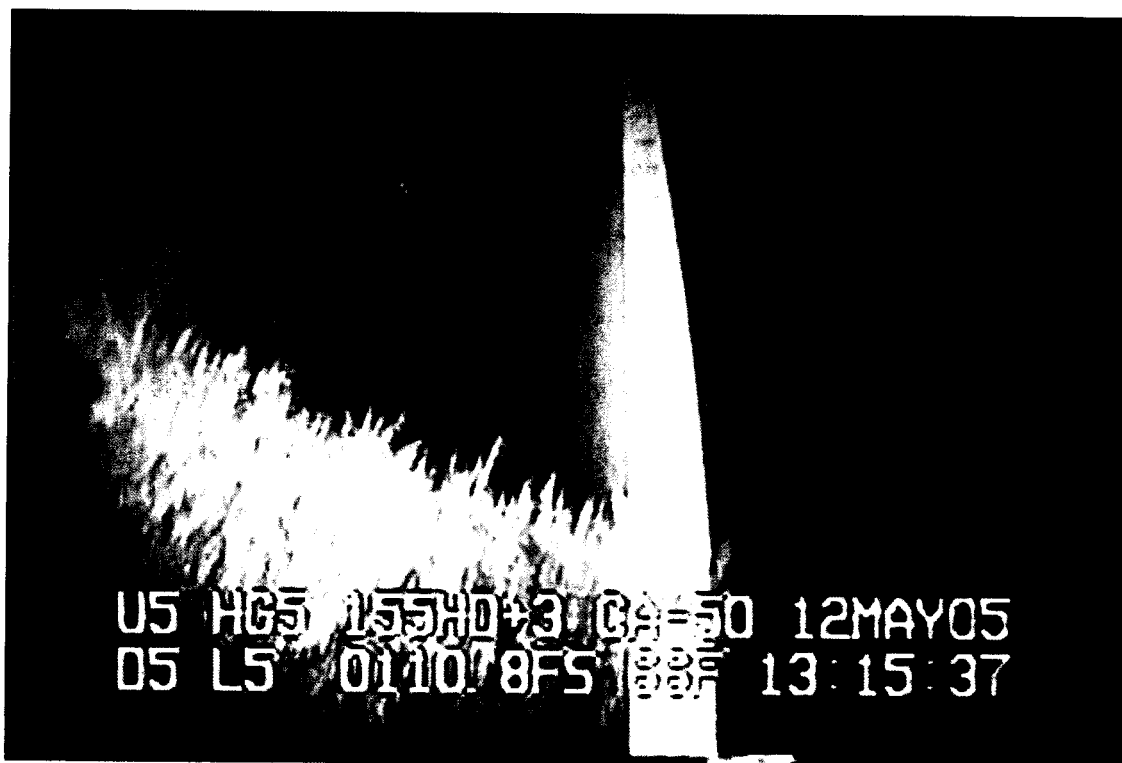


Figure 3.6: ROV image of port-side gun sponson (on file at PBS&J, Austin, Texas)

of the hull. The vertical depth of the sponson was approximately 2 ft. (0.6 m), where it then curved back into the hull, resembling a bowl cut in half vertically.

At the extreme bow, a large rupture in the hull was extant on the port side and appeared to be caused from an external force, as evidenced by surrounding metal that was pushed inward. Though not measured, the vertical height of the rupture was at least 6 ft. (1.8 m). This was determined because it was considerably larger than the body length of the divers present. It could not be concluded whether the rupture was a factor in the vessel's sinking or whether it occurred after the wrecking process. One possible explanation is that, before settling into its current attitude, the vessel hit the sea floor nose-down, causing the rupture. There is evidence of this in the sonar record, which appears to show the bow bent slightly to the starboard (northeast) side (see Figure 3.5).

Alternatively, the density of shrimp netting draped over the bow suggests that perhaps the hull was damaged after being snagged by a passing shrimp boat.

On the main deck between the bow and amidships, divers also identified a small piece of ceramic, several moveable clamps attached to a horizontal stringer and appeared to be designed for anchoring rigging or other cabling to the deck, a small, circular, green-glass lens mounted in a frame flush with the main deck, miscellaneous loose eye-bolts and other hardware, porthole frames, electrical junction boxes, and several pieces of unidentified machinery.

The majority of deck machinery, electrical equipment, and hardware appeared to be intrusive debris, dumped onto the vessel sometime after the wrecking process. This theory was supported by Ken Bush, *M/V Fling's* captain and a 20-year veteran of Gulf boating operations. Captain Bush explained that, once a shipwreck or other obstruction becomes a known shrimp-net hazard, local captains frequently dump old machinery and similar refuse on the site rather than dumping it where it might create a new obstruction.⁶ This is one possible explanation for the debris on Site 15170.

Divers also located a small pile of bricks stamped with a maker's mark along the port gunwale. Two bricks were brought to the surface and photographed, as was a ceramic fragment located at the bow, and one of the electrical junction boxes. The bricks and junction box were returned to the site after they were photographed; the ceramic fragment is currently being curated at PBS&J.

⁶ Captain Ken Bush, Personal communication, May 2005.

The bricks were each stamped with one of at least three observed makers' marks. One mark showed a five-pointed star underscored by the word LIVERMORE (Figure 3.7); the second read ST. LOUIS V&F B.CO. STANDARD (Figure 3.8); and the third (not photographed) read ST. LOUIS V&F B. CO. STAR. No information has been found on the V&F Brick Company; however, the California-based Livermore Brick Company was in operation intermittently between 1910 and 1949, dates that are consistent with PBS&J's determination of Site 15170 as *Castine*.

The ceramic piece (Figure 3.9) was identified by PBS&J's Archaeological Laboratory Director, Meg Cruse, as ironstone, a heavily vitrified, molded, and undecorated type of ceramic. It was common beginning in the early 19th Century, particularly as restaurant dinnerware, and was designed as an inexpensive imitation of Chinese porcelain. It is also commonly referred to as Hotel China⁷. This type of ceramic was widely used in the early 20th Century and would not have been uncommon in ships' galleys.

The electrical junction box was cleaned of corrosion, and its back cover removed. Inside the cover was stamped a serial number and the date 1958. This artifact obviously does not conform to the dates of *Castine*'s operation. The date does support the hypothesis that much of the machinery and debris on the wreck is intrusive.

Following the initial fieldwork and identification of *Castine*, various historic photographs and ship plans of the vessel were acquired from the Naval Historical Center,

⁷ Lenville J. Stelle, "An Archaeological Guide to Historic Artifacts of the Upper Sangamon Basin.," <http://virtual.parkland.edu/lsteele1/len/archguide/documents/creguide.htm>. 2001.

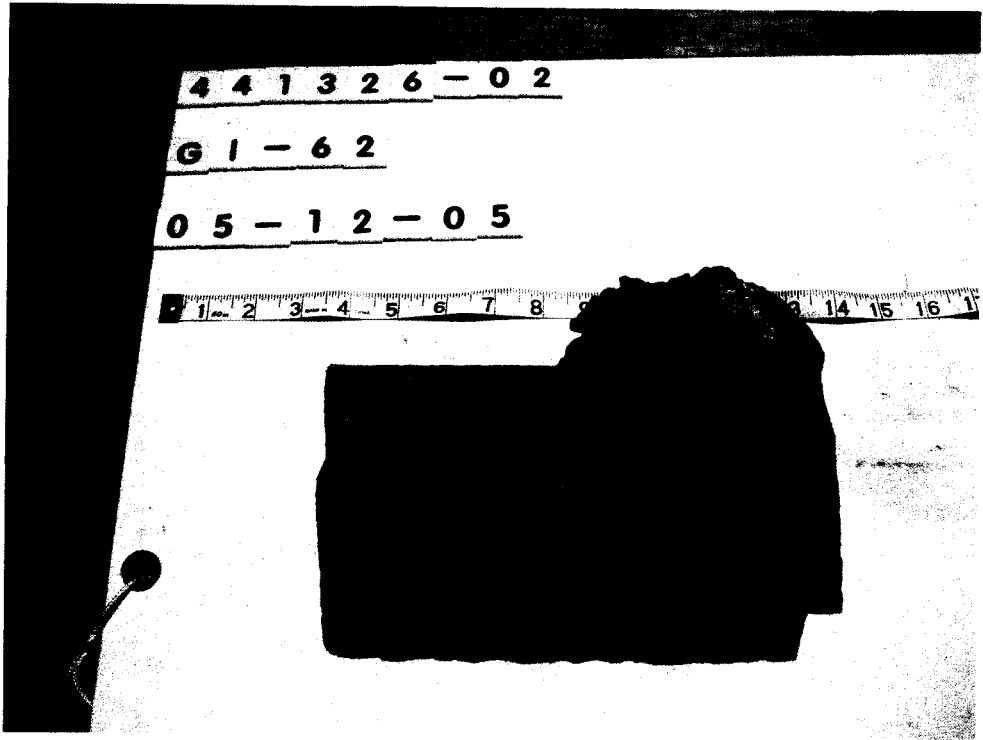


Figure 3.7: Livermore Brick Company brick

- 1 2 - 0 5



Figure 3.8: St. Louis V&F Brick Company brick

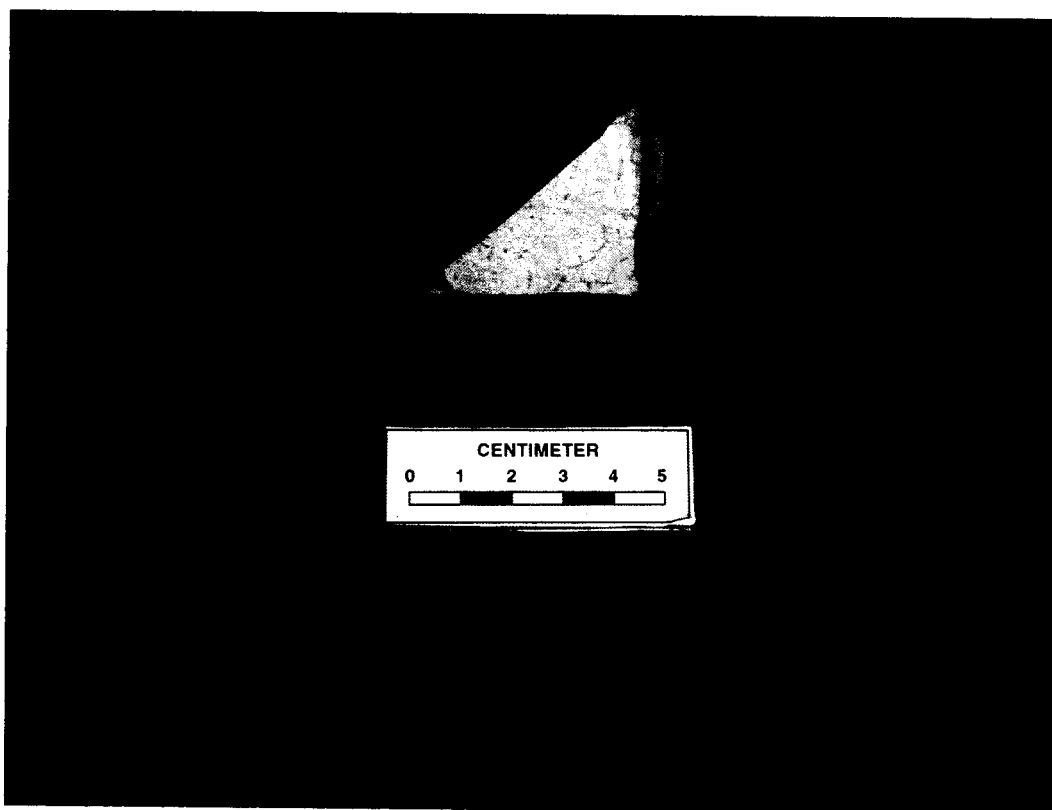
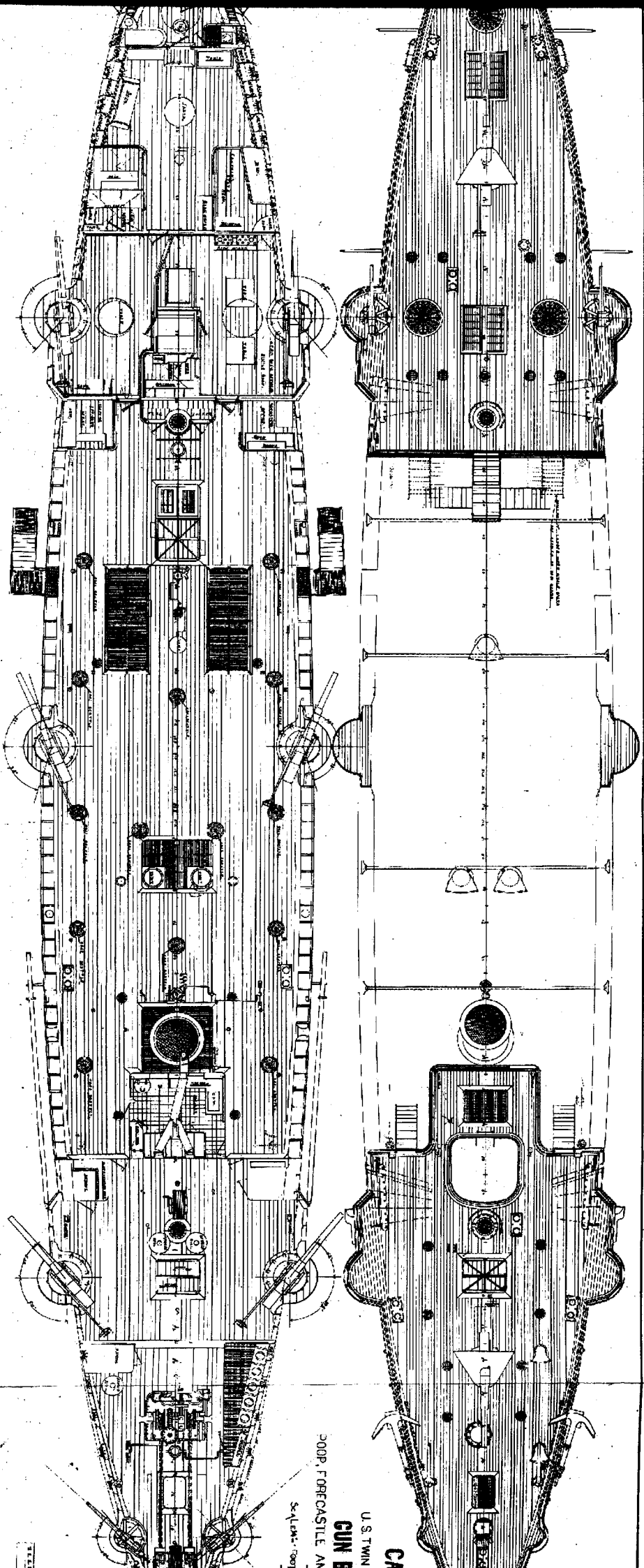


Figure 3.9: Ironstone ceramic fragment, found on *Castine*'s deck

both from the NHC website and their Ship's History Branch in Washington, D.C., and from the National Archives in College Park, Maryland. These materials provided an invaluable tool for further interpreting the archaeological data collected during the 2005 field investigation. In particular, an 1894 Bureau of Ships plan of the poop, forecastle, and gun decks (Figure 3.10) shows significant detail of the ship's weather decks, and distinguishes several deck features that were previously misidentified.

Firstly, most of what were thought to be cargo hatches were, in fact, engine room hatches, a fire hatch, and the smoke pipe hatch (Figure 3.11). The smaller, manhole-sized openings were likely a combination of coal scuttles (those with keyed hatch covers) and open vent holes for the lower decks. The vent pipes were removed or broken off. Secondly, archival images provide evidence that a substantial portion of *Castine*'s upper

0: 1894 deck plan of *Castine* (National Archives and Records Administration)



CASTINE
U.S. TWIN
GUN BATTERY
200P, FORECASTLE AN
SCALE: 1/8" = 10'

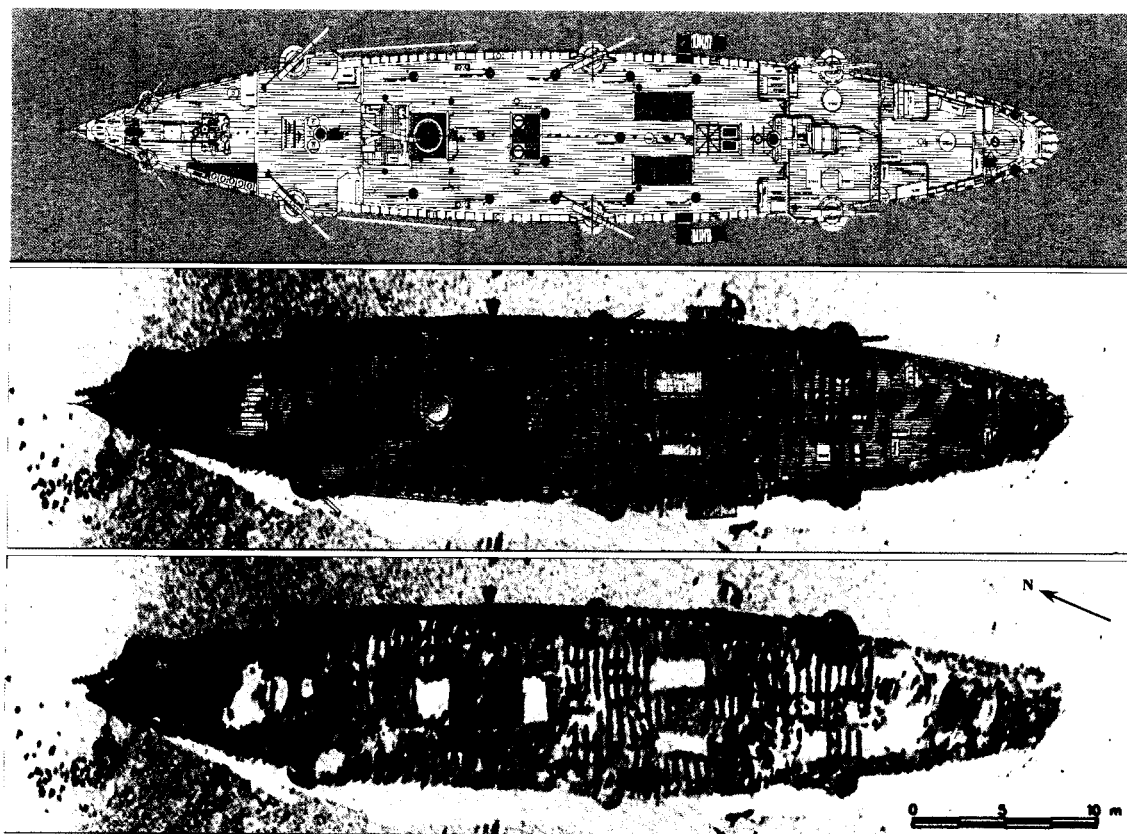


Figure 3.11: Sonar image of *Castine* overlaid on an 1894 ship plan

structure was either removed or eroded away. As noted previously, divers measured the depth of one sponson as approximately 2 ½ ft, with a 2-inch-wide rub rail that ran along the top edge of the sponson, flush with the gunwale and continued around the entire circumference of the outer hull. Historic ship plans and photographs show a much deeper vertical dimension to the sponsons, and also illustrate the rub rail, along with the base of the sponsons, at the level of the gun deck, roughly halfway between the gunwale and the waterline (Figure 3.12). Based on this observation, it appears that the riveted steel side-shell that protected and extended above the main gun deck to a point level with the raised forecastle and poop decks was removed from a substantial portion of the vessel's midsection. The archaeological evidence further suggests that the poop deck and at least

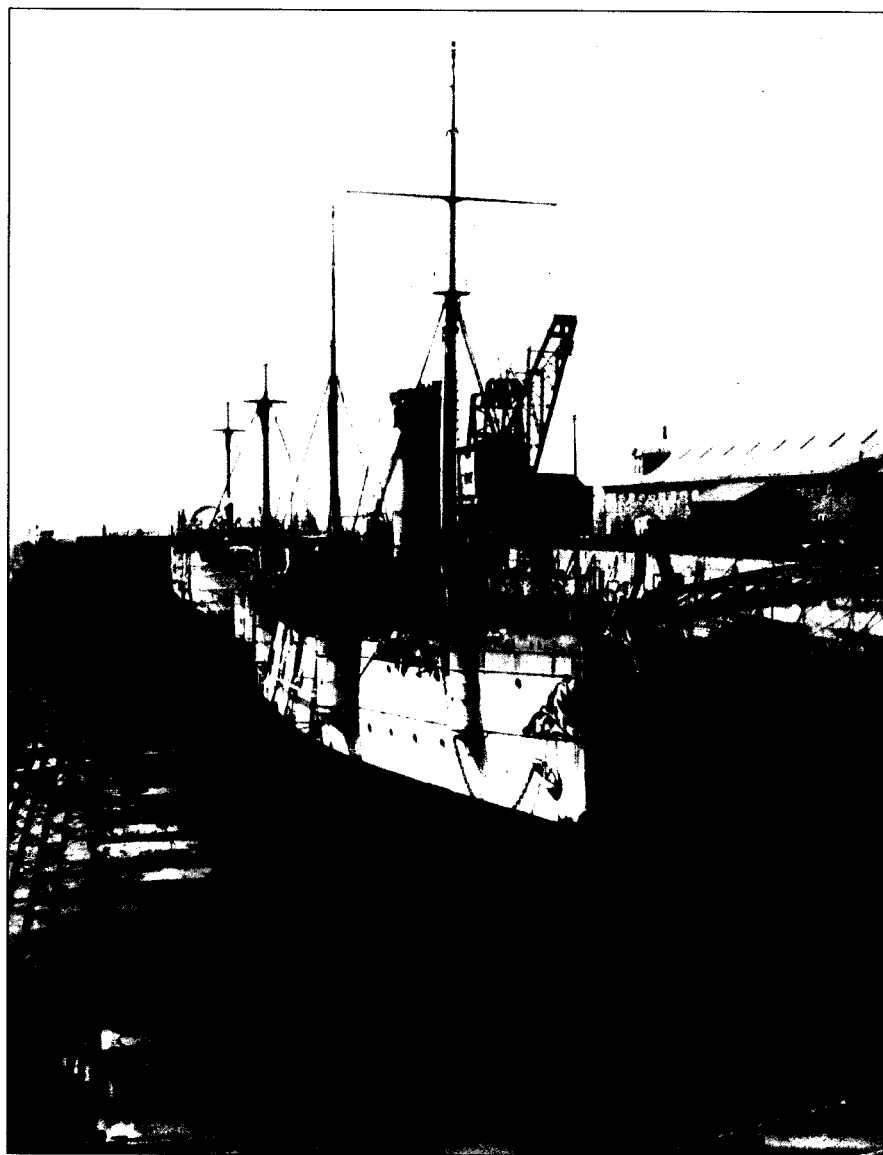


Figure 3.12: Photograph of *Castine*, showing the rub-rail line above the base of the gun sponsons (Courtesy of the Naval Historical Center)

part of the forecastle deck have been removed. This is apparent in the sonar “shadow” (see Figure 3.5), which evinces only a single deck for almost the entire hull length. There are raised vertical features only at the extreme bow and stern, including outer-hull plates at the stern (Figure 3.13). The raised poop deck and its associated staircases and catwalks are not present (see Figure 3.10).



Figure 3.13: ROV image of stern outer hull plates (on file at PBS&J, Austin, Texas)

A similar situation exists at the bow, though the extent of structure removal may not be as extreme, with at least a portion of the forecastle deck possibly remaining. Divers investigating one of the forwardmost gun sponsons documented a vertical height of that sponson that was much greater than observed amidships and, in fact, more accurately reflected sponson size as they appear in historic photos (see Figure 3.12). Also in the vicinity of the forward sponsons, divers observed two rows of portholes, one above and paralleling the other, indicating the upper portion of the outer hull remains extant near the bow, as only one row of portholes exists below the gun deck (Figure 3.14). The sonar record does not indicate a completely intact forecastle deck, and, as with the aft end, there is no indication of staircases or catwalks leading to an upper deck. There is, however, a definite vertical rise in the vicinity of the forwardmost bow sponsons. This

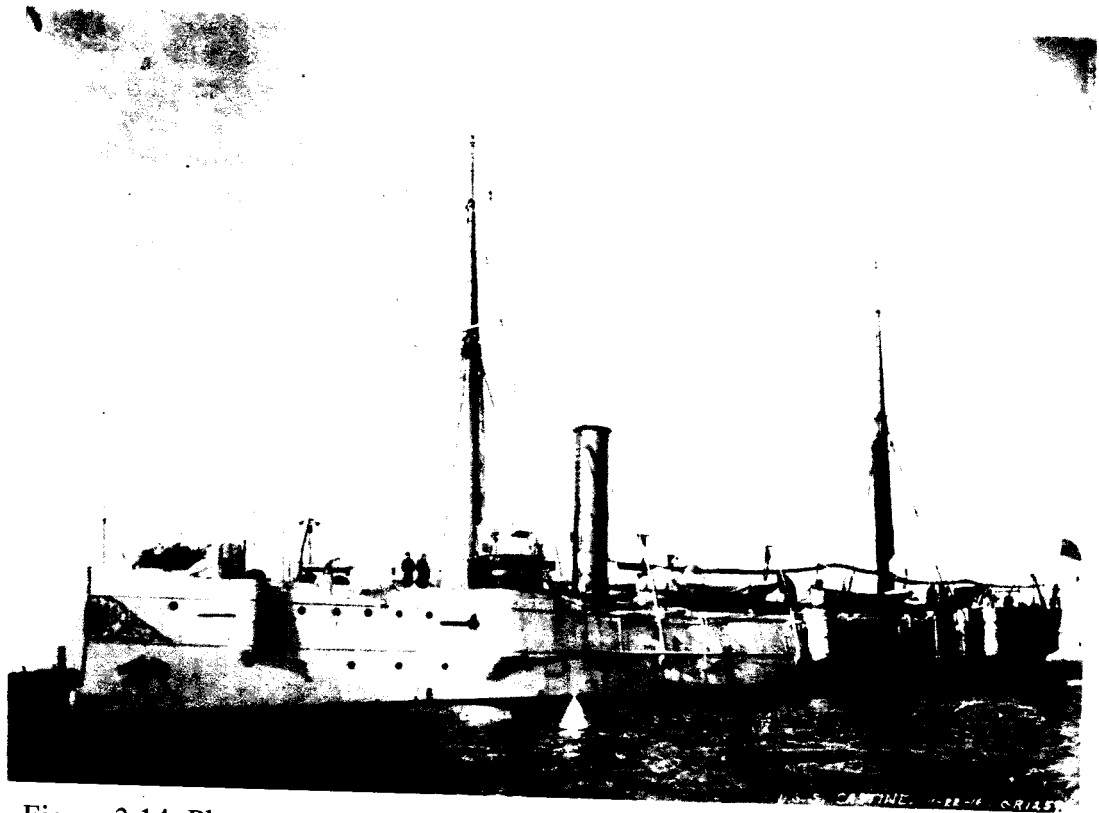


Figure 3.14: Photograph of *Castine*, showing orientation of portholes
(Courtesy of the Naval Historical Center)

suggests that the outer side-shell and upper decks were removed aft of this point, but kept partially or completely intact at the bow.

During the course of this study, the author consulted numerous times with Jerry Steiner, a naval architect at Bath Iron Works who is exceedingly familiar with the design and history of *Castine* and with ship construction techniques of that time period.

Regarding the possibility of the upper decks having been intentionally removed from *Castine* prior to its sinking, Mr. Steiner explained that such alterations to the hull would not have been unconventional for a vessel being converted to a barge.⁸ Mr. Steiner noted

⁸ Jerry Steiner, Personal communications, 2005-2006.

that throughout its career, *Castine* had problems with top-heaviness, a condition that would have only been exacerbated by the presence of raised decks. Mr. Steiner also pointed out that these decks served no significant purpose on a commercial vessel, as they would only have added to deadweight tonnage and reduced cargo capacity. Furthermore, the forecastle and poop decks did not materially contribute to the hull's structural integrity and, therefore, could safely be removed. Finally, Mr. Steiner speculated that, if a portion of the forecastle deck and side-shell were left intact at the bow, this was done to maximize the vessel's ability to cut through rough seas. An extensive search of National Archives records in Washington, D.C., and College Park, Maryland, uncovered substantial official documentation of *Castine*'s construction and service history, but no documentation of deck removal has yet been found to verify diver observations and Mr. Steiner's analysis.

Shipwreck Database Research

Following the field investigation, PBS&J consulted shipwreck sources in order to surmise various locations for the loss of *Castine* as well as other similar sized shipwrecks in the Site 15170 area that could present an alternate identity for the site. This exercise was performed to provide additional circumstantial evidence that Site 15170 is indeed *Castine*. Sources were intentionally limited to databases that provided the most comprehensive list of shipwrecks for this particular area of the Gulf of Mexico, and an additional historical newspaper account of *Castine*'s sinking published in the *Port Arthur*

News.⁹ The shipwreck databases consulted were, specifically, the ARI, the National Oceanic and Atmospheric Administration's (NOAA) Automated Wreck and Obstruction Information System (AWOIS), and the Louisiana Division of Archaeology's Shipwreck List (LDA). In each case the databases' reported wreck location for *Castine* was compared to the known location of Site 15170; the results are listed in Table 2. The ARI entry on Table 2 is because Site 15170 was initially listed as a separate wreck from *Castine* (listed elsewhere in the ARI as Site 562). MMS's initial position for *Castine* was derived from the 1925 Merchant Vessels of the United States (MVUS¹⁰), where it is listed as "unreliable or vague." LDA's position for *Castine* is identical to the one from ARI. The *Port Arthur News* listed *Castine* as sinking in 10 fathoms of water and provided approximate latitude and longitude coordinates. AWOIS does not list a location for *Castine*.

Table 2: Alternate Reported Locations for *Castine*

	ARI	LDA	<i>Port Arthur News</i>
Distance from Site 15170	13 miles (21 km)	13 miles (21 km)	4.2 miles (6.7 km)
Bearing	NW	NW	SE

PBS&J also researched vessels wrecked in the Gulf that measure within 50 ft. of *Castine*'s length and were reported lost within a 20-mile radius of Site 15170. No vessels reported in the ARI, LDA, or AWOIS databases fit both criteria. Two barges are listed in

⁹ *Port Arthur News*, "Navigation Obstructions," December 26, 1924.

¹⁰ U.S. Department of Commerce, *Annual List of Merchant Vessels of the United States* (Washington, D.C.: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service Bureau of Navigation. Government Printing Office, 1925).

the ARI as reportedly sunk within a 20-mile radius (32 km) of Site 15170; however, their dimensions are unknown. *Murmanill* (Site 795) reportedly sank in 1957, approximately 17 miles (28 km) from Site 15170. *Trans-Gulf No. 10* (Site 813) foundered in 1959 approximately 19 miles (31 km) from Site 15170. Though the length of *Trans-Gulf No. 10* is unknown, it is listed at 2,690 gross tons – far larger than the 836 registered tons of the *Castine*.¹¹ Three other vessels (*William C. McTarnahan*, *Nola*, and *Rachel Emery*) are listed in LDA within a 20-mile radius of Site 15170; however nothing is known about the wrecks except the dates of their sinking (1942, 1922, and 1911, respectively). Twenty-five unknown shipwrecks have been identified within 20 miles (32 km) of Site 15170. No information other than their possible existence is known.

The archaeological and historical data provide an abundance of evidence that Site 15170 has been correctly identified as *Castine*. The wreck's length and width measurements closely match the reported dimensions of *Castine*. The small variation in reported (204 ft.) versus recorded length (223 ft.) can be explained by a combination of a slight distortion in the sonar data, and the fact that the reported length of *Castine* reflected length along the waterline, and not length overall. Observed deck and outer hull features of Site 15170 are also identical to historic photographs and vessel plans of *Castine*. Comparison of the sonar data with historic plan-view deck plans shows an exact match of vessel shape and deck openings, including the engine room, smoke-stack, and fire hatches (see Figure 3.11). Most prominently, the presence of four pairs of gun sponsons clearly indicates the vessel's function as a warship, and, again, matches identically with

¹¹ Ibid.

the design of *Castine*. Finally, the location of Site 15170 is in close proximity to the reported wreck location of *Castine*. Multiple database searches for other known wrecks in this vicinity failed to produce a single viable alternative vessel identification.

CHAPTER IV: GUNBOAT SERVICE IN THE U.S. NAVY, 1892-1919

The irony of gunboats in the early steel navy was that they received less recognition, while performing more actual foreign service, than any other vessel type in the fleet. Naval theory at the time held that a modern fleet was built upon powerful battleships and armored cruisers. If a hostile enemy was to be faced on the open water, the battle would be won or lost on the performance of capital ships. But a navy's function was not just to fight other navies. Ships also had to act as troop transports, supply ships, blockaders, surveyors, and dispatch vessels, among many other duties. Sometimes a warship didn't have to deal with an enemy navy at all, but with foreign governments, official and unofficial, that were a threat to American lives and property.

There was no one vessel type in the fleet that could perform all of these functions, no matter how many guns it mounted. Battleships may have been the focus of naval construction in the early steel navy, but they were ill-equipped to perform the non-combat tasks that characterized much naval service during this period. If there was a "jack of all trades" in the U.S. Navy, however, it was the gunboat. Where battleships were primarily a tool for war, gunboats were equally useful when their guns weren't firing. In war, gunboats were highly capable blockade, transport, and Army support vessels. During times of relative peace, gunboats constantly protected American interests and served as flag-waving, gun-toting, symbols of American democracy and naval strength in foreign waters.

A further irony is that gunboats were built to command respect, yet received almost none from within their own navy. They were often ignored as fighting ships, and neglected by any kind of naval spending. The career of *Castine* is, in many ways,

emblematic of the service rendered by all gunboats of this era. Built cheaply, with little thought put into its design, *Castine* nevertheless performed vital service for nearly 30 years, before being unceremoniously dropped from the Navy's roll and sold into obscurity. Despite their significant contributions to naval operations, most gunboats of *Castine's* era could expect a similar fate.

The second-class status given to gunboats was first evident in the shipyards that were awarded construction contracts. Because of their low priority in relation to battleships and armored cruisers, gunboat contracts were often given to inexperienced, and, sometimes, incompetent builders. On more than one occasion, the Navy Department had to take over gunboat construction when contractors could not meet deadlines or produce adequate warships.¹ Though the results were markedly different, this attitude may partially explain why construction of the *Castine* was awarded to Bath Iron Works, an inexperienced and unproven shipbuilder.

Despite inauspicious beginnings, the Spanish-American War soon provided *Castine* and the other gunboats the opportunity to prove their worth in the modern fighting Navy. The Spanish-American War was the first combat engagement for the new steel fleet and, predictably, gunboats played a significant role, both in practice and in strategy. It is perhaps no surprise that at the start of the war there were more gunboats (7) in the U.S. fleet at Key West, than any other type of vessel. One of the principal strategic goals of the Navy's war plan was to enforce a stifling blockade of Cuban ports. In this plan, smaller, armed vessels would be sent both to enforce the blockade, and to transport

¹ Alden, *The American Steel Navy*. 147.

arms and supplies to Cuban insurgents. This deployment was partially a matter of necessity, as gunboats and similar small craft were the only vessels with drafts enabling them to traverse shallow-water clandestine approaches. But this plan also had the added benefit of freeing up heavier ships for the inevitable clash with the Spanish fleet.

Secretary of the Navy Long was adamant in his orders to Admiral Sampson (commander of the North Atlantic Fleet) not to risk his capital ships in any engagement with shore batteries. Instead, Sampson was to protect his most powerful ships until the Spanish fleet "had been met and destroyed."² This, of course, left gunboats to perform many dangerous in-shore operations. As a result, most direct enemy confrontations that gunboats had during the war were with hidden shore batteries and Spanish gunboats protecting the coast. *Castine* fell victim to such an attack during the previously described action at Mariel Harbor on 4 July 1898. A similar engagement occurred at Cardenas on 11 May, when the gunboat *Wilmington*, torpedo boat *Winslow*, and Revenue Cutter *Hudson* chased Spanish gunboats into the harbor and were then ambushed by heavily fortified shore batteries. Ten U.S. sailors were killed and another twenty-one were injured during the fighting.³

A further consideration for the use of gunboats in Cuba was the limited availability of coal. At the outbreak of hostilities the U.S.'s only coal depot in the vicinity of Cuba was at Key West. Furthermore, the Navy had yet to fill its ranks with any colliers

² Navy Department, *Annual Reports of the Secretary of the Navy*.

³ Hayes, "War Plans and Preparations and Their Impact on U.S. Naval Operations in the Spanish-American War".

for supplying coal to ships at sea.⁴ Any American warship in Cuban waters would have to return to Florida to refill its coal bunkers. The vital blockade operations would be conducted by vessels with long cruising ranges that could stay at sea for extended periods. Gunboats were specifically designed for this kind of endurance. Intended to operate independently on distant stations, much of their internal space was dedicated to coal storage. Coal supplies also served as a defense mechanism. To maximize speed and efficiency, early gunboats were not armored, so extensive coal bunkers were used as protective buffers against enemy fire. The early steel gunboats were also equipped with a schooner sailing rig, which enabled them to occasionally use sail power and conserve coal reserves. Most larger U.S. warships had an operational range of approximately 4,000 nautical miles, which equated to just over 2 weeks of continuous cruising at 10 knots.⁵ In contrast, *Castine*, as one example, had a cruising range close to 6,000 nautical miles.

Cuba was not the only area where gunboats provided valuable service during the Spanish-American War. Between March and April 1898, the battleship *Oregon* made a historic run from its home port in San Francisco to join Admiral Sampson's fleet in Key West. The gunboat *Marietta*, also stationed in San Francisco, steamed ahead of the *Oregon* and arranged for coal and supplies in South American ports along the way. With the assistance of the *Marietta*, *Oregon* made the roughly 15,000 mile voyage around South America in only 66 days, with only minor repairs, and arrived in Florida in time to

⁴ Ibid.

⁵ Ibid.

join the chase for Admiral Cervera's fleet.⁶ This achievement was widely publicized for its illustration of the technological abilities and seamanship of the American Navy. *Oregon* rightly received the lion's share of praise, but the contribution of *Marietta* to facilitate *Oregon*'s record-setting voyage should not be overlooked.

Gunboats also were necessary to finish the job started by Admiral Dewey during his sweeping victory at Manila Bay. After two hours of fighting, Dewey and his squadron of four cruisers and two gunboats had crippled the Spanish fleet, but had not yet completely destroyed it. When Dewey withdrew his ships due to a falsely reported shortage of ammunition, Spain's Admiral Montojo moved his remaining ships behind the peninsula at Cavite, and into the shallow waters of Bacoor Bay for a final stand. Dewey attempted to fire into Montojo's anchorage, but he could not close the range with his deep-draft cruisers. Dewey eventually ordered the shallow draft gunboats *Concord* and *Petrel* to enter the harbor and engage the Spanish at close range. Shortly thereafter the Spanish garrison at Cavite raised a white flag and the Battle of Manila Bay was over.⁷

This last incident foreshadowed the usefulness of employing gunboats in the Philippines. Gunboats became the linchpin of naval operations in the Asiatic Station, particularly during the Philippine Insurrection. The nature of that war necessitated a fleet of vessels that could navigate the vast shallow and inland waterways that dissected the thousands of small islands in the Philippine Archipelago. Again naval operations revolved around a tight blockade, isolating the insurrectionists from inter-island trade. By

⁶ Ibid.

⁷ Ibid.

all accounts the Army dictated the war plan and, this time, naval vessels were also charged with providing close support for Army operations throughout the islands. This was not a minor responsibility, as U.S. Army forces were often just as isolated from reinforcements and dependant on supply lines as their Filipino counterparts. Naval support of Army operations generally fell into the following categories: artillery support; transportation of troops, supplies, and communications; and conjunct operations involving Army, Navy, and Marine landing forces. Capital ships were simply incapable of providing these services. Their deeper draft and heavier coal demands (at the start of the war the U.S. had only one coaling station, at Cavite Naval Yard) enabled them only to provide a distant blockade of the islands, and rendered them useless for rapid deployment in support of the Army. As a result, gunboats were unquestionably the preferred naval weapon in the Philippines, far outnumbering the major combat ships on station. At the start of hostilities in 1900, there were 25 gunboats in the Philippines, compared to only 5 capital ships, and this ratio remained more or less constant throughout the duration of the war.⁸

Considering their responsibilities towards the war effort, it can be argued that the Navy played as significant a role as the Army in the eventual victory. Their operational range was certainly wider than the Army's. At the start of the war, the insurrection was predominantly isolated in the northern islands and, consequently, so was the Army's sphere of operations. But insurrectionists in the North depended on waterborne supply lines originating throughout the Archipelago, and so the Navy was responsible for

⁸ Williams, "The U.S. Navy in the Philippine Insurrection and Subsequent Native Unrest, 1898-1906". 74.

patrolling the entirety of the island chain at the outset of hostilities. As the Army gained control of the Northern provinces, the insurrection gradually spread south. This expansion necessitated a larger number of gunboats on station, if not a significant increase in the areas to be patrolled.⁹ During the rainy season between May and October, Army operations were typically reduced to maintaining defensive positions until the dry season enabled offensive movements to resume. The gunboats did not have the same seasonal restrictions, and were expected to maintain the blockade and provide assistance to the Army throughout the year.¹⁰

Apart from the vital military role that they provided during the Philippine Insurrection, gunboats were perhaps equally notable for the leadership opportunities that they afforded to the Navy's junior officer corps. During the stagnated growth of the Navy in the late 19th Century, many officers suffered from slow promotions, often not receiving their first commands until late in their careers, if at all.¹¹ With the increase in naval construction and territorial acquisitions during the 1890s, however, the Navy was suddenly faced with a shortage of officers. This shortage was particularly acute in the Philippines, where Dewey's seizure of Manila and capture of several Spanish gunboats left him with a large area to defend and a surplus of ships with no officers.

Even though gunboat duty in the Philippines presented an opportunity for independent command, most senior Navy officers either turned down, or were never

⁹ Ibid. 32.

¹⁰ Ibid. 155

¹¹ Vernon Leon Williams, "Naval Service in the Age of Empire," in *Crucible of Empire*, ed. James C. Bradford (Annapolis, Maryland: United States Naval Institute 1993). 190.

offered, this opportunity. There were two reasons for this. The first was that many senior officers felt that command of a small, creaking gunboat was beneath them; a leadership position aboard a ship of the line was much more desirable. The second reason was that contemporary naval policy (based on Mahan's theories) was that the battle fleet should be concentrated on the East Coast of the United States, in preparation for defense against an invading European navy. Due to this policy and the practical demands of the war, only gunboats, auxiliary ships, and a few older capital ships were sent to the Philippines; the bulk of the battle fleet and newly constructed ships were retained for domestic service. Since command of these larger warships typically went to captains and commanders, the opportunity arose for low and mid-level officers to command gunboats.

Not all officers jumped at the chance. When Ensign William Leahy was given his first command, aboard the ex-Spanish gunboat *Mariveles*, he complained that, "Crews for the gunboats are obtained from larger ships and an order to send only carefully selected men is apparently interpreted to mean that the worst will be selected."¹² More officers were in agreement with Lieutenant (J.G.) Frederick Sawyer, however, who remarked upon being given command of the USS *Panay*:

This was an unexpected windfall as the duty was much sought after by the junior officers. The gunboat captains often wondered why their seniors did not claim such an independent command. We finally concluded that they had sound reasons, since, due to greater experience and better judgment, they had serious doubts as to the gunboats' ability to ride out Pacific Ocean typhoons and the [junior officers'] apparent good fortune simply demonstrated the triumph of enthusiasm over experience.¹³

¹² Leahy, "Leahy Diary, 1897-1931." 102.

¹³ Sawyer, *Sons of Gunboats*. 15.

A gunboat command in the Philippines gave these young officers opportunities for career development their seniors often had waited decades for. Because of the nature of blockade duty, gunboats operated independently, without the oversight of a senior squadron leader close-by. Orders were disseminated from the Navy base at Manila, but because operations were largely dictated by the Army, naval directives were often vague and confusing.¹⁴ This left gunboat officers to their own devices in interpreting and carrying out orders. Each gunboat was assigned a specific blockade zone, but their commanding officers were given roving commissions, which meant that they were free to travel within their zones and enter any port they chose. Resultantly, novice gunboat officers (usually no higher than a junior-grade lieutenant) were forced into decision-making responsibilities that before had been left to senior officers. When a suspected enemy blockade-runner was intercepted, cases of Admiralty law were adjudicated on the spot.¹⁵ In other instances, gunboats were forced to improvise shore expeditions of sailors and marines in areas where there was no Army presence. In these cases, such as the *Castine's* surveying operations at Iloilo, junior gunboat officers were again put in uncustomary leadership positions.¹⁶

The *Castine's* experience during the surrender of Zamboanga was yet another example of gunboat officers having to go above and beyond the call of duty. Though *Castine's* Commander Very was a relatively senior officer in the Philippines, his conduct

¹⁴ Williams, "The U.S. Navy in the Philippine Insurrection and Subsequent Native Unrest, 1898-1906". 102

¹⁵ Sawyer, *Sons of Gunboats*. 43-44.

¹⁶ Leahy, "Leahy Diary, 1897-1931." 89-90.

in receiving the surrendering insurgents and mediating the province's transition to a new government was illustrative of the administrative duties that gunboat commanders had to perform. In another example, forces from the gunboat *Petrel* were ordered to occupy the city of Cebu. One *Petrel* lieutenant led the occupation force, and he was later given the administrative position of Collector of Customs at Cebu. Another *Petrel* lieutenant was designated Captain of the Port.¹⁷

The career benefits of gunboat service were not limited to the lieutenants and ensigns who were placed in command. With the shortage of junior officers in the Philippines, there was a trickle-down effect to the other lieutenants (J.G.), ensigns, naval cadets, and even midshipman, who were placed second or third in command. This was particularly true aboard the smaller gunboats (less than 500 tons) where crews were usually less than 50 men, with only two or three officers.¹⁸ The experience and confidence gained by officers in the Philippines had a lasting effect, not just on the careers of the individual officers, but on the navy as a whole. Many Philippine Insurrection gunboat officers capped their careers as full admirals, or at least as flag officers.¹⁹ World War II fleet admirals William Leahy and Chester Nimitz were both given their first commands aboard gunboats during the Philippine Insurrection. When he was an ensign in the Philippines, Nimitz summarized the benefits gunboat service would have on an officer's future career, writing, "I can practice piloting and navigation and so

¹⁷ Williams, "The U.S. Navy in the Philippine Insurrection and Subsequent Native Unrest, 1898-1906". 146.

¹⁸ Williams, "Naval Service in the Age of Empire." 195-196.

¹⁹ Ibid. 185, 200.

forth as well on a small ship, and besides it should teach me a certain amount of self-reliance and confidence."²⁰

The Philippine Insurrection underscored the dichotomy that existed between the integral role gunboats often filled in the Navy, and the relative lack of respect they were given by the naval establishment. In addition to being shunned by senior officers in search of a command, gunboats were also often neglected when it came to maintenance and supplies. Lieutenant Sawyer, of the *Panay*, described gunboats as "the underdog and somewhat the pariah class of men-of-war."²¹ He was referring to the fact that gunboats often had to resort to bartering and adroit looting in order to obtain necessary supplies, as they were not always easily granted from the Navy Yard. There also is evidence the Navy Department never seriously invested in gunboat construction, or viewed them as a necessary component of the developing fleet. The number of gunboats in the U.S. fleet did increase dramatically at the start of the Philippine Insurrection. But this reflects the numerous Spanish gunboats taken during the Spanish-American War, and not new gunboat construction. Twenty captured Spanish gunboats were added to the U.S. fleet between 1898-1902, and all served in the Philippines.²² The Navy's budget was, instead, spent almost entirely on battleships and cruisers; between 1898 and 1914 only two newly-constructed gunboats were added to the fleet.²³

²⁰ Ibid. 193.

²¹ Sawyer, *Sons of Gunboats*. 22.

²² Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 166-167.

²³ Gardiner, ed., *Conway's All the World's Fighting Ships, 1906-1921*. 111, 131.

Gunboats were sacrificed in favor of battleships and armored cruisers, largely because of Mahan's screed that the purpose of a fighting navy should be to engage the enemy's fleet in a decisive clash of heavy guns and capital ships. While this may have held some truth in combat situations, it ignored the responsibilities of a peacetime navy. The previous decades had shown that America was no longer content with an isolationist foreign policy. Through territorial acquisitions, treaties, and the migration of American entrepreneurs, the country extended its political and economic influence throughout the globe. These imperialist aspirations often landed American citizens in unstable developing countries. Inevitably, local revolutions or cultural differences would endanger American lives and property, and the U.S. government was compelled to protect its interests with a display of military potential. This meant sending an armed navy vessel to demonstrate to any offending foreign government that the United States was paying attention, and that it had guns it was willing to fire, if necessary. In most instances, it was unnecessary and unrealistic to send battleships or large cruisers for what was essentially a symbolic gesture. The expense of keeping a capital warship, with its large crew and corresponding supply consumption on a distant station, mitigated some benefits of sending such a ship on a solely peacekeeping mission. U.S. access to coaling stations was still limited in many parts of the world, further reducing the effective range of a large warship. There was also the lingering concern that dispatching a battleship for this duty would weaken the home fleet and expose the cruising ship to unnecessary risk if it were to come in contact with a superior naval force.

On the other hand, the same seagoing characteristics that made gunboats ideal for blockade duty in Cuba and the Philippines also made them suited for international

peacekeeping duties. Their long cruising ranges, shallow drafts, and relatively fast speeds enabled them to operate independently for extended periods on foreign coasts and inland rivers. Gunboats had fewer coal and crew supply demands, increasing their ability to obtain resources in foreign ports. If and when a show of force was needed, a gunboat's array of 4-inch rapid fire guns, 6-pounder rifles, and deck-mounted machine guns, was powerful enough to keep most third-world belligerents at the bargaining table.

Protecting national interests overseas had been the historic function of American gunboats, and the period from 1892-1919 was no exception. *Castine's* first naval assignment, in 1895, was to ensure the safety of American consuls who offended local governments in Mozambique and Madagascar. *Castine* spent most of 1903-1917 protecting Americans and helping put down native unrest in various Latin American countries. This was representative of the United States's increasing influence in the Caribbean and Latin America during the early 1900s. The U.S. had extensive economic interests throughout Latin America, and because of its proximity and destabilizing potential, the Caribbean had come to be viewed as an American lake.²⁴

The Panama isthmus was an area of particular U.S. influence during this time. There had been international interest in a canal through Central America dating back to the 16th Century, and by 1903 the U.S. had taken control of building one in Panama. There were obvious economic benefits to controlling a shipping canal through the isthmus, but, if the U.S. were at war, the canal was viewed as the way to quickly

²⁴ Symonds, *Historical Atlas of the U.S. Navy*. 124

consolidate the Pacific and Atlantic fleets.²⁵ In exchange for canal rights, the U.S. backed a revolution that gave the Panamanian Republic independence from Columbia. Shortly after a treaty was signed between the U.S. and the new republic, in November 1903, lingering rebellions forced the U.S. to send warships to both Panama coasts. *Castine*, along with four other gunboats, was dispatched to put down the revolt.²⁶

Economic motivation and protecting American citizens were not the only justifications for gunboat diplomacy in the early 1900s. By smothering Latin American revolutions, the U.S. was indirectly protecting European interests. This, in-turn, was a preemptive defense against a possible war with imperialist European countries. President Roosevelt had well-founded fears that Latin American instability would invite German encroachment. With German warships and potential coaling stations in such close proximity, escalation to a naval confrontation in U.S. waters was a likely possibility. These concerns led directly to the Roosevelt Corollary to the Monroe Doctrine, which established the U.S. as the international police power in Caribbean and Latin American affairs. As previously detailed in this study, *Castine*'s operations in Haiti and the Dominican Republic from 1914-1917, were a direct consequence of enforcing this policy. Though *Castine* was not involved, similar revolutions were repressed by U.S. intervention in Venezuela and Nicaragua.²⁷ Gunboats did not always act alone; depending on the severity of the conflict, battleships and cruisers were also sent. Still, gunboats were

²⁵ Ibid.

²⁶ *New York Times*, "Warships Headed to Panama," December 29, 1903.

²⁷ Symonds, *Historical Atlas of the U.S. Navy*. 124.

typically the first-responders, and did most of the heavy lifting as far as patrolling coastal areas and transporting marine detachments during forced occupations.

As the century progressed, technological developments in speed, weapons, and armor, rendered most first-generation warships obsolete. In 1906, the British launched the battleship *Dreadnought*, the first ship to substitute its smaller secondary battery for a full complement of 12-inch guns. As a result, all pre-dreadnought battleships were immediately obsolete, and an international arms race was sparked for all big-gun warships. U.S. battleships from the 1890s remained in the fleet, but as they aged, they were no less expensive to man or maintain. They were gradually phased-out of active service in favor of bigger, faster, more-powerful ships. Gunboats, already low on the totem pole, were further marginalized within the battle fleet. But gunboats had the advantage of low expectations, and were, therefore, easily adaptable to functions for which they were not originally intended. Their characteristic endurance, seaworthiness, and inexpensive operating costs meant that gunboats would always have a place somewhere in the fleet. From 1909 to 1913, *Castine* served as the principal submarine tender for the U.S.'s first Atlantic Submarine Flotilla. Other pre-1900 class gunboats were converted to training ships, prison ships, quarantine stations, and revenue cutters. These duties were often far removed from the action-oriented jobs that gunboats had been built for, but they show how gunboats were able to extend their careers by adapting to fill niche rolls within the Navy. Once larger warships outlived their fighting capability, they served little purpose beyond being targets for gunnery practice. Of the 27 battleships

launched between 1892 and 1906, 24 were either sold or sunk as targets by 1923.²⁸ In 1912, a review of the 104 ships of the Atlantic Fleet was assembled in the North River, and described as the “biggest [fleet] ever gathered in American waters”. Of the 32 battleships then in the fleet, only 3 were commissioned before 1900. Only 1 of 8 armored and protected cruisers predated 1906. In contrast, 6 of the 17 gunboats commissioned before 1900, including *Castine*, remained in the Atlantic fleet.²⁹ Five gunboats of *Castine*'s era were still in active service as late as World War II.³⁰

Further illustrative of gunboat adaptability was *Castine*'s final naval service as a convoy escort and sub-chaser in World War I. Along with the Philippine Insurrection, World War I proved that battleships were not the universal solution to any naval engagement. Germany nearly won the war by using small, limited-range U-boats for commerce raiding. The German and British battle fleets never fought a decisive battle, nor did they have *any* impact on the war's events, except to keep each other locked in a stalemate. When the U.S. entered the war, they were asked to leave their battleships at home; England did not have the coal to support them, and, in any case, the German fleet was already bottled up in Kiel. The response to the U-boat offensive came, instead, from merchant ships and anti-submarine craft. Overwhelmingly, this role was filled by destroyers, but the old gunboats *Castine*, *Machias*, and *Petrel*, among others, also joined the fight. Serving as sub-chasers and convoy escorts, these vessels helped to quickly turn

²⁸ Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 139-144.

²⁹ *New York Times*, "Our Record Naval Fleet," September 18, 1912.

³⁰ Gardiner, ed., *Conway's All the World's Fighting Ships 1860-1905*. 163-166.

the tide of the U-boat war, and secure victory for the allies. Once again, the gunboats had proven they were capable of valuable service in a combat zone.

The final irony of gunboats in the New Navy is that they were indispensable precisely because they were inexpensive to build, maintain, and, therefore, to replace. A battleship costing hundreds of thousands of dollars to build was not easily replaced, either financially, or in terms of lost firepower. The loss of a gunboat, on the other hand, would likely not have been a significant military set-back. Therefore, these vessels were sent to do the Navy's dirty work while larger warships were often protected until they could be used as intended against an enemy battle fleet. As a unit, gunboats provided a service that few other ships in the Navy could. When a conflict occurred in an area where larger ships either could not, or should not, be sent, gunboats were deployed. Between wars in Cuba, the Philippines, China, and Europe, and endless peacekeeping cruises, the New Navy gunboats were called to action repeatedly.

CONCLUSION

The career of the USS *Castine* is one that exemplifies the typical career of a U.S. gunboat at the dawn of the early American steel navy. It was a largely anonymous warship, paling in status to the much more imposing and publicized battleships and armored cruisers. Yet the specifics of its career illustrate a ship, and a ship type, that in many ways played as significant a role in turn-of-the-century naval events. The *Castine* is further notable for its relation to a sequence of historically significant events at the state, national, and international levels.

Castine was built in 1892 at Bath Iron Works in Bath, Maine, along with her sister ship, *Machias*. The two vessels were the entire *Machias* Class of gunboats. They were also the first steel-hulled vessels built in Maine, as well as the first ships built by Bath Iron Works. The successful construction of the *Machias* Class gunboats was the culmination of decades of efforts by General Thomas Hyde to bring a successful steel shipyard to Bath. It was also the impetus for a century-long relationship between Bath Iron Works and the U.S. Navy; over half of Bath Iron Works' 425 shipbuilding contracts have been for navy vessels.¹ This prolific output peaked during World War II when Bath Iron Works supplied one-quarter of the U.S. Navy's destroyer fleet, and more destroyers than the entire Japanese Navy built during the war. Beginning with the launching of the *Castine* and *Machias*, Bath Iron Works' mutually beneficial relationship with the Navy has been vital to the economic development of both Bath and Maine. Today, Bath Iron

¹ Andrew C. Toppan, *Bath Iron Works* (Portsmouth, New Hampshire: Arcadia Publishing, 2002). 7-8.

Works' facilities cover over 60 acres, and the company is the largest private employer in the state.

The construction of *Castine* and her sister ship was evidence of a progressive shift in naval ship design and technology being developed at the end of the 19th Century. After the Civil War, the U.S. Navy went into a prolonged period of purposeful neglect, retaining only obsolete wooden and ironclad warships. By the early 1880s, however, a cascade of technological advancements in steel production, steam engineering, and naval weaponry allowed development of stronger, lighter, faster, and better-armed steel warships. This modern fleet came to be known as the New Navy.

The new vessels signaled a shift in naval philosophy, characterized by a conversion of the navy's role from a primarily defensive fleet to a force capable of initiating offensive operations overseas. Within this New Navy, gunboats were one of the smallest rated warships, ranging between 800 – 1,300 tons. In times of war, these vessels were used for blockade and patrol operations in areas where larger warships were unable to navigate. They also participated in artillery support and troop transport for Army operations, and, in general, conducted operations that allowed capital ships to focus directly on engaging an enemy fleet. During peacetime, gunboats served as a reminder of U.S. military potential and influence by being dispatched to politically unstable countries where American interests were at risk. At the close of the 1890s, *Castine* was one of only 17 active gunboats in the navy.

In these roles *Castine* exemplifies the U.S.'s pursuit of a larger influence in global geopolitics at the turn of the 20th Century. The presence of American citizens and business interests in foreign countries, as well as a desire to acquire territories,

necessitated the need for a navy capable of projecting American influence around the globe. In 1895, *Castine* began its international duties when it was assigned to the South Atlantic Fleet and cruised successively to the Mediterranean and East Africa, then the east coast of South and Central America. Beginning in 1898 *Castine* served a significant role in a succession of hostile military environments integral to both acquisition of U.S. territories abroad, and to demonstrating the new U.S. global foreign policy. *Castine* was first called to duty in Key West and Cuba in response to escalating hostilities between the U.S. and Spain, preceding the Spanish-American War. After war was declared on 21 April 1898, *Castine* joined the Atlantic Flying Squadron and was employed in blockading Cuban ports and in assisting the hunt for the Spanish naval fleet, which was eventually destroyed at Santiago. On 22 June 1898, the *Castine* provided artillery support for the U.S. Army landing at Daiquiri. *Castine* also served as a troop-ship escort, bringing the Army to Cuba. During this time, *Castine* also contributed to evolving U.S. legal interpretation. While conducting blockade duties, *Castine* captured at least three vessel prizes, including the fishing schooner *Paquette Habana*. The vessel and its cargo were later sold at auction, leading to a landmark Supreme Court case in which *Paquette Habana* was ruled to have not been in violation of the blockade, and therefore illegally captured. This decision has since been used as a guiding precedent in numerous cases concerning application of international law to U.S. law.

The decisive U.S. victory in the Spanish-American War ushered in an era of American imperialism whereby, through treaty or purchase, the U.S. acquired the Philippines, Guam, Puerto Rico, the Hawaiian Islands, Guantanamo Bay, the Virgin Islands, and part of the Samoan Archipelago. The New Navy fleet, and gunboats, in

particular, were integral in protecting these newly acquired territories. In 1899, *Castine* was dispatched to the Pacific where for the next two years it assisted Army operations during the Philippine Insurrection and the Chinese Boxer Rebellion. In November 1899, while blockading the Philippine Island of Mindanao, the *Castine* and her commanding officer, Commander Very, captured the island's principal city of Zamboanga and later accepted the unconditional surrender of the entire province. This episode was considered by White House officials to be a significant victory and possibly the beginning of the end of the insurrection.

From January to September 1900, *Castine* assisted in suppressing the Chinese Boxer Rebellion, continuing a trend of contributing to the protection of U.S. interests overseas. This was accomplished specifically by providing transport for U.S. Marines and conducting patrol operations off Shanghai and Amoy. During this time in the Asiatic Squadron, Ensign William D. Leahy served aboard *Castine*. Ensign Leahy would go on to become Admiral Leahy, the Chief of U.S. Naval Operations (1937-1939), Governor of Puerto Rico (1939-1940), and Chief of Staff to President Franklin Roosevelt during World War II. In December 1944, Congress created the new top-grade of five-star Fleet Admiral. Admiral Leahy was one of four inaugural recipients of this grade, and the first of two who served aboard *Castine* during their careers.

For the majority of the time between 1903 and 1917, *Castine* resumed her peacetime duties of cruising Caribbean and South Atlantic waters and maintaining an American military presence in such countries as Cuba, Puerto Rico, Haiti, the Dominican Republic, and Mexico. From 1908-1913, *Castine* served as the principal submarine tender and flagship for the Atlantic Submarine Flotilla, which in 1912 and 1913 was

under then-lieutenant Chester W. Nimitz. Building on his experience commanding the Atlantic Submarine Flotilla, Nimitz would go on to become one of the most accomplished officers in U.S. naval history. After a succession of ship commands, Nimitz was eventually promoted to Commander-in-Chief, Pacific, directly following the Japanese attack on Pearl Harbor. In that capacity, Admiral Nimitz commanded over two million men and women, 5,000 ships, and 20,000 aircraft at the height of World War II, and orchestrated the greatest naval victory in U.S. history at the Battle of Midway. In December 1944, Admiral Nimitz became the second officer who served either on or in-command of *Castine* (along with Admiral Leahy) to receive the newly created rank of Fleet Admiral.

Castine was called to combat duty for a final time in the Mediterranean and Eastern Atlantic during World War I. Before America's entry into the war, German U-boats had decimated allied shipping in the Atlantic. The U.S. decision to declare war against Germany in 1917 added desperately needed shipping tonnage and military resources to the Allied anti-submarine effort. *Castine* was one of 41 American vessels stationed at Gibraltar, at that time the gateway for more shipping traffic than any other part of the world, and the key for maintaining communication lines for the Allied armies in Eastern Europe and North Africa. *Castine* was primarily employed as a convoy escort, whereby armed cruising vessels would escort merchant vessel convoys through the war zone. This tactic had immediate results, drastically reducing the amount of shipping casualties in the Atlantic. By July 1917, only ½ of 1 percent of the 10,000 convoyed ships were lost; prior to the U.S. involvement, U-boats were sinking 900,000 tons of allied shipping per month. The success of the U.S. Navy convoy escorts, including

Castine, was critical in neutralizing the German U-boat threat, which in turn contributed directly to the overall Allied victory.

Castine's career from 1892-1919 is emblematic of the military effectiveness of gunboats during this period of naval development. In the Spanish-American War, and then again in the Philippine Insurrection, gunboats proved indispensable for blockade and in-shore operations. The nature of the Philippine Insurrection, in particular, required ships that could operate independently, maintain a tight blockade, and provide close support to Army operations from innumerable shallow-water passages in the Philippine Islands. Gunboats became the primary navy weapon during that conflict, as they were the only warships that had the necessary combination of speed, firepower, endurance, and maneuverability.

Those same characteristics also proved gunboats highly valuable as peacetime tools for projecting American military strength overseas. An increasingly expansionist foreign policy at the turn of the century spread American political and economic interests throughout the globe. As American influence increased, so did the need to protect those interests. The Caribbean effectively became an American lake, one that was continually destabilized by various Latin American revolutions. Both in an effort to protect American interests and to preclude European intervention, the U.S. navy remained active in this region. *Castine* and her fellow gunboats were repeatedly sent to politically unstable areas to restore order, protect American lives and property, and, in some instances, take administrative control. Gunboats were frequently picked for these assignments because their relatively small crews and modest coal demands, allowed them to operate cheaply on foreign stations for extended periods. Larger warships may have been able to conduct

many of the same peacekeeping operations, but would have done so at far greater cost to the Treasury.

Despite the many benefits of gunboats, these vessels were given little respect within the Navy. Senior officers often shunned gunboat commands, and congressional appropriations were repeatedly diverted to battleship building programs. This was understandable considering the pervading philosophy of international naval development at the time, but, in the end, battleships had little bearing on U.S. naval operations through the end of World War I. Battleships were designed for direct combat against an enemy fleet, whereas in both peacetime and wartime, gunboats and other smaller vessels filled many operational niches that capital ships could not. In terms of naval applications, capital ships also aged faster than gunboats. The rapid technological advancements of the early 20th Century resulted in short life spans for warships that suddenly became too weak and too slow. Conversely, gunboats were more adaptable to a variety of niches. In *Castine's* case, the vessel was converted to a submarine tender, and then an anti-submarine vessel during World War I.

Following the war, *Castine* was decommissioned and eventually sold to commercial interests in 1921. Three years later, she was utilized as a fishing barge by the New Orleans Menhaden Co. when she sank from a sudden explosion while being towed in the Gulf of Mexico. The archaeological examination of the wreck previously known as Site 15170, shows the wreck to be *Castine*. After further investigation, it has been determined that this wreck is eligible for the National Register of Historic Places under all four possible NRHP selection criteria.

Castine is eligible for the NRHP under Criterion A (*Associated with events that have made a significant contribution to the broad patterns of our history*)², as it was directly involved in several military events that had a lasting impact on both U.S. and world history. These events include: the blockade and invasion of Cuba during the Spanish-American War; the illegal capture of the *Paquette Habana* and the resulting landmark Supreme Court case; forcing and accepting the surrender of the strategically important Province of Zamboanga during the Philippine Insurrection; providing support for Marine operations during the Boxer Rebellion; and, perhaps most significantly, assisting in the vital Allied anti-submarine operations during World War I. Individually these events all contributed in significant ways to the strategic goals of their respective military campaigns. Viewed collectively, they illustrate the *Castine's* career-long contribution to the patterns of American expansionism and naval development from the 1890s through the end of World War I.

Castine satisfies Criterion B (*Associated with the lives of persons significant in our past*) due to its association with the early careers of two of the most highly decorated and accomplished officers in U.S. naval history, Fleet Admirals William D. Leahy and Chester W. Nimitz. Eligibility under Criterion C (*Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master...*) is due to *Castine* being an early example of the design and engineering changes taking place with the development of the new steel navy. *Castine* is further eligible under Criterion C

² U.S. Department of the Interior, National Park Service "Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places." *National Register Bulletin 20*. (Washington, D.C.: Interagency Resources Division, U.S. Department of the Interior, 1985).

because of its association with the regionally and nationally significant shipyard, Bath Iron Works.

Finally, *Castine* is NRHP eligible under Criterion D (*Has yielded, or may be likely to yield, information important in our prehistory or history*), because of the archaeological significance of the site. *Castine* and her sister ship constituted the entirety of the *Machias* Class of U.S. Navy gunboats, of which *Castine* is the only remaining vessel. The continued investigation of the *Castine* is likely to yield important information on the design characteristics, construction techniques, and strategic uses of early 20th-Century gunboats. Archaeological investigation may also provide information relevant to the changing function of the vessel through time as it was converted from a warship to a privately owned commercial barge. This wreck provides the opportunity to study why certain purpose-built navy vessels were suited to commercial service, and how these vessels were altered from their original design to better accommodate a commercial function. Many questions remain regarding *Castine*'s final years and final hours. What, exactly, was the cause of *Castine*'s sinking? How was the vessel altered for use as a commercial fishing barge? How has the wreck been impacted since its sinking? Are there any extant artifacts that clarify how the vessel was being used when it sank, or contribute to the knowledge of gunboat service?

Castine represents a tangible link to a defining period in U.S. naval development. This period further reflects the country's first embrace of a sense of imperialism and expansion of its geopolitical influence throughout the globe. The wreck of *Castine* is an archaeologically significant artifact of that period of our nation's history, and it is deserving of further archaeological research and federal protection under the NRHP.

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