

## ABSTRACT

Tane Renata Casserley. CGS *CANADA*: A CANADIAN WARSHIP IN THE FLORIDA KEYS. (Under the direction of Dr. Tim Runyan) Department of History, March 2005.

The purpose of this thesis is to document a shipwreck lost within the Florida Keys National Marine Sanctuary and through historical and archaeological analysis illustrate that this vessel is the CGS (Canadian Government Ship) *Canada*, one of the most influential ships in Canadian history. Built in 1904, the cruiser CGS *Canada* became the first armed, steel-hulled capital ship owned and operated by the Canadian government. This study attempts to fully understand the significance of this Canadian “first,” through an exploration of the mix of political and economic factors that led to the ship’s construction. These factors include the contentious debate between the governments of Canada and Britain over naval defense, the growing naval threat from Europe at the dawn of the twentieth-century, and the increasing competition over fisheries resources in the North Atlantic.

This study examines the success of the ship both in design and function. It chronicles *Canada*’s role in both the Fisheries Protection Fleet and as the nucleus of the Royal Canadian Navy. It was the fastest and best-armed ship in the country’s Fisheries Protection fleet and later became an ideal choice for training naval cadets before the creation of the Royal Canadian Navy in 1910. In that role, *Canada* became the first Canadian warship to be invited to train with the British Royal Navy.

Also included in this study is the life of the *Canada* after its service in the Canadian Navy. In 1924, Barron Gift Collier, a wealthy Florida landowner and

advertising magnate, purchased the ship and renamed it *Queen of Nassau*. The ship was converted into a first-class passenger steamer and put into service as an inter-island cruise ship for the lucrative Nassau-Miami route. This study examines the ship's failure in that endeavor and investigates questions surrounding its subsequent sinking on July 2, 1926.

In 2001, divers discovered an unknown shipwreck in 230 feet of water within the National Oceanic and Atmospheric Administration's (NOAA) Florida Keys National Marine Sanctuary. Funded by NOAA, a team of scientific divers led by NOAA archaeologist Tane Casserley has since conducted three archaeological surveys to the site and concluded with a high degree of probability that the shipwreck in question is the *CGS Canada*.



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## INTRODUCTION

Divers from the Association of Underwater Explorers (AUE) investigated in 2001, an unknown shipwreck sitting in 230 feet of water within the National Oceanic and Atmospheric Administration's (NOAA) Florida Keys National Marine Sanctuary. Even though the shipwreck lay just seven miles south of Lower Matecumbe Key, it was not documented on a nautical chart. The divers found the shipwreck remarkably intact and sitting upright on the white sand bottom with an abundance of clearly visible artifacts. Recognizing the shipwreck's possible historical significance, the divers reported its location to officials with the Florida Keys National Marine Sanctuary. A NOAA-funded preliminary site survey was launched in October 2001 to investigate the site, followed by two phase-II archaeological surveys, one in March 2002 and another in March 2003. Led by archaeologist Tane Casserley from NOAA's Maritime Archeology Center in Newport News, Virginia, the dive team included divers from AUE, East Carolina University, and the National Undersea Research Center at the University of North Carolina at Wilmington. The team documented the shipwreck's diagnostic features, inventoried the artifact assemblage, recovered threatened artifacts, and created a site plan in both plan and profile views. Initial reports suggested the shipwreck was a ferry or passenger steamer, but the archaeological surveys and subsequent historical research proved the vessel was much more. The research uncovered the vessel's identity as one of the most influential ships in Canadian history, the Fisheries Protection cruiser and warship CGS *Canada*.

To comprehend the significance of the vessel, this thesis explores the mix of political and economic factors that lead to the *Canada*'s construction at the turn of the twentieth century. From colonial times, the British Royal Navy guarded British North American coastal waters. Although this area would not officially become the nation of Canada until 1867, the overall land mass had been referred to by its inhabitants and the British as "Canada" since the 1700's. By the beginning of the mid-nineteenth century, the Royal Navy's dedication to protecting Canada began to wane, sparking an argument between the British and Canadian governments over naval defense that would endure for years. A growing naval threat in Europe placed increasing stress on the Royal Navy, while at the same time, expanding competition for the economic resources of the North Atlantic placed pressure on Canada to protect its valuable fisheries. A continual argument ensued over which country should carry the expense and responsibility of Canada's coastal protection. When Canada began the movement toward independence with Confederation in 1867, the British arguments for Canada to establish its own navy grew more emphatic. The construction of the CGS *Canada* in 1904 was a direct result of those dynamics. The *Canada* became the first armed, steel-hulled ship owned and operated by the Canadian government. This thesis demonstrates that the *Canada* embodied the new nation's need for fisheries protection, coastal defense, and police work.

To further illustrate the pivotal role the *Canada* played in shaping Canadian naval history, this thesis examines the success of the ship both in design and function. Vickers Sons and Maxim Ltd. in Barrow-in-Furness, England, built the ship as a one-of-a-kind

cruiser for the Canadian Fisheries Protection Service. Prior to this, the Canadian Fisheries Protection fleet consisted of wooden schooners and second-hand steam ships. The *Canada*'s ram bow, narrow length-to-beam ratio, and steel hull were a departure from anything that had previously gone to sea under the Canadian flag. This design's success was first demonstrated during the ship's initial tenure with the Department of Marine and Fisheries from 1904 to 1915. It was the largest, fastest, and best-armed ship in the Fisheries Protection fleet. This thesis examines the *Canada* as the vessel that marked the transition from traditional wooden ships to modern steel cruisers, a crucial step in the formulation of Canada's future navy.

As a fast, well-armed cruiser, *Canada* became a natural choice for naval training. A generation of Canadians received a naval education aboard the *Canada* before the creation of the Royal Canadian Navy in 1910. In this role, the *Canada* became the first Canadian warship to conduct training exercises with the Royal Navy. In 1912, the *Canada*'s original low forecastle was reconstructed and brought flush with the weather deck. This modification increased the ship's seaworthiness, allowed for a larger crew, and gave it an appearance very similar to third-class cruisers in the Royal Navy. This research details how that modification further enhanced the *Canada*'s success as a training vessel and solidified her status as the nucleus of the Royal Canadian Navy.

After fifteen years training cadets and protecting Canada's shores and offshore resources, the *Canada* was decommissioned in 1919 and put on the auction block. Five years later in 1924, it was purchased by advertising magnate and wealthy Florida landowner Barron Gift Collier. This thesis examines Collier as a pioneer in streetcar

advertising, a philanthropist, and as an entrepreneur who recognized the *Canada's* potential to exploit the wealthy vacationers along Florida's West Coast. He renamed the ship *Queen of Nassau* and converted it into a first-class inter-island passenger steamer to run between Nassau and Miami. In less than six weeks of service, the ship failed in its new role. The *Queen of Nassau* was brought back to Miami and left to deteriorate at anchor in Biscayne Bay for 18 months with only a single caretaker aboard.

This thesis will also chronicle the final days and sinking of the *Queen of Nassau/CGS Canada*. In 1926, foreign investors expressed an interest in buying the aging vessel and in July it pulled anchor to steam around the southern tip of Florida to Tampa for its final inspection. Approximately 50 miles south of Miami, the crew reported water flooding into the ship's lower compartments. After an hour and a half battling the oncoming water, the captain gave the order to abandon ship. Watching from the safety of the lifeboat, the captain reported that the vessel's bow rose up out of the water, the boilers exploded, and the hull crumpled. Eight minutes after the crew abandoned the ship, the *Queen of Nassau* slipped beneath the waves on July 2, 1926. It would not be until seventy-five years later, in 2001, that the *Queen of Nassau*, formerly *CGS Canada*, would enter back into the public's eye.

This study provides an archaeological examination of the shipwreck believed to be the *Queen of Nassau/Canada*. The archaeological surveys sought to assess the wreck's historical significance, document the site in detail, and identify the vessel. In the process, those investigations also revealed a conflicting story of the ship's demise.

This historical and archaeological examination of the *Canada* and its role in Canadian naval history is the first comprehensive study of the vessel. While other studies have chronicled the history of Canada's Navy and Department of Marine and Fisheries, none have focused on the creation of this particular vessel and its contribution and role as a transitional vessel for modern Canadian warships.

## CHAPTER 1: THE BRITISH NORTH AMERICAN FISHERIES

Since their arrival in North America, Europeans have been intertwined with one of Canada's most valuable off-shore resources, its fisheries. In fact, it is the exploitation and protection of those fisheries that served as a major impetus for European migration to Canada. Their westward movement to North America began with the pursuit of fish, specifically cod, on the Northeastern fishing grounds. The area known as the Grand Banks attracted Vikings, Basques, and later the seafaring nations of Europe. Their arrival sparked competition between fishermen of differing nationalities and between nations. The creation of the fisheries protection cruiser CGS *Canada* is deeply rooted in these conflicts.

Since the first British shore-based fishing stations in Newfoundland in the 1500's, Canada depended on the Royal Navy to protect its shores and fisheries. The Admiralty acknowledged that Canada provided a stable food source and provided an arena for mariners to hone their skills, and were therefore willing, albeit reluctantly, to protect the valuable Canadian fisheries and coasts. It was a task ill-suited for the Royal Navy with its large ships and big guns. The British often thought the task beneath them. The Royal Navy was given very little actual power to enforce fisheries protection other than to warn violators and give the occasional fine. But as the power of the British Empire began to wane in the mid nineteenth century, the Royal Navy pulled its ships away from Canada. They were needed to protect the British Isles against the growing threat of Germany.

Canada played a delicate balancing act to keep the Royal Navy in its waters. Canada's unofficial policy was to maintain its political equilibrium between a need for

coastal security and the enormous cost of maintaining a navy. By keeping the Royal Navy in its waters, Canada could avoid making a financial contribution to its own warship construction and maintenance program. The Canadians were then able to use the budget to strengthen their infrastructure with railroads and canals. Canada justified these expenditures by stating that its new trans-continental railroad and canal system could move men and supplies from coast to coast faster than by sea, therefore contributing to the Empire's defense. Eventually this would not be enough and Canada would have to own up to its naval responsibilities.

Archaeological evidence indicates that the first Europeans to travel to the shores of the North American continent were the Vikings. The Vikings explored west from Norway to Iceland, then Greenland, and finally in the summer of the year 1000, to the shores of what is now called Labrador and Newfoundland. Not coincidentally, the Atlantic cod's range extended this same route between Norway and the coast of North America. Mark Kurlansky theorized in his book *Cod: A Biography of the Fish that Changed the World*, that the Vikings followed this ample food source westward across the Atlantic until they reached the Northeastern shores of America. The Vikings developed a method of preserving the cod by leaving the fish out to dry in the cold Arctic air. This dry curing method provided the Vikings with an abundant preserved food source that was able to sustain them on their long ocean voyages away from their homeland.

Centuries later, Basque fishermen discovered the same rich fishing grounds and readily exploited them. The Basque fishermen were so secretive about their valuable

fishing grounds that in 1535 when Jacques Cartier explored the Gulf of St. Lawrence for France he wrote in his log that he was surprised to find Basque vessels already there before him, fishing. The Basque fishermen became very successful not only by catching cod, but also by perfecting a new method of preserving it. Unlike the Vikings, the Basques salted the cod, which made it much more resistant to spoiling than drying. Europeans had been salting pork and beef for quite some time, but salting fish was new. Cod is especially good for preservation because of its very low fat content and when cured properly it was incredibly resilient to spoilage. This new method of salting cod made it much easier to trade and opened up a whole new international market for preserved fish.

The plentiful fishing grounds that the Basques exploited are a succession of enormous shoals on the Continental Shelf in the North Atlantic. Known as banks, they extend from Newfoundland to southern New England. Several large banks in particular off Newfoundland and Labrador are called the Grand Banks, the largest of which, Grand Bank, is bigger than Newfoundland itself. It is in this region that the Gulf Stream and Labrador currents collide and create an upwelling that brings nitrates to the surface. Phytoplankton then feed on these nitrates and this exceptional faunal zone is the foundation for the rest of the marine food chain. Phytoplankton are eaten by zooplankton, which are eaten by krill, which the fish, birds, and whales then depend on to

survive. This is the cycle that produces cod by the millions and what gave the Basques an incredibly lucrative fishing monopoly.<sup>1</sup>

The Basque cod monopoly was broken on June 27, 1497 when John Cabot, funded by the English, hit an unexpected land mass on his voyage to discover the Northwest Passage to Asia. The North American continent barred Cabot from reaching that final destination, but his voyage wasn't a total failure. Cabot had discovered the Basque's legendary fishing grounds. In his journal, Cabot described the region as teeming with fish that were so plentiful all one had to do was lower a weighted basket over the side and haul it aboard to catch them.<sup>2</sup> On his return to England, Cabot shared his finds, thus demolishing the Basque's monopoly as other nations now rushed to exploit the seemingly limitless resource. In the fifteenth century, salt-cured cod was one of the most nutritious, abundant, and highly stable food sources available to the common people. The periodic waves of famine that swept through Europe were eased somewhat by the ready availability of cured cod.<sup>3</sup>

France, Spain and Portugal, the Catholic seafaring nations of Europe, sent their fishermen to the rich grounds off Newfoundland. The Catholic faith required abstinence from meat twice a week which put quite a demand on the fish markets. The competition between the multinational fishing fleets became so great at times that it ignited several

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<sup>1</sup> Mark Kurlansky, *Cod: A Biography of the Fish that Changed the World* (New York. NY: Penguin Books, 1998), 19-44.

<sup>2</sup> J.P. Andrieux, *Newfoundland's Cod War: Canada or France?* (St. John's, Newfoundland: O.T.C. Press Ltd., 1987), 13.

<sup>3</sup> Thomas E. Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services* (Ottawa, Ontario: Department of Services, 1968), 3.

bloody clashes. The battles were confined to the fishing vessels, but matters were antagonized further when the monarchs issued letters of marque allowing privately owned vessels to attack their nation's enemies.

The interests of the European powers in North America were primarily focused on the lucrative fishing grounds, but they also saw other opportunities. In 1536 Jacques Cartier claimed the land at Gaspé for France and began the fur trade. Cartier's exploration of the region led to French colonialization and opened up the St. Lawrence River to trade.<sup>4</sup> By 1558 the French had increased their foothold in the region further by adding whale oil and pelts to their export commodities. In Canada and Acadia, the French fishermen profited by trading pelts with the Native American tribes. Regular relations with the Native Americans allowed the French to establish trade and factory settlements on the coasts, which gradually moved towards the interior. In exchange for sending and supporting colonists in North America, the French government granted trade monopolies to merchants.<sup>5</sup> By 1603, France's Henry IV appointed a viceroy to Acadia beginning larger colonialization efforts. In ten years the French colony had grown to such an extent that it worried British colonists in Virginia. Subsequently, a Royal Navy squadron was sent north and destroyed the French settlement at the Bay of Fundy.<sup>6</sup>

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<sup>4</sup> Tony German, *The Sea is at our Gates: The History of the Canadian Navy* (Toronto, Ontario: McClelland and Stewart Inc., 1990), 14-44.

<sup>5</sup> Ernest J. Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries* (Toronto, Ontario: Canadian Marine and Fisheries Publisher, 1905), 112.

<sup>6</sup> German, *The Sea is at our Gates: The History of the Canadian Navy*, 13-14.

Since English Protestants did not have the dietary requirements of the Catholics, they did not have the same initial need to throw their resources at this far flung fishery.<sup>7</sup> The English did not begin fishing in earnest in North America until the late 1570's when they began migratory fishing. On August 5, 1583 Sir Humphrey Gilbert took possession of Newfoundland to establish a fishing settlement. In the early 1600's land grants were secured from the Crown and additional English settlers were sent out to further exploit the fishery to make it efficient and profitable.<sup>8</sup>

The French and English had two types of preserved cod in the sixteenth century. The first was called green cod which was cod that was salted on board the fishing vessels and intended for the Northern European market. The second was called cured cod, which was cod that was dried and salted in Newfoundland and intended for warmer climates like the Mediterranean. Fishermen decided on how to preserve cod based on access to solar salt. Fishermen from countries with a high degree of solar radiation, such as Portugal, were able to transport their cod to home waters for curing. Fishermen from England, and areas with less sunlight, were forced to find alternative locations to dry their catch and obtain salt. Newfoundland harbors were popular bases for English fishermen to dry their catches, but they were still forced to import salt from Portugal and elsewhere. English fishermen also brought men from England to work on these shore-based fishing stations. A very efficient method was worked out whereby the English fishermen brought their catches to the shore stations, the cod was cured and then ferried to ships

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<sup>7</sup> Andrieux, *Newfoundland's Cod War: Canada or France?*, 13.

<sup>8</sup> Ibid., 14

anchored off the coasts which transported the cod to Europe. The French used a similar method in southern Newfoundland, the Gulf of St. Lawrence and Nova Scotia.

Cod's high nutritional value and resistance to spoilage made it a staple food in France and England, where it became very important in the victualling of the Royal Navy. It became an alternative to salt beef as a non-perishable food for the Royal Navy. And not only were the Newfoundland fisheries supplying the Royal Navy with an ample food source, they also provided, in the Admiralty's words, a "prime nursery of seamen" on which they could draw to fill their warships.<sup>9</sup> From the first days of the Newfoundland shore-based fishing stations, the Royal Navy provided the defense of British North America. It could be argued that the English fishermen's exploitation of the cod marked the beginning of the Royal Navy's long association with Canada's fisheries by providing an ample supply of victuals and skilled mariners.



Figure 1.1 A fisherman poses with a typically-sized cod in 1925 (Mark Kurlansky, *Cod* (New York: Penguin Books, 1998)).

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<sup>9</sup> Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services*, 3-9.

The North American cod fishery was not only a nursery for budding seamen but for ship design as well. The potential for huge profits from cod pushed fishermen to find better ways to increase production and this led to modifications in vessel design. The vessels needed to be larger and faster. It was the newly designed fishing schooner that revolutionized the Northeastern cod fishing industry. The first fishing vessel based on a schooner design was constructed in Eastern Point, Gloucester. Built by Andrew Robinson in 1713, this vessel was fast and more efficient than older fishing vessels. The Europeans had experimented with the style of schooner rig, but it was Robinson's rig that transformed sailing and fishing. Incidentally, the name schooner comes from the root "scoon" which is an 18<sup>th</sup> century word that means to skim lightly over the water.<sup>10</sup>

Peaceful relations between the European fishing fleets ended with the Seven Year's War (1756-1763) when tensions between the British and French spilled over to the North American fisheries. The Royal Navy, with its superior numbers, demonstrated the significance of sea power by blockading Quebec and effectively cutting off France from North America. This allowed Britain to capture French holdings in North America. New France transferred to British control after France's defeat in 1763. The Royal Navy's power continued to grow through the American Revolution, French Revolution, and Napoleonic Wars, and effectively stopped any French reconquest, as well as prevented any other European power from gaining a foothold in northeastern North America.<sup>11</sup>

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<sup>10</sup> Kurlansky, *Cod: A Biography of the Fish that Changed the World*, 83.

<sup>11</sup> Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services*, 12.

At the start of the American Revolutionary War, American fishermen were stripped of all their fishing rights in British North American waters. They were also liable to have their vessels and cargo seized if caught by British warships. Unlike their American counterparts, British fishermen were not greatly affected during the American Revolutionary War due to the overwhelming strength of the Royal Navy. After the war's conclusion, one of the conditions in the Paris Peace Treaty of 1783 was the return of fishing rights to American fishermen. They were allowed to fish the Grand Banks, the Gulf of St. Lawrence and all waters fished prior to the war.<sup>12</sup> The treaty did have one major stipulation in favor of Britain. Americans were prohibited from making landfall to cure and dry their catch on any of the coasts, bays, and creeks of British-owned Newfoundland. American fishermen were only allowed to land to dry and cure their fish in the unsettled parts of Nova Scotia. The Treaty of 1783 allowed American fishermen back into their traditional deep-sea fishing grounds, but with severe limitations to Canadian shores to dry and cure their catch.<sup>13</sup>

Although the French supported the United States' during the Revolutionary War, they were not so helpful concerning American fishing rights off Canada. The French supported Britain's claim that offshore fishing grounds belonged to the owners of the adjacent coastline. The French were protecting their own fishing rights with this assertion because they controlled two small islands off the south coast of Newfoundland,

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<sup>12</sup> Ibid., 13.

<sup>13</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 73.

St. Pierre and Miquelon. These islands gave France partial ownership of the Canadian coastline and therefore a portion of its fishing grounds.<sup>14</sup>

St. Pierre and Miquelon were claimed in 1536 for the King of France by Jacques Cartier while returning from his second voyage of discovery in the region. St. Pierre and Miquelon had actually been discovered nearly 30 years previously by the Portuguese explorer Joao Alvares Fagundes who named them the “Islands of Eleven Thousand Virgins.” It is ironic when Cartier “discovered” and claimed St. Pierre for France he found several French fishermen who had been utilizing its harbor for years.<sup>15</sup>

The War of 1812 effectively negated the Treaty of 1783. At the war’s conclusion the Treaty of Ghent was signed in 1814 between Britain and the United States. Unlike previous treaties, this treaty made no mention of American fishing rights in British North American waters. The United States believed that the fishing agreements made in the Treaty of 1783 were uninterrupted. Britain, however, saw things differently and contended that by starting the War of 1812, the United States forfeited any and all rights to fishing. In 1815 armed British warships warned American fishing vessels off the coast of Nova Scotia not to come closer than 60 miles of the shore. In 1817 the British seized 12 American fishing vessels because they had visited restricted harbors. One year later, the British seized and condemned two more American fishing vessels, *Nobby* and *Washington*, which were caught entering and harboring in British North America.<sup>16</sup>

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<sup>14</sup> Kurlansky, *Cod: A Biography of the Fish that Changed the World*, 98.

<sup>15</sup> Andrieux, *Newfoundland’s Cod War: Canada or France?*, 13.

<sup>16</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 73-75.

Tensions rose until the Treaty of 1818 was signed restoring American fishing rights in the Gulf of St. Lawrence and in the waters off Newfoundland and Nova Scotia. Now American fishing vessels were allowed access to ports, harbors and bays for shelter, repairs, and food supplies. The American fishermen were also allowed to dry and cure their fish in specified unsettled areas of Newfoundland and Labrador. The Americans did, however, give up their inshore fishing rights, so that in exchange, they could gain unlimited access to the offshore banks. American fishermen did not regain all of their old fishing privileges before the War of 1812, but what they traded in fishing rights they regained in superior drying and curing amenities.<sup>17</sup>

The Treaty of 1818, did not stop European fishermen from violating the convention. The treaty only applied to Americans and they did not always conform to its terms. One year after the treaty's ratification, the American fishing vessel *J.H. Nickerson* was discovered illegally purchasing bait within the three mile limit of Nova Scotia's shore and was seized. During the next several years, Canadian fishermen vehemently complained about foreigners continually violating fishing agreements, especially France and the United States. In 1837 Nova Scotia fishermen officially protested to the British government about treaty violations. Representations were made to the British Assembly and it voted to use \$500 to arm small vessels to protect the fishing interest of the Province. This vote was the first time Canadians took it upon themselves to safeguard their fisheries and it was also the first step toward the future fisheries protection service.

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<sup>17</sup> Ibid., 13-15.

Four vessels were confiscated in 1839 for fishing in British North American waters. In 1840, an additional two ships were confiscated for purchasing bait and those vessels were later sold. By 1851, foreign fishing vessel violations had become so numerous in the inshore fisheries of Nova Scotia, New Brunswick, and Lower Canada that the colonial governments were determined to take steps to protect their fisheries. Delegates from the colonial governments held a convention in Toronto and on June 21, 1851 signed an agreement to protect their fisheries. The delegates agreed on a joint policy between Canada, Nova Scotia, and New Brunswick, as well as the imperial government, to employ fast sailing schooners to protect their fisheries. The schooner *La Canadienne* became the first armed vessel purposely built for fisheries protection, and it was joined by the armed steamer *Doris*. These two vessels were transferred to the newly formed Department of Marine and Fisheries after Canadian Confederation in 1867.

The bickering over fishing rights between the United States and British North America ended with the passage of the Reciprocity Treaty of 1854. American fishing vessels were now allowed to enter British North American ports on the same terms that British fishing vessels were given in American ports in a reciprocal trade agreement.<sup>18</sup> British and American fishermen were also able to freely fish off each others' coasts and both were allowed access to land for drying and curing their catch. The British instituted a system of fishing licenses and only specific inshore waters were off limits. Despite these efforts, fishing violations still occurred by Canadian Confederation thirteen years later. Fishermen were tired of the squabbling and, after the U.S. Civil War and the

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massive U.S. naval buildup, were fearful of the outcome of a confrontation between U.S. and British warships over fishing rights.<sup>19</sup>

In the mid 1860's the Royal Navy had over 21 warships in the North American and West Indies stations. The warships based in Halifax, had several duties including fisheries protection off Newfoundland and Canada. The Canadians wanted the Royal Navy to issue fishing licenses to any American vessels they happened upon, but the Navy refused, stating that issuing licenses was beneath the duty of a warship. It was a service the Royal Navy with its large ships and big guns, had not been designed for. The Royal Navy did relent somewhat by agreeing to advise fishing boats of where they could acquire a fishing license as decided by the Department of Marine and Fisheries. The Royal Navy also warned American fishermen that if they were sighted again in the area without a fishing license they were liable to be detained.<sup>20</sup> Even with the reluctant assistance of the Royal Navy, American fishing vessels were not deterred from encroaching upon the inshore fisheries of British North America. Recognizing the limitations of large cumbersome warships, the provincial governments often utilized chartered fishing vessels which could mingle with other fishing vessels like the unmarked police cars of today. These provincial fishing schooners, armed with a single nine-pound gun and small arms, were an ideal way of enforcing fishing treaties against foreigners without bringing the implications of the military into the fray.<sup>21</sup>

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<sup>18</sup> Ibid., 75-77.

<sup>19</sup> Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services*, 30.

<sup>20</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 75-77.

During the U.S. Civil War, the British government aided the Confederacy in several ways including constructing fast blockade-runners and privateers. In 1865, the U.S. government protested the British involvement by announcing plans to end the Reciprocity Treaty of 1854 with Britain. The abrogation of the treaty was also an influencing factor in Canadian Confederation, which was partially done to meet the economic dislocation that would be caused by dissolving the existing treaty.<sup>22</sup> In 1866 the U.S. revoked the Reciprocity Treaty and American fishermen began violating the inshore fisheries of the Maritime Provinces and Gulf of St. Lawrence.<sup>23</sup> The Canadian government was obligated to create an armed force of vessels to protect Canadian fishermen from their American competitors. The Dominion created the Marine Police for this purpose which was not outwardly a naval force but had the potential to develop into one.<sup>24</sup> The Royal Navy was hesitant about capturing the poachers for fear of provoking the Americans who had now become a world-class naval power.<sup>25</sup> At the same time, the British were proponents of Canadian fisheries protection stressing their economic importance to both Canada and the entire Empire. The British believed that if a stand wasn't made now against the American fishermen that it would limit any future

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<sup>21</sup> Ibid., 13-15.

<sup>22</sup> Thomas Richard Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910* (Doctoral dissertation, Department of History, Duke University, Durham, NC., Ann Arbor, MI: University Microfilms International, 1981), 120-135.

<sup>23</sup> Michael L. Hadley and Roger Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918* (Montreal: McGill-Queen's University Press, 1991), 6-7.

<sup>24</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 120-135.

<sup>25</sup> Hadley and Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918*, 6-7.

enforcement, and more importantly, might lead to increased tensions between the U.S. and Britain. However, British attempts at finding a diplomatic solution failed and the Americans continued to poach fish in Canadian waters as Washington refused to negotiate.

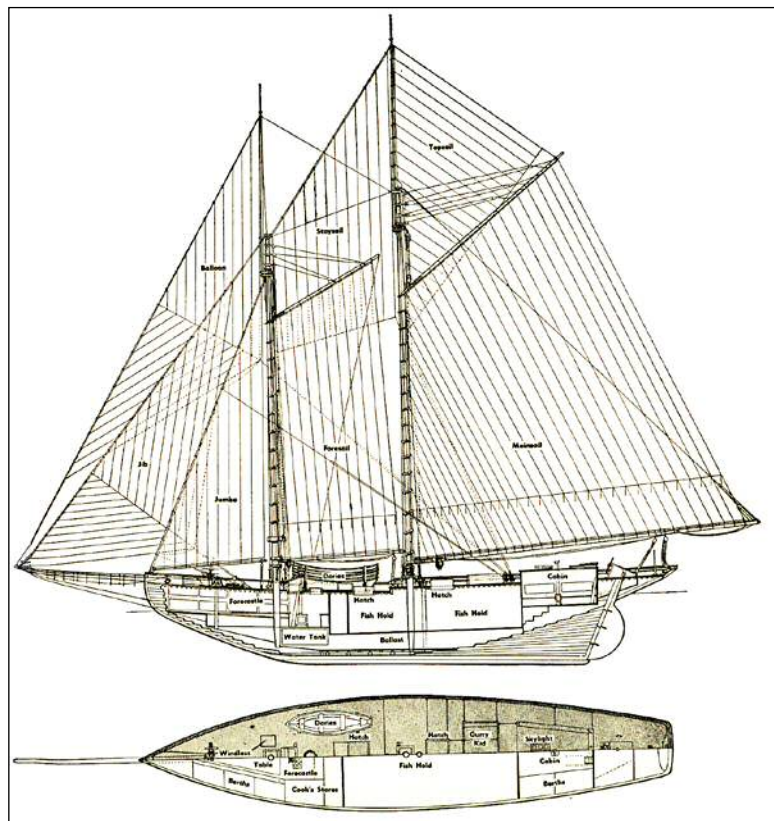


Figure 1.2 An example of a Canadian fishing schooner from the late 1800's (William F. Wallace, *Roving Fisherman: An Autobiography Recounting Personal Experiences in the Commercial Fishing Fleet of Fish Industry of Canada and the United States 1911-1924* (Gardenvale, Quebec: Canadian Fisherman, 1955).

Confederation gave Canada a much stronger economic base to sustain an armed fisheries protection force, but to be successful it required the full support of the British. A major impediment was that Canadian vessels lacked the standing in international law

usually given to naval ships of sovereign nations. As things currently stood, Canadian vessel seizures had the potential to look like piracy. The Canadians ignored the Empire's Naval Defense Act of 1865 because if Canada created a permanent marine force under this act it would be reasonable for the Royal Navy to assume that this force would take on more defense responsibilities than fisheries protection. If Canada took steps along these lines it risked the very real possibility that Britain might slowly withdraw from its naval responsibilities in North America. A marine force created under an imperial act would also be much more difficult to dissolve than one created by the Dominion government. It was for these reasons that the Canadian government refused to utilize the Naval Defense Act to solve its fisheries dilemma.

The Canadians had previously commissioned two vessels, *La Canadienne* and *Doris* for fisheries protection. The ships also took up other duties, including lighthouse tending and supervising aids to navigation, which occupied the majority of their time. Canada believed these two ships needed more help and was frustrated that it was not getting more fisheries support from the Royal Navy. The Royal Navy, on the other hand, was also frustrated and thought it was unreasonable to require their vessels to stay on station to simply check fishing licenses and then have no authority to punish violators. The Admiralty was incensed over the poor use of its warships and the high costs of operating them to conduct fisheries patrols. The British government disagreed with the Admiralty believing that if left without supervision, the Canadian armed vessels might spark a hostile incident with the Americans. To safeguard against such an incident the Colonial Secretary, Lord Granville, stated that only one Royal Navy vessel would protect

the Canadian fisheries, with the additional duty of guarding against foreign complications. Peter Mitchell, Canadian Minister of Marine and Fisheries, said Canada would take responsibility for fisheries enforcement only if the British agreed to a mixed force of Canadian and British vessels. It was Mitchell's stance that if the number of British warships increased in the North American station, Canada would supplement them with their Marine Police sailing armed schooners for fisheries enforcement and protection of the inshore fisheries. The Admiralty supported this new Canadian proposal because the Canadians agreed to assume the majority of responsibility for fisheries enforcement. The proposal took effect in the summer of 1870. The Royal Navy agreed to stay in the vicinity of the fishing grounds, but to conduct other duties as well.

Established in 1870, the Canadian armed fisheries protection force, the Marine Police, was a resounding success.<sup>26</sup> The dominion government commissioned six armed schooners under the control of the newly formed Department of Marine and Fisheries to stop American incursions into Dominion inshore fisheries. That year, the Dominion schooners arrested 12 fishing vessels which prompted the United States government to settle its fishing disputes in the 1871 Anglo-American Treaty of Washington. The treaty was ratified in 1873 by the U.S. Senate and successfully ended tensions between the two nations.<sup>27</sup> The treaty was not a complete return to reciprocity, but it did allow Canadian catches to come into U.S. ports free from tariffs. The U.S. government was also forced to pay \$5.5 million in compensatory fees to cover Canadian resources lost as a result of

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<sup>26</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 120-135.

poaching American fishermen. With this new treaty now in effect there was no longer an immediate need for the Canadians to keep a large fleet of armed vessels. The Marine Police were quickly dissolved and the chartered vessels returned to their owners. The Canadians kept only two steamers to fulfill the responsibilities for the Department of Marine and Fisheries. Each time a domestic Canadian fisheries defense force was constructed it was carefully crafted to self destruct after its immediate need disappeared.<sup>28</sup> Canada continued its delicate balance of creating its own force to protect its fisheries while keeping Britain close at hand for Canada's defense. This response by the Dominion government typified its reaction to international crisis by creating a make-shift response only after the need for action became unavoidable and then promptly making the solution disappear once its immediate usefulness ended. This is a policy that would continue well into the future.<sup>29</sup>

A new dispute erupted between the U.S. and Canada in 1885 when the U.S. abandoned all existing fishing treaties. This led Canada to create the Fisheries Protection Service in 1886, a group of 8-10 armed schooners and additional small steamers tasked with patrolling the Dominion's territorial waters. It was a way of circumventing the diplomatic entanglements that would follow if the Royal Navy arrested American citizens, and it helped to ease Britain's fear of provoking the Americans. Even though the new Fisheries Protection Service was quasi-naval in structure and often collaborated

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<sup>27</sup> Hadley and Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918*, 6-7.

<sup>28</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 120-135.

with the militia in the Great Lakes, it was under the civilian Department of Marine and Fisheries, thus serving to lessen tensions between the U.S. and Britain.<sup>30</sup> Soon the U.S. was prompted to once again come to the bargaining table. The two governments agreed to a fishing treaty in 1888, but the U.S. Senate refused to ratify it. Under pressure from its constituents, the Dominion government maintained the patrols for a further twenty years, thus finally ending Canada's cycle of forming and then disbanding fisheries protection forces once their immediate use had ended. The fisheries protection vessels helped control American access to Canadian waters and provided the additional services of fisheries management and regulation. These fisheries protection cruisers, as they were known, were a civilian force manned by merchant seamen and performed duties that were once done with great reluctance by the Royal Navy. It was a logical progression for this service to evolve into a naval service.<sup>31</sup>

Canadians recognized at Confederation that they possessed very important maritime resources. Along with its considerable coastline, Canada's inland waterways contain over half of the world's freshwater.<sup>32</sup> In order to protect and strengthen these resources the young Dominion government proposed a new department. On the day of Confederation, July 1, 1867, the new Department of Marine and Fisheries was created to administer and protect the maritime interests of the Dominion of Canada. During its first

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<sup>29</sup> Hadley and Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918*, 6-7.

<sup>30</sup> Richard Gimblett, "Reassessing the Dreadnought Crisis of 1909 and the Origins of the Royal Canadian Navy," *The Northern Mariner*, IV, No.1 (January 1994): 35-36.

<sup>31</sup> Hadley and Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918*, 6-7.

session, Parliament proposed an act that organized and defined the responsibilities of the Department of Marine and Fisheries and the branches of government service that would later come under its control. It passed the following year.<sup>33</sup>

By 1904 the Department of Marine and Fisheries had become the largest department in the Dominion government. The department controlled every fishery, shipping, and navigation duty in Canada, including coastal and inland fisheries, trinity boards, pilots, beacons, buoys, lights, lighthouses and their maintenance, harbors, ports, piers, wharfs, steamers and vessels belonging to the government of Canada, harbor commissioners, harbor masters, examination and granting of certificates of masters, mates and others in the merchant service, shipping masters and shipping officers, inspection of steamboats and boards of steamboat inspection, enquiries into the cause of shipwrecks, establishment, regulation and maintenance of marine and seamen's hospitals and care of distressed seamen. In 1904, the government augmented the department's duties to include responsibility for the St. Lawrence ship channel and patrol of the Canadian Arctic.

To carry out the Marine and Fisheries' massive responsibilities, the department operated a fleet of vessels including eight armed fisheries protection cruisers, six ice breakers, as well as eighteen other vessels greater than 80 feet.<sup>34</sup> The Dominion government extended its grasp in 1903 by sending Marine and Fisheries vessels on

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<sup>32</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 32.

<sup>33</sup> *Ibid.*, 39.

<sup>34</sup> James A. Boutilier, editor, *The RCN in Retrospect, 1910-1968* (Vancouver, British Columbia: The University of British Columbia Press, 1982), 15.

expeditions to the Hudson Bay. The Bay held a wealth of commercial resources such as whale, seal, walrus, and salmon fisheries. These cruises served to show the flag and emphasize Canadian authority over the northern shores and islands. These vessels also conducted research cruises to collect scientific data on the area's natural resources and to study the practicality of establishing commercial routes through the region.<sup>35</sup> The department was also a pioneer in marine radio communications, operating 13 Marconi stations along the Canadian east coast. In all, the Department of Marine and Fisheries' duties demanded a large fleet of vessels because it protected the interests of 83,000 Canadian fishermen with 114,000 people in the fisheries industry altogether. This was approximately 5.2% of the Canadian labor force by 1905.<sup>36</sup>

The Marconi Company was awarded a contract from the Department of Marine and Fisheries in 1904 to install and equip a series of wireless signal stations along the coasts of Newfoundland and the Gulf of St. Lawrence. Each of the Marconi stations had an effective range of 130 miles and became valuable assets to communicate with vessels coming through the straits. The stations transmitted current weather conditions and were extremely valuable to vessels when fog covered the coasts. Vessels equipped with the Marconi apparatus also benefited by hearing the latest news after completing a long voyage. The installation of the Marconi stations gave Canada a much needed leap forward in aids to navigation. This was greatly appreciated by the Shipping Federation of Canada, as well as foreign shipping interests. The first Marine and Fisheries vessels were

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<sup>35</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 67.

<sup>36</sup> Boutilier, *The RCN in Retrospect, 1910-1968*, 16-17.

outfitted with the Marconi apparatus between 1904 and 1905. They included the *Minto*, *Stanley*, and *Canada*. In 1906, Canadian government expenditures on Marconi stations had greatly increased and they spread across the Atlantic and Gulf coasts. By the end of that year, three more Marine and Fisheries vessels, *Lady Laurier*, *Montcalm*, and *Druid*, had Marconi apparatuses installed.<sup>37</sup>

The Marine and Fisheries vessels were divided into two classes: the Dominion cruiser fleet whose responsibilities included fisheries protection and customs services, and the Dominion steamer fleet which spent the majority of its time working with lighthouses and buoys, as well as operating several steam tugs. The nature of the Marine and Fisheries fleet changed radically at the turn of the twentieth century with the purchase of the CGS *Canada*.<sup>38</sup> This vessel was vastly superior to its predecessors. The *Canada* was built in 1904 with a steel hull, twin screw propellers and armed with four quick firing guns on the main deck. It was, in all practicality, an armed 3<sup>rd</sup> class cruiser, very similar to ships of its class in the Royal Navy's arsenal. Built in England by Vickers Sons and Maxim at Barrow-in-Furness, the *Canada* had a crew capacity of 75 men and officers, and at 200 feet long was the largest of the Fisheries Protection cruisers. Armed with four Mark III 1 ½ lb. quick-firing guns on its main deck, two forward and two aft, *Canada* was a powerful new weapon protecting the Dominion's fishing interests. Marine and Fisheries had operated armed vessels with trained and uniformed crews in the

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<sup>37</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 53-54.

<sup>38</sup> *Ibid.*, 72.

past, but they were yachts and modified merchant ships. The *Canada*, with its ram bow, raked masts and funnel, and powerful search light, was unquestionably a warship.<sup>39</sup>

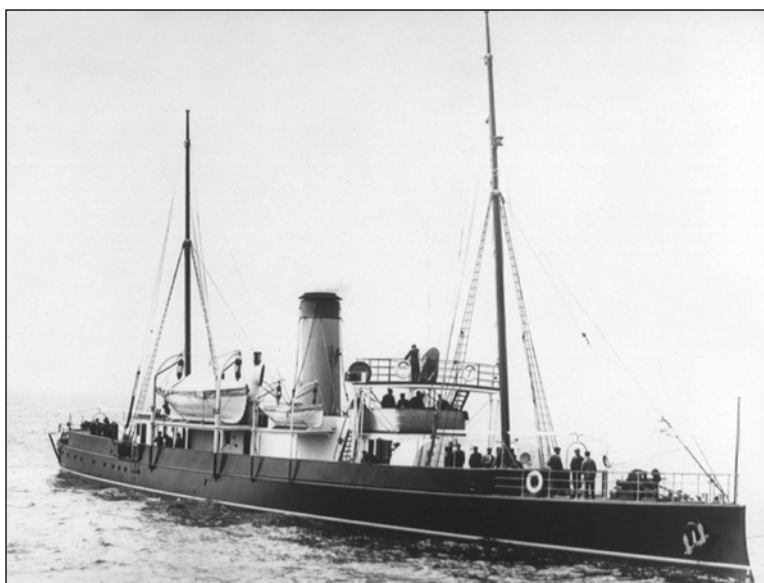


Figure 1.3 The CGS *Canada* shortly after it was launched in 1904 (Courtesy of the Maritime Museum of the Atlantic).

After its launch in 1904, the *Canada* participated in both fisheries enforcement and naval training. It was an ideal platform for both duties because of its high speed, modern guns, and war-like appearance. When not training with the Royal Navy, the *Canada* was used primarily for fisheries protection cruises. Its primary station was off the coast of Nova Scotia, patrolling both the eastern and western shores. The *Canada* was a seasonal vessel operating from May until December, the traditional Atlantic fishing season. Of course, when the seas became hazardous enough to prohibit fishermen from venturing out, the Department of Marine Fisheries had the good sense not to send the

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<sup>39</sup> Ibid.

*Canada* out either. By the end of December, the ship was brought into the dockyard in Halifax for refitting and the crew was transferred to the barracks for the unforgiving winter.

In the years before World War I, the *Canada* participated in fisheries enforcement, aids to navigation maintenance, rescues, and police activities. It began each summer by meeting the U.S. mackerel and cod fleets as they neared Canadian waters and shadowed them for their month-long fishing season to ensure no violations were committed.

Mackerel and cod weren't the only fisheries that the *Canada* guarded. It was also very active in the protection of the Canadian lobster and shellfish fisheries. As *Canada* cruised near the coasts, the ship would destroy any illegal traps it encountered. If any illegal traps were found, the violators would suffer a hefty fine, in addition to the loss of their expensive fishing traps.

Although the *Canada* shadowed the U.S. fleets, American fishermen were not the only potential offenders. The *Canada*'s officers and crew seized lobsters from stores in Pictou, Nova Scotia in 1913, accusing the Canadian merchants of selling illegally harvested lobsters. The charges were eventually dropped, but the incident illustrates that *Canada*'s enforcement duties extended to the most remote coastal areas.

It was illegal for foreign fishermen to fish within Canada's three-mile limit. On several occasions the *Canada* chased foreign trawlers out of the area. Once caught, the violators were boarded and the vessel was inspected for any illegal catches. These inspections were usually quite friendly, and the suspects released with a stern warning.

Occasionally, however, the violator's fishing gear was confiscated. For example, in 1910 *Canada* seized fishing nets from an American trawler operating in the restricted inshore fisheries.<sup>40</sup> The *Canada* had its official duties, but it was also a source of pride for the Department of Marine and Fisheries. The ship often participated in local celebrations, like the annual regatta in Guysboro, Nova Scotia where the *Canada* was paraded in full dress, displayed proudly for the public.<sup>41</sup>



Figure 1.4 *Canada* on public display at Guysboro during the annual regatta in 1908 (Courtesy of the R. Wyllie Collection).

In March 1912, alterations were made to the *Canada* in order to improve her seaworthiness and usefulness to the Fisheries Protection Service. A top-gallant forecastle was built to accommodate additional men for training classes and the caliber of the guns

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<sup>40</sup> Canada, Parliament, House of Commons, *Sessional Paper 1912* (Report of the Department of the Naval Services for 1910-1911), 19.

<sup>41</sup> Ibid.

was increased which made the vessel more suitable for naval training. The original four 1 ½ lb. quick-firing automatic Mark III guns, which were positioned two forward and two aft, were replaced by two 12-pdrs. aft and two 3-pdrs. forward on the new top-gallant forecastle. Not only did the alterations and improved gunnery make the *Canada* a much more powerful vessel, it now closely resembled contemporary cruisers in the British Royal Navy. The *Canada* steamed nearly 10,000 miles each season chasing foreign trawlers attempting to operate within the three-mile limit, destroying illegal lobster traps, confiscating gear, and protecting the coasts of Canada.<sup>42</sup>

Beginning in 1912, the *Canada* took on several other duties in addition to the fisheries enforcement. *Canada* now conducted mine-sweeping exercises and defensive training for Halifax Harbor. Annual gunnery classes were also offered to midshipmen in the Royal Canadian Navy. They trained initially on the *Canada* and then transferred to HMCS *Niobe* to train on larger guns.<sup>43</sup>

During World War I the fisheries protection fleet was the principal safeguard for Canada's fisheries. The combination of the Admiralty pressing British fishing vessels into service, and British fishing casualties due to German U-boats resulted in a production boom for the Canadian fishing industry. Canadians began sending increasingly larger quantities of fish to Britain to fill the production void. This new influx of fish helped Britain to feed its citizens and armed forces during the war. Canada

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<sup>42</sup> Canada, Parliament, House of Commons, *Sessional Paper 1913* (Report of the Department of the Naval Services for 1911-1912), 17.

also took additional steps to protect its fishing interests from U-boats by arming and disguising six modified fishing schooners. The so-called “mystery fleet” of schooners, also known as Q ships, carried one heavily disguised large gun on their bow. The seemingly helpless schooners would wait for the unsuspecting Germans to surface near them and then suddenly attack the U-boats.<sup>44</sup>

The construction of the fisheries protection cruiser *Canada* in 1904 has its roots in the earliest days of the European cod exploitation. Since the year 1000, Europeans have been sailing to North American waters, their voyages buoyed by the abundant cod fisheries. These same fisheries brought both wealth and conflict. Fishermen fought for the right to exploit the offshore resources and eventually nations did as well. The British have been defending their fishing rights in Canada since the 1500’s. With Napoleon’s defeat both in Europe and in the America’s in 1815, Great Britain became the lone European power in North America, which substantially increased the Royal Navy’s role in its waters. It was a role the Admiralty did not relish, but protecting the Canadian fisheries gave them two advantages: access to an abundant food supply to victual its fleet, as well as a training ground for British mariners. These are the reasons why the roles of coastal defense and fisheries protection have been intertwined ever since Great Britain first laid claim to Canada. Under the mother country’s guardianship, Canada relied on Britain exclusively for the defense of its territory and resources, and avoided at all costs taking on the task themselves. During the late 1700’s and 1800’s foreign nations, the

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<sup>43</sup> William Frederick Wallace, *Roving Fisherman: An Autobiography Recounting Personal Experiences in the Commercial Fishing Fleet of Fish Industry of Canada and the United States 1911-1924* (Gardenvale, Quebec: Canadian Fisherman, 1955), 249.

United States in particular, violated Canadian fishing rights. Canada and the U.S. signed several treaties, but U.S. fishermen repeatedly violated them. Canada insisted on the Admiralty's assistance to enforce its laws against the encroaching Americans, but the large Royal Navy vessels and crews trained in warfare were ill-suited to the task. By the outbreak of the U.S. Civil War, the Admiralty was also wary of angering the Americans who had become a world-class naval power. The British treaties made with the Americans were also not wholly beneficial to the Canadians. The Canadians were now forced to accept that only by their own initiative could their fisheries be protected.

The Canadian government armed a small fleet of schooners and thereby created a Marine Police, but the Canadians always insured that only a small force was constructed so that it could be quickly disbanded as soon as the immediate threat disappeared. By following this tactic, Canada protected its fisheries but also indicated that it still needed the power of the Royal Navy to protect its coasts. In 1886, when the U.S. and Canada entered into another fisheries conflict, the Canadians took it upon themselves to protect their resources by creating the Fisheries Protection Service. The Royal Navy's increasing concern of aggravating the Americans into an armed conflict led them to participate less and less in fisheries protection. The Canadian creation of the civilian Fisheries Protection Service circumvented any diplomatic entanglements that might have arisen from a British warship arresting American fishermen. To the Canadians' credit, the fisheries cruisers were a huge success and brought the American government to talks in 1888. The U.S. Senate's refusal to ratify the proposed fisheries treaty forced the Canadians to keep their

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<sup>44</sup> Ibid., 337-360.

Fisheries Protection Service in operation, in essence forcing the Canadians to create a permanent armed marine force. It was a move the Canadians had never wanted to make, but circumstances dictated their response. The Fisheries Protection Service was a tremendous success, and for years operated with mere armed schooners and second-hand steamers.

The 1904, Department of Marine and Fisheries' purchase of the CGS *Canada* was a pivotal point for the country. Not only was the CGS *Canada* the most capable naval vessel the nation had ever owned, it also brought the aged fisheries protection fleet into the twentieth century. This multi-faceted vessel conducted fisheries patrols, police work and naval training. As such, the *Canada* was a source of pride for not only the Department of Marine and Fisheries, but the Canadian populace as well. The vessel was constructed to fill the void left by the Royal Navy's slow exodus from North American waters. This departure left Canada to protect its own fisheries and in time its own coasts. The Canadian government recognized these facts when it ordered the one-of-a-kind small cruiser from the famed naval shipyard Vickers Sons and Maxim at Barrow-in-Furness, England, and recognizing the importance of this ship to its burgeoning nation, named it the CGS *Canada*.

## CHAPTER 2: THE CANADIAN NAVAL SERVICE

Since the early 1500's, the Royal Navy had taken on the role of defending the coasts of British North America with the establishment of the first British fishing settlements in Newfoundland and Nova Scotia. Two hundred years later, during the Seven Year's War with France, the Royal Navy continued this tradition of protecting British interests in North America and illustrated the value of its increasing sea power by using a naval blockade to cut off Quebec from the rest of Europe. This blockade sealed the British victory over French land forces in North America in the face of overwhelming French armies in Europe. The Royal Navy's power grew during the American Revolution, French Revolution, and Napoleonic Wars, which prevented any further French re-conquest of territory in North America.<sup>1</sup>

The people of Canada were watchful as the preeminence of the Royal Navy grew during these conflicts, but it was the War of 1812 that gave Canada the greatest lesson on British naval strength. At the war's outbreak the Royal Navy quickly gained control of American coastal waters and blockaded all of the major American ports. This blockade effectively kept the small United States Navy at port, except for small engagements against British trade. The British blockade brought U.S. merchant shipping to a near standstill, costing American merchants dearly. After Napoleon's defeat in Europe the British armies were now free to commence operations in North America. The Royal

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<sup>1</sup> Thomas Richard Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910* (Doctoral dissertation, Department of History, Duke University, Durham, NC., Ann Arbor, MI: University Microfilms International, 1981), 18-19.

Navy began launching amphibious attacks against the U.S. in the Chesapeake Bay. Washington D.C. was occupied and torched with devastating results.<sup>2</sup>

The British had superior strength on the Atlantic coast during the War of 1812, but there was a gaping defensive hole on the Great Lakes. Here, the Royal Navy was unable to exercise the same control it did on the oceans because the rapids on the St. Lawrence River prohibited the big ships from passing into the Lakes. To solve this problem the British sent officers and men to the Lakes to build a naval force. Soon an arms race erupted with the United States. This lack of dominance on the Great Lakes nearly proved disastrous for the British. In September of 1813, an American naval victory on Lake Erie forced the British to retreat from the Ontario Peninsula, allowing U.S. forces to burn the colonial capital of York and giving Americans temporary control of Lake Erie. However, poor planning and experience against the battle-hardened British regulars prevented the Americans from capitalizing on their victory and they were unable to take the rest of the Province.

The burning of York taught both Canada and Britain that in order to conduct operations west of Ontario they needed to control the Great Lakes. Beyond that, however, Canada was led to make several false assumptions. Canada believed that the Royal Navy's inability to control the Great Lakes resulted in the loss of York to the Americans, which led it to credit its own militia for future successes on the battlefield. This credit was misplaced and downplayed the role of the British regulars, who actually were the deciding factor in many of the battles. This confidence in the Canadian militia

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encouraged the Canadians to continue to depend on this poorly trained, hastily thrown together force well into the future.<sup>3</sup>

Naval defense is highly technical in nature. It requires intense training and the construction of ships and bases well before their actual service is required. Canada, however, began planning for its naval defenses only after the threat appeared. In addition, Canada assumed if it was given enough warning before an attack, that an impromptu militia could hold the defenses until the British forces came charging to the rescue. This practice plagued the country until the end of the nineteenth century.<sup>4</sup>

The naval buildup in the Great Lakes proved to be very costly. After the war's close, at the Treaty of Ghent, the British proposed that the U.S. stop maintaining an armed force on the Great Lakes. The U.S. refused. But after several years of escalating naval expenses, the U.S. relented and an agreement was reached between U.S. Secretary of State Richard Rush and British Minister Sir Charles Bagot. This Rush-Bagot Agreement of 1817 declared that neither the U.S. nor Britain would construct or maintain any armed vessels on the Great Lakes, except for lightly armed vessels for police work. Both countries agreed to limit their naval construction on the Lakes and that each would only have one vessel on Lake Ontario and two vessels in the upper Lakes, as well as a few smaller vessels. The Rush-Bagot treaty is one of the oldest international treaties still in existence and even though it hasn't always been strictly adhered to, it has generally

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<sup>2</sup> Ibid., 19-20.

<sup>3</sup> C.P. Stacy, *Canada and the British Army, 1846-1871: A Study in the Practice of Responsible Government* (London: Longmans, Green, and Co., 1963), 12-13.

<sup>4</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 23.

kept the Great Lakes clear of large warships and made it unnecessary to maintain naval bases in the region. The treaty saved both nations the large sum it would have cost to maintain a military presence. It also assisted in keeping cordial relations between the British Empire and the United States, even at Canada's expense.<sup>5</sup> The agreement was ultimately successful because both sides were flexible and made every possible attempt to honor that agreement.

The Rush-Bagot Agreement limited Canada's defensive options. It prohibited the fitting out of naval vessels beyond an agreed amount, so it prohibited the advance preparation for any future naval defense on the Great Lakes. Any outbreak of hostilities would require Canada to throw together a defense without thought or preparation. That vulnerability only served to bolster Canada's reliance on Britain for naval support. This was a situation that hobbled Canadian naval autonomy and fell directly in line with Canada's philosophy of remaining under the protective wing of the Royal Navy.<sup>6</sup>

In the years after the War of 1812, there were several developments that aided the continuation of Britain's involvement with Canada's naval defense. Canada built a system of canals which greatly enhanced its internal transportation system. The St. Lawrence and Welland canals gave Canada a tremendous economic boost, however, they were primarily built for defensive purposes to give Royal Navy gunboats access into the Great Lakes. Canada believed that its new system of canals would give it an edge over the Americans. The Americans, though, had not been idle during this time either. They

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<sup>5</sup> Gilbert Norman Tucker, *The Naval Service of Canada: Volume I Origins and Early History* (Ottawa, Ontario: King's Printer, 1952), 30-31.

also built canals and an extensive railway system to quickly move men and supplies, albeit more for commerce than defense. The increased size and resources of the growing U.S. economy allowed it to greatly increase its ship building and port facilities. The U.S. now had the capability to put a large force on the Lakes that could overwhelm British gunboats long before any reinforcements could arrive.<sup>7</sup>

America's embrace of the industrial revolution, specifically the shift in technology from wooden sailing ships to steam-powered iron warships, threatened Canadian security. Previously, the length of a navy's arm was determined by the winds. Sailing vessels could travel the world as long as there were favorable winds and friendly ports for supplies. But the development of steam-powered warships would soon limit that range. The world's navies were now at the mercy of their fuel capacity and ease of access to coaling stations. This had a major impact on international affairs. While this switch to industrialized navies may have lessened the European threat to Canada, it greatly increased the threat from the Americans.<sup>8</sup>

In 1861, the outbreak of the U.S. Civil War brought this naval defense problem to the forefront. The nature of the American military forces changed dramatically during the war. By 1865 the U.S. had over a million battle-hardened veterans trained in the new industrialized warfare, an experience that the rest of Europe would not encounter until the

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<sup>6</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 25-26.

<sup>7</sup> B.G.G. Kerr (editor) *A Historical Atlas of Canada* (Toronto, Ontario: Thomas Nelson and Sons, 1963), 46-51.

<sup>8</sup> Oscar Parkes, *British Battleships: "Warrior" (1860) to "Vanguard" (1950): A History of Design, Construction, and Armament* (London: Seeley Service & Co., Ltd, 1957), 1-15.

outbreak of World War I. During the war the U.S. Navy went through an evolutionary change. It modernized from sail to steam, from wooden to iron hulls. It created a force of large cruisers and developed ironclad vessels, monitors, and floating batteries. It might not have been able to compete with the Royal Navy on the high seas, but it had an ideal force for inland waterways and coastlines. During the war, the rapid build-up of U.S. naval forces on the Mississippi River illustrated what they were capable of on the Great Lakes. The war had significantly increased the U.S.'s military might as well as solidified it as a significant threat to British North America.

Britain's unofficial support of the Confederacy created hostility between the United States and Britain during and after the Civil War. Britain traded raw materials for manufactured goods with the Confederacy, as well as supplied it with munitions and constructed blockade runners and commerce raiders. The British government did not directly aid the Confederacy, but it also did nothing to stop it from purchasing British goods and materials. The Trent Crisis and the sinking of U.S. merchantmen by British-built raiders threatened an outbreak of war with Britain before the U.S. Civil War was over. After the war's conclusion, there appeared to be an even greater threat of war between the two countries. The British feared the Americans might attack in retribution for their support of the Confederacy.

As tensions increased, the U.S. announced it was terminating the Rush-Bagot Treaty and Reciprocity Agreement in 1866. American fishermen began violating the inshore fisheries of the Maritime Provinces and Gulf of St. Lawrence, but the Royal Navy was hesitant about capturing the poachers for fear of provoking the Americans, who were

now a world-class naval power.<sup>9</sup> The Canadian government was compelled to create a naval force to protect Canadian fishermen from American competitors. To counter the American threat, Canada created the Marine Police, which was not formally a naval force, but had the potential to develop into one.<sup>10</sup>

These developments sent Canada and Britain into a series of meetings to develop a defense scheme. Canada requested British defensive aid and the Admiralty agreed it was necessary. There was, however, one obstacle to the agreement, the defense of the Great Lakes. Both countries recognized that Canada was unable to provide a large enough naval force on the Lakes and that the Royal Navy would have to supply the majority of the firepower in any conflict. Before it would make any commitment, Britain encouraged the Canadians to do as much as they could and pushed them to put their own gunboats on the Lakes. Canada had serious objections to that British proposal, stating it could find little reason to put forth an effort in its own defense without a guarantee from Britain that it would provide a strong enough naval force to make a Canadian contribution worthwhile. In a final compromise, Britain agreed to provide naval defense, but on a case by case basis.<sup>11</sup>

In an attempt to make the British Commonwealths more self-reliant the 1865 Colonial Naval Defense Act was passed. This act gave colonial governments the

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<sup>9</sup> Michael L. Hadley, and Roger Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918* (Montreal: McGill-Queen's University Press, 1991), 6-7.

<sup>10</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 121.

<sup>11</sup> J.A Macdonald, J.A Macdonald et al. to Viscount Monck, 12 July, 1865, *Papers Relating to the Conferences which have taken place between Her Majesty's Government and a Deputation from the Executive Council of Canada, appointed to confer with Her Majesty's Government on the subject of the Defense of the Province* (PAC: Macdonald Papers, MG26A, vol. 52, 1865), 20706-712.

authority to establish their own naval force of ships and manpower. An Imperial Act was required because these new navies would be operating on the seas and interacting with vessels from other sovereign nations. An imperial authorization was required to circumvent problems with international law. If Canada wanted a permanent gunboat force on the Great Lakes, Britain believed Canada had to raise and maintain that force itself. The passage of the 1865 Colonial Naval Defense Act made that possible.<sup>12</sup>

On July 1, 1867, the Dominion of Canada was created. The British government hoped that the union of the separate provinces of Ontario, Quebec, New Brunswick, and Nova Scotia under one central government would give Canada greater resources to take on a larger portion of its naval defense. In fact, defense was made one of the responsibilities of the newly formed federal government. The Admiralty hoped Canada might also be able to take over the entire responsibility.<sup>13</sup>

The Treaty of Washington in 1873 brought the dismantling of the Marine Police and a five-year hiatus on the issue of Canadian naval defense. The Canadians kept only two steamers to fulfill the responsibilities for the Department of Marine and Fisheries. In doing so, Canada continued its delicate balance of needing their own force to protect its fisheries versus keeping Britain close at hand for Canada's defense. Each time a home grown Canadian fisheries defense force was constructed it was carefully crafted to self destruct after its immediate need disappeared.<sup>14</sup>

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<sup>12</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 50-51.

<sup>13</sup> Ibid., 53.

Alexander Mackenzie, the Canadian Prime Minister from 1873-1878, spearheaded several defense reforms. The most important were the creation of a Royal Military College and his appointment of Shelby Smyth as the first General Officer commanding the militia. Smyth immediately began reforming the militia and in 1877 began to turn his attention to the defense of Canada's coastlines. In April of 1877, Russia and Turkey launched into a war in the Balkans. Britain was a Turkish ally, which was based on Turkey's ability to keep the Russians out of the Mediterranean. The British were afraid that if a war erupted, they would be dragged in as well, and the Russians would attack British commerce in northwest India and the Canadian Pacific coast. In February 1878, the steamer *Cimbria* was sighted off Ellsworth, Maine, supposedly carrying over 600 Russian sailors and a cargo of heavy guns. The British suspected that the guns and sailors would be used towards arming merchantmen like the Confederate commerce raiders during the U.S. Civil War. Reports also began flooding into Ottawa that Russian officers from the *Cimbria* were attempting to buy fast merchant steamers. The Canadians began to fear that not only British, but Canadian commerce, could soon come under attack. Smyth firmly believed that the Royal Navy should be responsible for meeting this threat. He feared that if the enemy acquired quick and lightly armed merchantmen, it could occupy the Gulf of St. Lawrence and Bay of Fundy and cause critical damage at the outbreak of a war before any Royal Navy reinforcements arrived. He proposed that the Royal Navy supply Canada with vessels similar to the fast steamers and proposals were sent to London in May of 1878. The British replied in July by stating

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<sup>14</sup> P. Mitchell, 8 March, 1873, *Privy Council of Canada, Order-in-Council*, (PAC: Privy Council

that they would not take any overt action unless all hope of peace was lost. The problem for Canada was that if events escalated to that point, it would already be too late for reinforcements. The Admiralty admitted that it would be nearly impossible to stop a single fast cruiser from raiding, citing the exploits of previous successful Confederate commerce raiders, CSS *Shenandoah* and CSS *Alabama*. This statement shook the Canadian government to the core. It was Britain's first open admittance that if a war erupted in Europe it might not be able to defend Canada's coasts.<sup>15</sup>

The Admiralty again suggested the dominions participate in their own defense. It suggested Canada's large merchant marine be utilized to protect its ports and commerce. It would readily loan guns to arm Canadian vessels, which it argued could already surpass in numbers and speed any vessels that a foreign power at war with the Empire could amass on the Atlantic seaboard. A great emphasis was placed on fast merchant steamers because at that time, passenger steamers were just as swift, and in certain cases swifter, than contemporary naval vessels. The theory of the day was that the best way to counter a fast merchant cruiser was with another fast merchant cruiser. This theory, however, only lasted a few short years as the speed of naval vessels soon surpassed those of the merchant vessels. At that point, the armed merchant vessel simply became a useful addition to fleets and an economical alternative to expensive warships in far reaching outposts. Luckily, the Russian-Turkish crisis didn't lead to a war with Britain. But now,

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Records, RG2-2, vol. 24, no. 800A, P.c. 277; RG2-1, vol. 75, 10 March, 1973 ), P.C. 277.

<sup>15</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 159-172.

enlightened to the Royal Navy's shortcomings, Canada stayed fast to the idea of needing to prepare for its own coastal defense.<sup>16</sup>

The British government suggested that Canada follow Australia's lead in taking charge of its own naval defense. The Admiralty and the Colonial Office wanted Canada to begin making provisions for the local defense of its coasts, as well as commerce protection on its bordering seas. Beginning in the 1870's Australia was already well down that path. Australia was the first British colony to acquire a major warship, the HMS *Cerebus*. The *Cerebus* was put into colonial service in 1870, and as an early armored vessel it was of little use on the high seas, but it was ideally suited for the harbor defense of Victoria. In the 1880's, Victoria acquired a number of other vessels, including torpedo boats which it employed as auxiliaries. Soon thereafter, New South Wales acquired several boats, as did Queensland, which built two gunboats that were ready for service by 1884. South Australia had the most powerful warship, the HMS *Protector*, a 960-ton steel cruiser with one 8-inch gun and five 6-inch guns built in 1884.<sup>17</sup>

Canada did not follow Australia's lead, however, and nothing came of Smyth's plans for Canada's naval defense. When he retired in 1880, out went the only person in the Canadian government who really pushed for a naval defense force. But while Smyth's plans for a force of armed merchant cruisers failed, his plan for training naval personnel did come to fruition. The key to Smyth's proposal for a Canadian naval

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<sup>16</sup> Tucker, *The Naval Service of Canada: Volume I Origins and Early History*, 62-64.

<sup>17</sup> G.L Macandie, *The Genesis of the Royal Australian Navy* (Sydney, Australia: Pettifer, 1949), 23-28.

reserve was the acquisition of one or more ships for training purposes. Smyth knew of a number of aged Royal Navy ships that were to be disposed of soon and he believed that Canada could acquire one of these at little or no cost. These vessels would be ideal for training and would have a limited war time application.

The Governor General, the Marquis of Lorne, continued these plans after Smyth's retirement. In the summer of 1880, Lorne received promises from several ministers that if a suitable ship was found, Canada would supply the funds for naval instructors. With that promise in hand, Lorne wrote directly to the First Lord of the Admiralty, Earl Northbrook. Lorne appealed to Northbrook by raising the possibility that a Canadian naval reserve could be used for imperial service along the same lines of the military reserve that had already been proposed. A promise of support for the Empire captured Northbrook's attention and a ship for Canada was soon found, the HMS *Charybdis*. The *Charybdis* was a 17-gun corvette built in 1859 that had just returned from service in the China station. The cost of refitting the vessel for active duty was estimated to be very expensive and its value after such a refit was questionable due to its age. Lorne's proposal appealed to the Admiralty because it provided them with a cost efficient way to dispose of the ship that avoided the expense of scraping it themselves.

Lorne was a large supporter of Smyth's ideas for a naval training program, but had altered the truth somewhat in order to acquire the *Charybdis*. Lorne told the Canadian Cabinet that the vessel would be used solely for training general seamanship, which would be useful to both the merchant service and a naval reserve. Lorne was careful to omit that the ship would really be used as a foundation for a naval training

program, although he did state that the vessel would be available for that purpose in the future if the Canadian government decided to implement such a program.

The Cabinet initially rejected Lorne's proposal out of budgetary considerations and public outcry over the possibility of Canada being pulled into imperial defense, a highly contentious topic. The greatest opposition to Lorne came from the finance and budget ministers who feared that the acquisition of the *Charybdis* would lead to further pressure to establish naval training schools, which was exactly what Lorne was seeking. In the end, the proposal was accepted and after haggling over the exact terms of the *Charybdis* offer, the ship was turned over to the Department of Marine and Fisheries in late 1880. It was unfortunate for Lorne because the ship turned out to be a disaster.

The state of the *Charybdis* boilers and other gear was in a very poor condition after spending seven and a half years in China. The equipment was in such a bad state that it was unfit for an Atlantic crossing. After considerable expense and repairs the vessel left Britain in June, 1881. It was taken to St. John, New Brunswick where it proceeded to break its mooring during severe Atlantic storms and from the tremendous tides of the Bay of Fundy. In August 1882, the *Charybdis* was towed to Halifax and returned to the Admiralty, never having been fitted as a training ship. The *Charybdis* was much too big and old for training purposes. Its size and auxiliary sail demanded a crew of at least 200 and it required a great expense to make it efficient as a training vessel.

It is interesting to note that before the *Charybdis* arrived, naval experts estimated that it would cost \$40,000 a year to maintain. During the 22 months that the warship was in Canadian possession, the government only spent between \$20,000-30,000 on it. Had

the \$10,000 more been spent, it could have become an efficient training vessel instead of the useless hulk that it became. The fact that the Canadian government never spent enough money on the *Charybdis* points out the real failure of the proposed training ship, the government had no clear plans to use the vessel. Smyth had intended that the vessel be part of a comprehensive system of Canadian naval defense, while Lorne saw it as a means of forming a naval reserve for imperial use. The other major problem was that the ship was given to the Department of Marine and Fisheries, which had no idea what to do with a 17-gun warship. It belonged where Smyth originally intended the vessel to go, the Department of Militia and Defense, which made the initial proposal. The ship became an unwanted drain on government time and resources.<sup>18</sup>

The press labeled the *Charybdis*, “Canada’s White Elephant”, and criticized the government for wasting public funds for bringing the aged warship across the Atlantic without having any idea of what to do with it. The Liberal opposition leader, the Honorable Malcolm Cameron, called the *Charybdis* a, “terrible monster utterly unfit for any service.” Cameron criticized the entire process that brought the vessel to Canada’s shores.<sup>19</sup> It is interesting to note that in 1882 when the *Charybdis* affair was coming to a close in Canada, Australia had received a similar vessel from the Royal Navy for training purposes, HMS *Wolverine*. The *Wolverine* too proved to be a failure as a training platform and was only used occasionally during naval drills or as a show piece during

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<sup>18</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 172-195.

<sup>19</sup> Hadley, and Sarty, *Tin-pots and Pirate Ships: Canadian Naval Forces and German Sea Raiders, 1880-1918*, 6.

holidays.<sup>20</sup> The public ridicule over the *Charybdis*'s failure extended well into the future, impacting all other potential proposals for a Canadian naval defense force.<sup>21</sup>

A significant step was made towards Canadian military self-reliance with the appointment of Lt. Andrew R. Gordon as the commander of the Fisheries Protection Service in 1887. Gordon had previously been the commander of the fisheries steamer (Canadian Government Ship) CGS *Acadia* and was a former Royal Navy officer. As a naval officer Gordon understood Canada's naval defense problems and foresaw the possibility of using the Fisheries Protection fleet as the nucleus of a future Canadian naval force. It was Gordon's philosophy that the Fisheries Protection fleet should become a general naval force to meet all of Canada's needs in both peacetime and in war. When Gordon began his new position in 1887, the Fisheries Protection Service was entering into another conflict with U.S. fishing vessels. The U.S. government renounced the fishing clauses of the Washington Treaty and U.S. fishermen fished in Canadian waters and used Canadian harbors in violation of international agreements that dated back to 1817. The situation was made worse by American belligerency and the reluctance of British authorities to take any action that might offend the Americans. To further complicate matters, the Admiralty had issued no orders the previous year for Royal Navy ships to cooperate with Canada. In August 1887, the Admiralty committed only moral

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<sup>20</sup> Macandie, *The Genesis of the Royal Australian Navy*, 28.

<sup>21</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 172-195.

support to Canada and severely limited the role of its warships in assisting the Canadians. The Fisheries Protection Service was therefore forced to deal with the situation itself.<sup>22</sup>

Much to Britain's chagrin, Canada's fisheries enforcement efforts were highly effective. Using the knowledge of past successes, the Canadians used every means available to enforce a strong fisheries policy including the seizure of vessels. Like previous efforts, this tactic was effective and the U.S. quickly entered into negotiations. While awaiting a final agreement with the Canadian government, a "modus vivendi" was effected that protected the most important Canadian interests and rights while making certain concessions to the needs of American fishermen. This policy was much easier to enforce than total foreign exclusion. Under this measure, American fishermen were not allowed to fish in Canadian territorial waters, but were allowed access to Canadian ports for supplies and transshipment of catches. The treaty that resulted from these talks failed to be ratified in the U.S. Senate and "modus vivendi" became a permanent arrangement requiring a permanent Canadian marine force, the fisheries protection cruisers.<sup>23</sup>

Under this new fisheries stand off, Gordon exercised substantial authority as the commander of the fisheries protection fleet. He counseled the government on the interpretation of "modus vivendi" and was its enforcer. Gordon also frequently met with U.S. naval personnel and fishermen to discuss Canadian policy and enforcement.

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<sup>22</sup> Ibid., 219-220.

<sup>23</sup> P.B. Waite, *Canada 1874-1896: Arduous Destiny* (Toronto, Ontario: McClelland & Stewart, 1978), 34-42.

Gordon soon began actively promoting the use of the fisheries protection fleet as the nucleus of a Canadian navy. In November 1886, Gordon wrote a letter to George Foster, the Minister of the Department of Marine and Fisheries, in which he outlined his plan. Gordon suggested the government acquire two small naval vessels which would work efficiently for fisheries enforcement as well as for general naval defense. Gordon specifically recommended the torpedo gunboat, a type of naval vessel that had recently entered service with the Royal Navy. The torpedo gunboat was the predecessor of WWI destroyers or torpedo-boat destroyers as they were known at the time. These new vessels were built to meet the perceived threat of vast torpedo-boat flotillas which France and other Continental powers had constructed in answer to the British battle fleet's immense warships. The theory was that these small, fast, well armed vessels could rapidly approach the larger British warships and move within their ranks causing mayhem and confusion. These torpedo boats, however, were not successful because they were too slow. Gordon still believed they would be ideal for Canada's purposes with their small size, light draught, fair armament, long cruising range, and relatively low cost. Foster did not respond to Gordon's suggestions. Undeterred, Gordon resubmitted his plan two years later in a more comprehensive form to the new Minister of Marine and Fisheries, Charles Hibbert Tupper. Gordon's report was more than a recommendation for more ships, it also described the dangers that Canada faced from a naval attack. Like Smyth, Gordon also believed the greatest danger to Canada was from converted merchant cruisers, but he also saw a new danger. Gordon now believed that the slim numerical and technological

edge held by the Royal Navy over its European rivals made it extremely likely in case of a war that Britain would be required to recall its warships from Canada.<sup>24</sup>

Gordon sought to counter this new threat by improving the fixed defenses of ports and to use the Fisheries Protection Service as the nucleus of a naval defense force.

Gordon again suggested the service purchase torpedo boats to work as fishery patrol vessels in peace and as a naval force in wartime against enemy cruisers. Gordon envisioned using two modified Rattlesnake class ships, which were the latest type of torpedo boats in use by the Royal Navy. The Rattlesnakes' high speed, long cruising range, and shallow draft would make better fisheries vessels than the current cruisers CGS *Acadia* and CGS *Canadienne*. These characteristics would enable the Rattlesnake class warships to operate in both the inshore and offshore fisheries, and their high speed would allow them to apprehend fishing violators before they had a chance to cross into international waters. During a war, the Rattlesnakes had the capability to operate as a deterrent against enemy merchant cruisers.

Rattlesnake class vessels also had an additional advantage over previous larger Royal Navy warships. Their slender beam and shallow draft allowed them to pass through the canals and into the Great Lakes. If hostilities erupted between the United States and Canada, Rattlesnake type vessels could steam from Halifax to Toronto in a mere three days. This would help ensure Canadian control of Lake Ontario and possibly Lake Erie as well. By moving heavily armed vessels into the Great Lakes quickly it also might hold the Americans off long enough for Canada to organize a defense in

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<sup>24</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 223-226.

cooperation with Britain. Gordon theorized that vessels like the Rattlesnakes could make up the nucleus of a larger system of colonial naval defense. The vessels would only be needed in the summer for the seasonal fishing patrols and would be available during the winter months as training vessels for the naval militia.<sup>25</sup>

Gordon believed the Rattlesnakes would be the ideal vessels for Canada, but wanted to arm them with larger guns so they could operate effectively alone. Gordon also knew that vessels employed in Canadian coastal defense would take less battle damage and therefore did not need as many of the costly watertight bulkheads that ships operating in fleet actions required. Gordon believed that if these ships were fired upon it would most likely be by low caliber projectiles and the close proximity to friendly ports argued against having the watertight capabilities of larger warships that operate on the high seas. Again Gordon validated the purchase of the torpedo boats with their defensive capabilities and Canada's need for its own naval force if the Royal Navy was unable to protect it. He argued their use in the Fisheries Protection Service would give the service a substantial boost, but it was in actuality a screen for his real purpose, which was to form the nucleus of a domestic naval force.<sup>26</sup>

Tupper forwarded Gordon's report to Prime Minister John Macdonald who supported the measure and asked that Tupper get the Admiralty's informal opinion. The Admiralty did not support Gordon's recommendation of the Rattlesnake class and instead recommended the Pheasant class gunboats which the Royal Navy had previously used in

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<sup>25</sup> Ibid., 226-228.

<sup>26</sup> Ibid., 228-233.

the fisheries enforcement off British North America. Gordon had worked for many years with the Pheasant class gunboats and knew their shortcomings intimately. The Pheasants were slow and their high masts made them clearly visible to violators long before they arrived at the scene. Their 11-foot draft made them difficult to operate in the near shore fisheries, and they were considerably more expensive to build than the Rattlesnakes. The Pheasants' greatest impediment was that their deep draft and wide 30-foot beam prohibited them from transiting through the canals and into the Great Lakes, making them nearly useless in a war against the United States. The Admiralty preferred the Pheasants because they had used them for years in colonial service.

The Admiralty's refusal of Gordon's plan effectively killed it. Prime Minister Macdonald could not submit the plan to his Cabinet if it had already been rejected by the Admiralty, and since Gordon was unwilling to switch to the Pheasant class gunboat, the Canadians hit a brick wall. In December 1889, Gordon submitted an updated proposal substituting the new Sharpshooter class gunboat, but it too failed to garner support. In 1891 Macdonald died and with his passing went Gordon's most fervent supporter.<sup>27</sup>

The fatal flaw of men like Smyth and Gordon was that they failed to realize that the issue of naval defense was more than a military problem. It also had a very powerful political component. As long as the Canadian government failed to act on naval defense, it remained out of the public consciousness. This tide could be held back for only so long before it erupted onto the public scene.<sup>28</sup>

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<sup>27</sup> Ibid., 238-246.

<sup>28</sup> Ibid., 253-254.

The 1890's ushered in an era of political change and public awareness in Canadian naval defense. This was due, in large part, to the publication of several articles and books on the subject. The most influential was Alfred Thayer Mahan's, *The Influence of Sea Power upon History*, published in 1890. This work never actually mentioned imperial defense but it did provide navalists and imperialists with a strong theory that supported existing practices. Mahan's book used the success of the Royal Navy in the North American wars with France in the seventeenth and eighteenth centuries to illustrate the superiority of powerful naval fleets under one unified command. Mahan used these examples to emphasize the single great battle fleet actions that he theorized would decide all future naval engagements. Mahan believed that ships which were withheld from the great battle fleet for local defense were useless and that a powerful naval fleet could win a war even in the face of overwhelming land forces, just as the Royal Navy found victory in British North America in the face of a larger French army in continental Europe.<sup>29</sup> The Admiralty quickly adopted Mahan's work as a general policy, which was a reversal from its earlier recommendations of local defense proposed in the 1880's. By the mid-1890's the Admiralty was advising against local defensive forces by stating the enormous cost was not justified by its naval ineffectiveness. Mahan's theories significantly strengthened the imperialists argument that only by continued support of the Empire could British naval superiority be sustained.<sup>30</sup> For

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<sup>29</sup> Donald M. Schurman, *The Education of a Navy: The Development of British Strategic Thought, 1867-1914* (Chicago: University of Chicago, 1965), 60-82.

<sup>30</sup> Richard A. Preston, *Canada and Imperial Defense: A Study of the Origins of the British Commonwealth's Defense Organization, 1867-1919* (Durham: Duke University, 1967), 106-108.

Canadian imperialists, Mahan's work was translated to mean the Royal Navy should be credited with making Canada a British possession and only the Royal Navy had the strength to keep Canada part of the Empire.<sup>31</sup>

In the early years of the twentieth century before the outbreak of WWI, Canada was deep in debate over its naval policy. The growing menace of the German navy threatened both Canada and Britain's plan for defense. Canada was divided over how to handle the response. The Conservative Party, led by Robert Borden, was in favor of supporting Britain by providing a monetary gift and funding the construction of three new dreadnoughts for the Royal Navy. The Liberals, who were led by Wilfred Laurier, wanted to come to the aid of Britain, but they also wanted increased Canadian autonomy. Laurier wanted to establish a separate Canadian Navy to reduce Britain's commitment to Canada's naval defense. He also wanted this new service to cooperate with the Royal Navy and the other commonwealth navies in times of emergency, but without endangering Canada's self governing of these defensive resources. The third major political party was the Canadian Nationalists who rejected outright the proposals from the other two parties. The Nationalists opposed any action that would involve Canada in imperial defense and possibly draw Canada into a European war. The Nationalists wanted an autonomous Canada with or without the Empire's support. The Nationalists wanted to break any of Canada's bonds with the Empire that inhibited its freedom to act independently and to avoid at all costs any actions that continued or promoted an imperial

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<sup>31</sup> Schurman, *The Education of a Navy: The Development of British Strategic Thought, 1867-1914*, 60-62.

connection. A naval force was also symbolic. For Canada to create a naval force modeled after the Royal Navy, a symbol of British might throughout the world, would prevent any sense of a separate identity. The Nationalists looked to their neighbors, the United States, who for the majority of the nineteenth century found it unnecessary to maintain a powerful navy. The Nationalists argued that North America's security resided in its geographical isolation, not a powerful military force.

Canada's decision on a naval policy would have serious repercussions on its relationship with the rest of the British Empire. There were three possibilities. A direct contribution to the Royal Navy would represent a closer involvement in imperial defense and policy. The formation of a separate and distinct Canadian navy would put Canada on the road towards greater national self-sufficiency. And the failure to make a decision could be interpreted by the members of the Empire as an immediate divorce of resources and cooperation. The British Admiralty's advice on this topic was predictably Empire-centric. Its highest concern was always the Empire and not necessarily what was good for the individual commonwealths.<sup>32</sup>

Canada stood on the verge of that difficult decision when Prime Minister Sir Wilfred Laurier came to power in 1896. A Liberal, Laurier often had to modify his imperial defense opinions to appease the greater public. Before Laurier's tenure in power, Canada had never made a financial contribution to the Royal Navy. While in power Laurier avoided at all costs any action that might involve Canada in an arms race. The Admiralty often complained that the dominions were not contributing enough to the

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<sup>32</sup> Melville, *Canada and Sea Power: Canadian Naval Thought and Policy, 1860-1910*, 1-4.

defense of the empire, and Canada had never made a contribution. Laurier's response was that Canada was still a young country without the powerful infrastructure of Britain, and therefore found it necessary to spend its limited funds internally rather than on defense. Canada also countered the Admiralty's arguments by stating that its internal expenditures had a strategic value for the empire by constructing the Canadian Pacific Railway, linking Canada's eastern and western coasts. This provided economic stability as well as a military option. This satisfied the Admiralty somewhat and also allowed Laurier a brief reprieve from Canada's participation in the empire's defense.

In 1895, the Navy League was formed in Canada to educate the public about the importance of sea power and a strong navy. The Navy League claimed not to be a political organization, but it had tremendous political power. H.J. Wickham was the leader of the Toronto Branch of the Navy League and he wrote about Canada's dependence on maritime trade and insisted that if that trade was disrupted in time of war, it would have a great financial impact on the rest of the dominion. Wickham argued this was the reason why Canada had to join with the rest of the empire in naval defense. Wickham believed that only the Royal Navy could protect the empire. He also believed that the size of the Royal Navy was determined by Britain's dependence on maritime commerce and on the size of rival navies and not on the needs of the colonial empire. Wickham's theory was that during a war, the Royal Navy would recall every vessel under its control not actively participating in the war effort. Colonial trade and coastal protection would be abandoned in favor of protecting the mother country. Wickham did not believe a direct monetary contribution to the Royal Navy was the most beneficial

option for Canada. Wickham favored supporting the Canadian merchant marine and strengthening Canada as a whole. Wickham wanted a core force of merchant vessels that could be quickly armed when the need arose for Canada's defense. This would have the dual effect of protecting its shores and ports, but also supporting Canada internally by strengthening its merchant marine. In 1895 Wickham's theories were published in a Navy League pamphlet, offering Canadians an alternative to the imperialist's direct contributions stance.

Wickham's viewpoint echoed statements made earlier by both Smyth and Gordon. All of these men supported a home-grown defense force, albeit in different incarnations. The bottom line was that if a war broke out that threatened the empire, all three men believed Canada would be abandoned by the Royal Navy in favor of protecting the mother country. These ideas were familiar to leaders in the Canadian government, but what Wickham provided was a voice to the Canadian people. The Navy League's primary goal was to educate the public about these ideas. The League's efforts helped persuade the Liberal party, the Canadian Parliament, and the general public to support the creation of the Canadian Navy in 1910.<sup>33</sup>

Towards the end of the nineteenth century three naval powers emerged to threaten the Royal Navy's superiority on the high seas. The quick embrace of the industrial revolution by Germany, Japan, and the United States thrust them to the forefront of naval technology. Britain was now forced to adjust its foreign relations to these geopolitical changes. Instead of relying exclusively on the strength of the Royal Navy, Britain now

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looked upon defensive alliances to supplement its warships. Improved relations with the United States since the late 1860's had nearly eliminated any chance of war with that nation. The United States' emergence as the dominant power in the Americas, Caribbean, and western Atlantic lessened the Admiralty's naval obligations there. To safeguard British possessions and to offset the growing Royal Navy inferiority in the western Pacific, the Admiralty made a defensive alliance with Japan in 1902.<sup>34</sup> In 1904 Britain entered into an entente with France. The French had shifted towards small battleships, lightly armed cruisers, and torpedo boats which made their navy vastly inferior to those of Britain, Germany, Austro-Hungary and Italy. Those nations spent massive amounts of money constructing new fleets of large battleships and dreadnaughts.<sup>35</sup> In 1907, the British also made an entente with Russia. Russia, France's ally since 1894, was a threat to Britain at the turn of the century in the eastern Mediterranean. This faded following Russia's defeat by the Imperial Japanese Navy at the Battle of Tsushima Straits.<sup>36</sup>

The powers that now appeared as potential threats to Britain were Austria-Hungary, Italy, and Germany. In the 1890's German foreign policy was aggressive and expansionist based on a very strong army. In 1898 the German Reichstag passed a series of naval laws that projected that same aggressive policy to warship construction and the

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<sup>33</sup> Ibid, 286-296.

<sup>34</sup> Tucker, *The Naval Service of Canada: Volume I Origins and Early History*, 85-88.

<sup>35</sup> Theodore Ropp, *The Development of a Modern Navy: French Naval Policy 1871-1904*. (Annapolis: Naval Institute Press, 1987), 356.

<sup>36</sup> Constantine Pleshakov, *The Tsar's Last Armada: The Epic Voyage to the Battle of Tsushima* (New York, NY: Basic Books, 2002), 279-331.

expansion of its navy. Prior to this German military buildup, the British expenditure on the Royal Navy had increased gradually over the years, but after 1898 nearly every major power's naval expenditures skyrocketed. The Germans under Admiral Alfred Von Tirpitz, built first-rate warships at an unparalleled rate. Germany's focus on strength rather than speed made its warships nearly indestructible with excellent guns and equipment. The Kaiser had been greatly affected by Mahan's writing and he took special note of the Mahanian principle that wars are won by decisive naval victories. The Kaiser used Mahan's theories as a rationale for plunging Germany into a naval arms race.

In the mid-to-late nineteenth century, improvements in naval technology allowed for faster vessels and increased gunnery range and accuracy. This technology was new to everyone and therefore no one nation had a clear edge in terms of naval superiority. Now all that limited a nation from building a powerful battle fleet was resources and funding. This was a situation that greatly worried and threatened Britain.

In response to the direct threat posed by the Germans, the Admiralty approved construction of a brand new class of warship, HMS *Dreadnaught*. When the *Dreadnaught*'s keel was laid in Portsmouth in December 1905, it outclassed every warship ever built. The *Dreadnaught* was fast and large, but its most important innovation was its armament. The *Dreadnaught*'s large guns were all the same caliber with a much greater striking range than previous vessels. Since the *Dreadnaught*'s construction the world's navies have made it a general rule to install uniform caliber guns on warships.

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The *Dreadnaught*'s success also brought controversy. Since it outclassed every other vessel built, it also rendered these older warships obsolete. The gargantuan cost of building these new warships sparked a naval arms race that nearly bankrupted both Germany and Britain.<sup>37</sup>

The German naval threat also affected Canada's naval defense. In October 1904, First Sea Lord Sir John Fisher created sweeping changes in the distribution of Royal Navy ships throughout the empire by shifting vessels back to the British Isles to face the perceived German threat there. Fisher's shift abolished several squadrons and outlying stations, including the Pacific squadron in Esquimalt on Canada's Pacific coast.<sup>38</sup> Fisher's actions foreshadowed the end of Pax Britannica.

It was a move that many of the dominions had foreseen. Some had taken preemptive steps to protect themselves. The groundwork for the policies that would apply to dominion naval forces was established in a series of colonial conferences. Talks began in 1902 at the Colonial Conference held in London. Joseph Chamberlain, representative for the British Colonial Office, discouraged the development of colonial or dominion navies and advised the dominions to take on a larger burden of the Admiralty's defense expenses. The first dominions to reach a compromise with the Admiralty were the governments of Australia and New Zealand. It was agreed that a small naval force comprised of an armored cruiser, four sloops, two second-class and four third-class cruisers, as well as a naval reserve of 25 officers and 700 seamen, would be based out of Australian and New Zealand ports and operate in the Australia, China, and East Indies

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<sup>37</sup> Tucker, *The Naval Service of Canada: Volume I Origins and Early History*, 85-88.

stations. In exchange for the warships, Australia agreed to pay 5/12 of the cost of maintaining the naval force, while New Zealand agreed to pay 1/12, with the remainder absorbed by the Admiralty. Canada took note of Australia and New Zealand's actions, but refused a direct contribution to the Royal Navy in favor of investing in its own infrastructure. At the conference's conclusion, the members agreed that it was advantageous to discuss their defensive problems with the other dominions and similar conferences should be held every four years.

As a result of the 1907 Colonial Conference the Admiralty changed its opinion on locally-based colonial squadrons. It still wanted the dominions to make a monetary contribution to the Admiralty, but also wanted them to provide local squadrons of small vessels to operate against merchant raiders and to cooperate with larger Royal Navy units. Ideally, the Admiralty envisioned the dominions operating near-coastal torpedo gunboats and submarines under Admiralty control.

The Minister of the Department of Marine and Fisheries, Louis Philippe Brodeur, responded for Canada by stating his nation could not agree to the Admiralty's terms. Brodeur explained that Canada had already taken on the heavy burden of fisheries protection on the seas and on the Great Lakes, which previously had been a Royal Navy duty. They also funded a series of wireless stations along the coasts, as well as the upkeep of the naval dockyards in Halifax and Esquimalt. Canada would continue to

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<sup>38</sup> Ibid.

refuse to contribute monetarily to the Empire's defense, stating that it had already given its fair share by funding these other projects.<sup>39</sup>

On March 16, 1909 the Prime Minister of the United Kingdom and the First Lord of the Admiralty made an announcement in the House of Commons that shook the Empire to its core. They announced to the stunned audience that the German Navy's unprecedented expansion had reached a point where it now placed Britain in a critical situation and it needed the dominions' aid to counter this threat. The dominions' reaction was swift and decisive. Six days after the announcement, a telegram arrived from New Zealand offering to fund the construction of the latest style of battleship, two if necessary. The Provinces of New South Wales and Victoria offered to share the costs of a Dreadnaught, unless Australia provided one for the Royal Navy. Canada reluctantly followed, but not with cash for new ships. The Canadian House of Commons approved a resolution on March 29, 1909 to establish a Canadian Naval Service. Canada would do its duty for the Empire, but on Canadian terms.

The British government quickly organized the 1909 Colonial Conference to discuss which form of naval defense best suited each dominion. In addition to the local units the Admiralty wanted the dominions to raise, it also wanted a separate and distinct high seas fleet unit from each one as well. The Admiralty stated that during war, these dominion units would come under exclusive Admiralty control. Again it was Borden who responded for Canada by stating Canada would do whatever was needed for itself, in direct communication with British authorities for guidance. Canada also was not

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satisfied with the provision of naval units on only the Atlantic Ocean. It wanted to establish naval units on both coasts. The Colonial Secretary agreed with Borden by saying Canada's wishes came before the Empire's, but he strongly emphasized that if Canada wanted to raise its own navy on both coasts that it was a tremendous undertaking.

Finally, Canada had to do what it had avoided for over a hundred years. It had to create its own navy and spend the funds required to do it right. The Admiralty was willing to help Canada along this path by lending two cruisers, HMCS *Rainbow* (Apollo class) and the HMCS *Niobe* (Diadem class). The *Rainbow* was meant for service on the west coast, while *Niobe* would be based in Halifax. The *Niobe* was a very large cruiser at 435 feet long with a breadth of 69 feet and a compliment of 700 men. The *Niobe* was also heavily-armed with sixteen 6-inch guns, twelve 12-pounders, five 3-pounders, as well as two 18-inch torpedo tubes. A few minor alterations were made to the *Niobe* to make it more suitable as a training vessel before its transit across the Atlantic. In exchange, the Canadians were tasked with refitting and maintaining the cruisers, as well as paying Royal Navy volunteers to man the ships until the Canadian crews were fully trained. The Admiralty also offered to lend officers as instructors and take Canadian cadets at the naval schools at Dartmouth and Osborne. In addition, it suggested the creation of a naval reserve and a naval volunteer force. Similar offers and recommendations were made to the Australian government, which was very eager to further develop its fledgling naval force. After years of resistance against funding naval defense and fears of being pulled into a war with the rest of the Empire, Canada

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<sup>39</sup> Ibid., 105-112.

contributed to its own and the Empire's defense, but on Canadian terms. Faced with the German threat and the fact that the Royal Navy would pull its warships away from British North America to protect the home waters, Canada could no longer avoid the inevitable.<sup>40</sup>

According to the Admiralty, the Canadian Naval Service was born at the 1909 Imperial conference with the Admiralty's sanction.<sup>41</sup> Canadian historians disagree with this view, instead arguing the seeds for a Canadian navy had been sown nearly thirty years before within Canada by men like Smyth and Gordon. L.P. Brodeur states in his memoirs, "As a consequence of the statements which were made at the Conference of 1902, we started with the nucleus of a Navy. We bought a cruiser which we put on the Atlantic coast, which is not a very large one it is true, but which was a beginning tending to show our desire and our wish to carry out the idea which had been announced at the Conference of 1902."<sup>42</sup> The vessel that Brodeur makes reference to is the Department of Marine and Fisheries CGS *Canada*.

The Department of Marine and Fisheries' responsibilities had greatly increased by the early 1900's with its acquisition of control over the St. Lawrence Ship Channel, patrols in the Canadian Arctic, in addition to its traditional duties of fisheries protection and the upkeep of aides to navigation. To carry out its many marine duties, the Department of Marine and Fisheries operated a fleet of eight armed cruisers, six

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<sup>40</sup> Ibid., 114-120.

<sup>41</sup> Ibid., 114-120.

icebreakers, and eighteen other miscellaneous vessels smaller than 80 feet of length. Marine and Fisheries also operated 13 newly-installed Marconi wireless stations along the length of the Canadian east coast. The Department of Marine and Fisheries had already laid much of the groundwork for a future naval service before the Colonial conference of 1902, and that conference provided the stimulus to purchase the *Canada*, the nucleus of its naval force. The *Canada* was a vessel that outwardly provided the Department of Marine and Fisheries with a means of modernizing its aged fleet, but underneath the surface it was a means to train personnel in naval gunnery and practice.

During the 1902 Conference, Prime Minister Laurier was accompanied by the Department of Marine and Fisheries Minister Raymond Profontaine. After the conference Profontaine and the Commander of the Marine Services, Osprey George Valentine Spain, began to put into action the Admiralty's recommendations, but purely on Canadian terms. Profontaine and Spain laid the groundwork for the acquisition of the *Canada*, the newest and largest of Canada's fisheries protection cruisers. The *Canada* was purchased in 1904 and in that same year Spain prepared a bill entitled "An Act Constituting the Naval Militia of Canada" as well as a proposal for the establishment of a Canadian naval military academy.<sup>43</sup> Spain's bill was never brought before Parliament because Laurier saw it as a fundamental departure from his nation's traditional imperial relationship and too radical a move for public acceptance at that time. Laurier decided it

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<sup>42</sup> James A. Boutilier, editor, *The RCN in Retrospect, 1910-1968* (Vancouver, British Columbia: The University of British Columbia Press, 1982), 14.

<sup>43</sup> Ibid., 14-16.

was better to have the new ship alone, rather than raise public controversy and have both the bill and the ship rejected.<sup>44</sup>

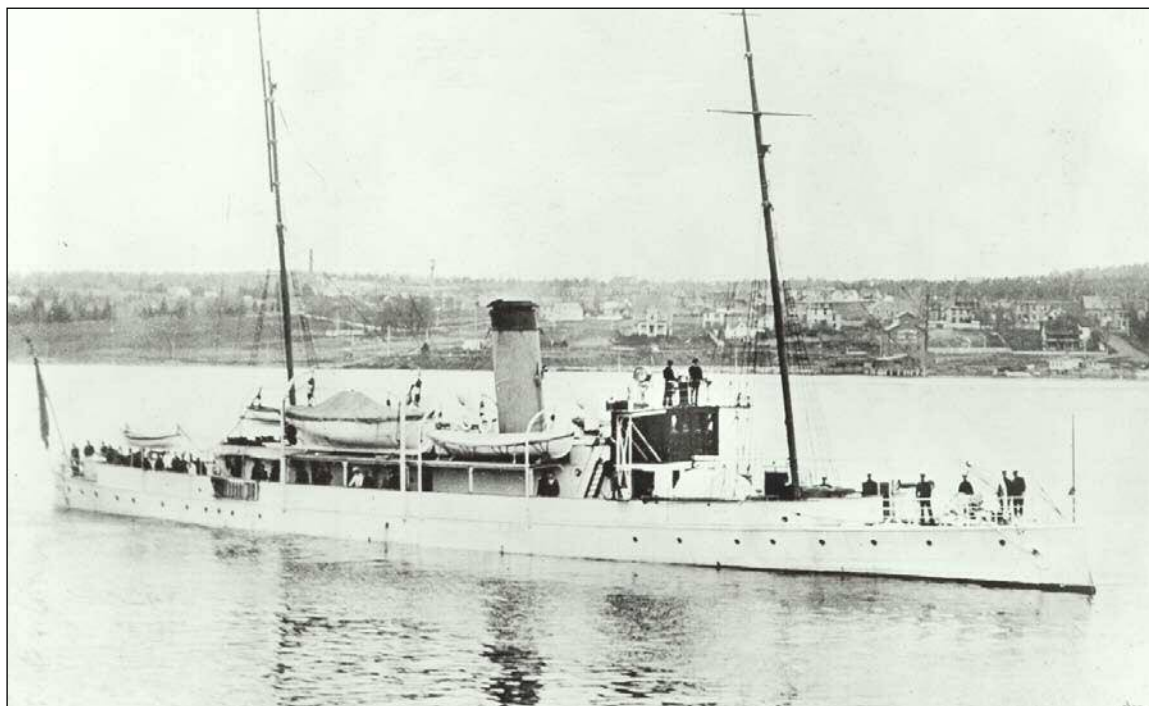


Figure 2.1 The Fisheries Protection cruiser CGS *Canada* (Courtesy of the Maritime Museum of the Atlantic).

The CGS *Canada* was not the first fisheries protection cruiser operated by Canada, but it was the most heavily armed and the largest at 200 feet by 25 feet. The *Canada* was built by Vickers Sons and Maxim in Burrow-in-Furness, England, as a one-of-a-kind small cruiser. Between 1891 and 1904 Canada had either purchased or built eight armed vessels for fisheries protection. The early fisheries cruisers (*Constance*, *Curlew*, *Petrel*, *Osprey*, *Kestrel*, and *Falcon*) were steam or sail powered and built of

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<sup>44</sup> Richard Gimblett, "Reassessing the Dreadnought Crisis of 1909 and the Origins of the Royal Canadian Navy," *The Northern Mariner*, IV, No.1 (January 1994): 41.

iron, wood, and steel, but none were greater than 130 feet in length.<sup>45</sup> The sister cruisers, *Constance*, *Curlew*, and *Petral*, were specifically built for Marine and Fisheries in 1892 and were a transition between the older vessels and the pure naval type of *Canada*. When the *Constance* and its sister ships were built, they were considered far superior to anything the U.S. Revenue Department had on the Great Lakes.<sup>46</sup> The *Canada* was much more warlike in appearance than its predecessors, with its ram bow, heavy guns, and raked funnel. Indeed, *Canada*'s appearance and performance matched the Rattlesnake torpedo gunboats proposed by Gordon. Acquisition of the *Canada* was the realization of his vision from eighteen years before.

The purchase of the *Canada* truly represented a shift in philosophy towards Canada's armed maritime forces. The crew was outfitted with naval uniforms and was well-disciplined, factors that gave even more credence to Brodeur's memoirs calling the CGS *Canada* the nucleus of the Canadian Navy. When the ship was launched in 1904, Canada had no naval college and the only way to enlist in a navy was with the Royal Navy. In anticipation of the creation of a Canadian Naval Service, the *Canada* was deployed for naval training. The *Canada* had a top speed of 22 knots and its appearance closely resembled a naval cruiser. The *Canada* was the most warlike vessel the Dominion had ever operated and was the most powerful ship in its Fisheries Protection fleet.<sup>47</sup> The *Canada* was also the first Canadian owned and operated armed vessel to be

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<sup>45</sup> Boutilier, *The RCN in Retrospect, 1910-1968*, 14-16.

<sup>46</sup> Ernest J. Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries* (Toronto, Ontario: Canadian Marine and Fisheries Publisher, 1905), 73.

invited to train with the Royal Navy. On February 1, 1905, the *Canada* departed for Bermuda for a three-month cruise with the Royal Navy in the Caribbean. The vessel made port calls, delivered and returned salutes, and conducted drills with the local British squadron. The *Canada* was commended for its excellent quick-firing gunnery work during these training exercises and its accomplishments were highly touted in the Department of Marine and Fisheries Sessional Papers. In 1905 the Sessional Papers described the *Canada*'s West Indies training as forming, "the nucleus of the proposed Canadian Naval Militia."<sup>48</sup> A 1905 Department of Marine and Fisheries publication entitled, *The Canadian Marine: A History of the Department of Marine and Fisheries*, states the "remarkable change which has been effected during the last couple of years in the character of the little squadron" by the addition of the "unmistakable warship [CGS *Canada*]...described...as the nucleus of Canada's Navy."<sup>49</sup>

A memorandum sent by Spain to Profontaine dated January 28, 1907 stated, "The Cruiser *Canada* which is manned and armed in all respects as a man-of-war, was built in England and brought out in 1904; in 1905 she was sent on a training cruise to the West Indies, carrying a large number of young fishermen as recruits; this according to the late minister's idea, was proposed to be the beginning of the Naval Militia. On the return of this ship from her instructional cruise, the men who had already been trained were distributed amongst the other ships; fresh men taken on; and instruction continued. The

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<sup>47</sup> Thomas E. Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services* (Ottawa, Ontario: Department of Services, 1968), 80.

<sup>48</sup> Gimblett, "Reassessing the Dreadnought Crisis of 1909 and the Origins of the Royal Canadian Navy" 41.

material that we have in the Canadian Naval Militia is probably the best in the world.”<sup>50</sup>

While Laurier was with Brodeur attending the 1907 Colonial Conference in London, the acting Prime Minister, W.S. Fielding further validated the status of *Canada* by calling it the “flagship of the Canadian navy” and used this status as the justification for Marine and Fisheries expenditures to upkeep the vessel.<sup>51</sup>

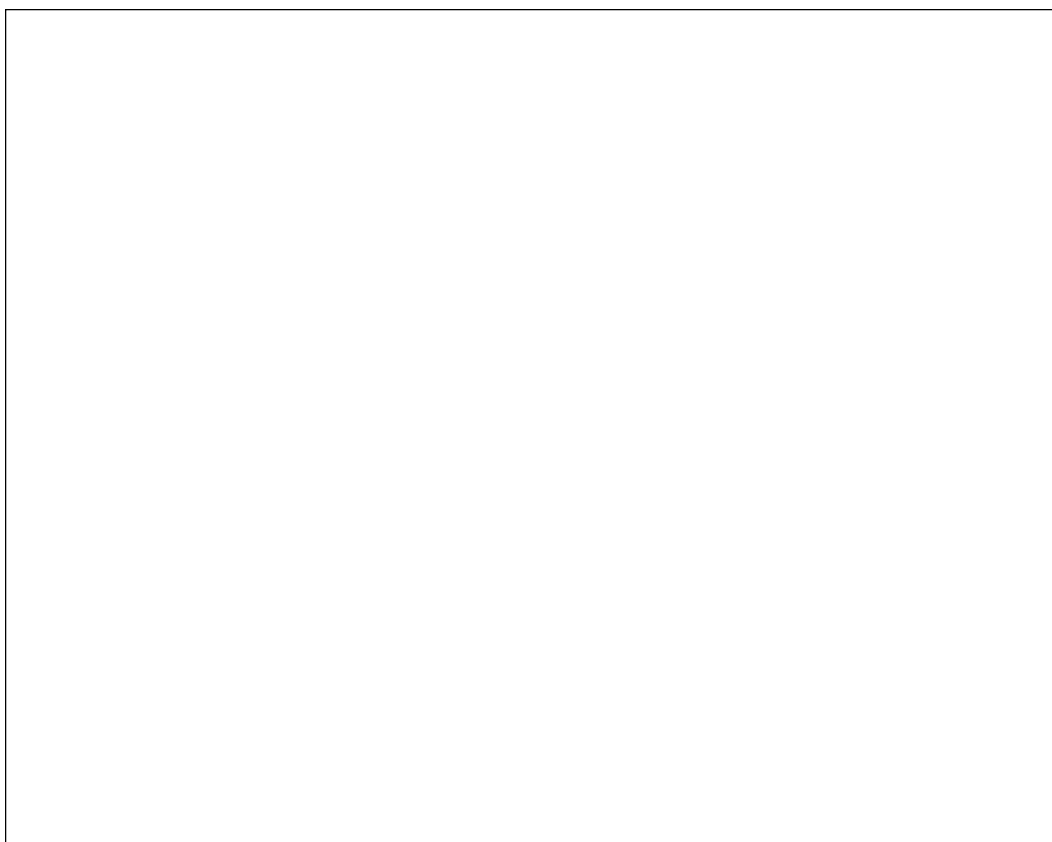


Figure 2.2 The CGS *Canada*’s crew poses during training exercises with the 1 ½ lb. Mark III quick-firing gun in the right foreground (Courtesy of the Maritime Command Museum).

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<sup>49</sup> Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries*, 72, 85.

<sup>50</sup> Boutilier, *The RCN in Retrospect, 1910-1968*, 17.

A resolution to establish a Canadian Naval Service was proposed on March 29, 1909 in the Canadian House of Commons in Ottawa, but the Naval Service Act was not approved until May 4, 1910. This act created the Department of Naval Services, also known as the Royal Canadian Navy, under the Minister of Marine and Fisheries. A naval reserve and a naval volunteer force were also authorized under the act and both could be called into service in times of emergency. The act included a provision for the establishment of a naval college to train prospective officers in all branches of naval science, tactics and strategy. The Honorable Louis Philippe Brodeur, who already served as the Minister of Marine and Fisheries, also became the Minister of the Naval Service. George J. Desbartes, a trusted subordinate who had been with Marine and Fisheries since 1907, became the First Deputy Minister of the Naval Service. Rear Admiral Charles E. Kingsmill, a former Royal Navy officer, became the Director of the Naval Service. The new Department of Naval Services was divided into five branches: naval, fisheries protection, tidal and current survey, hydrographic and wireless telegraph. Four of the five branches were detached from the Department of Marine and Fisheries.

The *Niobe*, the former Royal Navy cruiser, now came under the Department of Naval Services. Launched in 1899, *Niobe* was a true warship and its acquisition by Canada helped complete the creation of the Canadian Naval Service, which the CGS *Canada* began in 1904. The *Niobe* arrived in Halifax on October 21, 1910, on the 150<sup>th</sup> anniversary of the Battle of Trafalgar. The vessel was greeted at the harbor's entrance by

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<sup>51</sup> Gimblett, *Reassessing the Dreadnought Crisis of 1909 and the Origins of the Royal Canadian Navy*, 44.

the CGS *Canada*. The *Canada* welcomed *Niobe* and proudly led Canada's first true warship into its new home port.<sup>52</sup>

The legacy of the CGS *Canada* continued on the decks of the HMCS *Niobe*. The first midshipmen to proudly serve on *Niobe* in 1911 had trained as cadets on the CGS *Canada* one year earlier. These six midshipmen were Canada's first naval officers, trained entirely on Canadian vessels. These men were the Canadian Naval Service's first officers and they had trained for more than a year on the CGS *Canada* with hands-on instruction in seamanship and navigational training. L.P. Brodeur took a personal interest in the first naval officers and hand-picked all six of them. All six of the midshipmen were political insiders. Victor G. Brodeur was his son. Barry German was the son of a Liberal MP for Welland-St.Catherines. Percy Nelles was the son of a retired senior Army officer. Charles Beard was the son of a senior government official. John Barron was the son of a judge. And Trenwick Bate was the son of a Liberal millionaire. L.P Brodeur gave them no written exams and the entrance interview was very informal.<sup>53</sup> Admiral Kingsmill's interview with Barry German was comprised of one question, "Can you swim?"<sup>54</sup>

Several of these midshipmen went on to distinguished careers. John Barron was the first Canadian to qualify as a Royal Navy Air Service pilot. Barron flew airships in

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<sup>52</sup> Tucker, *The Naval Service of Canada: Volume I Origins and Early History*, 140-142.

<sup>53</sup> Tony German, *The Sea is at our Gates: The History of the Canadian Navy* (Toronto, Ontario: McClelland and Stewart Inc., 1990), 27.

<sup>54</sup> *Ibid.*, 28.

Europe and was decorated for service in Italy during WWI.<sup>55</sup> Both Percy Nelles and Victor Brodeur were chosen to represent the Royal Canadian Navy in 1911 at the coronation of King George V. Nelles and Brodeur also had the distinction of rising to flag rank within the Royal Canadian Navy. Percy Nelles became Chief of Naval Staff and Victor G. Brodeur reached the rank of Rear Admiral.<sup>56</sup>



Figure 2.3 The *Canada*'s first class of midshipmen in 1910. From left to right (back row): Charles Beard, Barry German, Victor G. Brodeur, Wright; middle, Fisheries officers Fortier, Stewart, Woods; front, Trenwick Bate, Percy Nelles, John Barron (Courtesy of the Maritime Command Museum).

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<sup>55</sup> Ibid., 52.

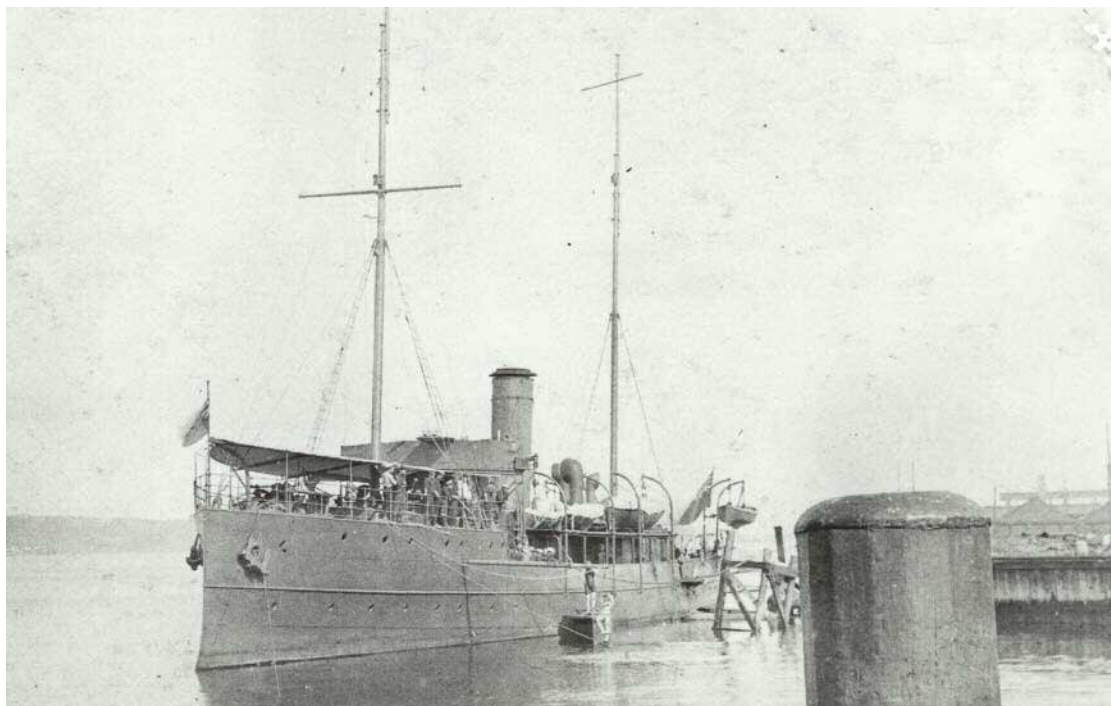


Figure 2.4 The *Canada* in 1912 after the addition of its top-gallant forecastle (Courtesy of the Maritime Museum of the Atlantic).

As Nelles and Brodeur advanced in the ranks, the *Canada* continued to train midshipmen. In March 1912 alterations were made to the *Canada* in order to improve its seaworthiness as well as increase its gunnery to make it more suitable for naval training. A top-gallant forecastle was built to accommodate additional men for gunnery training classes. The original four 1 ½ lb. quick-firing automatic Mark III guns, which were positioned two forward and two aft, were replaced by two 12-pdrs. aft and two 3-pdrs. forward on the new top-gallant forecastle. Not only did the alterations and improved gunnery make the *Canada* a much more powerful vessel, it now closely resembled modern third class cruisers in the British Royal Navy.

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<sup>56</sup> Ibid., 143.

The *Canada* conducted mine-sweeping exercises and defensive training in Halifax Harbor beginning in 1912. The vessel also began teaching annual gunnery classes for midshipmen in the Canadian navy. The *Canada* steamed nearly 10,000 miles each season conducting naval drills, chasing foreign trawlers attempting to operate within the in-shore fisheries, destroying illegal lobster traps, confiscating gear, and protecting the coasts of Canada.<sup>57</sup>

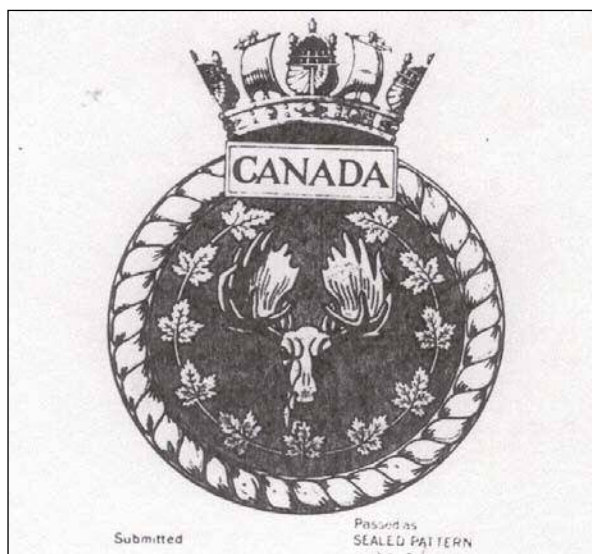


Figure 2.5 The HMCS *Canada*'s ship seal (Courtesy of the Maritime Command Museum).

The *Canada* remained with the Department of Marine and Fisheries until 1915 when it was commissioned into the Department of Naval Services at the outbreak of World War I. After eleven years of training cadets in gunnery and navigation, preparing the future Canadian naval officers and crew for service, the newly titled HMCS (His Majesty's Canadian Ship) *Canada* was finally allowed to raise the White Ensign and

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become an official naval warship. The *Canada* was a naval vessel, but continued to perform as a fisheries cruiser. The *Canada* continued to enforce fisheries regulations and conduct coastal patrols. It now did double duty searching for foreign poachers as well as German warships, U-boats, and mines.<sup>58</sup>

HMCS *Canada* had an uneventful, yet still vital role during its life as a Royal Canadian naval vessel. The vessel never saw combat, but it continued to protect the fisheries, a valuable resource during the war effort. British fishing production fell sharply during the war due to U-boat losses. In addition every available vessel was pulled into naval service leaving the British fishing fleet nearly nonexistent. This sharp decline in British fishing caused a boom for the Canadian fishing industry. Canadian caught fish fed Britons in the homeland as well as the majority of troops overseas. The *Canada* played an important role in this effort by reverting to its fishing protection cruiser origins and safe guarding the source of this vital food chain.<sup>59</sup> The *Canada* continued in this capacity until the war's end in 1919 when it was officially decommissioned.

For nearly 400 years Canada and the Royal Navy shared a symbiotic relationship. Canada depended on the Royal Navy to protect its coasts and fisheries, but political, economic and world factors would soon alter that relationship. In the 1870's, men like

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<sup>57</sup> Canada, Parliament, House of Commons, *Sessional Paper 1913* (Report of the Department of the Naval Services for 1911-1912), 17.

<sup>58</sup> Canada, Parliament, House of Commons, *Sessional Paper 1916* (Report of the Department of the Naval Services for 1914-1915), 19.

<sup>59</sup> William Frederick Wallace, *Roving Fisherman: An Autobiography Recounting Personal Experiences in the Commercial Fishing Fleet of Fish Industry of Canada and the United States 1911-1924* (Gardenvale, Quebec: Canadian Fisherman, 1955), 337-360.

Shelby Smith and Andrew Gordon would awaken Canada to the reality that the nation would soon have to provide for its own defense. In 1904, Canada would make the commitment to buy the most modern, heavily-armed, and largest cruiser it had ever owned. The vessel to carry this historic distinction and transform the small, antiquated, armed maritime force into the twentieth century, was named after the country itself, CGS *Canada*. It served dually as a fisheries and naval training vessel, and eventually took on the duties of mine sweeping and hunting U-boats. Finally, in 1915, it was commissioned into the Royal Canadian Navy, becoming HMCS (His Majesty's Canadian Ship) *Canada*.

### CHAPTER 3: SALE AND SINKING

When the *Canada* was purchased in 1904, it was the most modern and warlike vessel Canada had ever owned. Her sleek appearance and success as a fisheries cruiser electrified the public as well as government officials. For nearly two decades she flew the Canadian flag, protecting the fisheries and training the first generation of Canada's home-grown naval officers, but time had passed her by.

When World War I erupted in 1914, two wars raged between Britain and Germany. The first was a war of aggression and the second was a war of technology. Each nation attempted to build a bigger and more powerful warship than the other, and in this war the *Canada* lost. At the close of WWI (1914-1918) in 1919, *Canada's* technology had been replaced by turbine engines, new hull designs, and improved gunnery. It was a shining example of a bygone age, but that age had come to a close. After sixteen years of service as both a fisheries cruiser and a warship, the *Canada* was officially laid up on January 22, 1920.<sup>1</sup>

The *Canada* may have been taken out of active service but questions remained about the future of the ship. Rear Admiral Kingsmill, the Director of Naval Services, decided *Canada's* usefulness as a training ship had come to an end. Kingsmill's deputy minister suggested the ship be used as a hulk, but Kingsmill stated he wanted the ship prepared for sale. During this time the *Canada's* engineer, the only person maintaining

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<sup>1</sup> Archives Canada RG24, 1/22/20.

the vessel, was transferred to another ship and several pieces of equipment were removed including the ship's guns and wireless telegraph.<sup>2</sup>

After the close of WWI *Canada* was not the only former fisheries cruiser decommissioned. Resting beside *Canada* at the Halifax Dockyard was *Hochelaga* and *Petrel*. All three vessels were on the sales block. Between 1921 through 1924 *Canada* received several offers, but no one was willing to pay the \$20,000 that the Department of Naval Services was asking. In 1922 the McIntosh Ship Agency was looking for a passenger steamer for the Miami to Havana route and placed a bid on the *Canada* for \$10,000. The government said it would seriously consider the offer, but nothing more came of it. Over the next year, several other bids were made on *Canada* and the other two vessels, including some to buy the ships as a group or just as a pair, but none met the government's asking price. In October 1923 the Department of Naval Services dropped the price of the *Canada* to \$10,000, but still there were no takers. Then on January 15, 1924, the McIntosh Ship Agency made a \$5,000 bid on the *Canada* and offered to settle in cash immediately if the bid was accepted. The official Canadian government agency overseeing the vessel's sale, the Government Contract Supervision Committee, responded two days later stating they accepted the \$5,000 offer on the *Canada* as is/where is and to wire \$1,000 immediately for the deposit.<sup>3</sup>

The *Canada* was officially sold 14 days after the initial bid on January 29, 1924. Included in the sale were spare propellers and furnaces, but not the ship's wireless

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<sup>2</sup> Archives Canada RG24, 1/30/20-7/31/21.

<sup>3</sup> Archives Canada RG24, 8/14/22-1/18/24.

telegraph, which had previously been removed, nor the ships boats. Upon discovering these items would not be included in the sale, McIntosh quickly sent letters of inquiry asking about the telegraph and the boats. McIntosh claimed they were advertised as included with the vessel. McIntosh stressed that these items were absolutely essential, and if they were not included, the price should be adjusted to reflect this fact. The Department of Naval Services responded that the advertisement never stated anything about wireless telegraphs or boats included with the sale and that the terms of the advertisement stated the vessel would be sold as is/where is. Therefore, the sale was nonnegotiable.

After the *Canada*'s sale, M.S. Orth, the agent who brokered the deal for the McIntosh Ship Agency, stated he wanted the ship to operate between Nassau and Miami and it would help his clients if the vessel retained its British registry. To expedite that process Orth requested the vessel be temporarily transferred to a Canadian citizen. However, the McIntosh Ship agency was located in New York City, which made the new owners of the vessel U.S. citizens. The problem was that U.S. citizens were not allowed to own British registered vessels. This caused a conflict for Orth who by no means wanted the vessel registered in the U.S., for reasons he would not specify. This also caused a problem for the Canadian government because they were not allowed to register the vessel as British if people other than British subjects held a legal or beneficial interest in it. The government responded in a letter dated February 27, 1924 that a Canadian citizen acting on McIntosh's behalf could not take possession of the vessel and the sale must be to Orth. Five months later, in July, representatives of McIntosh showed up in



Figure 3.1 The steamship *Canada*'s first announcement for service (*The Nassau Guardian*, 20 November, 1924).

Halifax to take immediate delivery of the *Canada*. They asked that the bill of sale be made out to the Florida Inter-Island Steamship Company Limited of Nassau, Bahamas, which was organized under Bahamian law. The Canadians responded that they had already told Orth the vessel would be registered in the United States due to the location of the owners company in New York City. Orth replied that his company furnished the funds with the intention of transferring the vessel to a corporation forming in the Bahamas. This corporation, whose owners wished to remain anonymous, advanced the money to Orth for the purchase. He did not purchase the vessel from his personal account. The *Canada* would lose its British registry if it was bought by an American; he wanted to avoid that. In several memos between Canadian officials who were handling the sale, it is clear that the request was not a surprise. They deduced that this new Bahamian corporation was American-owned and operated. However, the Canadians needed to rid themselves of the aged vessel. They finally agreed to allow *Canada* to

retain its British registry until transferred to the Florida Inter-Island Steamship Company on October 11, 1924.<sup>4</sup>

It was the intention of the Florida Inter-Island Steamship Company to convert the S.S. *Canada* into a passenger steamship. The first public announcement appeared in *The Nassau Guardian* on November 20, 1924. The vessel had arrived at Miami from New York the week before for its conversion. It was the owner's intention to carry only first-class passengers and no freight on two trips a week between Nassau and Miami. The article failed to mention exactly who the owners were, only noting they were men of the highest standing and wealth in Florida. Mr. A.J. McIntosh, vice president of the McIntosh Ship Agency came from New York City to oversee *Canada's* progress in Nassau. McIntosh's company had purchased the vessel from the Dominion of Canada with a provisional six-month British registry and on arrival in Nassau it was registered under the new name *Queen of Nassau*. McIntosh stated on November 24, 1924 in *The Nassau Guardian* that the S.S. *Canada* had previously been a naval training ship for Canada with a length of 200 feet and a draft of 9 feet, 6 inches. These dimensions were critical for a vessel to operate in the Bahamian shallows and a brochure declared, "Because of her unusual construction the fast *Queen of Nassau* is enabled to follow the smooth and direct route across the beautiful Bahama Banks." The Bahama Banks were much too shallow for traditional deep-drafted ocean-going vessels and the *Queen of Nassau's* length promised ample space between passengers, a luxury that was unavailable on other day-boats on the same route. It had fourteen state rooms, but they were

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modified into lounges because with the reported speed of 19 knots, the route from Miami to Nassau would only take ten hours and there would be no need for sleeping quarters on the *Queen of Nassau*. A permanent sun deck was built over the entire ship and the internal amenities rivaled a Pullman rail car. McIntosh and the owners of Florida Inter-Island Steamship Company had high hopes for the *Queen of Nassau* and they created quite a buzz of excitement around the new vessel. No expense had been spared in outfitting the ship or on publicity. The article concluded by stating, “She has a wireless outfit, and will be run with the precision and smartness of an ocean liner and the efficiency of a naval vessel.”<sup>5</sup>

During the next few weeks the media blitz continued and there were several newspaper articles about the *Queen of Nassau*’s progress in Miami where it was receiving its finishing touches in paint and internal fittings. The articles also stated that the people of Nassau were waiting with interest to see if the ship made its promised transit time.<sup>6</sup> On December 11, 1924, the first advertisement for the ship appeared in *The Nassau Guardian*. The advertisement simply announced that the S.S. *Queen of Nassau* would be sailing for Miami on December 16 at 8am for a special excursion rate of \$29.00 for a round trip ticket. The following day an advertisement appeared in the *Miami Daily News and Metropolis* for the same cruise. This advertisement began with the headline “Day Express to Nassau” and touted that the vessel would exclusively carry first-class passengers, no second class, and no freight. It stated, “The S.S. *Queen of Nassau* goes

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<sup>4</sup> Archives Canada RG24, 1/31/24-12/15/24.

<sup>5</sup> *The Nassau Guardian*, 20 November 1924, 2.

over the smooth waters of the famous Bahama Banks by daylight for eight miles the bottom of the ocean can be seen. One of the most wonderful water trips in the world.” It also exclaimed that the steamer was outfitted with a wireless telegraph and traveled at such a high speed that it eliminated night travel.<sup>7</sup>



Figure 3.2 Advertisement for the newly renamed *Queen of Nassau* offering first-class service between Nassau and Miami (*The Nassau Guardian*, 11 December, 1924).

With A.J. McIntosh onboard, the *Queen of Nassau* departed Miami for Nassau promptly at 8am on December 13. Unfortunately for the vessels owners, the first run failed to meet the advertised 10 hour transit time. The *Queen of Nassau* pulled into Nassau harbor and was greeted by the Port Officer at 12:30am, six and a half hours late. The vessel's first eighteen passengers came ashore bleary-eyed and disgruntled. The newspaper article detailing the ship's progress blamed the firemen for not keeping enough steam up. It stated that although the ship had easily made 19.9 knots when in

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<sup>6</sup> *The Nassau Guardian*, 11 December 1924, 2.

service with the Canadian Navy, on this new route the vessel could not be pushed to the same speed due to the shallow depth of water in the banks.<sup>8</sup> This was a problem that would plague the *Queen of Nassau* for the rest of its life as a first-class passenger steamer.

A prolonged transit time, however, was not the only challenge faced by the *Queen of Nassau*. Another passenger steamer, the S.S. *Nassauvarian*, was already in service along the same route. The *Nassauvarian* was a larger vessel than the *Queen of Nassau*, but it was old and not as elaborately furnished. Therefore both the *Queen of Nassau* and the *Nassauvarian* had their own distinct market of passengers. But the competition did not stop there. The *Queen of Nassau* was in service for two weeks when a third vessel was put into service on the Miami to Nassau route. This vessel was the Peninsular and Occidental Steamship Company's S.S. *Miami*. The company was owned by Henry Flagler, one of southern Florida's largest land developers. He saw the *Miami* as a way to extend his expansive rail and steamship empire into the Bahamas. The *Miami* offered first- and second-class accommodations, carried mail and freight. Not only did the *Miami* arrive at its scheduled time on its inaugural voyage on December 27, 1924, it also carried thirty-two passengers in contrast to the *Queen of Nassau*, which only brought two passengers to Nassau on that same day.<sup>9</sup> From the *Miami*'s first voyage, it dominated competition with the *Queen of Nassau*.

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<sup>7</sup> *Miami Daily News and Metropolis*, 12 December 1924, 4.

<sup>8</sup> *The Nassau Guardian*, 16 December 1924, 2.

<sup>9</sup> *The Nassau Guardian*, 27 December 1924, 2.

Over the next few weeks the *Miami* carried as many as sixty-five passengers at one time, while the *Queen of Nassau* never carried more than twelve. Faced with a losing proposition, the Florida Inter-Island Steamship Company decided to admit defeat. The last commercial voyage of the *Queen of Nassau* departed for Nassau on January 20, 1925 carrying a mere eight passengers.<sup>10</sup> The *Queen of Nassau* was replaced by the larger S.S. *Collier County*, which was also owned by the Florida Inter-Island Steamship Company. The *Collier County* continued the promise of first-class express service and on its first voyage on January 29, it carried twenty-seven passengers. As a first-class passenger steamer, the *Collier County* was more successful on its first cruise than the *Queen of Nassau* was during its entire, albeit short, 39-day lifetime.<sup>11</sup>

The *Queen of Nassau* was taken back to Miami in late January where it remained for the next eighteen months anchored off Biscayne Bay. The only remaining crewman left aboard the old ship was First Mate J.J. Borden acting as both caretaker and guard. According to newspaper reports, Mexican interests had inspected the vessel and announced they intended to buy it to run between Tampico and New Orleans. Plans were quickly made to take the vessel to Tampa where, according to L.A. Oates, British vice consul at Miami, the deal with the Mexicans was supposed to be closed. In a statement made by Oates he says that Tampa was chosen because both the Mexican interests and Barron Gift Collier, the *Queen of Nassau*'s owner, had representatives there.<sup>12</sup> Tampa

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<sup>10</sup> *The Nassau Guardian*, 20 January 1925, 2.

<sup>11</sup> *The Nassau Guardian*, 29 January 1925, 2.

<sup>12</sup> *Miami Daily News and Metropolis*, 3 July 1926, 1.

was also an ideal location because it had a dry dock where the vessel could receive its final inspection before the sale.

On the night of Wednesday, June 30, 1926 the *Queen of Nassau* anchored outside Miami harbor in anticipation of the voyage to Tampa. The next morning under the command of Captain Peter P. Songdahl, the vessel began heading south, but under low steam-pressure because of the decrepit state of the boilers ignored during its long anchorage. Crawling along because of the weakened boiler tubes, the vessel was forced to anchor off Alligator Reef on the morning of July 2 to make repairs. Beginning at 3am the engineers labored for thirteen hours to make engine repairs. The crew noticed a minor bilge leak, but it was not enough to cause alarm. The make-shift repairs were completed by 4pm and the *Queen of Nassau* began moving slowly southward.<sup>13</sup>

A few minutes after the shift change at 6pm, water was discovered entering the fire room from underneath the boilers. The ship had two ordinary pumps as well as a powerful ejector and all were activated and working at maximum capacity. A search of the hold was initiated to locate the source of the leak and continued for several minutes while the pumps held off the on-rushing water. Then a problem arose when the cold water began to make contact with the boilers, cooling them. The drop in steam pressure slowed the pumps. The water now began to enter the ship very rapidly. The *Queen of Nassau's* Chief Engineer, E. Nord, estimated the water rose two feet in only five minutes.

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<sup>13</sup> *The Herald*, 4 July 1926, 2.

One of the firemen retreated to report the increase to Captain Songdahl and when he returned below decks the water was above his knees and rising.<sup>14</sup>

The *Queen of Nassau* was roughly six miles from shore when it became apparent to Captain Songdahl that his ship was going to sink. Songdahl states in a newspaper account that due to the limited steam pressure available, he knew there was not enough time to run the ship toward shore and beach it. He therefore made the decision to head directly out to sea so the ship would sink in water deep enough that it would not be a menace to navigation. The faltering pumps forced the coal passers, then the firemen, and finally the engineers from their posts. The water reached the fires, the steam machinery which ran the pumps stopped, and the vessel lost headway gently rocking in a light swell. It was then, shortly before 7pm, that Captain Songdahl gave the order to abandon ship.<sup>15</sup>

Songdahl ordered the helmsman, Seaman Mosley, to put the ship's wheel hard over to starboard and to prepare to enter the lifeboat. Most of the crew had enough prior warning to retrieve their scant personal possessions before entering the lifeboat. Songdahl was the last man to leave the dying *Queen of Nassau*. When he stepped into the lifeboat he was well dressed, as if going to dinner ashore, and carried his umbrella and a compass. As the eighteen officers and crew rowed away from the sinking ship, they watched it surrender to the sea. The crew described the ship lurching on its starboard side as it sank stern first. "When it was almost perpendicular, the boilers exploded, bursting the heavy steel like an eggshell. Ten seconds later a few blackened

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<sup>14</sup> *Miami Daily News and Metropolis*, 4 July 1926, 2.

<sup>15</sup> *The Herald*, 4 July 1926, 2, 4.

bits of wood were all of the *Queen of Nassau* left above the water.”<sup>16</sup> Songdahll described the sinking as follows, “We left her at 7 o’clock...I took out my watch. Exactly eight minutes later, the ship standing almost upright in the water, her boilers exploded. The forward half of her crumpled up. She was gone.”<sup>17</sup>



Figure 3.3 The newspaper account of the *Queen of Nassau*'s sinking (*Miami Daily News*, 4 July, 1926).

As the survivors rowed toward land they were guided by lights on the shore. Shallows prevented them from making a direct route to the beach, and they landed over two hours later at 9:20pm. The exhausted men stumbled to the East Coast railway tracks and slept until morning when they walked to a way station and flagged a passing freight train. The captain and crew of the *Queen of Nassau* were brought back to Miami where

<sup>16</sup> *Miami Daily News and Metropolis*, 4 July 1926, 2.

the sinking was reported to authorities.<sup>18</sup> In Miami, the captain and several members of the crew were interviewed by the newspapers. They reported that one of the survivors was much more forlorn than any of the others. “One man of all the crew did not laugh when he scrambled out of the boxcar. He was First Mate Borden, who was caretaker of the steamer during its long stay in Miami harbor. All the way to Miami, Borden stood beside the door of the car, looking out, but apparently seeing nothing. ‘She was a daisy, a daisy and a lady’ he said. ‘I sure felt bad when she went down. I guess I’d have cried if I didn’t feel so ashamed. She...she...’ He grumbled something under his breath and swung off down the platform, his shoulders drooping.”<sup>19</sup> Captain Songdahl briefly spoke with the press and said he would return to New York as soon as all his men had been paid by representatives of the steamer’s owner, the advertising magnate Barron G. Collier. Songdahl worked for Collier for several years and had formerly been master of the S.S. *Collier County*, which had succeeded the *Queen of Nassau* on the Miami to Nassau route for a time in early 1925.<sup>20</sup> He attributed the vessel’s sinking to the rusting of the ship’s bottom which had advanced to such a degree that the engine’s vibration caused a plate to work loose.<sup>21</sup> Songdahl’s final words to the press were that he did not know if the vessel had been insured by Collier when they left Miami.<sup>22</sup>

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<sup>17</sup> *The Herald*, 4 July 1926, 4.

<sup>18</sup> *Ibid.*, 4.

<sup>19</sup> *Miami Daily News and Metropolis*, 4 July 1926, 2.

<sup>20</sup> *The Herald*, 4 July 1926, 4.

<sup>21</sup> *Ibid.*, 2.

Records show that there was no official inquiry into the *Queen of Nassau*'s sinking. A detailed search of the insurance records at Lloyd's of London also finds that there is no evidence the vessel was insured when it departed for its final voyage.<sup>23</sup> The only official record of the sinking is in *Lloyd's Wreck Records* and it merely states that the *Queen of Nassau, ex-Canada*, was lost 70 miles south of Miami on July 2, 1926.<sup>24</sup> Then it was as if the ship simply disappeared from the public record. Whatever the ultimate reason for the vessel's sinking, the ship that embodied Canada's naval aspirations at the turn of the century now lay forgotten on the seafloor off the Florida Keys.

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<sup>22</sup> *Miami Daily News and Metropolis*, 4 July 1926, 1.

<sup>23</sup> Lorenze, Jennifer. Conversations with author, April 2003.

<sup>24</sup> Lloyd's Register. *Lloyd's Register: 1925-1926*, Vol. II. (London: Lloyd's Register of Shipping, 1926).

## CHAPTER 4: BARRON GIFT COLLIER

In 1920, the *Canada* had gasped its last as a warship, but the aged vessel had one last role to play. Millionaire advertising magnate Barron Gift Collier would breathe new life into the ship when the two were brought together in 1924. The story of the man behind the *Canada*'s new incarnation is just as historically significant as the vessel herself.

After the turn-of-the-century, large, fast power yachts were in vogue with the American elite. The *Canada*'s lines closely matched vessels owned by Collier's peers and fellow New Yorker's W.K. Vanderbilt, S.R. Guggenheim, and Vincent Astor. A shrewd businessman, Collier recognized the *Canada*'s potential as a first-class passenger steamer. He had created a West Florida Empire comprised of hotels, railroads and steamships and the *Canada* was now the means to enter into the lucrative passenger service on Florida's East Coast. Refurbishing the vessel and renaming it *Queen of Nassau*, Collier brought the steamer into service between Nassau and Miami.

Collier was intimately involved with the *Queen of Nassau*, but "ship owner" was just one aspect of who he was. Collier was a powerhouse in the advertising world and was also an influential New York socialite. He championed charities, became New York's Special Deputy Police Commissioner, and was the founder of INTERPOL, an international police organization that still exists today. Out of that otherwise remarkable career, the *Queen of Nassau* would stand out as one of his only failures.

Barron Gift Collier was born a child of the South. His mother was Hannah Shackelford of South Carolina and his father was Cowles Miles Collier of Hampton,

Virginia. Barron's father was a career naval officer and a West Point graduate. A lieutenant in the U.S. Navy, Cowles resigned in 1861 when Virginia succeeded from the Union. Taking a commission as a 1st lieutenant in the Confederate States Army, Collier participated in the engagement at Harper's Ferry as well as several other Civil War battles. His expertise with gunpowder placed him at key positions in both the Augusta and Atlanta Arsenals and he spent the duration of the war as a full colonel commanding the works at Columbus, Georgia, on the banks of the Chattahoochee River. But the ravages of war stripped Cowles of his wealth and he was obliged to accept a business position in Memphis, Tennessee after its conclusion. Even though the job lay in an inland city, Cowles never lost his love of the sea. For the remainder of his life Cowles devoted much of his time to painting seascapes. Several of his works went on exhibition in New York City and Charleston where he was awarded medals in an exposition for water color.<sup>1</sup>

Barron Collier was born into genteel poverty on March 23, 1873. Collier was ambitious from a young age and by 15 he left school to try his hand at work. He began his career by becoming a messenger boy for the Illinois Central Railroad. Two years later Collier was awarded a contract from the city of Memphis to install and maintain street lamps in the city's suburbs. Collier had acquired the patents to an incandescent mantle lamp fueled by gasoline and had formed his own company, the Barron Collier Company. The company manufactured and installed the lamps, as well as employed a dozen workers who made the rounds every evening, lighting the lamps by hand.

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<sup>1</sup> Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

Collier had created a successful lighting business but he saw it as merely a stepping stone to fund greater projects. Collier had always enjoyed being a salesman. He knew that if he wanted to be successful in advertising he had to specialize in a type that no one had successfully done before. Collier decided after a trip to New York City, that people in most modern cities commonly congregated in street cars. While riding the elevated trains during his visit, he saw advertising cards placed behind glass frames hung in the cars. But these advertisements were dirty and illegible, and apparently became so quickly after being hung. On his way back to Memphis, Collier wondered why no one had solved this problem and decided to try. Collier's idea wasn't simply rooted in his good business sense, but in his practicality as well. He decided the best place to position his advertising cards was directly above the car's windows. The street car rider was still given an uninhibited view outside, but was unable to look out the window without seeing the advertisement card as well. The cards location also made it less susceptible to dirt and wear and tear because it was out of arms reach. At night the advertising effect was heightened because with no passing scenery to distract the rider, the advertisement became even more likely to capture their attention. Collier started with black and white advertising cards but the effect they created next to one another was that the print looked to run together and they appeared too much alike. Collier decided to make the advertising cards as artistic as possible to stand out, and added color to make the cards so attractive they became a source of entertainment as well as information.<sup>2</sup>

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<sup>2</sup> *Nations Business*, 1929. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

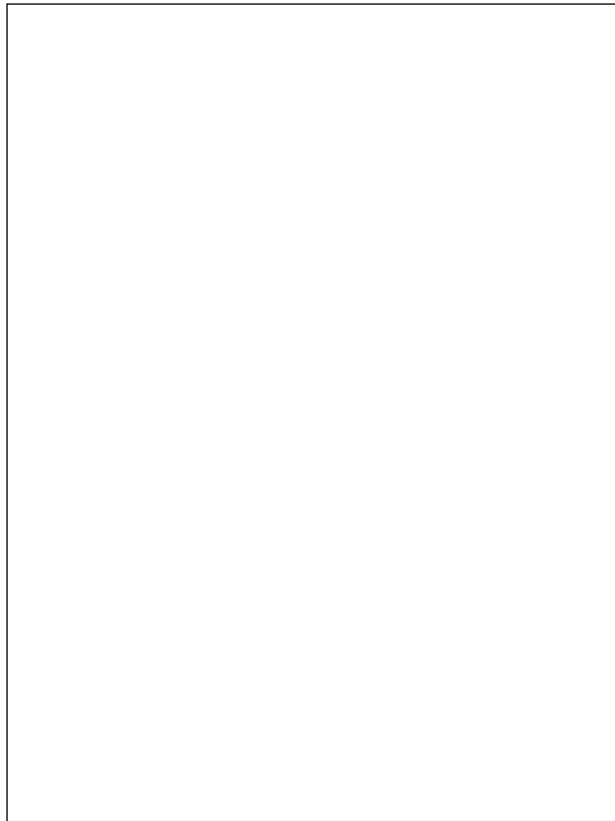


Figure 4.1 Barron Gift Collier in the 1920s (Courtesy of Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida).

At the time, Memphis still used horse drawn cars, but announced that its transportation system would soon be upgraded to electric traction cars. Collier immediately put his plan into action to sell his new advertising cards to the city's businessmen. Collier's advertising business was so small initially that he installed the advertising cards himself after business hours while the electric cars were in their barns. Collier had near instantaneous success and immediately began to think in terms of statewide and national expansion. Soon thereafter, Collier moved his headquarters to New York City and the Collier advertising empire began. In quick succession he founded the Street Railways Services, Inc, as well as the New York Subways Advertising

Company with offices in 70 cities and business interests in more than 1,000. Ten years after Collier left school he was a millionaire.<sup>3</sup>



Figure 4.2 Barron G. Collier, standing behind and to the right of his close friend President Franklin Delano Roosevelt, visits the oval office in the 1930's (Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida).

Collier's advertising empire granted him access to the great capitalist aristocrats of New York City. Collier spent time with the Duponts, he was a friend and backer of New York Governor Al Smith, and he attended church with John D. Rockefeller. Collier was also a long-time friend of Franklin Delano Roosevelt before and during his presidency. There is also evidence that Collier was instrumental in the reformation of the

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<sup>3</sup> Grace Leake, "Barron Collier: Success Story," *Hollands, the Magazine of the South* (April,

FBI that put J. Edgar Hoover at its head. Collier was now a major player in New York finance and he was able to influence deals and events whether it was to make money or to better the community.<sup>4</sup>

Soon Collier would make a trip that would bring the focus of his empire back to his roots in the South. Barron Collier visited Florida for the first time in 1911 at the request of his friend John Roach. Roach was the president of a northern street railway company and the owner of Useppa, a small island off the coast of Fort Myers, which is where Collier found himself vacationing as his friend's guest. Collier was so taken with Useppa and its lodge, the Useppa Inn, that by the end of the summer he bought the island and all of its holdings from Roach for \$100,000. This remote land acquisition was the beginning of Collier's Florida empire of resort hotels, railroads, and steamship lines.<sup>5</sup> The Useppa Inn would always remain Collier's favorite retreat in Florida and he returned there as often as he could. Collier frequently invited his close friends to visit at Useppa. One of those friends was Thomas Edison, an avid gardener who advised Collier how to grow the exotic plants that he enjoyed around his lodge, which can still be seen there today.<sup>6</sup>

Collier rapidly purchased more of Roach's Florida possessions including the Deep Lake Grove between Immokalee and Everglades as well as the Deep Lake to Everglades

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1935): 7-8. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

<sup>4</sup> *Naples Daily News*, 4 July 1976, 15.

<sup>5</sup> *Florida Indian Trail to Space Age* (Delray Beach, Florida: The Southern Publishing Company, 1965), 10. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

<sup>6</sup> Barron Collier Jr., "My Father," *The Timepiece* (Summer, 1980), 2-11. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

Railroad, a narrow gauge track that connected the grove to the tidewater area at Everglades. Collier owned several yachts and frequently cruised up and down the Florida Gulf coast looking for more land to purchase. He was so taken with the area and its possibilities for development that he bought the holdings for all the major land companies in the region. Collier began purchasing Florida land in earnest in 1921. By 1928, he owned more than a million acres of land. He was not only the largest land owner in western Florida, but was also the largest individual land owner in Lee and Hendry Counties.

Now that Collier owned the land, it was time to develop it. He realized that if he wanted his new Florida land development to be a success he would have to somehow link his holdings on the west coast to the wealth of Miami on the east coast. Collier appealed to the Florida state legislature to create a new county for his development and in exchange, Collier promised he would provide the funds himself to build a road linking Tampa to Miami. Collier cleverly conceived the name Tamiami Trail, which comes from linking the words Tampa and Miami. The legislature agreed and on July 9, 1923 a new county was carved out of southern Lee County and it was named after the mastermind behind the development of Southwest Florida, Collier County.

The Tamiami Trail was a massive undertaking requiring specialized equipment and engineering. Luckily for Collier, the U.S. government had just finished construction of the Panama Canal and Collier was able to purchase that very same equipment for pennies on the dollar. Using his government contacts, Collier quickly closed the deal,

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purchased the equipment, hired the engineers, and shipped everything to Southwest Florida.

A portion of the trail ran through the Everglades and had to be blasted out of solid limestone. The limestone was lifted and moved and the resulting hole formed a canal next to the road. The construction cost \$25,000 a mile, and a rail car load of dynamite was used every three weeks for three years to build 31 miles of road. The construction took 10,000 gallons of gasoline a week and it took 2,000 gallons of oil a month to run the heavy machinery. Southern Florida did not have the industrial infrastructure to support the Tamiami Trail project when it was first conceived by Collier, so Collier created it. He bought the nearby railroad and steamship lines and formed new ones to support his colossal undertaking. Collier developed a township at Everglades because of its close proximity to his Deep Lake Railroad which terminated at the deep water port of Chokoloskee Bay. This new township was also located at the mid point of the Tamiami Trail and therefore ideally situated to send men and supplies in either direction. For more than five years Collier built canals, railroads, highways, public buildings, hotels, wharves, docks, stores, and offices. He built an entire city at Everglades and it was here that Collier decided to put the county seat for the new empire he was carving out of the remote wilderness.<sup>7</sup>

Collier owned the Florida Railroad and Navigation Company. Its steamship division, the Collier Line, began in 1923 when Collier purchased the steamship *City of Everglades*. The Collier Line was an integral part of Collier's plans to develop

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<sup>7</sup> Collier, *The Timepiece*, 10.

Southwest Florida because it gave him control of the only means to move men and equipment to the remote construction area. In August of 1925 the line was expanded with the purchase of the Fort Myers Steamship Company. Through this purchase, Collier acquired the First Carson Street Terminal in Fort Myers, a deep water port on the Caloosahatchee River. This acquisition gave Collier the steamships *Royal Palm*, *I.W. Riggs*, and the yachts *Islander* and *Collier County*, as well as the terminal's wharf, warehouse, and offices. One year later, on July 11, 1926, the original buildings at the terminal burned to the ground. The Collier Line lost thousands of dollars in burned property and freight which was stored there awaiting shipment. All of the company's records were destroyed in the fire. Collier managed to rigidly maintain the shipping schedules by using a temporary dock and there was no interruption in service. An investigation showed that the fire was caused by the spontaneous combustion of gasoline stored in the warehouse and therefore all of the insurance claims were paid in full. Less than a year later a new handsome facility was built named Collier Terminal and this location became the headquarters of the Collier Line until it went out of business in the late twenties, a victim of Collier's successful creation of better highways and outside trucking competition.<sup>8</sup>

Collier's Florida empire carved out of the harsh wilderness was a feat of American ingenuity and know-how, but it would have been nearly impossible without his friendship and trust with the Seminole Indians. White men with trucks and engineers could build the road, but only the Indians had the skills to clear the way. Collier made a

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deal with the principal Seminole leader, Josie Billie, that when the road was completed and Collier's buses ran on it, any Seminole could ride the bus for free. All a Seminole would have to do was stand by the road and a passing bus would stop to pick him up. When the Seminole was ready to get off the bus, he simply tapped the bus driver on the shoulder and the bus stopped.<sup>9</sup> Collier's treatment of the Seminoles as equals and not second-hand citizens spurred the Seminole to assist in the project. Collier took this a step further by announcing that any Seminole in Collier County who wished to purchase merchandise at a local store would be given that merchandise by applying to the manager. If the Seminole couldn't pay, Collier would. Collier instilled so much trust in the Seminole that they caused quite a sensation by opening checking accounts in one of Collier's banks. This was a great leap of faith in a native people who had recently waged war for decades against the United States government.

In 1924, Collier established a second steamship company in Florida, but it had a very different purpose. The Florida Inter-Island Steamship Company was created to take advantage of the incredible wealth that flocked to Miami in the winter months to retreat from the Northeast chill. The privileged families of New York would often travel down to Miami in their private yachts to bask in the warm sun. The Florida Inter-Island Steamship Company catered to this crowd and ran exclusively between Miami and Nassau in the Bahamas, offering only first-class service, no freight and no second-class.

The first vessel Collier put into service on this route was the former Canadian naval vessel, *Canada*. There were two reasons Collier selected *Canada*. The first was

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<sup>8</sup> *Fort Myers Tropical News*, 25 April 1928, 1.

that it closely resembled the naval destroyer style yachts favored by the ultra wealthy after the turn-of-the-century. The second was that Collier knew a good deal when he saw one and he was able to purchase *Canada* for one quarter of its asking price from the Canadian government and convert the naval vessel into a first-class passenger steamer for a fraction of the cost of purchasing a new yacht. Collier refurbished the vessel and renamed it the *Queen of Nassau*.

Ever since the *Turbinia*'s 35-knot dash through the Royal Navy's Review at Spithead in 1897, this new style of vessel became the height of fashion for America's privileged class. Unlike the traditional clipper style yachts, these new vessels were fast, expensive, and had limited passenger accommodations. Collier was a member of the New York Yacht Club and would have undoubtedly been influenced by W.K. Vanderbilt's 143-foot-long turbine powered *Tarantula*. Indeed, Collier owned several torpedo-boat destroyer style yachts including the 126-foot *Pocantino* and the famous 141-foot *Winchester*, renamed *Aera*, formerly owned by Vanderbilt. Several of Collier's New York contemporaries owned vessels that were very similar in appearance to the *Canada* including S.R. Guggenheim's 205-foot *Trillora*, former *Winchester III*, and the 225-foot *Winchester IV* owned at different times by Vincent Astor, Russell A. Alger, and Cornelius Vanderbilt.

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<sup>9</sup> Collier, *The Timepiece*, 10.



Figure 4.3 Collier's steam yacht *Aera* (former *Winchester I*) in the Hudson River (Courtesy of The Mariners' Museum).

It should be noted that the *Canada* was not the first former naval vessel bought by Collier and converted into a personal yacht. The *Pocantino* began its life as the yacht *Cigarette*, but was later used by the U.S. Navy during World War I as a submarine chaser. Collier purchased the vessel in 1921 after the war's conclusion at a much reduced rate and refurbished it for luxurious travel. This was a tactic also used by Collier's contemporaries who desired the sleek new vessels. The series of *Winchester* vessels built by P.W. Rouss pushed the torpedo-boat destroyer style yacht design to its limit and were sought after by navies as coastal patrol vessels. In fact, the designs so closely resembled naval destroyers that *Winchester II* was purchased by the Columbian Navy in 1938 where it served for 17 years. Guggenheim bought the former *Winchester III* from the Canadian Navy who utilized it as HMCS *Grilse* during World War I. Astor, Alger, and

Vanderbilt's *Winchester IV* fought in two wars, serving the U.S. Navy in World War I and the Canadian Navy in World War II becoming HMCS *Renard*.<sup>10</sup>

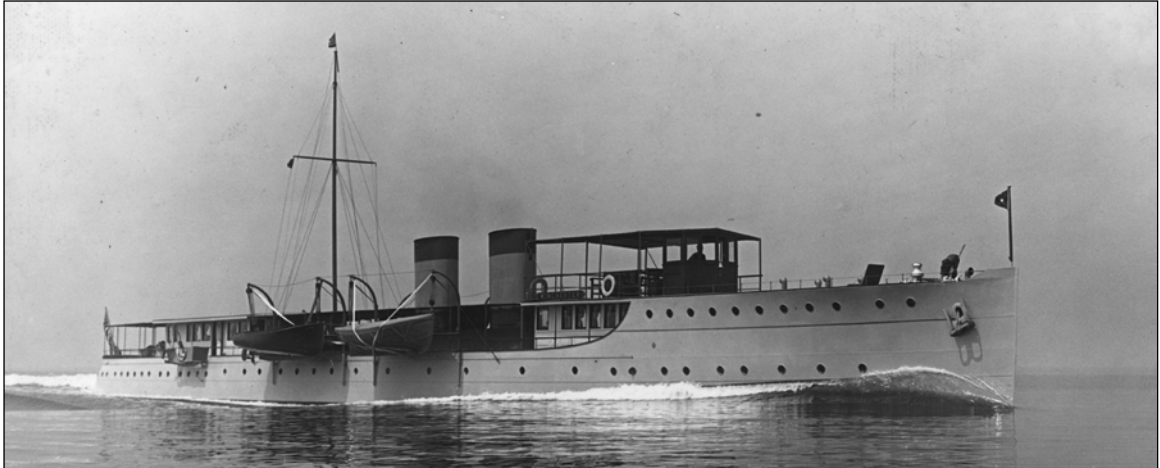


Figure 4.4 The steam yacht *Winchester IV* (Courtesy of The Mariners' Museum).

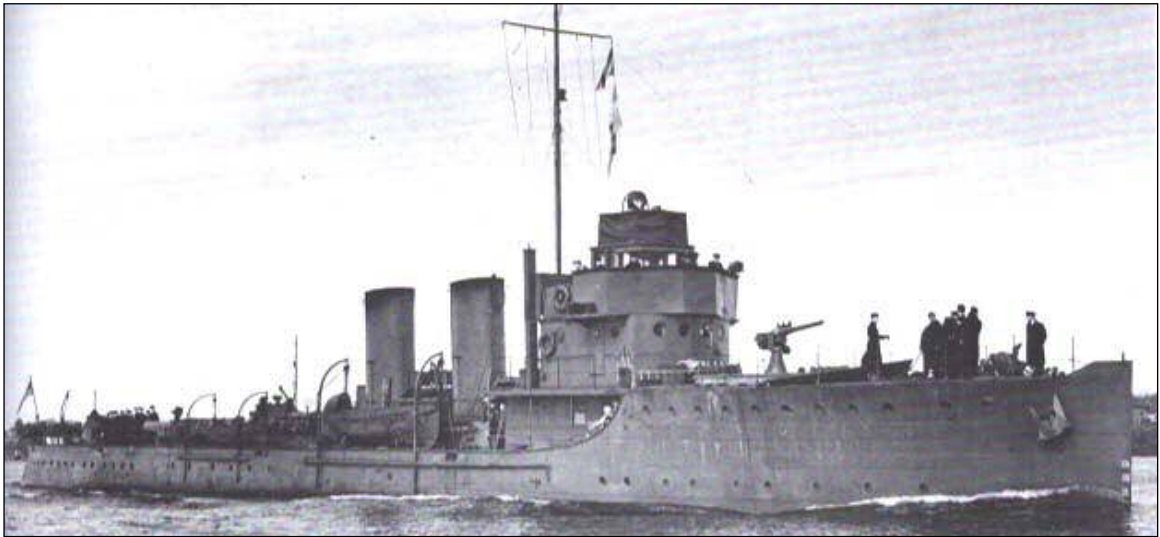


Figure 4.5 The *Winchester IV* as the HMCS *Renard* during World War II (Ken Macpherson and John Burgess, *The Ships of Canada's Naval Forces* (St. Catharines, Ontario: Vanwell Publishing Ltd., 1994)).

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<sup>10</sup> Erik Hofman, *The Steam Yachts: An Era of Elegance* (Tuckahoe, New York: J. De Graff, 1970), 104-219.

Collier loved spending time on his yachts and would often use them to travel between his offices in New York and his developments in Florida. Because he worked non-stop he made use of his travel time by taking his office with him wherever he went. His entourage would fill his vessel to capacity or fill a private rail car if he chose to take the train. His traveling staff included financial experts, aides, and secretaries. If Collier had an enormous amount of correspondence, he would bring extra secretaries to take dictation. When the work was finished, they disembarked and returned to New York. Of course, his yachts were more than mobile offices. They were fast, sleek, and in the case of his beloved 99-foot *Baroness* based in Florida, a way to view his Florida holdings and scout out new locations while still enjoying his favorite mode of transportation.<sup>11</sup>

Barron Collier's personal interests were not limited to yachting. He supported public service and worked to improve the community. Collier was the Vice President of the Camp Fire Girls. He was the President of the Boy Scouts Federation of Greater New York, and a director of the National Boy Scouts of America. He also spent \$30,000 of his own money in public schools to promote safety and cut down fatalities among children.

From 1922-1925 Collier was appointed New York Special Deputy Police Commissioner in charge of the Bureau of Public Safety. New York's streets were incredibly dangerous during the early 1920's and Collier was assigned to educate the public about traffic safety to reduce the number of traffic deaths that plagued the city. New York had an average of 20-25 traffic fatalities per week and in 1921 that year's total

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<sup>11</sup> *Naples Daily News*, 4 July 1976, 6.

came to over one thousand deaths.<sup>12</sup> In the early 1900's, the motor car increased in availability and affordability, leading to a surge in ownership among the middle class. American cities did not know how to deal with those numbers on the road in an orderly manner. It was Barron Collier who came up with the idea to paint white and yellow lines down the middle of the street to divide traffic. Before this concept, cars drove wherever they pleased without any rhyme or reason. Collier was able to experiment with his traffic dividing theory on his land holdings in central Florida where he perfected it before it was unveiled in New York City.<sup>13</sup>

Collier took his position as Special Deputy Police Commissioner seriously, but that did not stop his infectious good humor from spilling over into his work. He considered jay-walking to be a great hazard to public safety. To combat it he used his advertising prowess and invented "Aunty J. Walker", a small police woman wearing a bonnet and holding a night stick. Collier created a series of posters with Aunty admonishing pedestrians to stop jay-walking. They were so successful that other cities began copying his techniques.<sup>14</sup> The character gave a touch of humor to a serious message that even children could understand. In Collier's words, "People must be led good humouredly into the realm of safety rather than be scared into it."<sup>15</sup>

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<sup>12</sup> Leakey, *Hollands*, 7.

<sup>13</sup> Collier, *The Timepiece*, 12.

<sup>14</sup> Leakey, *Hollands*, 9.

<sup>15</sup> *National Magazine: Mostly About People*, 297. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

During his tenure as commissioner Collier was concerned about every aspect of public safety on New York's streets, and that even included the length of women's skirts. The length of a skirt might appear to be a trifling matter to the average laymen, but Collier saw an area for improvement. "I'm for the short skirt from a safety standpoint. The short skirt enables women to move more easily and quickly on the streets. It helps women to get more readily into vehicles. The old trailing skirt is a breeder of diseases that menace public safety. If both extremes of shortness and length can be avoided public safety will be greatly benefited. Surely there is a lack of public safety when women's skirts are so short some man falls in a coal hole looking at them!"<sup>16</sup> Collier relished his position and that same animation was reflected in his advertising campaign for Public Safety. The campaign for the city was a great success and the amount of traffic fatalities were significantly reduced during his tenure. In fact, Collier was so well liked and his efforts so successful in New York that heads of other police departments in the United States and Europe often visited him to ask his advice. But Collier's success and fame earned him a bit of immunity from his own safety rules. According to *Time Magazine* in 1933, Collier was known to enjoy speeding past traffic cops in Manhattan, his elevated position granting him certain unspoken privileges.<sup>17</sup>

While working with the police in New York City, Collier became interested in their methods of investigation. He was greatly impressed by the amount of red tape connected with the exchange of criminal information between different countries. Collier sought to solve the problem by creating an international police. When the European

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<sup>16</sup> *The Evening Telegram-New York*, Sunday, 8 October 1922.

International Criminal Police Commission met in Paris in 1931, Collier brought over police officials from its American counterpart to attend the meeting as well. This gesture helped to lay the groundwork for consolidating all of the groups. In 1933 the International Criminal Police Conference met in Chicago and Collier repeated his actions, but this time brought a group of European police officials over to the American meeting. These two meetings were the first time that American and European police officials sat down together to share information and ideas. Collier compared law enforcement to running a business, “For police executives of the world’s large cities to know each other, to sit down at a table and discuss mutual problems and methods pertaining to efficient police work throughout the world is just as important as it is for a board of directors of a great corporation to sit down and discuss its problems and policies.”<sup>18</sup> Collier’s international world police force became a reality with these meetings and today the organization is known by another name, INTERPOL.

This new organization that combined police powers across the globe had no real police powers in itself, but it made a significant leap forward in tracking down international criminals. Its purpose was to share information, facilitate extradition, improve police methods, and act as a general service bureau for police officials in all countries. It became a clearing house to break down the barriers of red tape that had previously slowed police seeking criminals in other countries. It also made it much easier to identify criminals and made their ability to escape more difficult. These tools

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<sup>17</sup> *Time Magazine*, 12 June 1933.

were especially helpful in international problems including the white-slave trade and narcotics smuggling. Collier believed that the more one investigated crime, the more one found that it led back to drug trafficking.<sup>19</sup>

Collier's involvement in international law enforcement had far reaching implications and he was held in high esteem by several nations for his contributions. The head of the Austrian Police, Johann Schober, who later became Vice Chancellor of the Republic of Austria, awarded Collier the Great Silver Cross of Merit of the Republic of Austria in recognition of his assistance to the country.<sup>20</sup> Collier was also honored with the Chevalier Order of the Crown of Italy, Chevalier of the Order of the Crown of Belgium, the Certificate of La Solidaridad of the Republic of Panama, Order of the Red Cross of Esthonia, Order of Pro Georgia Libertate (Republic of Georgia), Order of the Crown of Rumania, Compagnon Grand Croix Order of St. Lazare (France), Yellow Cross of Dedication (Portugal), Star and Badge (Spain), and granted membership in the Pontifical Academy of Tiberina. In the United States Collier was awarded the honorary degree of doctor of commerce science by Oglethorpe University for his contribution to advertising and commerce.<sup>21</sup>

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<sup>18</sup> *The Literary Digest*, 18 August 1934. Collier County Collection, Collier County Museum, Haldeman Library, Naples, Florida.

<sup>19</sup> Ibid.

<sup>20</sup> Leakey, *Hollands*, 11.

<sup>21</sup> *The Constitution*, Atlanta, Georgia., 17 May 1931, 3.

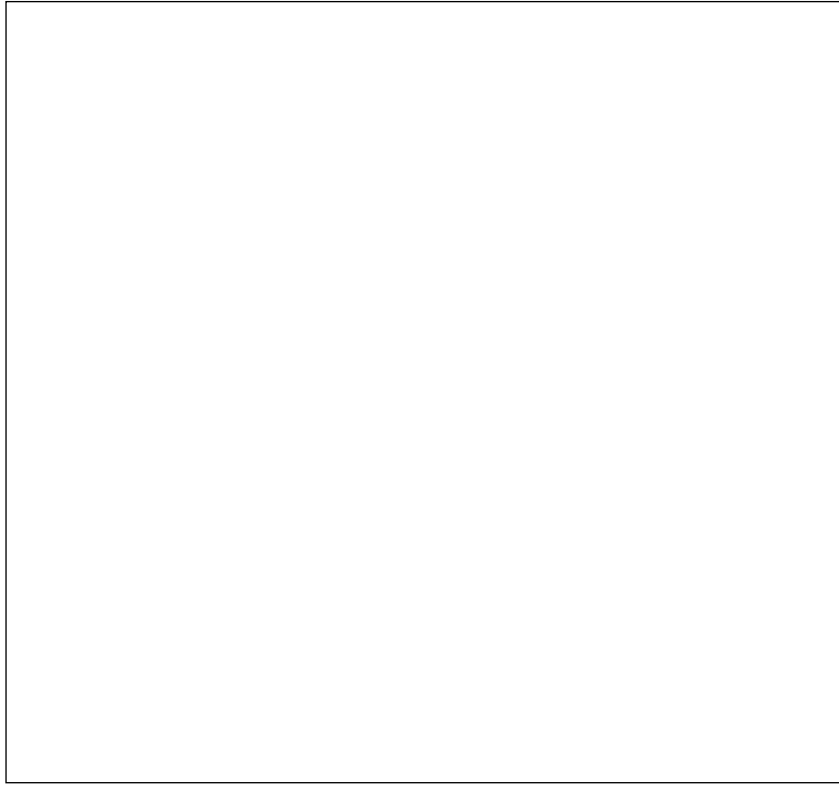


Figure 4.6 Collier awarded Austria's Silver Cross of Merit in 1931 (*The New York Sun*, 16 June, 1931).

Barron Collier's health began to fail him in 1928, but he lived on for another 11 years. Collier was vacationing at his much beloved Useppa Island when he was overcome by a fatal illness. His doctors rushed down from New York to care for him and decided to move Collier back to the New York Medical Center where he would receive better care. The expert treatment provided in New York, however, could not hold back the inevitable. Barron Gift Collier died on March 13, 1939 from a heart attack. At the time of his death Collier was the largest land owner in Florida and his flagship company

Baron G. Collier, Inc. controlled most of the subway, elevated and street car advertising in the country. He was survived by his wife and three sons.<sup>22</sup>

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<sup>22</sup> *New York World-Telegram*, 14 March 1939, 2.

## CHAPTER 5: SITE DOCUMENTATION

In the summer of 2001, divers from the Association of Underwater Explorers (AUE) located a large shipwreck off Lower Matecumbe Key within the National Oceanic and Atmospheric Administration's (NOAA) Florida Keys National Marine Sanctuary. The wreck, sits upright in 230 feet of water. It was found remarkably intact with an abundance of clearly visible artifacts. Recognizing the significance of this find, AUE reported the site to NOAA's Florida Keys National Marine Sanctuary upper region manager, Lieutenant David Score.

This particular site was a favorite fishing spot and its location was guarded by local charter boats who knew it as the "220 Wreck." Until recently the site was unknown to divers because it was not marked on any nautical chart or map. Fishermen knew of the site by word of mouth alone. In the 1990's, local divers investigated the site but poor visibility and the fact it was obviously a modern vessel and not a Spanish galleon dissuaded locals from paying the expensive helium breathing gas fees to explore the site further.<sup>1</sup>

AUE and its leader Mike Barnette dived the site in early 2001 after getting the coordinates from local fishermen. Once on the wreck the divers quickly realized there was something unusual about it. Rather than a filleted and crumbling hulk, Barnette found a completely intact vessel with a very long, thin hull sitting atop the sand with a very pronounced ram bow. Barnette had volunteered for several years on the NOAA expeditions to the *Monitor* National Marine Sanctuary, which gave him enough basic

understanding of ship construction and archaeological protocols to recognize that this particular vessel was possibly significant and warranted further study. Barnette reported his find to Florida Keys National Marine Sanctuary officials whose interest was peaked by the vessel's unusual features.

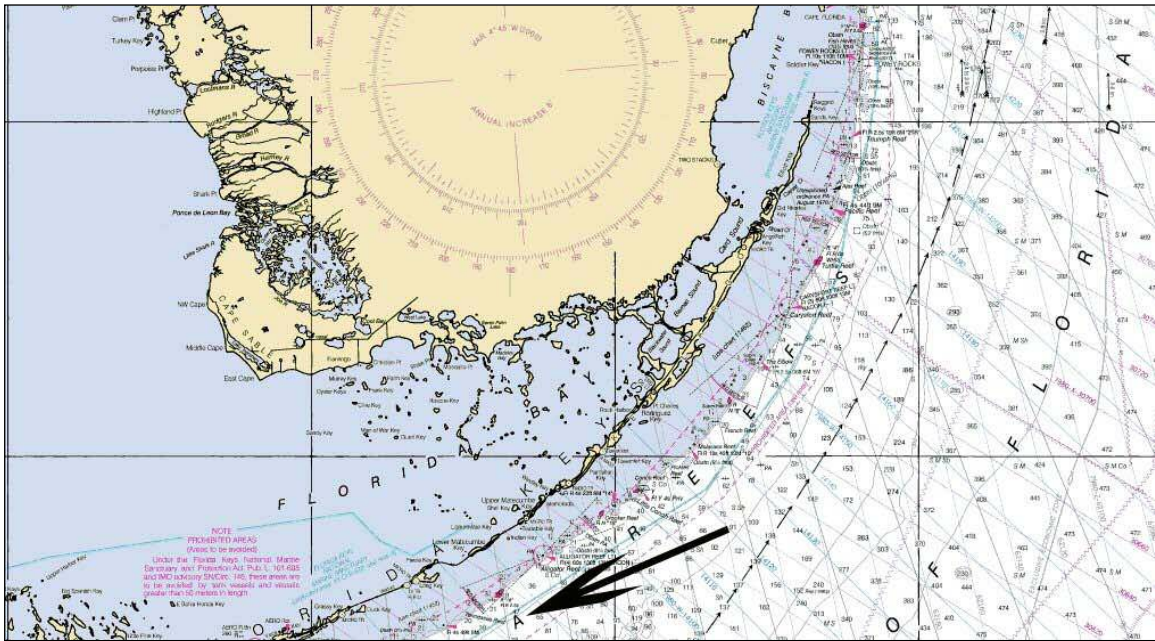


Figure 5.1 The arrow illustrates the shipwreck's location off the Florida Keys and within NOAA's Florida Keys National Marine Sanctuary (Courtesy of NOAA).

### 2001 Field Season

After the completion of the 2001 *Monitor* field season, and in consultation with the National Marine Sanctuary Program's senior archaeologist Bruce Terrell, funds were made available from the Florida Keys National Marine Sanctuary to conduct a survey of the site. Led by archaeologist Tane Casserley from NOAA's Maritime Archaeology Center in Newport News, Virginia, the first expedition to the site was a phase II non-

<sup>1</sup> Otto Rutten, Conversations with the author, 2002.

intrusive survey launched October 13-15, 2001. The focus of the survey was a shipwreck that lay in 230 feet of water, approximately 7 miles from Lower Metacumbe Key within the Florida Keys National Marine Sanctuary. The purpose of the survey was to map and document the shipwreck, assess its historical significance, and attempt to identify the vessel. To meet these goals and because of the depth involved, scientific divers from the *Monitor* 2001 Expedition were reassembled for the project. Participating divers came from the Association of Underwater Explorers, East Carolina University, the National Undersea Research Center at the University of North Carolina at Wilmington, and NOAA's Maritime Archaeology Center.

### ***Hull***

The ship rests upright with a slight list to starboard on a powder-like sand bottom. The intact hull extends approximately 3 feet above the sand at the bow. From that point to just before the stern, the lower hull sits in the sand. The shipwreck measures 198 feet along the main deck from bow to stern with a 23.8-foot beam at its widest point amidships. The hull was completely intact with no visible breaks or damage. An unusual aspect of the hull was the ram bow, which begins plumb, then juts sharply forward. The superstructure above the weather deck was completely removed or has collapsed. The only relief on the weather deck was the lifeboat davits. No engine stacks were located and the divers were unable to discern what type of fuel or engine powered the vessel. The compartments in the center of the vessel were intact with some of the artifact assemblages contained within. All of the lower portholes were still in place. The cargo

holds and lower decks appeared to be filled with sediment, but were not penetrated to verify this observation. The starboard shaft and propeller were missing. The port shaft and propeller were present, however, the port propeller was missing a blade. No other visible damage was observed.

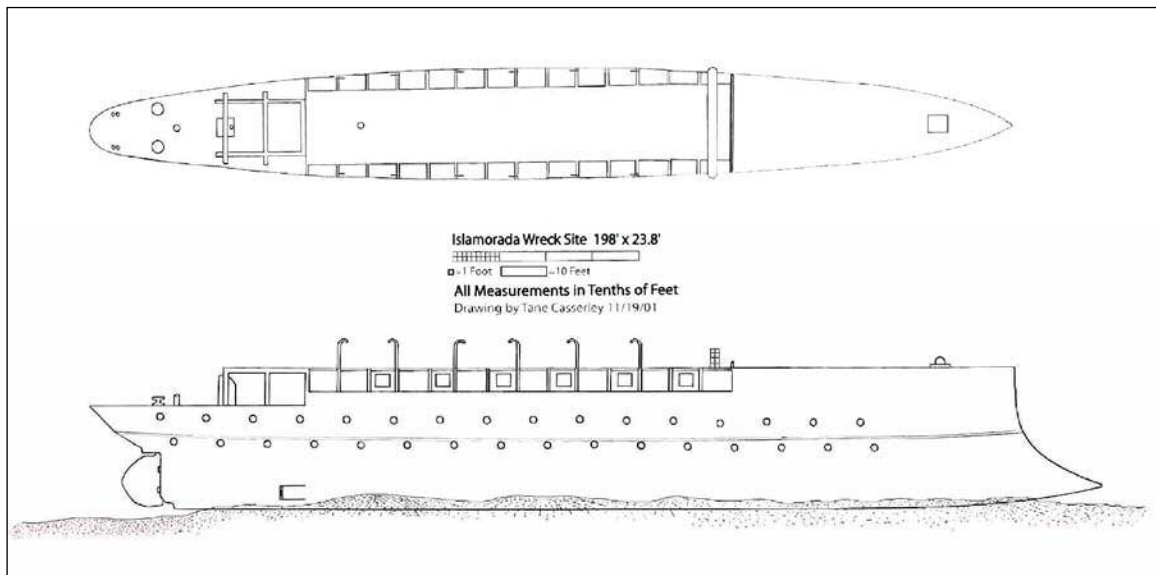


Figure 5.2 The 2001 site plan. Plan view generated from measurements. Starboard side profile generated from video documentation.

### ***Methodology***

The archaeological methodology included digital video/photo documentation, observations and measurements. Measurements of the vessel's length were taken along the main deck from bow to stern. For every 20 feet of length, a beam measurement was taken. The unusual ram bow was documented by dropping a tape measure plumb off the tip of the bow to 13.5 feet, where it abruptly juts forward. Diagnostic features were also recorded as they were encountered during the survey. A video survey was conducted by a diver-controlled digital video camera which was pulled by Diver Propulsion Vehicle

(DPV) in transects from bow to stern over the shipwreck. The camera and DPV were kept at a constant depth using a digital depth gauge to ensure the consistency of the images' scale in documenting the site. Two artifacts were recovered and mapped in relation to the site using trilateration and recorded *in situ*. The recovered artifacts were wrapped in cloth, placed in a water-filled container, transferred to the primary dive vessel, stored in a secure and shaded location, and kept wet until they were returned to the Florida Keys National Marine Sanctuary office for conservation.

The dive team recorded the length and beam of the vessel at 198 feet and 23.8 feet respectively by pulling a tape measure flush with the top of the hull. Diagnostic features were recorded by video and diver observations, but the bow was the only observed feature that might clarify the vessel's identity. Divers also observed that the hull was riveted steel rather than welded steel, which indicates a construction date possibly around 1890 or shortly thereafter. Welded steel did not become commonplace in ship construction until World War II. The ram bow, the riveted hull, and the vessel's narrow dimensions point to the design of an early steel warship, perhaps a U.S. revenue cutter, but more research was needed. A plan view map of the site was generated which would aid in identifying the vessel and would be updated as future surveys are conducted.

An attempt to locate the vessel's name on the bow and stern was unsuccessful because of marine fouling. The vessel's power plant was also a mystery. Divers did not penetrate the hull because of the risk of the fine sediment becoming suspended and reducing visibility to an unsafe degree. They did, however, notice circular holes evenly dispersed along the outer main deck walkways that may have been coalscuttles. The port

shaft and propeller were present, but missing a blade. The starboard shaft and propeller were completely missing and appeared to be no where in the immediate vicinity. The fact that the vessel originally had two propeller shafts suggests that the vessel had two engines, but those features require further investigation.

### *Artifacts*

Easily identifiable artifacts were located in several areas on the shipwreck. Sounding weights and machinery were located in the first compartment on the port side bow. An engine order telegraph was found underneath both the starboard and port sides of the bridge wings. A toilet and sink were lying next to the telegraph on the starboard side. An intact mast light was lying on the weather deck 120.2 feet from the bow. A deck light was located on the walkway of the starboard main deck approximately 90 feet from the bow. Approximately 10 feet past this light, the ship's galley was found complete with an intact stove. The stove appeared to be fired by wood or coal because of the doors and exhaust chimney. These artifacts were lying on the deck of the vessel and were located without any penetration of the hull or sediment disturbance.

Lying in the powder-like sediment of the starboard debris field were several artifacts and some dislodged equipment. Amidships, a binnacle and compass were documented. Both were in excellent condition with the glass still intact. Further aft, two large bronze propellers were found. They appeared to be in good condition and were most likely spares. Toward the starboard stern, a bell shaped object was found and documented. This unidentified object was very light and in a poor state of preservation.

Two ceramic artifacts were recovered for diagnostic purposes during the project. A broken ceramic plate was recovered from the bow and an intact, small ceramic pitcher was recovered from the aft port side capstan. Both artifacts had maker's marks and diagnostic features that would aid in dating the shipwreck. Current analysis identified the ceramics as dating to approximately 1923.<sup>2</sup> During a previous dive, AUE divers had moved both artifacts from their original location in the starboard debris field and relocated them in the shipwreck.

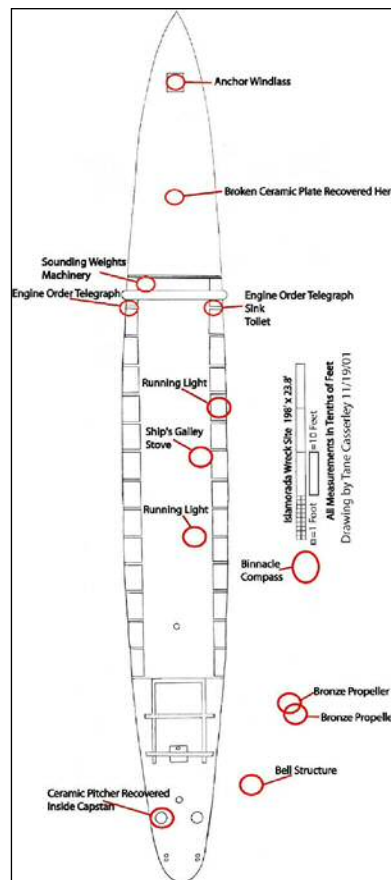


Figure 5.3 Site map and artifact locations.

<sup>2</sup> Lois Lehner, *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay* (Paducah, Kentucky: Collector Books/Schroeder Publishing Co., Inc., 1988), 153-154.

### ***2001 Results***

Current research identified this shipwreck as the only representation of its type existing in such an excellent state of preservation. The shipwreck's riveted steel construction, ram bow, and high (10:1) length-to-beam ratio most likely pointed to an early steel warship dating to the turn of the century. However, it was unknown at the time in what capacity the vessel operated before it sank. The shipwreck sat upright on the seafloor with an undamaged hull and intact artifact assemblage. These factors made this an unprecedented site for archaeological and historic research.

The 2001 survey determined the site was eligible for nomination to the National Register of Historic Places by meeting two of the four (A-D) significance criteria outlined by the National Park Service. This site qualified under Criterion C, which states the vessel must “embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.” Within Criterion C, the shipwreck qualified under the subcategory of architecture, which states, “the vessel is a good representation of a specific type of naval architecture...or is the only representative of the type.” The site also qualified for nomination under Criterion D that states, “a vessel is significant if she has yielded or is likely to yield information important to history, i.e., the physical characteristics (or remains) of the vessel provide important information about her use, method of construction, and operation.”

From the conclusions made during this survey, Casserley recommended that the site receive immediate attention because of its possible historical significance and for the protection of its associated artifacts. The shipwreck had been posted on the internet with a detailed description of its contents, an advertisement that would undoubtedly attract other divers and souvenir hunters. In order to ensure that the site was preserved, the following steps were recommended before the site was disturbed further and diagnostic artifacts disappeared.

The following is a list of recommendations for the future:

1. A side-scan-sonar and magnetometer survey of the site to locate possible scattered debris and artifacts associated with the sinking
2. The complete mapping of the site with plan and profile views, including:
  - the penetration and mapping of the compartments and holds, as well as counting portholes to aid in identifying the vessel
  - documentation of artifacts that remain on the site which would aid in identifying the vessel by their design and manufacturing nameplates
  - the use of a minimum of three digital video cameras and two still cameras with underwater housing rated for the depth of the site
3. The recovery and conservation of artifacts that are historically significant, represent a unique type, duplicative objects, or endangered if left *in situ*

4. The immediate nomination of the site to the National Register of Historic  
Places

\*A comprehensive survey should consist of at least three weeks of on-site time to conduct fieldwork. A survey should also have a minimum of two on-site scientists to record data and artifacts.

### Historical Research

After the 2001 survey was completed, it was followed by historical research directed by the conclusions made from the fieldwork. The majority of the historical research was conducted at The Mariners' Museum's research library in Newport News, Virginia, utilizing both its photographic and archival collections. Since the vessel's name was not ascertained during the initial survey, the dimensions of the vessel's hull and its diagnostic features dictated the historical and archival research. The vessel's recorded dimensions of 198 feet by 24 feet indicate a high (10:1) length to beam ratio. This ratio is consistent with vessels made for speed, not cargo capacity. This ratio was also most famously used by Confederate blockade runners during the U.S. Civil War. These vessels were lightly armed and built to use speed rather than armament to slip past the U.S. Navy's blockade. The shipwreck also had a ram bow which was used nearly exclusively on warships from the 1880's to the early 1900's. The vessel's steel rather than iron construction signified a probable construction date after the late 1880's when the price of steel dropped dramatically as technological improvements in the refining process allowed a smaller weight of steel plate to be used in ship construction. By 1888 most commercial shipyards followed the Admiralty's lead by abandoning iron for steel construction. The hull of the vessel was riveted rather than welded which indicated it was a pre-World War II vessel, during which time welded steel became standard practice in ship construction.<sup>3</sup>

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<sup>3</sup> David K. Brown, *Warrior to Dreadnought: Warship Development 1860-1905* (London: Chatham Publishing, 1997), 22-75.

The information gathered from the maker's marks on the ceramic plate and pitcher recovered from the site concurred with the possible dates of the vessel's construction. The maker's mark on the bottom of the ceramic pitcher was from the Ohio Pottery Company, which was in operation from 1900 to 1923. Ohio Pottery made chemical items when it began and added hotel ware and a true hard paste dinnerware line around 1918-1920. The Ohio Pottery Company sold large quantities of blanks for decoration and it was one of the very few American firms that made porcelain of European quality and could still price competitively. In 1923, the company was sold and the company logo changed. The Bowman mark on the bottom of the ceramic plate was from the George H. Bowman Company, also known as the Cleveland China Company from Cleveland, Ohio. It was a distributing company that operated a jobbing and import concern in connection with a large retail store in Cleveland. The Cleveland China or Bowman marks can be found on all types of dishes from fine, thin vitrified china to hotel ware and semi-porcelain. The Bowman Company or Cleveland China Company was in operation from the 1890's until the 1930's.<sup>4</sup>

After examining all of the evidence from the 2001 fieldwork, it was concluded that the shipwreck site in question was an early steel warship dating to the late nineteenth or early twentieth century. From the diagnostic evidence of the recovered ceramics, a supposition could also be made from the Ohio Pottery Company logo that the vessel sank sometime after 1923. The vessel's undamaged hull and intact artifact assemblage also made it an ideal site for archaeological and historic research. The 2001 survey concluded

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<sup>4</sup> Lehner, *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain, and Clay*, 153-154.

that the vessel was historically significant but did not identify the vessel, its nationality, or in what capacity the vessel was operating under when it sank.

A search was begun combing through the *Jane's Fighting Ships* series from 1899 through 1930, but no single vessel matched all of the diagnostic features found on the wreck site. Reference books on U.S. Revenue Cutters were also searched because the shipwreck's profile was very similar to these turn of the century vessels, or Great Lakes destroyers as they were known. The ceramics recovered from the site were also sourced to companies in the Great Lakes region. The revenue cutters, however, were longer and had a much wider beam than the shipwreck in question and thus revenue cutters were ruled out.<sup>5</sup>

An important diagnostic construction feature on the ship was the ram bow. The ram bow design became prevalent in steam warships beginning in 1862 when the ironclad CSS *Virginia* rammed and sank the USS *Cumberland* during the U.S. Civil War, and later in 1866 at the Battle of Lissa when the Austrians successfully used their ironclad rams against the Italians in what is said to be history's first battle of ironclad fleets. Afterwards, warships were built specifically for ramming, but almost every subsequent attempt to use the ram to sink another vessel was unsuccessful. In fact, in several instances the attacker was damaged more than the victim. With the advent of steam engines a vessel could maneuver out of the way of an approaching ship bent on ramming, and with the advancement of naval artillery an approaching enemy could be

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<sup>5</sup> Donald L. Canney, *U.S. Coast Guard and Revenue Cutters, 1790-1935* (Annapolis: Naval Institute Press, 1995), 1-118.

destroyed well before it came anywhere near its intended target.<sup>6</sup> Despite these developments, the ram bow design endured for another 40 years buoyed by the CSS *Virginia*'s and the Austrian successes.

Ramming was one use for the ram bow, hydrodynamics was another. In 1867 British engineer William Froude experimented with varying hull designs and tested the different shapes' resistance through the water. Froude was intrigued by water birds swimming with high velocity but with what appeared to be very little resistance. Froude theorized that abnormal shapes underneath the water line, like a birds bulging chest, would have less resistance at higher speeds than the wave-line form that had been used traditionally in ship construction. Using a pair of six foot models known as the *Raven* (traditional bow) and the *Swan* (bulbous bow) towed behind a steam launch on the River Dart, Froude tested his theory.<sup>7</sup> Froude found that the *Raven*'s bow shape created a local pressure disturbance at the bow which was responsible for a majority of the pressure drag and therefore reduced the *Raven*'s speed. The *Swan*'s bow which projected underneath the water line was quite different. The projecting bow created a small wave and in its hollow, the true bow made a second bow wave that neutralized the first, therefore giving the shape much less resistance as it moved through the water, especially at higher speeds. Froude's experiments were the precursor to the late nineteenth century warship ram bows, the ultimate form of which was incorporated into the design of the American

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<sup>6</sup> J.R. Hill, editor, *The Oxford Illustrated History of the Royal Navy* (Oxford: Oxford University Press, 1995), 217-218.

<sup>7</sup> A.D. Duckworth, editor, *The Papers of William Froude 1810-1879* (London: The Institution of Naval Architects, 1955), 131-133.

battleship USS *Delaware* in 1907. The outstanding performance of that vessel was largely attributed to its bulbous ram bow. The experiments that Froude began in 1867 have evolved into the bulbous bows that are used in both naval and commercial vessels today.<sup>8</sup>

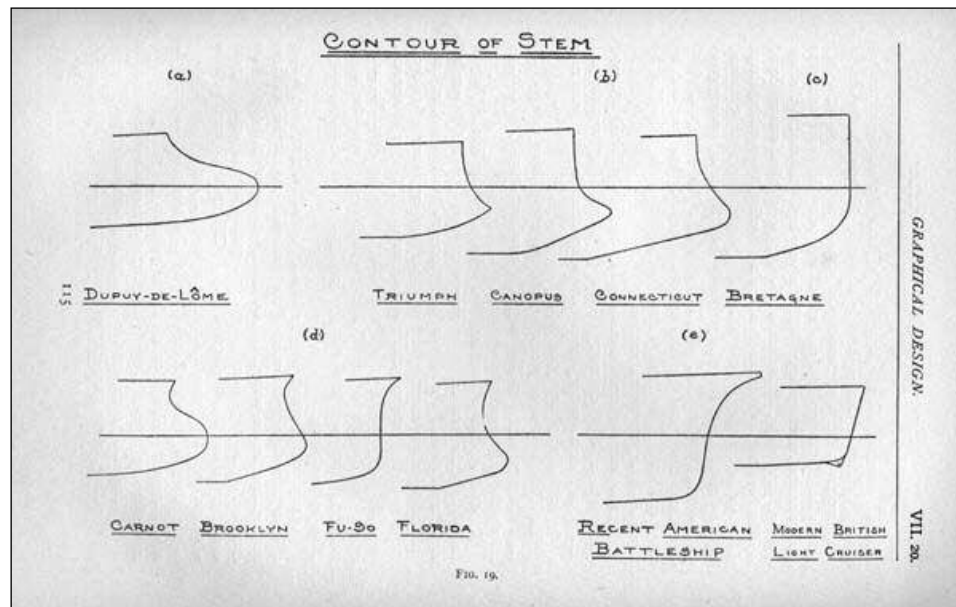


Figure 5.4 Diagram depicting different nationalities stem designs. The wreck under investigation most closely resembles the HMS *Triumph*'s stem (William Hovgaard, *General Design of Warships*, (New York, New York: Spon and Chamberlain, 1920)).

At the turn of the century the major naval powers each had their own particular warship designs. France, the United States, Great Britain, and Germany all had slightly different interpretations of the same basic features. Therefore, it was possible during this time to look at a warship's construction features and from those features infer where the vessel originated. The ram bow design that most closely resembles the shipwreck under

<sup>8</sup> Harold E. Saunders, *Hydrodynamics In Ship Design* (New York, NY: The Society of Naval Architects and Marine Engineers, 1957), 268-269.

investigation is from Great Britain, specifically the HMS *Triumph* a Royal Navy cruiser built in 1903. The *Triumph*'s classic destroyer-type stern was also very similar to the wreck. A destroyer stern is one in which the lower hull tapers to a knife's edge and extends aft beyond the main deck. The wreck's stern had these same construction features.<sup>9</sup>

After concluding the wreck had a high probability of originating from Great Britain, another search was done through *Jane's Fighting Ships*, this time focusing exclusively on warships built under the British Admiralty's oversight. These vessels belonged to the Royal Navy as well as the Dominions of Australia, New Zealand, and Canada. After 1900, the Royal Navy operated vessels that were similar in appearance to the wreck, but none that matched its length and beam dimensions. Australia and New Zealand were ruled out completely because neither country owned a vessel with the wreck's dimensions or profile. Canada did have several vessels with very similar profiles and length and beam dimensions. One in particular, HMCS (His Majesty's Canadian Ship) *Canada*, had nearly the same dimensions, but the historic photographs in *Jane's* did not match the wreck's profile. Upon further investigation in the records of Archives Canada, it was discovered that in 1912 the appearance of the *Canada* was altered when a forecastle was built, radically changing the vessel's profile. An image of the *Canada* in 1918 was located, which illustrated a drastically different vessel from what *Jane's* illustrated from 1904 through 1919. In fact, the 1918 image was almost ruled a misprint due to the fact that no other images of the *Canada* appeared with a forecastle in the

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<sup>9</sup> William Hovgaard, *General Design of Warships* (New York, NY: Spon and Chamberlain, 1920),

reference material. However, the same text with the 1918 image of the *Canada* also reported that it was sold for commercial purposes in 1924 and lost near Miami, Florida in 1926 which matched closely the location and dating of the wreck.<sup>10</sup>

Further research failed to produce a vessel named *Canada* that sank off Florida in 1926. In the 1924-1925 edition of *Lloyd's Register*, the *Canada* was listed and the owner was the Government of Canada, but this was the last time the *Canada* was mentioned in that text. A thorough search was conducted through *Lloyd's Register Wreck Returns* between 1924 through 1930, but again no vessel named *Canada* was listed as sunk off the Florida coast. A new approach was taken. Beginning with the 1925 edition of *Lloyd's Register Wreck Returns*, every vessel listed as sunk off the east coast of Florida was researched. Using this approach a steamer named the *Queen of Nassau* was discovered to have sunk 50 miles south of Miami in the following year's edition on July 2, 1926. The text listed the *Queen of Nassau* as a twin screw steamer that was traveling in ballast from Miami to Tampa when it sank. The subtext next to the vessel name also listed the previous name of the vessel, ex-*Canada*.<sup>11</sup> A search of The Mariners' Museum photographic collection found a black and white photograph of the *Queen of Nassau* from 1925 that was nearly identical to the image of the HMCS *Canada* in 1918. The major difference between the two images was that in the 1925 image of the *Queen of Nassau*,

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115-118.

<sup>10</sup> Ken Macpherson and John Burgess, *The Ships of Canada's Naval Forces 1910-1993* (St. Catharines, Ontario: Vanwell Publishing Limited, 1981), 15.

<sup>11</sup> Lloyd's Register, *Lloyd's Register Wreck Returns: 1925-1929* (London: Lloyd's Register of Shipping, 1929).

the hull had been painted white, the guns removed and an aft observational weather deck had been built over the stern. A match had been found.

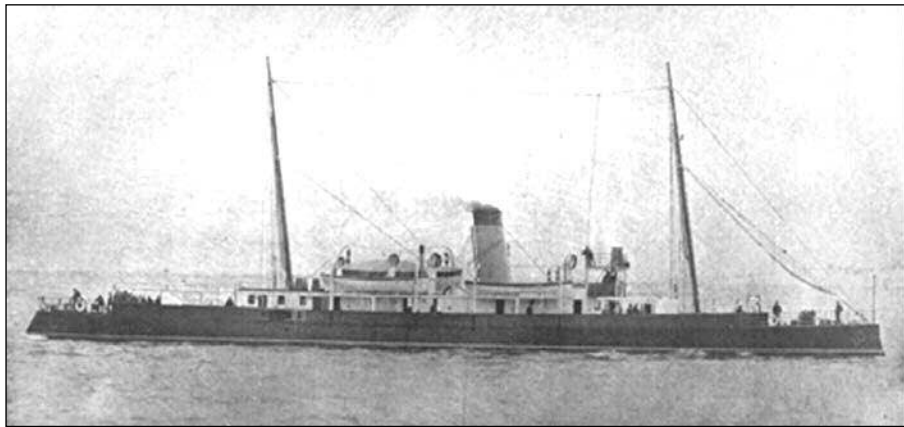


Figure 5.5 The CGS *Canada* as it appeared in 1904. (Ernest J. Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries* (Toronto, Ontario: Canadian Marine and Fisheries Publisher, 1905)).

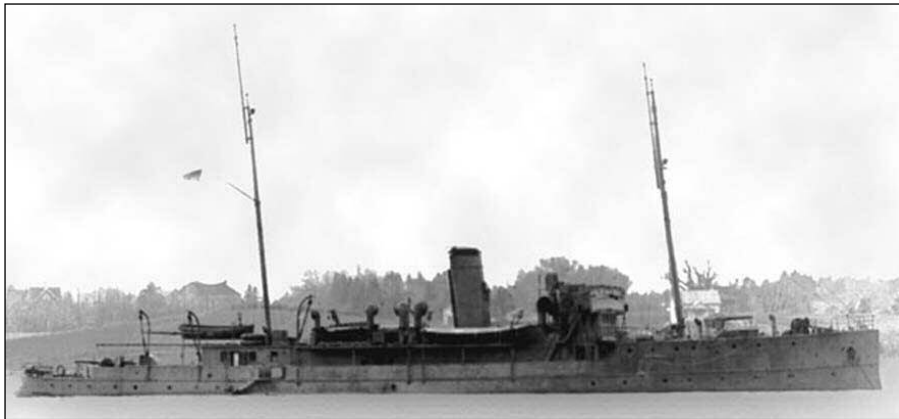


Figure 5.6 The HMCS *Canada* in 1918. Notice the heightened top-gallant forecastle. (Ken Macpherson and John Burgess, *The Ships of Canada's Naval Forces 1910-1993* (St. Catharines, Ontario: Vanwell Publishing Limited, 1981)).

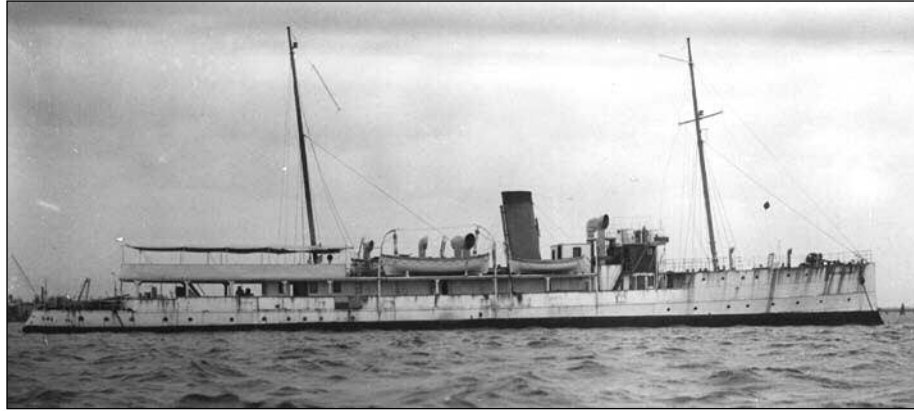


Figure 5.7 The first-class passenger steamer *Queen of Nassau* at anchor in 1925 (Courtesy of The Mariners' Museum).

From the initial 2001 survey and the subsequent historical research, it was concluded with a high degree of probability that the wreck site under investigation was most likely the steamer *Queen of Nassau*, former Canadian warship *Canada*, which sank on July 2, 1926. The historical research revealed that the *Canada* was built in 1904 by Vickers Sons and Maxim Ltd. in Barrow-in-Furness, England. Vickers built the vessel as a one-off or one-of-a-kind for the Canadian Fisheries Protection Service as a small well-armed cruiser 200 feet long with a 25-foot beam.<sup>12</sup> The CGS (Canadian Government Ship) *Canada* was the first in a series of new armed ships that the Canadians were procuring to protect their fisheries from poachers and protect their coastlines from the growing naval threat in Europe.<sup>13</sup>

In the early 1900's, Canada had no formal navy and relied on the British Royal Navy and its own small fleet of Fisheries Protection vessels to protect the coastlines. The

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<sup>12</sup> Sharon Hinde, electronic communication, 2002.

<sup>13</sup> Ernest J. Chambers, *The Canadian Marine: A History of the Department of Marine and Fisheries* (Toronto, Ontario: Canadian Marine and Fisheries Publisher, 1905), 71-75.

Canadian government recognized the need for its own navy and in anticipation of its creation designated the CGS *Canada* as its first naval training ship. The *Canada* was already known as the fastest ship in the Fisheries Protection fleet. This fact plus its armament made it an ideal choice for training new cadets. In its new role, the *Canada* traveled the world with the British Royal Navy and spent many training cruises in the West Indies. In 1910 the Royal Canadian Navy was formed, but it was not until 1915 that the ship became the HMCS (His Majesty's Canadian Ship) *Canada*. In 1912, the *Canada*'s original low forecastle was raised flush with the weather deck to make the vessel more seaworthy and to add additional crew accommodations. The *Canada* spent the majority of World War I conducting mine sweeping and coastal patrols on the Atlantic coast.<sup>14</sup>

After the war's end in 1919 the *Canada* was decommissioned but remained under Canadian government control. It was put up for sale for \$20,000 but did not attract serious interest until 1924 when it was sold at a considerable government loss to the Florida Inter-Island Steamship Company for \$5,000. The vessel was registered in Nassau, Bahamas and renamed *Queen of Nassau*. In 1924 it was outfitted as an inter-island passenger steamer for the lucrative Nassau-Miami route. Although newly painted with a refurbished interior, the vessel proved too slow and aged. The ship failed in its new incarnation, and the *Queen of Nassau* was taken off-line after only five and a half weeks of service, and it remained at anchor off Miami for 18 months.

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<sup>14</sup> Thomas E. Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services* (Ottawa, Ontario: Department of Services, 1968), 79-80.

In 1926 Mexican interests proposed to buy the *Queen of Nassau* and the ship was sent to Tampa for its final inspection before the sale. En route to Tampa the ship experienced a loss of steam pressure in the boilers and steadily lost headway. Water was discovered in the fire rooms beneath the boilers and the pumps were immediately activated. The water gained rapidly and within five minutes had risen two feet. A fireman rushed to tell the captain the leak was increasing and when he returned to the engine room the water was past his knees. It quickly became apparent to the captain that the *Queen of Nassau* was foundering and he ordered the ship out into deeper water so it would not become a shipping hazard. He commanded the crew to the lifeboats and abandoned the stricken ship. As he and the crew watched, the ship slowly sank by the stern until the bow raised vertical about 25 feet out of the water. The captain reported at this point that the boilers exploded and he saw the hull crumple like an eggshell. The *Queen of Nassau* made a slight turn to starboard and disappeared beneath the surface 70 miles south of Miami and 7 miles south of Lower Metacumbe Key. The ship sank a mere 8 minutes after the crew had abandoned it on July 2, 1926.<sup>15</sup> The *Queen of Nassau*'s captain reported the vessel sinking within a one mile radius of where the wreck site lies today.

### **2002 Field Season**

Building upon the 2001 fieldwork and conclusions drawn from the historical research, a Phase II survey was launched at the site from March 15 through March 18,

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<sup>15</sup> *Miami Daily News and Metropolis*, 2 July 1926, 1.

2002. The purpose of the 2002 survey was to document the shipwreck, recover historically significant artifacts, and identify the vessel. To meet the survey goals and because of the depth involved, the NOAA dive team from the *Monitor* National Marine Sanctuary's expeditions was reassembled for the project. Participating divers were from the Association of Underwater Explorers, East Carolina University, the National Undersea Research Center at the University of North Carolina at Wilmington, and NOAA's Maritime Archaeology Center.

### ***Methodology***

To positively identify the vessel the 2002 survey proposed the following questions. Did the historical description match the sunken vessel? Was the site in question the *Queen of Nassau* and if it was what modifications were made to the vessel for passengers and cargo after its naval career? Did the hull plates separate and cause the vessel to sink or was the sinking the result of some other event? And finally, does the site warrant further investigation?

In order to answer these questions all of the survey goals were designed to recover data that would positively identify the site. The survey goals included documenting the site by generating a detailed site plan and recording diagnostic features that would aid in identifying the shipwreck, intensive video and photo documentation of the hull and diagnostic features, the documentation of artifacts *in situ*, and planning the emergency artifact recovery of exposed significant artifacts and either recover them or remove them to a secure location for protection.

The archaeological methodology consisted primarily of detailed mapping, measurements, and digital video/photo documentation. A baseline was established on the vessel's raised weather deck with the zero point secured to the center of the forward edge of the wheel house and pulled to the farthest point aft on that deck to an overhead support beam above the stern companionway. Four data points were also established, two forward and two aft of the baseline, to map the areas of relief on the bow and stern where obstructions prevented a baseline from being pulled. On the forward edge of the weather deck, data points were established on the port and starboard edges of the wheel house. At the end of the baseline and farthest point aft on the weather deck, another two data points were established on the port and starboard gunwales. A temporary baseline was established in the bow section forward of the wheel house to document that area as well. Divers were then assigned specific sections along the baseline to document. Concurrent with the site mapping, a photographic/video survey was conducted to document artifacts and diagnostic features of the site. This video documentation included the main and weather decks, forecastle, cabins, as well as *in situ* artifacts.

### ***Hull***

The hull of the vessel was upright and intact lying atop the sediment in 230 feet of water. The length and beam of the site were recorded at 198 by 24 feet, but these numbers only indicated the dimensions of the weather and main decks. The lower hull in the bow, stern, and amidships extended past the decking and these measurements have not yet been reliably recorded. The AutoCAD plan and profile view documentation was

aided by the General Arrangement plan of the CGS *Canada* that was donated by the Maritime Museum of the Atlantic in Halifax, Nova Scotia.

There was no indication of hull collapse or buckling at any point on the vessel and the hull appeared to be structurally sound. It is also believed the vessel was coal-fired, which negated the danger of a considerable amount of oil leaking from the site. On several portions of the amidships area, fishing nets were draped across the wreck, obscuring the weather deck features. These nets appear to have been in place for an extended period of time because of the amount of growth which covered them.

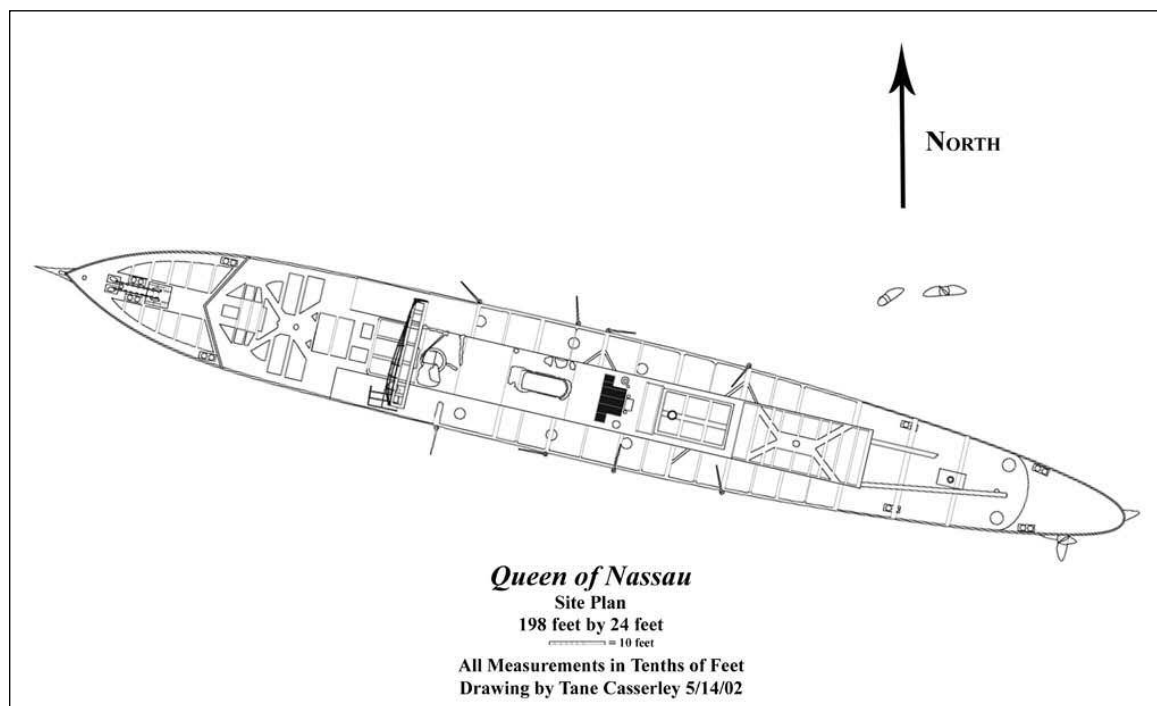


Figure 5.8 Plan view of *Queen of Nassau* site with north arrow.

Both fishing charter and dive boats anchor on the site and this activity was believed to be having a detrimental effect on the wreck. The first stanchion on the port side after the bridge-wing was sheared off from the weather deck and bent upwards. In

the stern, one of the main weather deck support beams was torn off its stanchions and shifted over 6 feet. Each of these structural components was made of steel and weighs several hundred pounds. It would take a considerable amount of force to move or alter either piece. These pieces may have been damaged in the initial sinking but it would seem highly unlikely when the only apparent damage caused by this event was to the stern lower hull. This stern damage consists of the lower hull bent to starboard, as well as several structural components sheared off from the hull itself including the rudder, starboard propeller and shaft, and a blade from the port propeller.

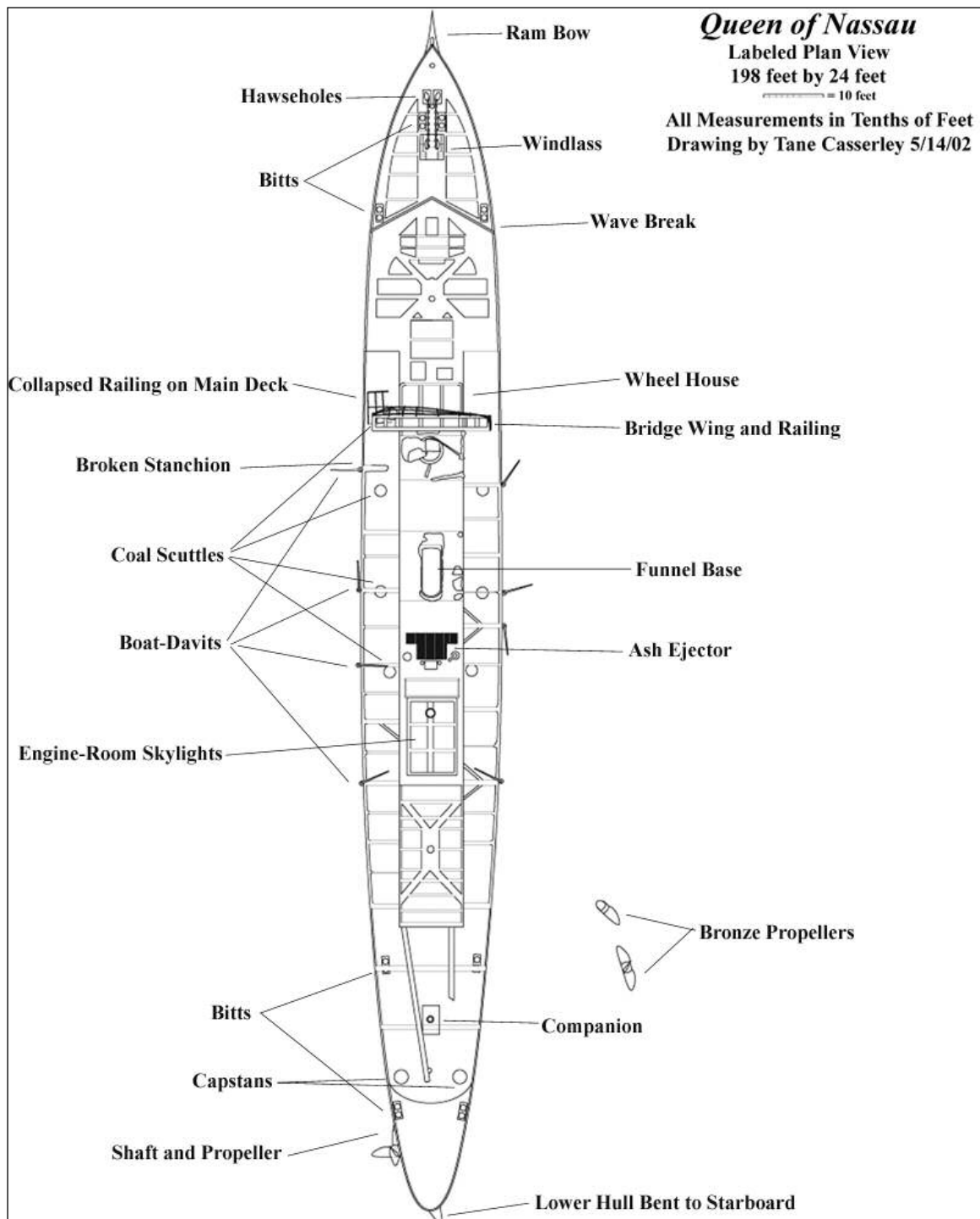


Figure 5.9 Labeled plan view of shipwreck *Queen of Nassau* illustrating its diagnostic features.

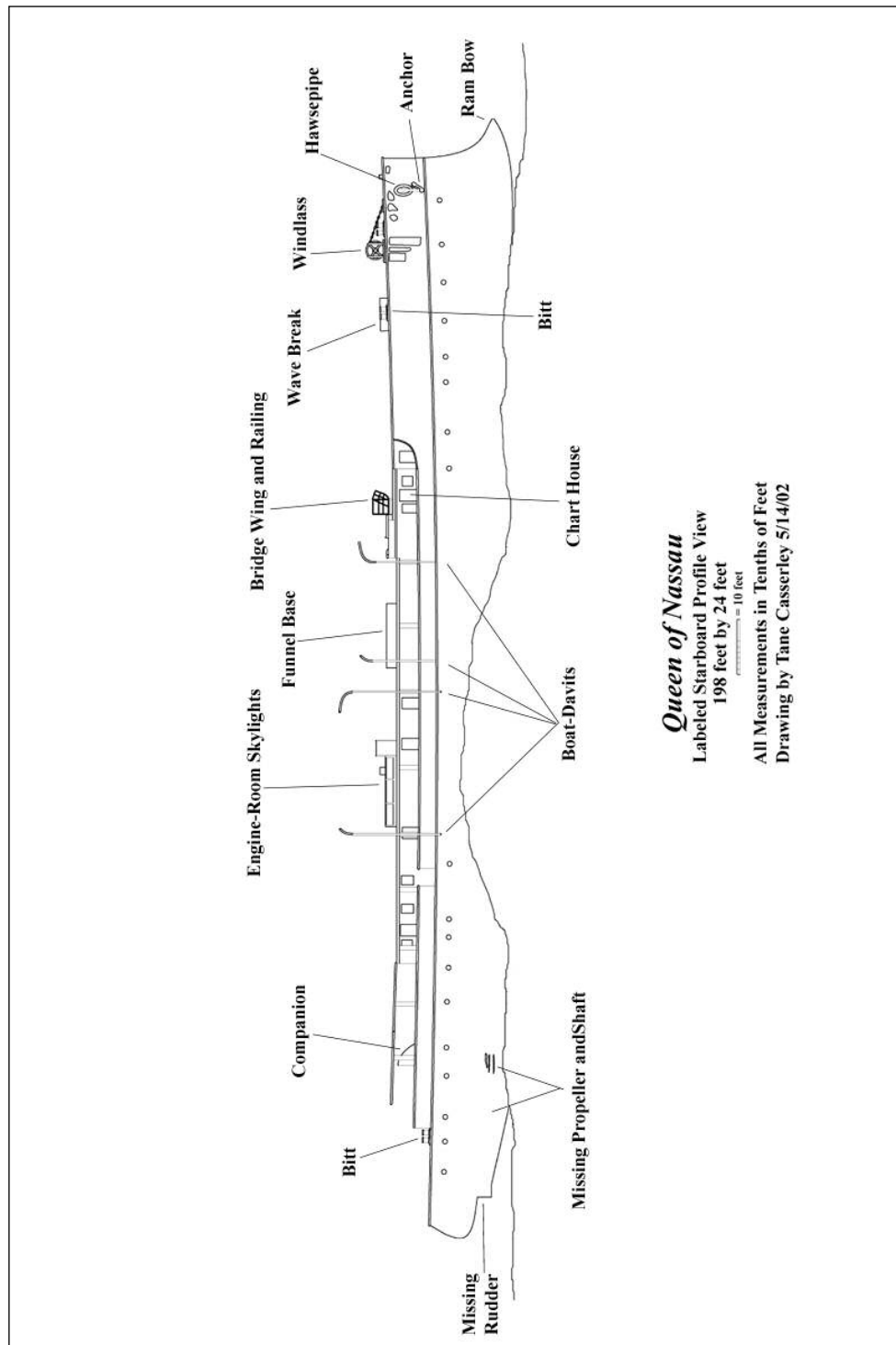


Figure 5.10 Labeled starboard profile view of the *Queen of Nassau* illustrating its diagnostic features.

### *Artifacts*

A total of five artifacts were recovered during this survey. The artifacts were recovered for two reasons. First, the artifacts could aid in identifying the site. Second, to ensure their protection from looting and miscellaneous damage, *i.e.* boat anchors or fishing nets.

The first artifact recovered was an intact mast light lying exposed 59 feet along the weather deck baseline and 5.3 feet to port. The second was a ceramic plate lying by the two bronze propellers in the starboard debris field. The remaining artifacts recovered were a ceramic shard, and a lantern top and base. The shard was located by the recovered ceramic plate adjacent to the bronze propellers in the starboard debris field. The lantern top and base were located 20 feet along the baseline and 6.5 feet to port on the port main deck walkway. The lantern top and base were heavily concreted into the deck and misidentified as an engine order telegraph. Only after they were recovered and inspected on the surface was this observation realized. All of the recovered artifacts were wrapped in cloth, placed in a water filled container, transferred to the primary dive vessel, stored in a secure, shaded location, and kept wet until they could be transported to the conservation facility at the State of Florida's Division of Historic Resources in Tallahassee, Florida.

All of the recovered artifacts were too heavily concreted to discern any identifiable markings. It was hoped that the conservation process would reveal the markings, which could aid in the vessel's identification. However, after the conservation was completed the artifacts contained no marks whatsoever, making their identification

extremely difficult. After an extensive search, the best match that could be found of the mast light and lantern base were from the May 29, 2002 issue of *Sotheby's of London*. Similar pieces to the ones recovered from the wreck were identified as late 19<sup>th</sup> century English. Therefore a general time period could be ascertained from the Sotheby's catalog that was consistent with the historic research on the *Canada*, but the mast light and lantern base's exact source of origin and date of manufacture remained elusive.

There were several other artifacts documented on site that were not recovered. The wheel house contained four artifact types. One was a brass wheel hub for the helm which was still connected to the steering mechanism. The second was a large thin brass ring that was once tacked to the wooden wheel itself and now laid on the deck. The third were three small sounding weights and the fourth appeared to be the brass stand for the starboard engine order telegraph (EOT). The circular mechanism for the starboard EOT was missing for reasons unknown. On the port side main deck outside of the wheel house door, a portion of the bridge wing railing has collapsed onto the main deck. Underneath this railing was what appeared to be a heavily concreted long cylindrical brass stand very similar to the starboard EOT stand. Next to it was a circular object that may be the EOT mechanism. It is currently believed that these two objects represent the port EOT but more fieldwork is required to substantiate this theory. On the starboard side main deck outside of the wheel house door was what appeared to be a base for some sort of stand. This stand was much larger than the EOT stands and was heavily concreted with only a portion of it exposed.

The last documented artifact left on-site was a damaged lantern located 55.4 feet along the baseline and 6.5 feet to starboard on the starboard main deck walkway. This lantern was originally slated for recovery but it was deemed too fragile to remove. During the October 2001 survey this lantern was documented in its present location but in a much better state of preservation. During the latest survey the lantern was found with its concretion missing and the glass lens broken. Freshly exposed brass with a light green patina now greeted the divers. The lantern structure itself had also been altered. It was now very fragile and bent to the touch. It was unknown at the time what may have caused this change to the artifact. All of the remaining artifacts were video taped and documented on the site plan.

### ***2002 Results***

The site was documented in detail and several artifacts were recovered, but the site's identity remained elusive. The site plan documented during this survey matches the General Arrangement plans of the CGS *Canada*, but no single feature has yet been documented that undeniable confirms the vessel is the former CGS *Canada*. More time is required on the site to conduct a thorough investigation to unequivocally identify the shipwreck. An accurate overall site plan has been developed, but without detail. It was determined that additional time on the site would allow a meticulous survey from bow to stern, including the cabins and cargo areas. It would also permit an investigation of the lower hull underneath the sediment, as well as the boilers and engine machinery areas which the *Queen of Nassau*'s captain reported exploding, giving the archaeologist

evidence towards why the vessel sank. From the structural damage recorded on the site it was determined that more time investigating the site would also provide the Florida Keys National Marine Sanctuary with a baseline to evaluate the amount of human impact on the shipwreck.

The 2002 fieldwork gathered a tremendous amount of data that either answered or found evidence to support the questions that were asked at the beginning of the 2002 survey of the wreck site. First, the historical data on the *Canada*'s construction did match the general features and dimensions of the wreck, but further work was required to add detail to the site plan. Second, the identification of the vessel as the *Queen of Nassau* could not be answered. Third, modifications were found to the wreck site that were consistent with a warship's conversion to a passenger steamer. Two large capstans were located on the aft deck in the same locations where the *Canada*'s 12-pound guns were originally located. A possible modification was also made to the stern with the addition of a raised aft weather deck above the main deck. This construction feature was consistent with the 1925 image of the *Queen of Nassau* that depicted an aft weather deck on the stern of the vessel. This evidence supported the theory that the vessel was the *Canada/Queen of Nassau*. The dive team was unable to find evidence of the hull plates separating or find any break or disfiguration to the hull whatsoever, except in the stern, where it appears the vessel impacted the bottom. This find does not collaborate with the statement made by the *Queen of Nassau*'s captain who stated that the vessel's hull crumpled like an eggshell before the vessel sank. There were three explanations that could be derived from the undamaged hull, either the hull damage was underneath the

sediment, the captain's statement was false, or the vessel was not the *Queen of Nassau*. Finally based on previous questions and from the conclusions drawn from the 2002 fieldwork, it was concluded that more work was required on the site to complete the documentation. The 2002 fieldwork narrowed the focus of the investigation and the specific questions raised during this survey would be addressed in a future site survey.

### **2002 Side Scan Sonar Survey**

At the request of the Florida Keys National Marine Sanctuary, NOAA's Maritime Archaeology Center, and the Office of Ocean Exploration, the NOAA ship *Whiting* conducted a side scan sonar survey of the site believed to be the *Queen of Nassau*. The purpose of the survey was to determine if there was a debris field scattered around the site. There are several structural pieces missing from the vessel, most notably the funnel and all of the ventilator cowlings. These pieces were not in the immediate area and might have become separated from the vessel during the sinking event or afterwards by fishing trawlers. Visibility at the site was often less than 20 feet and it was not feasible to send divers out searching for debris because of the limited time available on the bottom. Sending divers beyond visual range of the shipwreck at 230 feet also exceeded the dive team's margin of safety, and was therefore not attempted.

The *Whiting* utilized the Klein 5500 System which included the Model 5250 High Speed High Resolution Side Scan Sonar (HSHRSSS) tow fish and the T5100 Transceiver Processing Unit (TPU) to conduct the survey. The 5250 HSHRSSS operated at a frequency of 455 kHz and had a vertical beam angle of 40 degrees. The Klein System

5500 was unique in that each transducer simultaneously formed five dynamic focused beams per side (channel), allowing increased resolution along track (20-75 cm) and across track (7.5cm).

The 5250 System was deployed using a SEAMAC electric-hydraulic winch spooled with approximately 200 meters of armored coaxial cable. The tow cable was led from the winch through the stern A-frame over a snatch block with a metered sheave. The tow cable at the winch was connected to a deck cable through a slip ring assembly mounted coaxially on the winch. Control out was controlled remotely at the acquisition station and was monitored on an MD-TOTCO cable counter. This sensor computed cable out by the numbered revolutions of the block's sheave and provides a serial message to the Hypack navigation and Isis acquisition computers to calculate the towfish's layback, or distance behind the survey vessel. The Klein System 5500 was towed between 7 and 8 knots during the survey for an increased margin of safety, to minimize towing gear stress, and to reduce "strumming" in the tow cable which can interfere with the side scan imagery.

The *Whiting* was equipped with state of the art DGPS receivers as well as navigational and data acquisition software. It used the Trimble DSM212L DGPS receiver for horizontal positioning control, which had an integrated 12-channel GPS receiver and dual-channel differential beacon receiver with sub-meter accuracy. Coastal Oceanographics Hypack Max version 0.5b software was used for vessel navigation and line tracking during the side-scan survey and Triton-Elis's Isis software versions 5.50 and 5.75 acquired the side scan sonar data and handled the post-processing.

The *Whiting* conducted six line tracks during the side-scan survey. From this data the Isis software created several images of the site at a 0.5 meter resolution. The side-scan-sonar data from the six track lines were combined with bathometric data to create several mosaics of the wreck site. These mosaics showed the seafloor topography with the *Queen of Nassau* sitting upright and intact atop the sediment. Processed further through the Isis software several digital terrain models were produced of the site. The digital terrain models used color differentiation to illustrate the varying depths of the shipwreck and the surrounding sediment. By using these models it was possible to demonstrate the direction of the prevailing currents and the sediment scour patterns on and around the wreck site. This data was important because the vessel is sitting upright atop the sediment and scouring could cause hull instability or fracture if it was undermined.

The *Whiting* survey team was unable to detect any significant debris in a 600m radius around the site. Side scan sonar, cannot detect objects buried underneath the sediment. So, where were the missing structural pieces from the vessel? Four explanations were proposed. The first was that the funnel and ventilators were removed for some reason before the sinking event. This seemed unlikely due to the fact that it would be very difficult for the boilers to gain enough steam pressure without a funnel and working beneath the decks would be unbearably hot without the ventilators. The second explanation was that these items fell off during the sinking event. The chance of this is possible, but unlikely. Captain Songdahl reported that once he and his officers and crew abandoned the *Queen of Nassau*, it sank a mere eight minutes later. His description of

the sinking was quite detailed and he made no mention of the funnel separating from the hull. The current was also negligible at the time of the sinking and since the vessel was 200 feet long and sank in only 230 feet of water, the hull only dropped 30 feet until the stern impacted with the bottom. From this evidence there was a low probability that the funnel and ventilators were pulled off and away from the immediate vicinity of the wreck site during the sinking process, but the pieces might be buried near the wreck. The third explanation was that the funnel and ventilators were removed by fishing trawlers dragging nets or traps at some point after the wrecking event. This possibility was very plausible due to the fact that there are several fish nets and traps draped over the shipwreck. If snagged, the funnel and ventilators would have been dragged out of the area or brought to the surface where they would then be cut free well out of the general vicinity. The fourth explanation was that the funnel and ventilators were completely buried in the sediment having been detached from the vessel by either the sinking event, decay over time, or by fishermen's traps and nets. To conclusively answer this question a magnetometer survey would be required at a future point in time.

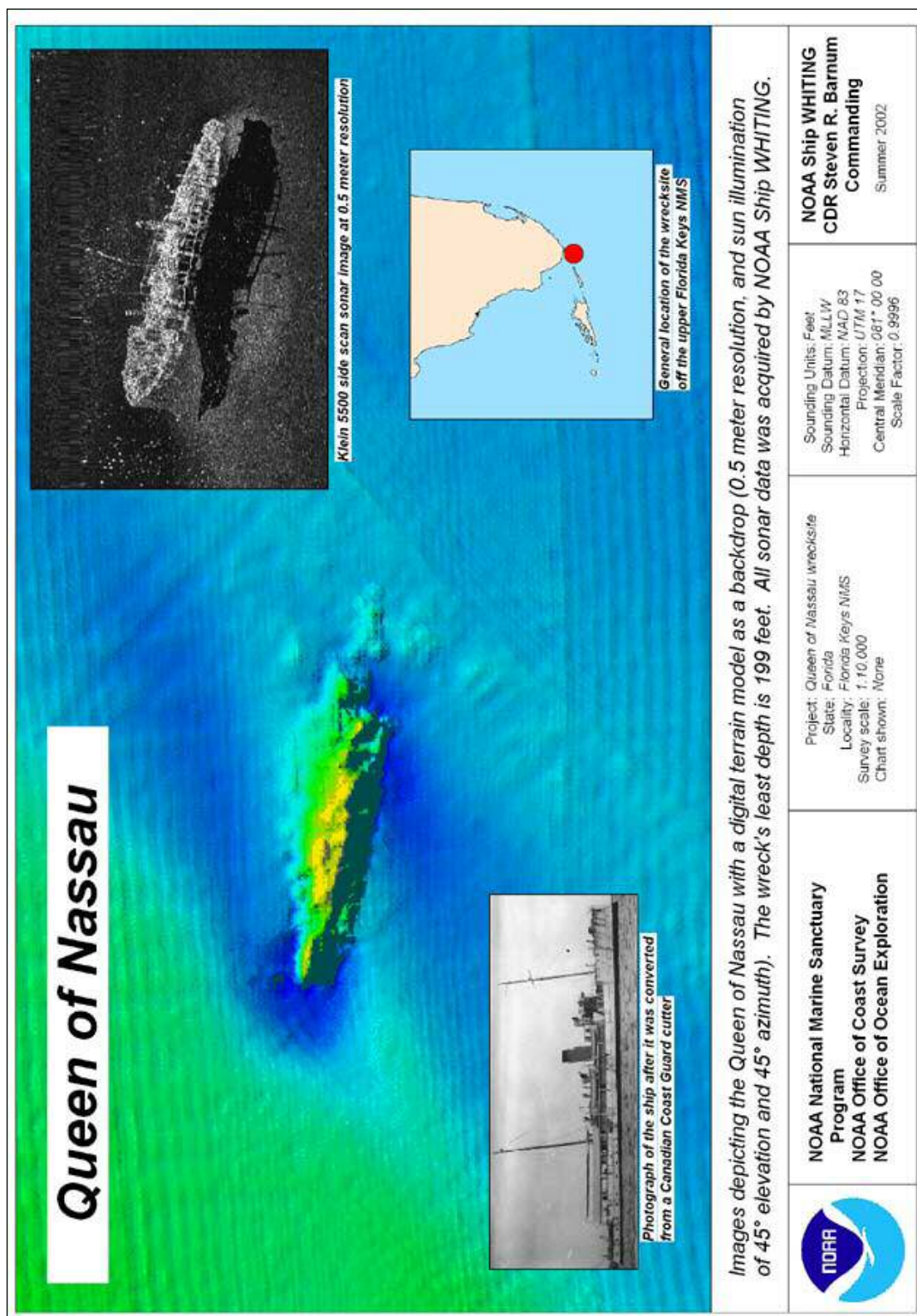


Figure 5.11 Digital terrain model and location of the *Queen of Nassau* (NOAA).

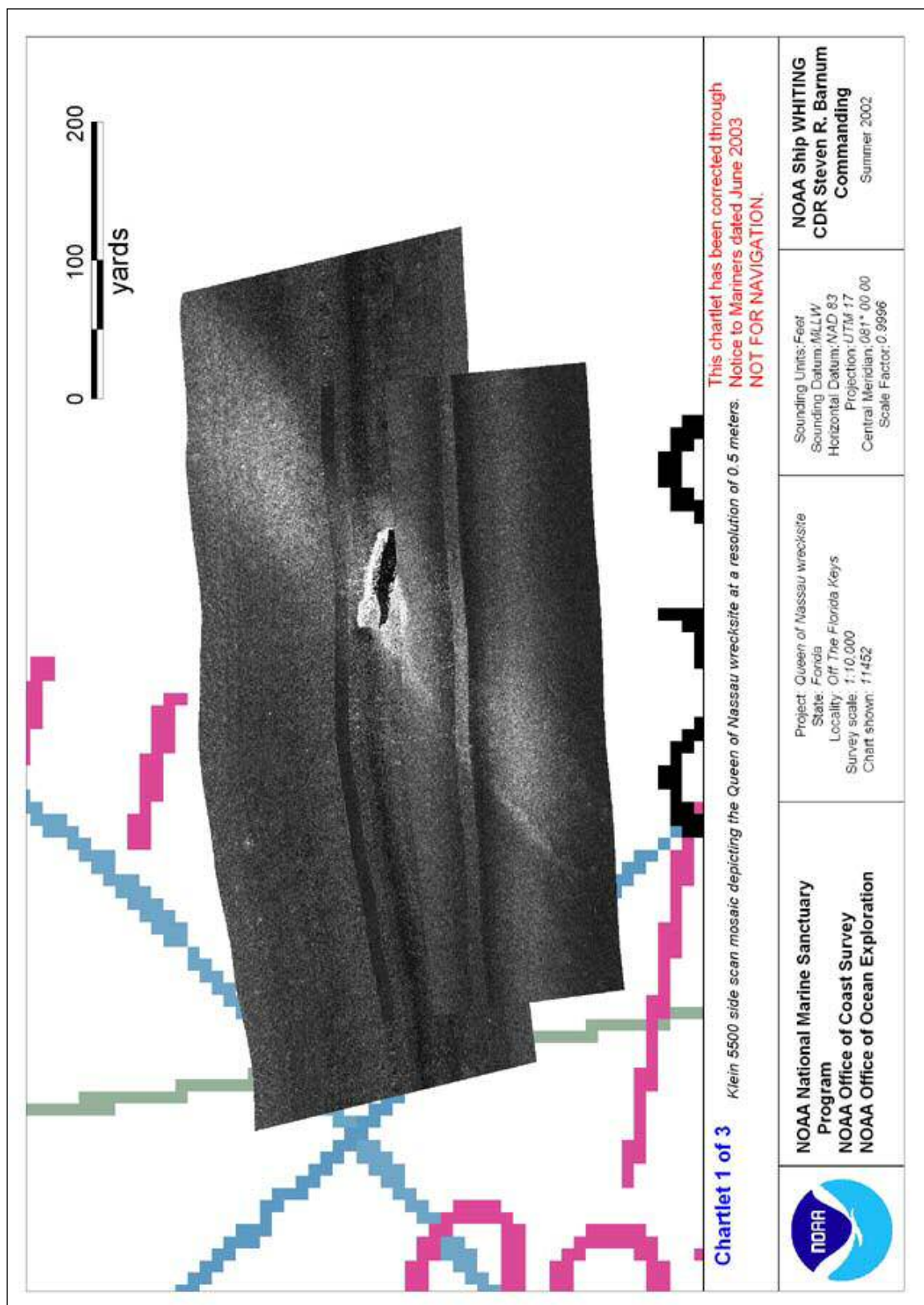


Figure 5.12 Side scan sonar mosaic of the *Queen of Nassau* (NOAA).

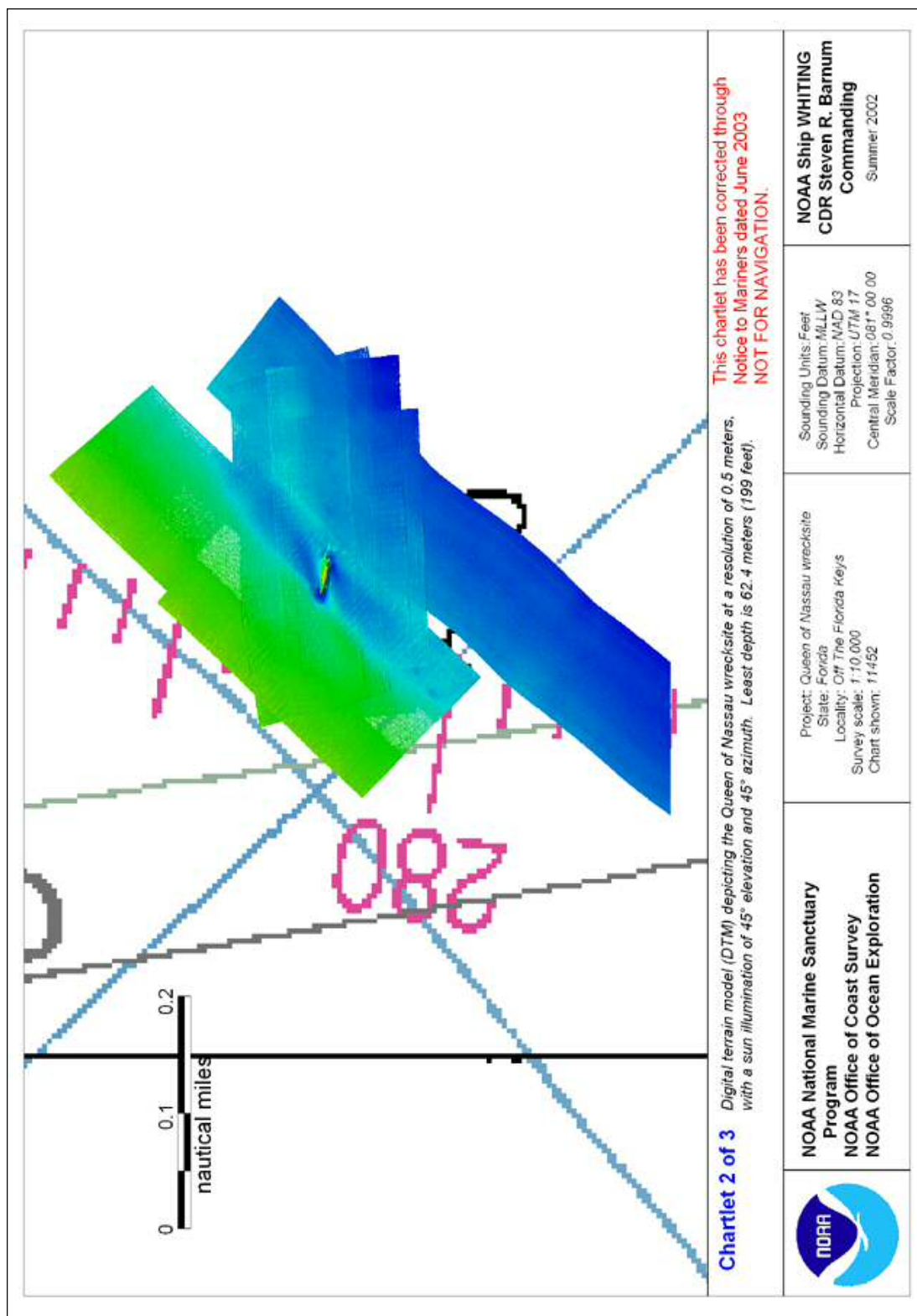


Figure 5.13 Digital terrain mosaic of the *Queen of Nassau* (NOAA).

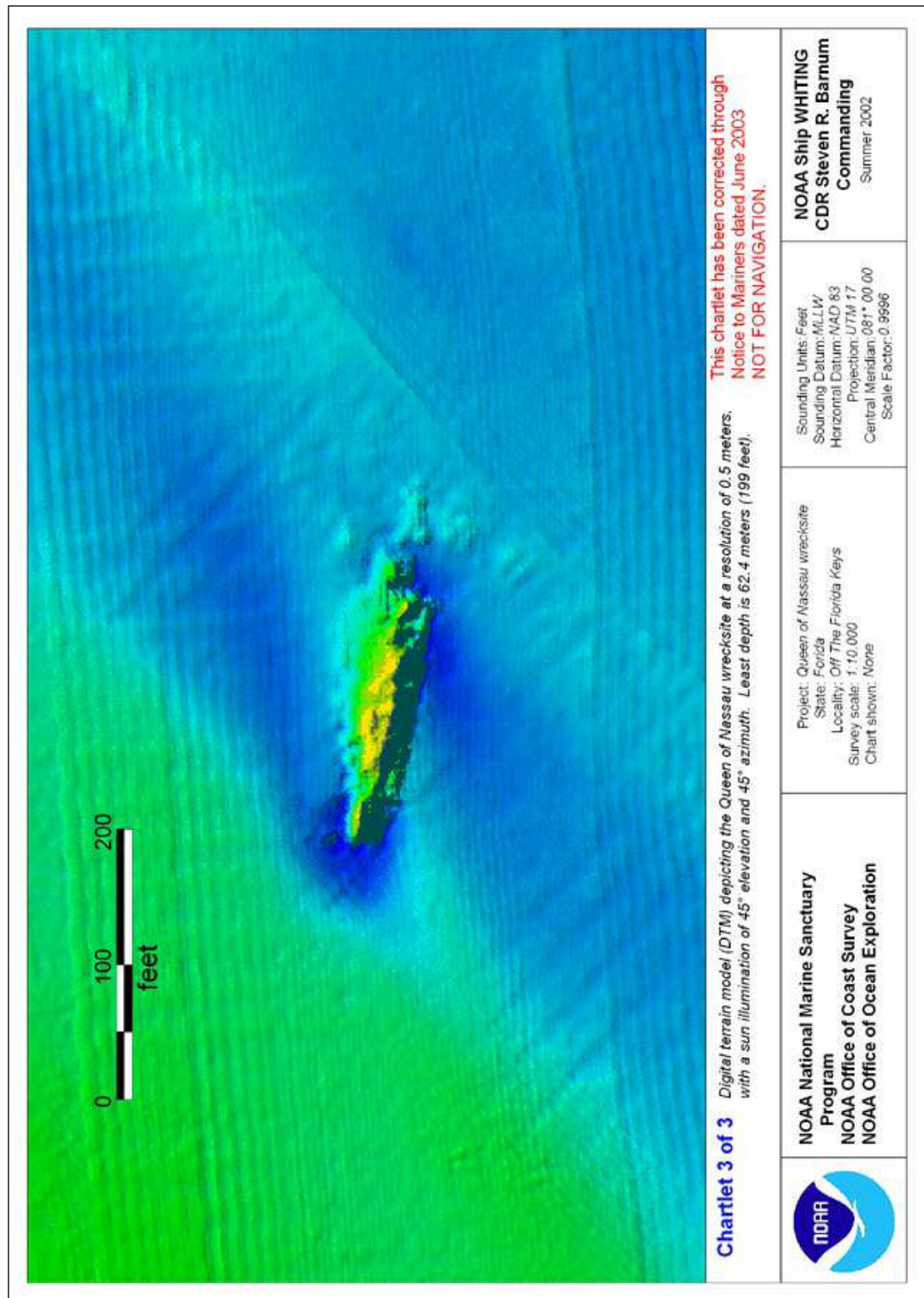


Figure 5.14 Digital terrain model of *Queen of Nassau* at .5 meter resolution (NOAA).

### **2003 Field Season**

The 2003 field season built upon two years of evidence, both historic and from the sunken vessel. The third archaeological investigation of the site believed to be the *Queen of Nassau* was conducted from March 28 through April 5. The purpose of the 2003 field season was to complete the documentation at the site, ascertain why it sank, and identify the vessel. The 2003 field season was jointly funded by the Florida Keys National Marine Sanctuary, the National Undersea Research Center at the University of North Carolina at Wilmington, and NOAA's Maritime Archaeology Center.

### ***Methodology***

The 2003 methodology built upon the data collected during the 2001 and 2002 field seasons and proposed the following questions: Does the historical data match the actual shipwreck? Does evidence exist that can identify the site? Can the site be identified, and is it the *Queen of Nassau*? If the site is the *Queen of Nassau*, then what modifications were made to the vessel for passengers and cargo after its naval career? Did hull plates separate and cause the vessel to sink, or was the sinking the result of some other event? Did the outer hull plates buckle as a result of a boiler explosion when the vessel sank as stated by the captain? And finally, did the site warrant further investigation?

In order to answer these questions all the survey goals were designed to recover data that would identify the site, assess its historical significance, and determine the cause of the vessel's sinking. The archaeological methodology consisted primarily of detailed

mapping, measurements, and digital video/photo documentation. A baseline was planned to be laid on the vessel's raised weather deck with the zero point secured to the bridge wing and pulled to the farthest point aft on that deck. The cabins and cargo areas in the interior of the vessel would be penetrated and mapped. All interior artifacts and diagnostic features would be recorded with drawings and video documentation. If artifacts were recovered, they would first be mapped in relation to the rest of the site using trilateration and videotaped *in situ*. With the permission of the FKNMS manager the dive team would excavate the sediment on the starboard side of the hull amidships, in the region of the boilers, down to the keel. The exposed hull on both the starboard and port sides would then be inspected for damaged, separated, or missing hull plates from the gunwales down to the keel. All video/photo documentation and mapping would be carried out by the NOAA archaeologist and/or designated divers. Recovered artifacts would be wrapped in cloth, placed in a water filled container, transferred to the primary dive vessel, stored in a secure, shaded location, and kept wet until they could be returned to the Florida Keys National Marine Sanctuary.

A baseline was established along the center line of the *Queen of Nassau's* weather deck with the zero end of the baseline attached to the bridge wing and pulled aft to the stern most beam on the observational weather deck. The vessel was thoroughly documented using trilateration and digital photography. Since nine days were allocated this field season to map the shipwreck, more time was available to add detail and make adjustments to the overall site plan. The 2003 survey documented the vessel's structural features, the location of the fishing nets, and their impact upon the wreck.

## ***Hull***

The vessel sat intact, upright, and atop the sediment in 230 feet of water. The hull was found in very good condition during this survey. Changing currents had removed most of the sediment along the port side of the vessel down to the turn of the bilge, while the starboard side had a build up of sediment five feet from the gunwales. Scouring had exposed the keel from the tip of the ram bow to forty feet back towards the stern and it was also found in very sound structural condition. The hull had no evident plate separation, buckling, or warping and the rivets appeared to be quite solid as well.

Hull damage was found at the site, but it was not due to the loss of structural integrity. Evidence was collected that indicated that the accumulated growth on the fishing nets and lines draped over the weather deck had an adverse effect upon the wreck site. An overhead structural beam that was part of the remnants of the aft observational weather deck was recorded intact in 2002, but draped with fishing lines. In 2003 the same beam had split in two and collapsed. It appeared that the weight of the lines caused the incident. Nearby on the stern, approximately 10 feet forward on the vessel's starboard side another overhead beam had collapsed due to the weight of the fishing net. On the forward section of the vessel along the port side a large danforth anchor was discovered draped over the hull attached to a large fish trap lying in the sediment. It appeared that the fish trap and anchor had dragged across the bridge wing, pulling it slightly aft on the port side which also pulled off the port bridge wing railing. A portion of the railing was lying on the port main deck while the remainder was underneath the fish trap in the sediment. Although these nets and lines were having a definite adverse

effect on the site, they also provided habitat for marine life, which made their removal problematic in a National Marine Sanctuary. To avoid possible conflict and undue attention to the site, the fishing gear was left intact.

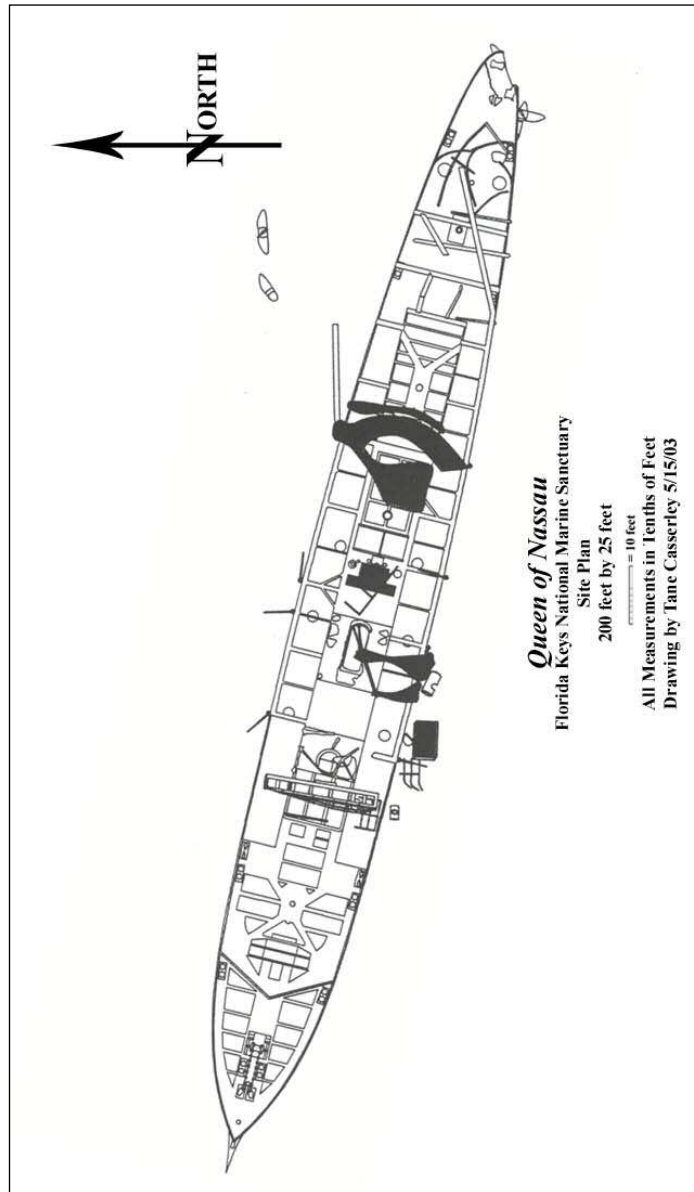


Figure 5.15 Plan view of *Queen of Nassau* from the 2003 site documentation.

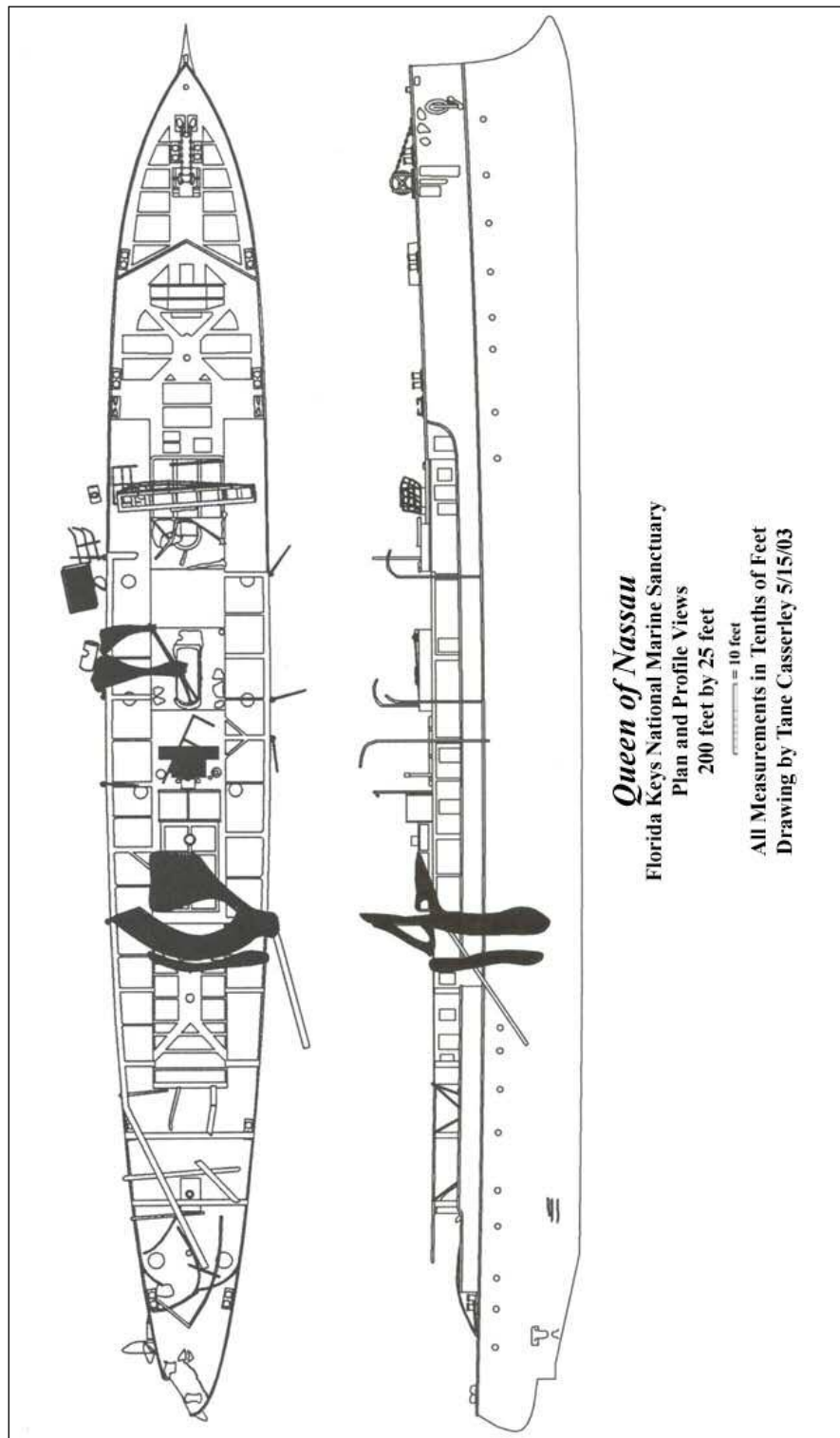


Figure 5.16 Plan and profile views of the *Queen of Nassau*'s deck layout and hull from the 2003 site documentation.

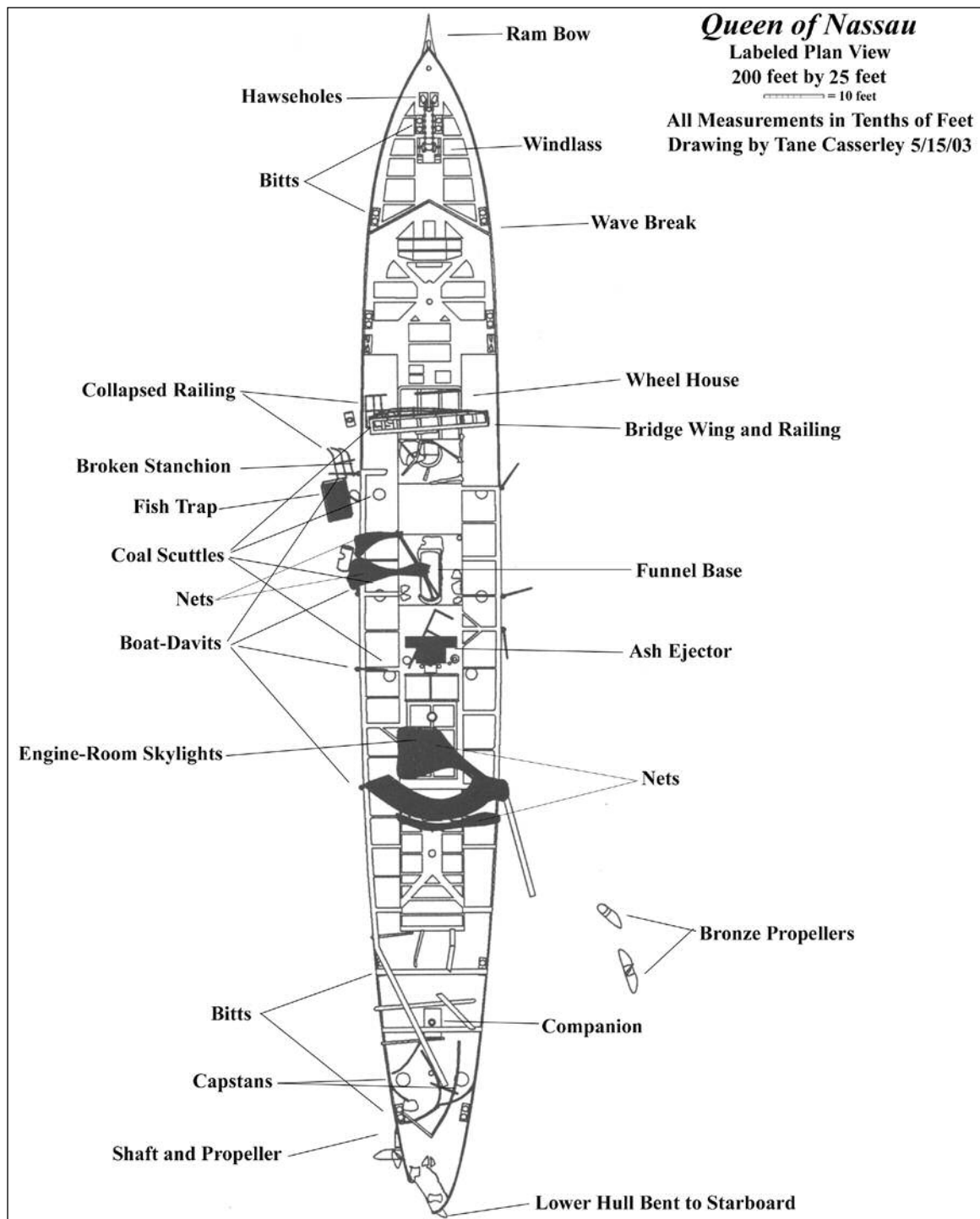


Figure 5.17 Labeled plan view of the *Queen of Nassau* illustrating its diagnostic features.

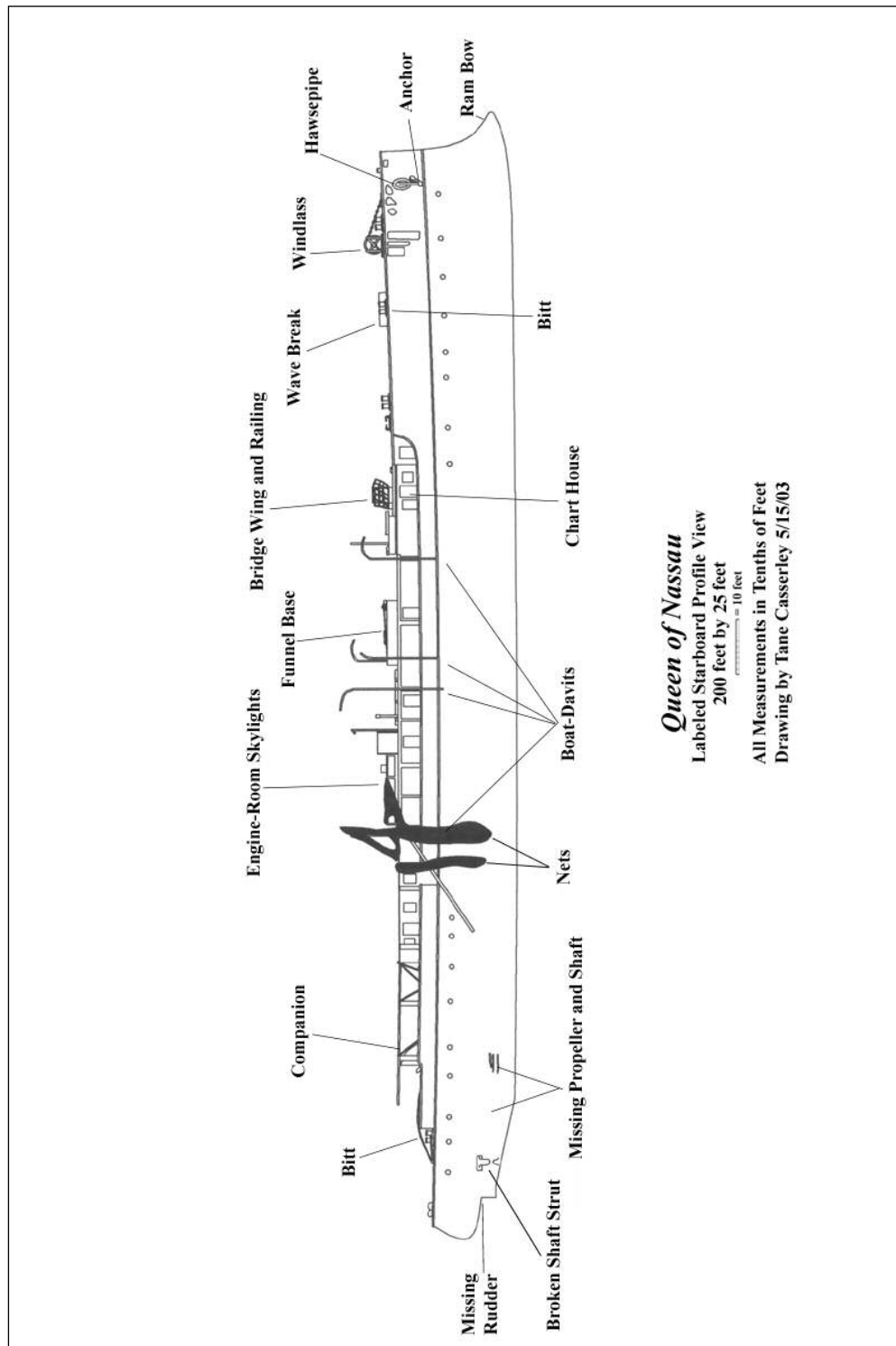


Figure 5.18 Labeled starboard profile view of *Queen of Nassau* illustrating its diagnostic features.

### ***Interior Compartments***

Upon closer inspection it was decided that the majority of the compartments on the main deck were too dangerous to attempt to enter, and access to the lower decks was completely blocked by sediment and impossible to enter without dredging. The majority of entrances were covered with netting or debris and the overhead structural integrity inside was questionable due to the weight of the fishing nets above. Only two compartments were penetrated during the survey, the forecastle and the aft saloon. Both compartments have the deck missing with only the metal framework remaining. The aft saloon was completely empty. It contained neither artifacts nor structural features. The forecastle contained no observable artifacts either, but it did contain several structural features such as bulkhead doors as well as two water closets with the porcelain bowls still intact, whose location aligned with the 1904 general arrangement plans of the CGS *Canada*. Since the compartments did not contain threatened artifacts or diagnostic features to aid in identifying the vessel, this phase of the project was abandoned in favor of putting more time into accurately documenting the overall site.

### ***Search For Possible Boiler Damage***

To test the validity of Captain Songdahl's statement that the boilers exploded, crumpling the hull like an eggshell as the vessel sank, a detailed survey was planned in the engine/boiler room. There were several challenges to overcome before the examination of the engine room was possible. The interior of the vessel was completely filled with fine, talcum powder like sediment and at the slightest disturbance it was

suspended up into the water column and took a very long time to dissipate. The only access to the engine room was through the skylights which were mostly covered by netting and judged too difficult and time consuming to remove. Due to the dangers posed by the entrance constriction and possibility of a “white out” by suspended particulate, it was deemed too dangerous to send a diver to investigate the room and another method was developed. A video camera was lowered into the engine room and slowly rotated 360 degrees at varying heights above the sediment. By using this method it was later possible to pull still frames from the video and by using computer software the still images were stitched together to create several mosaics of the interior of the engine room. The only structures visible were the cylinder caps of the two triple expansion engines and a ventilator shaft, otherwise the room was completely filled with sediment. The top of both the engines and the boilers were at the same height and the boilers extended approximately ten feet beneath the sediment, which made them impossible to inspect. Reason dictated that if the force of the explosion was great enough to crumple the hull then it would have surely damaged the compartment that contained the boilers as well. From looking at the structural integrity of the interior walls and the condition of the exposed ventilator shaft, there was no evidence of a catastrophic boiler explosion. The walls had no bulges or breaks that would indicate an explosion and the ventilator shaft which is composed of thin metal was in excellent condition. This peripheral evidence illustrated that there is no apparent damage to the boilers. Without a full scale excavation inside the engine room, this survey would have to suffice.

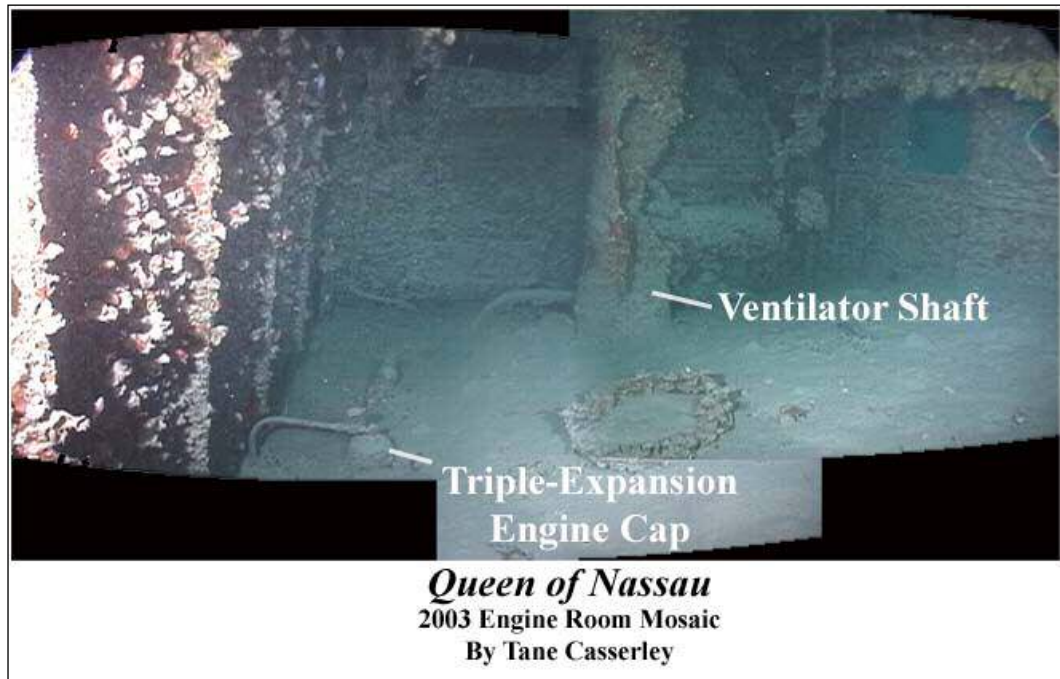


Figure 5.19 Engine room mosaic illustrating no apparent damage from a boiler explosion.

An examination was also conducted of the outer hull on both the port and starboard sides adjacent to the boilers. The original plan was to use a Diver Propulsion Vehicle (DPV) to remove sediment away from the outer hull down to the turn of the bilge to fully inspect the hull. This phase of the project utilized three divers, one with a DPV, another digging with a trowel, and a third acting as safety diver to indicate to the two working divers when it was time to ascend. The divers began excavating on the starboard side and they immediately created a “white out” from the suspended sediment and had no idea how much they had actually accomplished during the dive. They next day on the bottom, the dive team discovered that after 20 minutes of excavating the previous day they had only removed three feet of sediment. The first two feet were comprised of fine particulate sand and the last foot excavated was through a hard clay bottom. Since the

divers were required to excavate through another five feet of clay to reach the turn of the bilge, the excavation was abandoned in favor of a visual survey. The outer hull plates and seams on both the port and starboard sides were inspected and recorded with a video camera for a more in depth examination on the surface. From inspecting the video tape of the outer hull it was determined that, like the engine room, there was no visible damage to the hull caused by an internal explosion. The hull appeared to be in excellent condition, other than the deterioration caused by lying on the sea floor for 78 years. This fact contradicts the statement made by Captain Songdahl as the *Queen of Nassau* sank that the hull crumbled like an eggshell.

### ***Data Points***

Three data points were established on the shipwreck and marked with a yellow 4"x4" plastic card. The cards were attached with zip ties to prominent structural features on the weather and main decks. At each datum, the pitch and roll of the vessel was taken using a clinometer. Since the shipwreck sat atop the sediment, a baseline needed to be established of the vessel's movement and structural integrity over time. Datum 1 was established on the starboard anchor chain between the hawse hole and the anchor windlass on the bow of the weather deck. The pitch at Datum 1 is a 4 degree rise towards the bow and a 6 degree roll to starboard. Datum 2 was established on a large collapsed pole lying on the weather deck amidships between the opening for the stack and the skylights above the engine room. Datum 2 has a recorded pitch of a 3 degree rise towards the bow and 11 degree roll to starboard. Datum 3 was established on the last

ventilator shaft on the aft main deck along the centerline of the vessel. It has a recorded pitch of a 3 degree rise toward the stern and a 3 degree roll to port. Each area where the datum was measured was cleared to the best of the divers' ability. The slight variation in measurements at the bow and amidships can be explained by the divers inability to lie the clinometer perfectly flat along the deck. The measurements in the stern were consistent with the vessel impacting the bottom stern first which would have resulted in the hull and deck being bent from the weight of the rest of the vessel. These data points will be inspected periodically and checked with a clinometer to see how the vessel is settling over subsequent years.

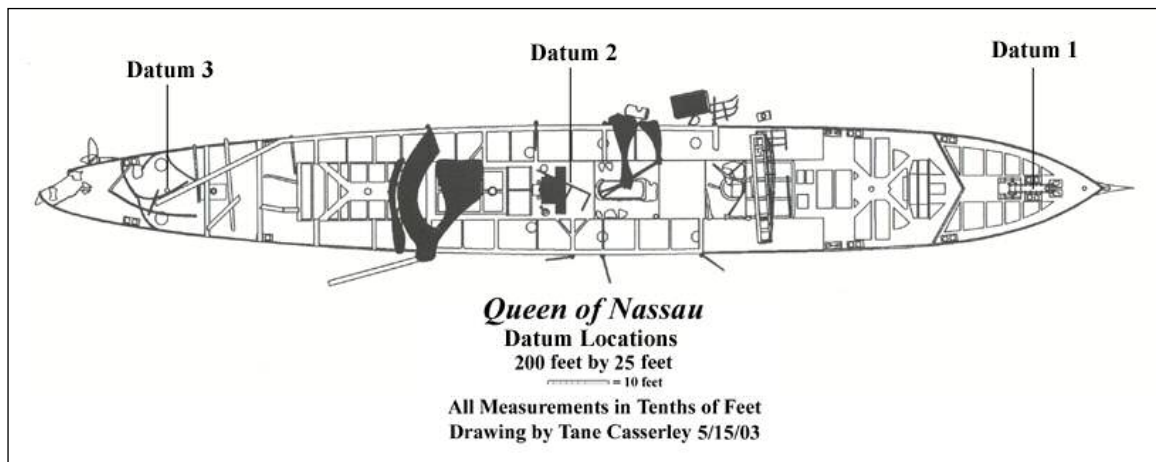


Figure 5.20 Data locations on the *Queen of Nassau* shipwreck.

### ***Mosaic***

Building upon the video technique used for the 2001 survey, a plan-view video mosaic survey was conducted during the 2003 field season. The camera equipment was improved with the installation of high tension springs within the buttons so they would

not be depressed by the force of the water pressure at 230 feet and inadvertently turn off the camera or cause it to fail to operate. Divers were also more mindful of their track line spacing and ensured that they covered the entire wreck while conducting the longitudinal transects.

The mosaic survey was conducted by a two man dive team. One diver drove the DPV in equally spaced longitudinal transects over the site while holding a constant depth and course heading. The DPV driver towed another diver behind him whose role was to hold the video camera steady and straight down at the wreck, all while keeping track of the area that had already been recorded underneath him. The DPV was installed with a compass which the driver could follow, but since the vessel had only a 25-foot beam, both divers could easily see what areas of the wreck had already been recorded by the video and their eyes were more accurate than following the compass heading. Practicing before the actual survey, the best height above the deck to combine coverage with high resolution was judged to be ten feet. At ten feet above the wreck, the entire 200-foot long vessel was recorded in four passes with each pass recording approximately ten feet of beam. This provided a large degree of overlap on each pass when the images were later pieced together using computer software.

As the highest point of relief at the site, the divers used the lifeboat davits as a point of reference to remain a constant height above the wreck. The top of the lifeboat davits are 8 feet above the weather deck, so to keep a constant 10-foot distance above the deck all the divers needed to do was glide two feet above the davits along the length of the vessel and they remained a consistent height above the deck as they conducted the

survey. Since the wreck drops slightly towards the stern, it would be incredibly difficult to hold a consistent downward angle of attack along the length of the wreck while trying to drive the DPV. Following the lifeboat davits was the simplest method and resulted in a much more accurate survey than the 2001 attempt. Over 150 individual still frames were later pulled from the video and combined using computer software. They were stitched together to create a mosaic of the shipwreck with 100% coverage. The mosaic took eighteen hours to produce, and was originally in color, but it was altered to black and white for higher contrast. The mosaic resolution is so high that the main and lower decks can clearly be seen through the weather deck's hatch openings and frame work. The mosaic became a tremendous tool during the survey because it not only orientated divers to exactly where they were supposed to be working on the wreck, but it also allowed them to sketch the area on a slate before the dive. This meant that all the divers had to do on the bottom was take measurements of the corresponding features they had already drawn. If features were missed on the mosaic or if the mosaic altered their appearance for some reason, it was a simple matter for the divers to add those features to the drawing. This technique made the most efficient use of the divers' time on the bottom and combined with trilateration mapping, a very accurate site plan was generated of the *Queen of Nassau* in both plan and profile views.

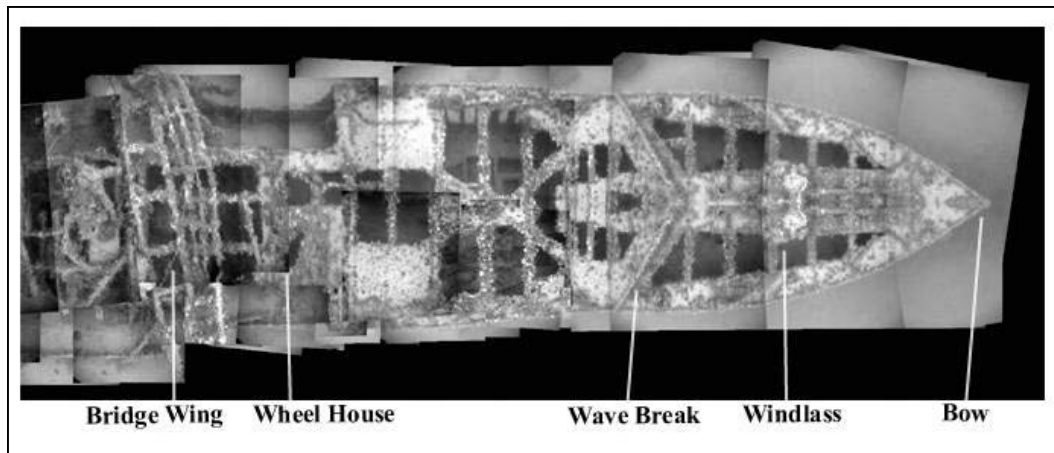


Figure 5.21 Labeled bow section of the 2003 *Queen of Nassau* mosaic.

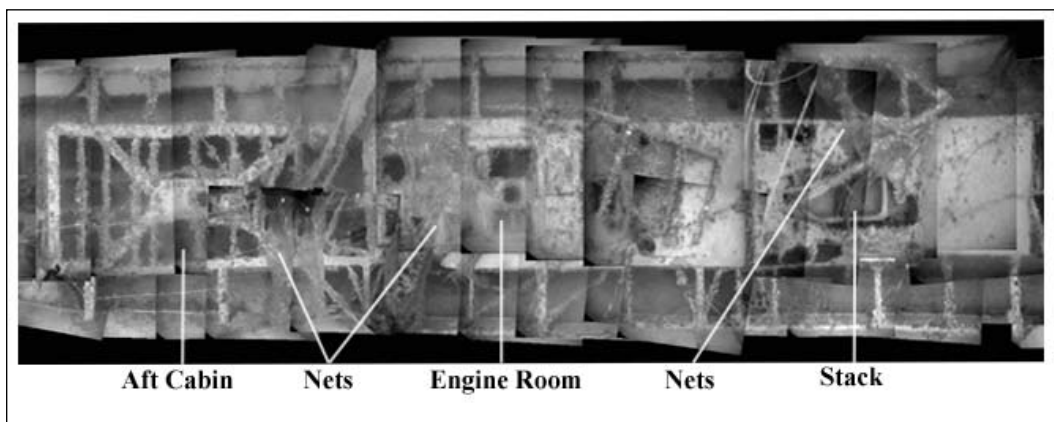


Figure 5.22 Labeled amidships section of the 2003 *Queen of Nassau* mosaic.

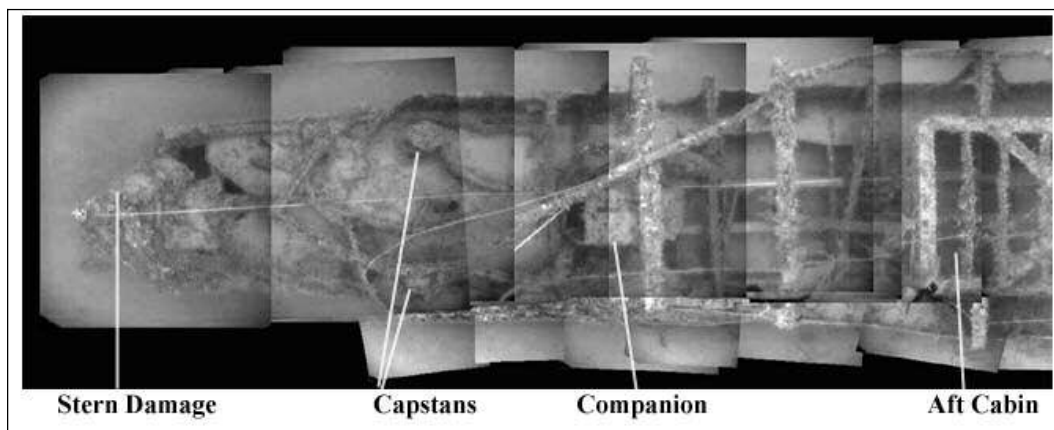


Figure 5.23 Labeled stern section of the 2003 *Queen of Nassau* mosaic.

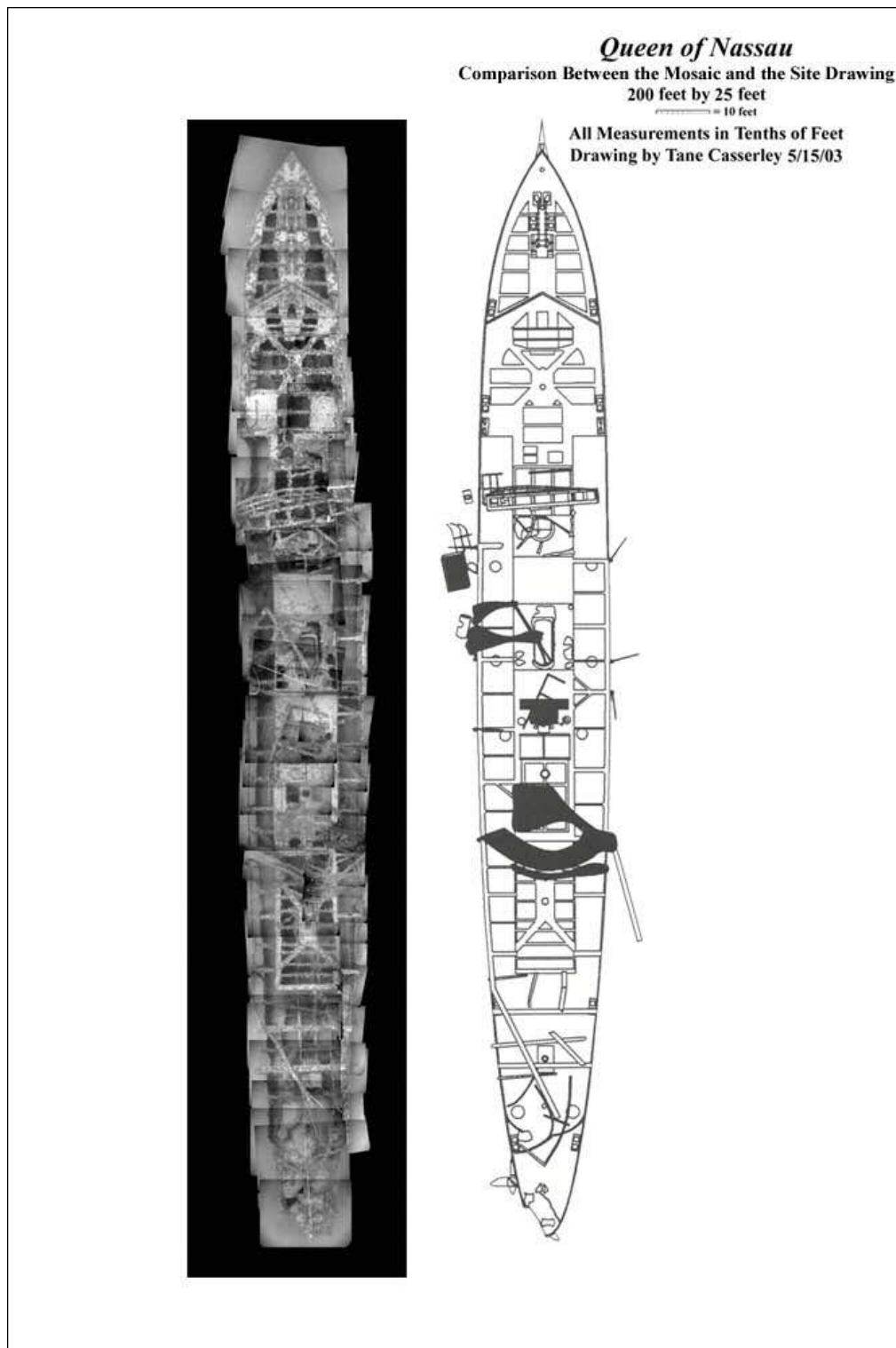


Figure 5.24 Comparison between the *Queen of Nassau* mosaic and the 2003 site documentation.

### ***Artifact Recovery***

No artifacts were recovered and no new artifacts were discovered during this survey. The artifacts identified and left *in situ* during the previous surveys were relocated and appeared undamaged, except for one. An intact deck light identified in 2001 on the starboard main deck walkway was found damaged in 2002. Now, in 2003, this same deck light had migrated four feet across the hallway, the bottom was completely missing and the top was ajar. The light was videotaped in detail and its new position was recorded. The most probable cause of this damage is from divers visiting the site.

### ***2003 Results***

The 2003 site documentation completed the fieldwork that began in 2001. The 2002 field season resulted in an accurate site plan, but without detail. Using digital photography, mosaics, and traditional trilateration techniques, the 2003 documentation completed that work and produced a very detailed site plan in both plan and profile views. Even though the site was carefully documented, the name of the vessel was still not located during the survey. However, enough circumstantial evidence of the ship's construction was collected to prove that the site was indeed the custom built Canadian warship *Canada* modified to become the first-class passenger steamer *Queen of Nassau*.

The 2003 fieldwork gathered a tremendous amount of data that either answered or found evidence to support all of the research questions that were asked at the beginning of the 2003 survey. First, the historical data did match the data collected during the site

documentation. According to the Vicker's shipyard records, the *Canada* was a one-off or one-of-a-kind design and no others like her were built. This makes the *Canada* unique in

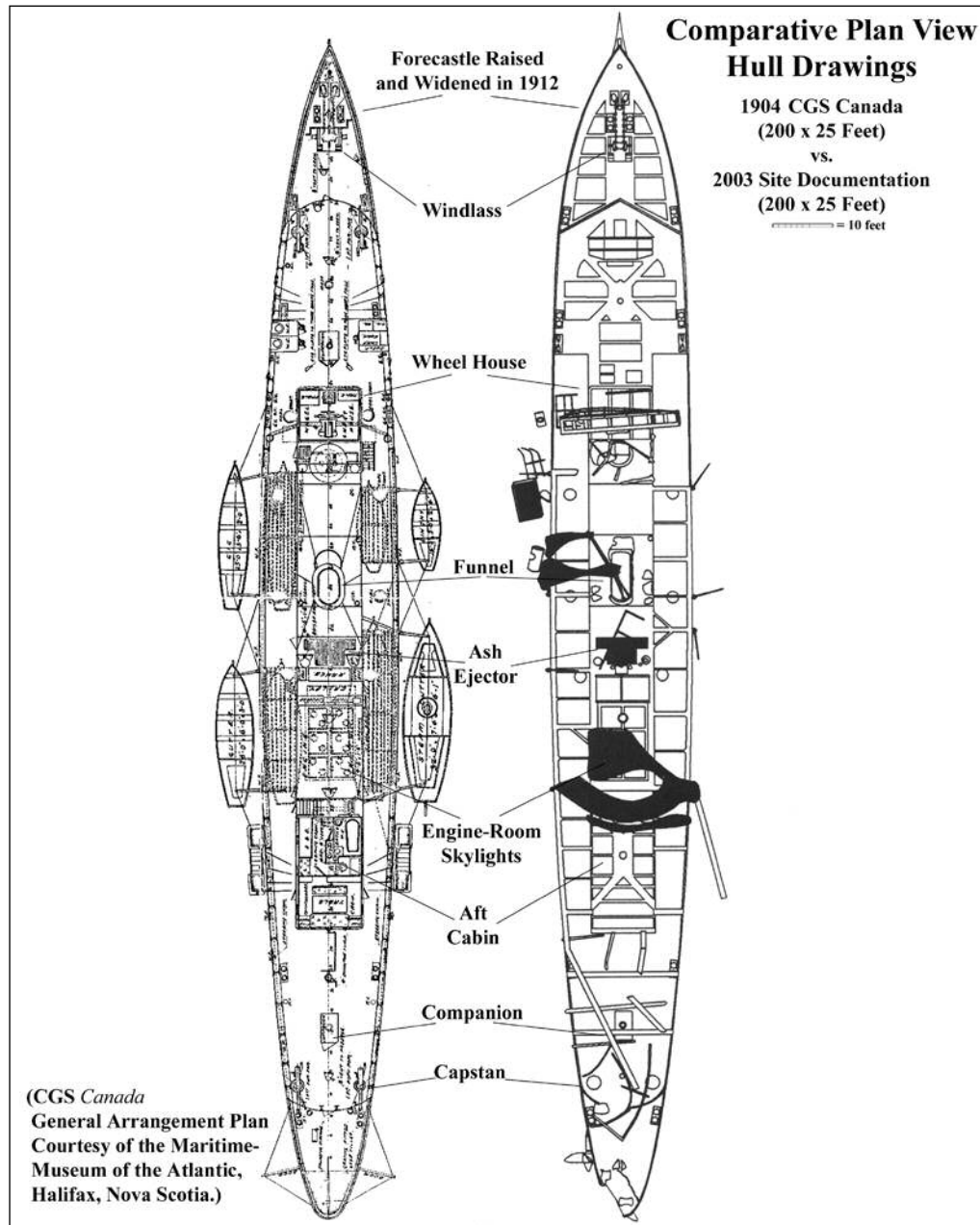


Figure 5.25 Comparison between the 1904 *Canada* General Arrangement plans and the 2003 site documentation.

the archaeological record. Not only did the shipwreck have the same dimensions as the *Canada*, the plan view site documentation matched the deck and cabin layout of the *Canada*'s 1904 General Arrangement plans. The discrepancies between the two can be explained by the construction of the forecastle in 1912, which both widened and heightened the deck at the bow, as well as the observational weather deck that was added to the vessel in 1924 once it became the *Queen of Nassau*.

Evidence existed that could identify the site. The vessel's deck layout and dimensions were diagnostic tools for identification as well as the vessel's prominent ram bow. Ram bows were a major architectural feature on turn of the century warships and were nearly unheard of on any other type of vessel. During this time period the world's major naval powers each had their own particular hull and ram bow designs. By looking at the shape of the shipwreck's ram, one can ascertain its probable origin. The site in question most closely matched British designs and by using historical research it was concluded that the site under investigation had too small of a length and beam to match any known Royal Navy ships. It was very similar, however, to smaller vessels of British dominions such as Canada, which had one vessel in particular built in a British shipyard in 1904, CGS *Canada*. The site also lies within a 1 mile radius of where the *Queen of Nassau* sank as reported by Captain Songdahl. No other vessels were documented as sinking in the immediate vicinity. Enough evidence at the site exists to prove the site is the *Canada/Queen of Nassau*.

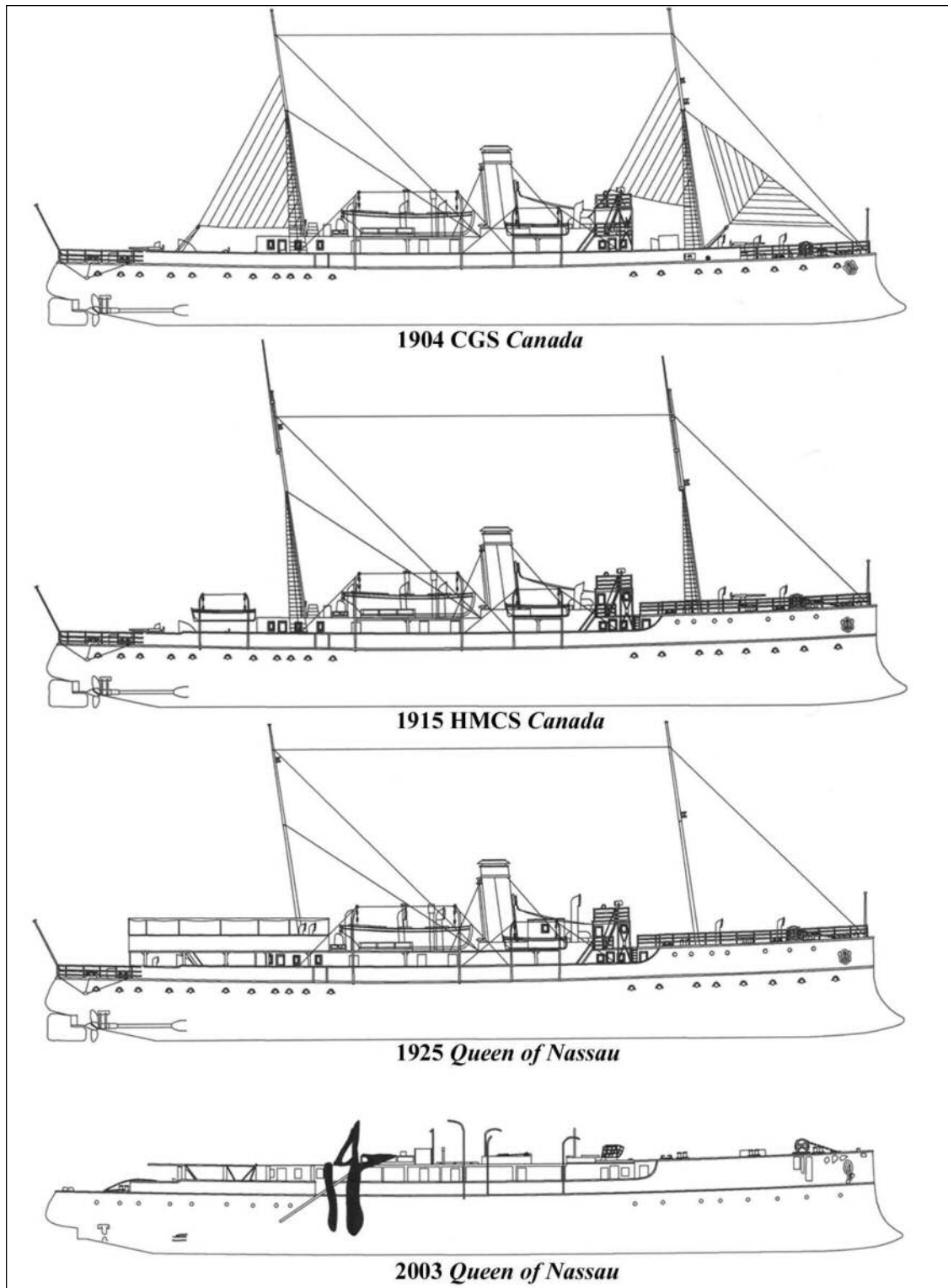


Figure 5.26 Hull changes to the *Canada/Queen of Nassau* from launch in 1904 to the site documentation in 2003 (Drawings by Tane Casserley).

The modifications made to the vessel during its transition between warship and first-class passenger steamer were ample. The *Canada*'s two 12-lb. guns were removed in the stern and replaced by two large capstans which were in the guns' exact location according to the 1904 General Arrangement plans. The aft commodore's cabin on the main deck was transformed into a saloon where passengers could relax. This was supported at the site by a large open cabin on the stern main deck. The final observable modification was the construction of a covered aft weather deck above the main deck at the stern. The 1925 photograph of the *Queen of Nassau* showed this feature (Figure 5.7), the remnants of which were still present at the site.

This survey was unable to ascertain if the vessel sank due to the separation of hull plates or some other event. No exposed outer hull plates are missing, but the structural integrity of the hull plates buried underneath the sediment is unknown. A much more probable scenario for sinking could be associated with the missing starboard propeller shaft. The missing shaft was not found in the immediate vicinity of the wreck. The through-hull fitting at the shaft was approximately eleven inches in diameter and its removal would allow a tremendous amount of water into the vessel in only a short amount of time. The starboard aft struts that supported the shaft near the rudder were also damaged with the center hub missing. This hub would have originally held the shaft in place. An assumption could be made from this evidence that the starboard shaft slid out of the hull for an unknown reason, and the torque broke the aft starboard struts and took the hub with it as it fell. An inspection of the starboard shaft through-hull fitting showed the shaft flange out of its original orientation and butted up against the through-

hull fitting. It should be located six feet into the vessel. The flange was in excellent condition with all of the bolts cleanly removed without any evidence of tearing or any other catastrophic event that would have otherwise caused the shaft to separate at the flange.

The site documentation collected during the 2003 survey did not support Captain Songdahl's statement that the hull "crumbled like an eggshell" as the vessel sank. An exterior visual survey of the outer hull adjacent to the boilers on both port and starboard sides found nothing wrong. There were no buckled, warped, or damaged hull plates anywhere on the vessel's amidships outer hull. An inspection by video camera found no obvious signs of boiler explosion in the interior of the engine room. The interior bulkheads and ventilator shaft were all straight and true with no signs of a catastrophe. The exhaust shafts from the boilers to the stack were also inspected and again no damage was found whatsoever.

In conclusion, it was determined after the completion of the 2003 field season that the research questions asked since the beginning of the site investigation in 2001 had been answered to the best of the researcher's ability. While the fieldwork did not uncover a smoking gun which could unequivocally identify the vessel, it was determined from all the evidence collected in the three years of both site documentation and historic research that the shipwreck under investigation was the *Canada/Queen of Nassau*.

## CONCLUSION

The story of the CGS *Canada* mirrors the emergence of Canada as an independent nation and fledgling sea power. It is the story of a newly-created self-determining power separating itself from its protector and mother country, Great Britain. This vessel helped influence this maritime nation by playing a pivotal role in the creation of its future navy. The CGS *Canada* became the nucleus of that navy by training the first Canadian naval officers and crew in general seamanship and gunnery practice, setting the stage for the official creation of the Royal Canadian Navy in 1910.

The 1904 Department of Marine and Fisheries' purchase of the custom-built *Canada* had three significant effects. First, it gave the fisheries protection fleet its largest and most powerful armed vessel to enforce its fishery laws against foreign poachers. Second, it single-handedly transitioned Canada's aged armed marine force, the fisheries protection fleet, from nineteenth century schooners and second-hand steamers, to the twentieth century's fast and heavily-armed steel cruisers. Third and most importantly, the purchase gave the proponents of a future Canadian naval service the opportunity to train and gain experience on a modern warship. In search of an identity separate from the British Empire and its most identified embodiment, the Royal Navy, the *Canada* was an instant source of pride for Canadians illustrating what they could accomplish on their own. It was so successful in both fisheries enforcement and naval training that it was the first Canadian-owned and -operated vessel invited to train with the prestigious Royal Navy. In this capacity it could be said that the CGS *Canada* was truly the nucleus of the Royal Canadian Navy.

The 1904 construction of the *Canada* had roots that stretched back to Britain's earliest days in North America. Canada's cod fisheries and the Royal Navy had a close association since John Cabot's discovery of the legendary Basque North American fishing grounds in 1497. The preserved salted cod from the fisheries provided a plentiful food supply to victual the Royal Navy ships, while the fishing grounds themselves provided an ample nursery for able seamen to fill the ranks. The protection of the fisheries and the training of British seamen in the 1500's was the beginning of 400 years of Royal Navy protection of Canada's coasts and offshore resources. For many years this situation worked very well for the Canadians. It allowed them to focus on their railroads and canals, while Britain footed the bill for the costly warships to patrol their coasts. Britain made several attempts to get the Canadians more involved in naval defense by contributing funds or providing armed vessels. The Canadians did neither. During the 1800's a series of fisheries disputes between Canada and the U.S. escalated tensions between the two nations. The U.S. had become a powerful industrialized nation and because of that the Admiralty steadfastly avoided becoming involved in the issue and left the bulk of fisheries enforcement up to the Canadians. To protect its fisheries but avoid long term expenditures, Canada played a delicate balancing act, creating a solution to the immediate threat then dismantling that solution once the threat was met. This solution usually took the form of leasing and arming a small fleet of schooners, which were quickly sent back to their owners after the fisheries dispute had ended. Canada wanted to avoid the appearance that it had the ability to protect its fisheries and coasts itself. To admit it did have the means would result in the Royal Navy quickly withdrawing its

warships from British North America. Canada would be stuck with the bill to provide for an armed presence off its coast. Canada had become accustomed to depending on Britain and attempted at all costs to continue the status quo. This, of course, allowed Canada to strengthen itself internally, but had the added effect of severely limiting its defensive options once Britain decided it was time for Canada to walk on its own.

Certain factions within the Canadian government realized Canada would eventually have to build its own navy. In 1877, Shelby Smyth became the new commander of Canada's small militia. He knew Britain would not be able to protect Canada against foreign commerce raiders and he requested that the Admiralty deliver armed merchant steamers to counter the threat. He also asked permission to begin naval training. The British Admiralty refused the merchant ships, but did provide a naval training ship, the HMS *Charybdis*, which was a complete disaster. The *Charybdis* affair was mishandled from the beginning because Canada never fully-funded the training program. Once again Canadian politicians played a balancing act between the need for armed vessels off their coasts and wanting to pay for the required expenditures. The *Charybdis* was quietly given back to the Royal Navy and Canadians ridiculed their government for the whole affair.

Smyth began the push towards Canadian naval autonomy, but it was another man, ten years later, who would have an even greater impact on the construction of the CGS *Canada*. In 1887 the former commander of the fisheries protection steamer CGS *Acadia*, Lt. Andrew R. Gordon, took command of the Fisheries Protection Service. As the former commander of a fisheries vessel, Gordon had long seen the potential for his service to

become the nucleus of a future Canadian naval force. Gordon agreed with Smyth that the Admiralty would not always be able to protect Canadian waters and, like Smyth, he took a proactive stance. Gordon suggested the Fisheries Protection Service acquire torpedo gunboats to act as fisheries protection vessels and as a naval force. These torpedo gunboats were fast, well armed, and had a long range. Most importantly, these vessels were an ideal nucleus for a naval service because their narrow beam allowed them to pass through the canals so they could operate both in the Great Lakes and the Atlantic, something the larger royal Navy vessels could not do with their wide beams and deep draft.

Gordon began his new position in 1887 just as Canada began another fisheries confrontation when the U.S. renounced the fishing clauses of the Treaty of Washington. The situation was made more difficult by Britain's reluctance to take action. The previous year the Admiralty had pulled support away from fisheries. No orders were given to the British North American squadron to cooperate with the Canadians except to lend moral support to their enforcement efforts. Gordon and his Fisheries Protection Service were left to deal with the problem alone. He ordered the fisheries vessels to begin seizing and fining American vessels that violated Canadian fishing rights. This effort quickly brought the Americans to the negotiating table. An interim agreement was made between the two nations. The U.S. Senate, however, refused to ratify it. That refusal caused what the Canadians had hoped was simply a short-term effort to become a permanent policy requiring a permanent Canadian marine force, the fisheries protection cruisers.

Circumstances provided Gordon with a maritime force, but the British Admiralty rejected his plan to acquire a fleet of torpedo gunboats. Gordon's proposal never materialized because he and the Admiralty could never agree on the particular class of vessel required. This disagreement may have effectively killed the immediate proposal, but long after Gordon left office, his guidelines for the ideal Canadian multipurpose vessel endured. When the Department of Marine and Fisheries decided to buy a modern, warlike cruiser in 1904 to act as both fisheries cruiser and future naval training ship, the vessel was custom-built to Gordon's specifications. The CGS *Canada*, 200-feet in length with a 25-foot beam, was able to pass through the canals to operate in the Great Lakes as well as the Atlantic. Its reported 22-knot speed allowed it to easily overtake foreign fishing vessels, and its four 1 ½ lb. quick-firing automatic Mark III guns ensured that Canada's fishing policies and sovereignty would be enforced on the high seas.

World events also influenced the *Canada's* construction. By the turn of the century, the power of the Royal Navy was threatened, as industrial nations such as the U.S., Japan, and Germany began building powerful battle fleets. The Admiralty recognized that it could not assure victory by numbers alone and sought alliances to avoid conflict. Germany, which had undertaken a massive military build-up, was the only major power the British were not able to create a treaty with. The Admiralty recognized that potential conflict and wanted the dominions to contribute more to offset the enormous costs of the Royal Navy's escalating naval construction program. In typical Canadian fashion, Canada said it would contribute, but in its own way. Funds were

allocated, plans drawn up, and in 1904 the 3<sup>rd</sup> class cruiser CGS *Canada* was constructed by the famed naval shipyard Vickers Sons and Maxim in Barrow-in-Furness, England.

Initially the *Canada* gave the fisheries protection fleet its largest and most powerful armed vessel to enforce its fishery laws against foreign poachers. It single-handedly transitioned the aged fisheries protection fleet from nineteenth century schooners and second-hand steamers to the twentieth century's fast, heavily-armed steel cruisers. It was a source of pride to both the public and the Department of Marine and Fisheries. But while the *Canada* was purchased as a fisheries protection cruiser, a mission it conducted during the fishing season, it also served as a naval training ship, a mission it performed during the winter months. The *Canada* trained the first home grown cadets in anticipation of the formation of a naval service and was so successful that the prestigious Royal Navy invited the small vessel to train with it in the West Indies. Most importantly the *Canada* also gave the proponents of a future Canadian naval service the opportunity to train and gain experience on a modern warship.

Three major political parties influenced the direction Canada would take towards creating a navy, each with its own view. Some wanted a navy, others refused the need for one, and still others suggested giving the British funding for building and maintaining Royal Navy ships. As the internal debates wore on, the Canadians remained watchful of the German military machine that was growing at an unparalleled rate. Like Britain, Canada realized that one day Germany would pose a severe threat, a threat that would most likely leave Canada's shores undefended. This prompted the allocation of funds in 1902 to build the CGS *Canada* and allowed it to act as a multifunction vessel conducting

both fisheries protection duties as well as naval training. The *Canada*'s success calmed Canada's anxiety somewhat concerning naval defense because it was actively doing something, albeit small, about it. This lasted until 1909 when the British government formally announced to the Empire that Germany's gigantic military expansion was now at the level that it threatened to overtake the Royal Navy. The Admiralty now required the dominions participation to offset the balance of power. New Zealand and Australia immediately offered to fund warship construction, while Canada took its own distinctive stance. The Canadians would do their duty for the Empire, but on their own terms. On March 29, 1909 the three political parties finally came to an agreement and voted in the Canadian House of Commons to approve a resolution to establish a Canadian Naval Service. Even though it took the threat of the Germans in 1909 for the Canadian public to officially accept the creation of its own naval service, it was the little *Canada* that was the impetuous for that acceptance. The Admiralty, thankful and supportive of the Canadian's efforts, lent two cruisers to begin the immediate training of naval personnel. When the cruiser HMS *Niobe* crossed the Atlantic and approached Halifax, it was fitting that the CGS *Canada* was the vessel that escorted the 435-foot warship. Just as *Canada* helped to steer the country's first cadets into their naval careers, it was also the ship chosen to lead Canada's first purpose-built warship into port.

In 1915 at the outbreak of World War I, the *Canada* was allowed to raise the white ensign and was commissioned as a Royal Canadian vessel becoming HMCS *Canada*. The *Canada* continued in its role as fisheries cruiser and training vessel, but also took on the additional duties of mine sweeping and harbor defense. It chased foreign

fishing vessels out of Canadian waters while keeping a sharp eye out for German submarines, mines, and warships.

As happens with all naval vessels, the *Canada* soon became obsolete. In 1919, the ship was decommissioned and listed for sale, but she still had one last role to play. The Florida Inter-Island Steamship Company purchased the *Canada* in 1924, stating that it intended for the ship to operate as a first-class passenger steamer between Miami and Nassau. The company changed the vessel's name to *Queen of Nassau* and stated that it would offer only exclusive passenger service, carrying no second-class or freight. The venture failed. Realizing that operating the expensive *Queen of Nassau* was no longer a profitable enterprise, the Florida Inter-Island Steamship Company pulled the vessel offline. The *Queen of Nassau* was taken back to Miami where it sat at anchor for the next 18 months in Biscayne Bay. The only crew member left aboard was First Mate J.J. Borden acting as caretaker and guard.

Then in 1926, Mexican interests announced plans to buy the aging vessel to run between Tampico and New Orleans. In dark of night on June 30, 1926, the *Queen of Nassau* was anchored outside Miami Harbor in anticipation of the next day's voyage around the Florida Keys to Tampa. Halfway through this voyage, the vessel began taking on water. It eventually overwhelmed the crew, forcing the captain to abandon the *Queen of Nassau*. As they rowed from the sinking vessel in a lifeboat, the captain and crew all reportedly saw the *Queen of Nassau* sink by the stern and claimed, when the bow was perpendicular, the boilers exploded and the heavy steel hull burst "like an egg shell." Eight minutes after the captain stepped into the lifeboat, the *Queen of Nassau* was gone.

The *Queen of Nassau*'s captain theorized the ship sank due to the severe rusting of its bottom and that engine vibration had worked a hull plate loose. His last words to the press were that he was unaware of whether the ship had been insured by Collier before his departure from Miami.

From the archaeological documentation collected at the shipwreck, there is little doubt that the site is indeed the *Queen of Nassau*, but there was a discrepancy between the on-site evidence and the captain and crew's account of the vessel's sinking. Both the captain and crew stated that they saw the vessel's hull crumple like an eggshell when the boilers purportedly exploded, but the shipwreck's outer hull was completely intact in the areas adjacent to the boilers on both the port and starboard sides. The only damage to the site was located on the vessel's stern, where damage would be expected since the vessel reportedly sank stern first. Otherwise, the vessel was in phenomenal condition considering it has been resting on the seafloor for 79 years.

The shipwreck documentation also called into question the captain's theory on the cause of sinking. He told reporters that he believed the ship sank due to a rusty hull plate that was shaken loose due to the engines vibration. From the archaeological evidence, it appears more plausible that the sinking could be attributed to the vessel's missing starboard propeller shaft. Both the starboard propeller and shaft were missing from their original location. Their absence opened an 11-inch hole that allowed a tremendous amount of water to rush aboard in a short amount of time. The site investigation also found two cleanly snapped shaft struts, rather than bent struts as would have been expected had the shaft become dislodged when the vessel impacted the bottom.

Therefore it can be concluded the shaft became detached from the vessel before the captain ordered the vessel abandoned.

The exact cause of the ship's demise are up for interpretation but there is no denying that the vessel under investigation is the former Canadian warship *Canada*. Artifacts collected from the shipwreck date to the correct time period. From what was viewable by the divers, it appeared that there was no cargo located within the shipwreck's hold. This find collaborates with *Lloyd's Wreck Returns* that describes the *Queen of Nassau* as traveling in ballast on its final voyage to Tampa. The shipwreck also lay within a one mile radius of where the captain reported the *Queen of Nassau* sinking, 7 miles south of Lower Metacumbe Key and 50 miles south of Miami.

The vessel is unique in the historical record. The Vickers Sons and Maxim shipyard historical accounts state that the *Canada* was a one-off or one-of-a-kind and no other like it was built. A 1925 photograph of the *Queen of Nassau* located at The Mariners' Museum research library was compared to the plan and profile archaeological drawings generated from the field research and they matched exactly. Finally, historic research conducted through *Lloyd's Wreck Records* found no other vessel with the *Queen of Nassau's* dimensions or profile lost in the region of Lower Metacumbe Key during that time period.

The final piece to the *Queen of Nassau's* puzzle was its elusive owner, Barron Gift Collier. Collier had a long term love affair with power yachts as many of his contemporaries. Collier also had an incredible business career and was known as a risk taker. The self-made millionaire and advertising magnet was already well established in

Florida after creating his own empire on the state's west coast. He saw the *Queen of Nassau* as an opportunity to bring his west Florida empire to the state's east coast.

Unfortunately for Collier, this business transaction turned out to be a losing proposition.

It was thought that Canada's first warship and the nucleus of its navy lay lost and forgotten at the bottom of the Atlantic. But now, 79 years after it went to its grave, the CGS *Canada* has been given a new lease on life. Now the warship is a federally protected cultural resource and a shining example of a bygone era of naval design. In its new role, the *Canada/Queen of Nassau* is being used by both NOAA and the state of Florida to educate the public about the important role the North American fisheries played in world events, the origins of the Royal Canadian Navy, and how a powerful Florida land baron tried to extend his commercial empire across the state.

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