THE LIBERTY SHIPS OF WORLD WAR II



Their Union County and Other Carolina Connections

by Bill Lee

Dedicated to the men of the American Merchant Marine and the United States Naval Armed Guard who sailed in harm's way in Liberty Ships during World War II ...

...and who did not return.



America's wartime merchant fleet made one of the more important contributions to victory in World War II. An all-volunteer civilian workforce of Merchant Mariners sailed thousands of vessels in harm's way throughout that global conflict. These men paid a high price for their success, suffering the highest casualty rate of any service.

Without their support, our armed forces could not have even gotten overseas, much less been properly supplied as they fought their way to victory. A major element of America's wartime merchant fleet was a huge class of vessels known as the Liberty Ships.

More Liberty Ships were built than any other class of sea-going vessels in the history of the world. Numbering 2,710, they were all mass-produced in less than five years. This astounding accomplishment took place in the middle of a world war that placed extreme demands on the capabilities of the United States and its allies.

Not only did the men and women of America build Liberty Ships at an unprecedented rate, they also first constructed entire new shipyards for the sole purpose of building Liberty Ships. One of these shipyards was in North Carolina. Two others were built and successfully operated by Charlotteans who had no prior experience in shipbuilding.

Three Liberty Ships bore the names of prominent Union County natives. Two were built in North Carolina, and the third was built by a Charlotte-based firm. What follows is the story of these Liberty Ships and their Union County and other 'Carolina Connections'.

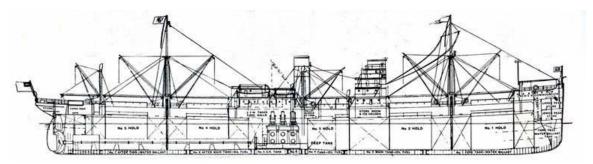




World War II began on September 1, 1939, when Germany invaded Poland. During the next sixteen months, enemy submarine, surface raider and aerial attacks seriously crippled the Allies' war effort in Europe. A huge number of merchant ships carrying vital military equipment, supplies and troops were sunk by the Axis. England's very survival depended on such shipments arriving safely in large numbers. However, Great Britain's war-ravaged industries could not produce replacement ships in sufficient numbers.

The United States realized that if Great Britain fell, our country would have no allies left in Western Europe. Months before the attack on Pearl Harbor forced the United States to enter World War II; our nation began providing invaluable assistance to England. Under an innovative Lend-Lease program conceived by President Franklin D. Roosevelt and England's Prime Minister, Winston Churchill, arms and equipment were allowed to be sent to any nation deemed vital to the defense of the then-neutral United States.

Under this authority, two private shipyards in America, one on each coast, started building sixty commercial ships for Great Britain. The British provided a simple-to-build design that dated back to 1879. They were old-fashioned and had coal-fired boilers and technically obsolete reciprocating engines. But they were very utilitarian, and could be constructed very quickly.



Inboard Profile of a Classic British Tramp Steamer

Commonly referred to in maritime circles as 'tramp' steamers, their original design was slightly enlarged and given the name Ocean Class by the British. These ships were capable of carrying ten thousand tons of cargo and traveling at eleven knots. Coal-fired boilers were specified instead of more modern, oil-fired units because England had plentiful coalfields, but no indigenous supplies of fuel oil.



Our own merchant marine was in bad shape in 1941. The nation's civilian fleet largely consisted of ships that had been built as part of an Emergency Fleet Program near the end of World War I. Because of technological advances, these ships were rapidly becoming obsolete and non competitive in commercial maritime markets, and of limited value to the Navy as auxiliary support vessels. In addition there were not nearly enough of them.

Surviving U.S. shipyards were in no better shape. The industry had seen few new orders after 1919 because of a surplus of ships and the impact of The Great Depression. By 1941, the nation's shipbuilding capacity was but a fraction of its size during World War I.

A few years earlier, as a part of the nation's economic recovery effort, the Merchant Marine Act of 1936 was conceived by President Roosevelt and rapidly pushed through Congress that summer. This sweeping legislation was aimed at providing more jobs for American industry and to restore the American Merchant Marine to a position of prominence in the world. Responsibility for this work was entrusted to a new organization: the United States Maritime Commission.



The Commission developed a bold plan. The primary purpose of its plan was to subsidize the design and construction of hundreds of modern ships and then lease them to American shipping interests. The plan also called for the government to pay for US Navy-approved additions, obliquely referred to as "National Defense Features' that would enable ships contracted for by the Maritime Commission to be capable of quick conversion to serve as naval auxiliaries in wartime.

The Commission initially authorized the construction of fifty vessels. By the end of 1940, it became apparent that was not going to be nearly enough ships to provide for America's defense, or support the needs of its allies. So in January 1941, President Roosevelt announced an additional \$350 million shipbuilding program. In the next few years, this program was expanded many times over, far exceeding anyone's expectations.

The program's goal was simple and stark:

Build ships faster than the enemy could sink them.

~ UGLY DUCKLINGS AND THEIR PRODUCTION MIRACLE ~

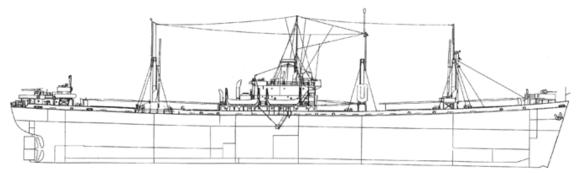


By the end of World War II, America's industrial arsenal had produced almost six thousand merchant ships and the greatest fleet of fighting ships the world has ever seen. The largest, and most famous class of merchant ships built during World War II were the Liberty Ships, initially referred to as "Ugly Ducklings" by President Roosevelt. Between 1941 and 1945, an astounding 2,710 of these famous vessels were built.

The urgent need for large numbers of new cargo vessels came at a time when domestic facilities for building ships and producing their marine equipment were already fully engaged in a massive naval expansion program. America's industrial might was simply not up to an additional task. More shipbuilding capacity was obviously needed.

The Maritime Commission initially wanted to mass-produce a modern cargo ship design that had been created in the late 1930s. Since there was no time to design an entirely new ship, so the Maritime Commission had to utilize an existing design. After considering several possible alternatives, the Commission selected the British Ocean Class design as a starting point. Some alterations were made to conform to American manufacturing and shipbuilding practices, and US Coast Guard requirements. Other changes were due to the desire to utilize more efficient manufacturing methods (i.e. welding in lieu of riveting). Oil-fired boilers were specified in place of the coal-burning ones the British favored.

The Maritime Commission's official classification for the Liberty Ships was "EC2-S-C1". The "EC" designated an "emergency cargo" ship. The "2" indicated the ship's large size with a waterline length between 400 and 450 feet. The "S" designated a steam engine and "C1" the specific ship design and modification number.



Liberty Ship (EC2-S-C1) Basic Design

The characteristics of the basic Liberty Ship class of vessels follow:

Length: 441 feet, 6 inches	Beam: 57 feet	Draft: 27 feet, 9 inches
Displacement: 14,245 tons (fully loaded)		
Cargo Capacity: 9,140 tons, nominal (over 10,000 tons, with external deck cargo)		
Propulsion: Two oil-fired boilers One triple expansion 2,500 HP steam engine		
Speed: 11.5 knots, maximum Range: 17,000 Nautical Miles		
Typical Crew Size: Up to 44 Merchant Mariners and 12 to 25 Naval Armed Guard		
Armament: One 3-inch bow gun, one 5-inch stern gun and six to eight 20 mm guns		

Despite their impressive official classification, the ships were initially often referred to as "ugly ducklings" by the press. To counter this negative image, the Commission began referring to the first order of so-called Ugly Ducklings as the Liberty Fleet.

Liberty Ships were traditionally named for individuals who were no longer living and who had made a significant contribution to the American way of life. Over a hundred of the vessels in this class that were built in 1944/1945 were named for merchant seamen who died during the war.

Appropriately, the first Liberty Ship was christened *Patrick Henry* by the Vice-President's wife on September 27, 1941. That date was proclaimed nationwide as "Liberty Fleet Day" and <u>thirteen</u> more Liberty Ships were launched within hours of each other at several different shipyards.

President Roosevelt attended the *Patrick Henry's* ceremonies, and in his remarks referred to Patrick Henry's phrase "Give me liberty...or give me death." Roosevelt also predicted that these ships would bring liberty to Europe and victory to the allies. He urged the shipbuilders in attendance at that event to work with speed – more speed. But he didn't utter the words *Ugly Ducklings*.



The construction of 2,710 Liberty Ships in less than five years truly constituted a production miracle. It was a feat made even more impressive because of numerous other major programs underway during World War II. Not the least of the other programs was the necessity to build several new shipyards dedicated to Liberty Ship production.

Initially, old, established shipyards started building Liberty Ships the conventional way. Additional yards were quickly created around the country, and thousands of men and women flocked to those industrial sites to first learn how, and then to build ships. The mass production successes of this program were largely due to the utilization of a standard ship design, plus the creation of multiple, identical shipways supported by assembly line-influenced material flow paths and modular sub-assembly methods.



At the peak of the war effort, eighteen shipyards located on the East, West and Gulf Coasts were dedicated to building Liberty Ships. Their designs featured six to nine building ways each.

The larger shipyards employed as many as 50,000 at the peak of their three shifts a day, seven days a week operations. Entire communities sprang up nearby to fulfill the needs of the shipyard workers. By the end of the war, an astounding 1.5 million men and women had been trained in the art of building Liberty Ships.



Once production lines got into high gear, the time required to build a Liberty decreased remarkably. It took 244 days to 'stick build' the *Patrick Henry*, the first Liberty Ship. Near the end of the Liberty Ship production program, ships were being rapidly assembled, on average, in just 42 days using huge pre-fabricated modules. As an incentive to sell war bonds and as an unabashed publicity stunt, one west coast-built Liberty was launched four days, 15 hours and 30 minutes after her keel was laid.

Nationally, an average of 592,000 manhours and 6,850 tons of steel were required to build a single Liberty Ship. Prefabrication techniques that featured 250-ton sub-assemblies were utilized to the fullest extent physically possible.

The vast majority of the 250,000 pieces that went into each Liberty Ship were utilized to produce approximately one hundred multiton sections that were then assembled on the shipways. Nevertheless, some items still had to be handled individually. For example, huge and unwieldy propellers weighing 21,000 pounds and manufactured elsewhere had to be positioned beneath the stern of each Liberty Ship while the vessel was still on the building ways.





World War II introduced a major change in the way ship's hulls were fabricated. Riveting was largely replaced by welding. While this new technique enabled ships to be built faster, there was an unexpected price to pay. There was limited knowledge at the time about the danger of locked up stresses in metal fabrications, accompanied by a phenomenon called 'brittle fracture'.

Several Liberty Ships were lost, most often in the cold and rough waters of the Arctic Ocean where an unfortunate ship's hull would develop serious cracks, occasionally even resulting in a ship breaking completely in two. Once this condition was identified and studied, minor changes in hull design and rigid controls for welding techniques eliminated the problem.

The average cost for a Liberty Ship was \$2 million (in 1945 dollars). It was initially felt that if a ship could make more than one trip it had paid its way. Fifty of these sea-going workhorses were lost on their maiden voyages! However, only 196 of the 2,710 Liberty Ships produced (7% of the total number built) were lost during the war, including ships lost due to storms, groundings or other non-combative related misfortunes.

Quite obviously, the construction miracle met and surpassed the initial program goal...

Build ships faster than the enemy could sink them.

~ UNION COUNTY AND OTHER CAROLINA CONNECTIONS ~



North Carolina citizens and companies were major participants in various aspects of the Liberty Ship program. Three Liberty Ships were named for prominent Union County natives. Two of these vessels were built in Wilmington, North Carolina, by Carolina shipbuilders. The third vessel was built in Brunswick, Georgia, by the Charlotte-based JA Jones Construction Company.

SS THOMAS W. BICKETT

The North Carolina Shipbuilding Corporation built 243 ships in Wilmington between 1941 and 1945. Their 83rd hull, the *SS THOMAS W. BICKETT*, was named in honor of former North Carolina Governor Thomas Walter Bickett. It only took the North Carolina Shipbuilding Corporation's skilled workforce 38 days from the time this vessel's keel was laid until she was delivered.

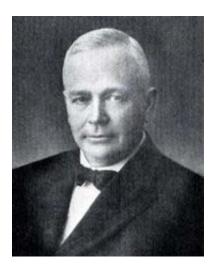


His granddaughter, Miss Frances Y. Bickett, christened the ship on April 9, 1943. A little over a month later, the *BICKETT* was chartered to Bulk Carriers, Inc by the Maritime Commission and left Wilmington on May 15, 1943.

Chartered to the Army Transportation Service, her cargo holds were reconfigured to carry troops.

Her troop-carrying capacity (550 soldiers and their gear) was small by troop ship standards. In May of 1944, she was a member of a huge convoy (65 merchant vessels and 18 naval escorts) that sailed from Norfolk, Virginia, bound for Tunisia. Although under heavy attack in the Mediterranean, all the ships in this convoy arrived safely.

On March 23, 1948, following completion of her service to our nation, the *BICKETT* sailed back up the Cape Fear River and was laid up, along with dozens of other Liberty Ships in the Wilmington, North Carolina National Reserve Fleet. Declared surplus in mid-1965, the *SS THOMAS W. BICKETT* was sold for her scrap value, towed to Kearney, New Jersey and demolished in 1966.



Thomas Walter Bickett was born on Jefferson Street in downtown Monroe in 1869, within sight of the Union County courthouse. He was the eldest of four children born to Thomas Winchester and Mary Covington Bickett. His father, a doctor, died when Thomas Walter was only thirteen years old.

After graduating from Wake Forest College in 1890, Bickett taught in public schools for two years, first in Marion and later in Winston-Salem. He studied law at The University of North Carolina in 1892 and in the following year was admitted to the bar. He practiced briefly in Monroe before moving to Louisburg in 1895, where he became the senior partner of a law firm.

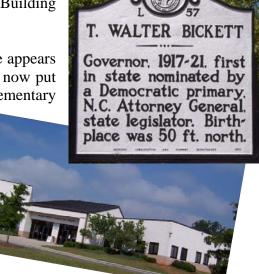
Bickett married Fannie Yarborough, the daughter of Colonel William Yarborough, in Louisburg in 1898. Of the three children born to the couple, only one, William Yarborough, survived infancy. Bickett first held public office in 1907 as a member of the state house of representatives. Regarded as humane, Bickett was largely instrumental in securing passage of a bill to enlarge and improve the state's facilities for treatment of the mentally defective. He was also a staunch supporter of the bill that established the East Carolina Teachers' Training School (present-day East Carolina University).

Thomas Walter Bickett was twice elected attorney general of North Carolina; first in 1908 and again in 1912. In November 1916, he won the state's gubernatorial election and was inaugurated as governor the following January. During his governorship, Bickett proved to be a modest reformer and enjoyed great popularity across the state.

Upon his retirement as governor in January 1921, Bickett purchased a home in Raleigh and formed a new law firm. However, less than a year after leaving office, he suffered a

stroke. He died the following day at the age of fifty-two. After lying in state in the rotunda of the Capitol Building in Raleigh, he was buried in Louisburg.

Better known locally as Walter Bickett, his name appears on this historical marker. A former high school, now put to special educational use, and a present-day elementary school are named after him.



SS DAVID F. HOUSTON

The 173rd ship built during World War II at North Carolina Shipbuilding Corporation, on the banks of the Cape Fear River was the *SS DAVID F. HOUSTON*. This vessel was named in honor of the memory of David Franklin Houston. On July 8, 1943, less than a month after the ship's keel was laid, his daughter, Mrs. Helen Houston Cotton christened the vessel. The completed ship was delivered just a scant week later, on July 15, 1943, and chartered by the government to the Wessel Duval, Inc. shipping company.

Like the *BICKETT*, the *HOUSTON* was later converted to carry troops. 550 bunks, stacked several tiers high were installed in two of the ship's forward cargo holds. A galley, a mess hall and suitable, albeit sparse, sanitation facilities were also provided in adjacent spaces. Additional ventilation, plus escape ladders and hatches, completed the crude conversions. These barely livable spaces were often filled to over capacity.



Information about the ship's wartime operational history is limited to a brief mention of her being in several large convoys that frequently sailed on several occasions from New York to Liverpool in early 1944. It can be assumed that she safely delivered troops and war material in support of the build-up that preceded the D-Day invasion later that year.



On one of these trips, the *HOUSTON* and another Liberty collided in the Irish Sea while steaming in close formation with dozens of other vessels. Such accidents were common when convoys changed course or whenever ships scattered to all points of the compass to avoid U-boats. Neither ship suffered any serious damage.

The *SS DAVID F. HOUSTON* was briefly laid up at the end of World War II in the Hudson River National Reserve Fleet. In March of 1947 she was chartered to the North Atlantic & Gulf Steamship Company, but less than a year later was turned back over to the government and laid up in the Mobile, Alabama National Reserve Fleet.

She was subsequently sold for scrapping in early 1969 and demolished at the Pinto Island Metals Company in Mobile in July of that same year.



David Franklin Houston was born on Jefferson Street in Monroe in 1866, three years earlier then Thomas Walter Bickett and within 300 yards of Bickett's birthplace. David's parents were local shopkeepers William H. Houston and Cornelia Anne Stevens Houston.

After graduating from South Carolina College (now the University of South Carolina) in 1887 with a degree in the classics, he accepted a tutorship at the college. There, he taught Greek and Latin while pursuing graduate studies in history and economics. He left the college after one year to become superintendent of the Spartanburg, South Carolina city schools.

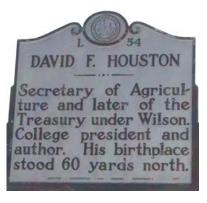
Following three years in Spartanburg as superintendent, he began graduate work at Harvard on a Morgan Fellowship, specializing in history, economics, and government. He received his master's degree from Harvard in 1892. While there, Houston made his first contribution to political literature by helping write a textbook. In 1894, he became an adjunct member of the faculty of The University of Texas at Austin in 1894. He married Helen Beall in 1895 and they had five children. After being promoted to associate professor in 1898, he was named dean of the faculty at UT in 1899.

David Houston left the University of Texas in 1902, when he was named president of Texas A&M at the unusually young age of 36. In 1905, he returned to the University of Texas to serve as its president. During his three-year presidency there, the University organized its doctoral program and raised admission standards for freshmen, law and medical students. President Houston left the University in 1908 when he was named Chancellor of Washington University in St. Louis.

In 1913, Houston was appointed Secretary of Agriculture in the cabinet of President Woodrow Wilson. A record number of agricultural laws were passed by Congress during his seven-year tenure. Important legislation included the Farm Loan Act, the Warehouse Act, and the Federal Aid Road Act. During the last year of the Wilson Administration, David Houston served as Secretary of the United States Treasury.

After leaving government service in 1921, Houston became president of a life insurance company, and he served as a director for three major industrial corporations. He was also an overseer of Harvard University and a trustee of Columbia University.

David Franklin Houston, retired president and professor of government, died in New York in 1940 at age 74. He was interred on Long Island, N.Y. This plaque stands on Jefferson Street in Monroe, very near the new Union County courthouse and other government offices.



SS R. NEY McNEELY

The 25th vessel built at the Brunswick, Georgia, shipyard was named in honor of another Union County native: Robert Ney McNeely.

Every Liberty Ship built was assigned a Maritime Commission number, a builder's hull number, and a shipway assignment long before given a name. In the case of the *McNeely*, the USMC Hull Number was 1513, the shipyard's hull number was 129, and she constructed on Shipway #1. Construction photos documented the numbers, not the name of the vessel.

The keel for this Liberty Ship was laid on December 9, 1943. The *SS R. NEY McNEELY* was launched on January 29, 1944 in one of the more unusual christening ceremonies orchestrated by the Marine Division of JA Jones.





The ship's sponsor was a local teenager, Lanelle Rimes. She had won a contest conducted by the shipyard to gather scrap metal for the war effort, and her prize was the opportunity to christen a Liberty Ship. Martel McNeely, a newspaper reporter in New Orleans at the time, witnessed the event and wrote at length about the event, as well as his brother's life.

Completed February 10, 1944, 63 days after her keel was laid, the *McNeely* was delivered to a civilian crew provided by the South Atlantic Steamship Company. Soon they were sailing in convoys to Russia. Later, they participated in the D-Day landings on June 6, 1944, and then made several more trips between England and France that month.

Consigned to the Wilmington, North Carolina National Reserve Fleet after the war ended, the *McNeely* was transferred to the US Navy in early 1955. The Navy assigned her the designation of YAG-51. Reportedly, she was modified to serve as a repair ship for the fleet, but her exact duties are unrecorded. What is known is that numerous vessels during the Cold War that carried the YAG designation were involved in clandestine operations.

When her brief navy service was completed less than a year later, she was first returned to the Wilmington reserve fleet location, and in March of 1965 transferred to the James River, Virginia National Reserve Fleet. The SS *R. Ney McNeely* remained at that location until 1972, when she, too, was declared surplus and offered up for sale. In August of that same year, she was towed to Kearny, New Jersey and scrapped in 1973.



Robert Ney McNeely was born in 1883 in Jackson Township, near Waxhaw. He was one of eleven children born to Robert and Henrietta Belk McNeely. In a short lifespan of 32 years, he was a rural mail carrier, historian, lawyer, teacher, state legislator and diplomat.

After obtaining a law degree from the University of North Carolina, Ney McNeely began to practice law in Monroe in 1907. He served in North Carolina's General Assembly as a Representative in 1909 and then, in 1914, became a State Senator.

In October of 1915, McNeely journeyed to Washington, DC where he passed the government's competitive examination for consul. After a month of training, he was appointed American Consul to Aden, Arabia, In November, he sailed from New York to Liverpool. He then embarked in a British ship, the *Persia*, whose next port of call on the way to India was scheduled to be Aden. On December 30, 1915, a torpedo struck the ship in the Mediterranean Sea. The *Persia* sank in less than five minutes with significant loss of life. Ney McNeely's body washed ashore near Alexandria, Egypt, was identified, and his personal effects sent home. But his body apparently washed back out to sea and was never recovered.

A modest residence that McNeely built in 1910, located just outside Monroe on Route 84 still stands, as does this imposing monument to his memory located on the grounds of the Museum of the Waxhaws.



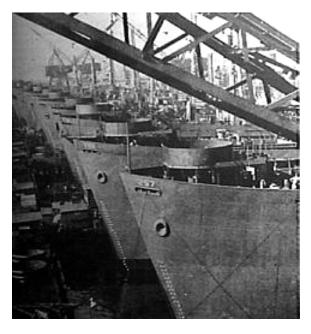
OTHER CAROLINA CONNECTIONS

A Charlotte-based firm, the V. P. Loftis Company, participated with the Wilmingtonbased firm of Orrell and Underwood in the construction of a completely new shipyard near Wilmington, North Carolina. Their starting point was a combination of riverfront woodland, sand hummocks and tidal flats.

In less than a year, they created a 57-acre industrial complex at a cost of a little over \$5 million. The Wilmington yard was organized and started up by a small team of veteran shipbuilders from the Newport News Shipbuilding & Dry Dock Company of Newport News, Virginia. Homer L. Ferguson, the parent firm's president and a native of Asheville, North Carolina, personally selected the undeveloped site, located just south of Wilmington.



Only 400 of the thousands of Carolinians employed by the North Carolina Shipbuilding Corporation had any prior shipbuilding experience. At its peak, the Wilmington yard employed 21,000 people and had the best productivity of any of the Liberty shipbuilders. They expended only 70% of the average number of man-hours needed to build Libertys.



The Wilmington yard was one of the original emergency yards. Created in 1941, it initially had six shipways. This number was later increased to nine, along with expanded support facilities, requiring an additional eighty acres. This work took place in the midst of a hectic shipbuilding program. When completed, this industrial complex was one of Carolina's largest, built at a total cost over \$20 million.

After the war, the yard's facilities were held in reserve by the Maritime Commission until the 1950s, when this once-invaluable shipbuilding resource was liquidated. Today, little remains to mark where this emergency facility once hummed night and day.

The vast majority of the shipyard's employees who toiled on the shipways and in the shops at Wilmington at the peak of activity were farmers, fishermen and females. The same was true in the other emergency shipyards around the county that were dedicated to building Liberty Ships. People who had never before even seen an ocean-going vessel quickly learned how to perform one or more repetitive tasks with great efficiency.

As Carolina shipbuilders gained experience, the number of man hours required came down. By 1943, the Wilmington yard was expending only 70% of the national average.

Hull #1 at North Carolina Shipbuilding was named in honor of Zebulon B. Vance, a former governor of North Carolina. Her keel was laid May 22, 1941, only three and a half months after construction of the shipbuilding facility had been started. In spite of this

situation, and through the use of advanced subassembly techniques, the ship was nearly complete when launched.

The first Wilmington-built Liberty slid down the ways amidst much celebration on December 6, 1941; just hours before the Japanese attack at Pearl Harbor.



By early 1946, when the last vessel left the Wilmington yard, a total of 243 ships - of which 126 were Libertys - had been built there by the men and women of the Carolinas.



In parallel, a Charlotte-based general construction firm, the J.A. Jones Construction Company, started building a shipyard for the Maritime Commission in Panama City, Florida in the spring of 1942. When the yard's construction work was nearly complete, Jones stayed on and began to construct Liberty Ships there. Their first ship was launched on December 30, 1942.

In February of 1943, Jones was asked by the Maritime Commission to take over the management of a recently completed Georgia shipyard and construct additional Libertys there. By the end of the war, Jones had built a total of 212 ships at both yards. Of this total number, 187 were Liberty Ships.

The Brunswick yard was very productive. The average cost of Libertys built there was \$1.5 million' about three-quarters' the national average. Not bad for a company that had never before built a ship.



In December 1944, the Brunswick production workers launched seven ships, an accomplishment unmatched by any other yard with six shipways. They even worked on Christmas Day and then donated their holiday paychecks to the war effort!



Before World War II, shipbuilding had long been the almost exclusive province of men. But the extreme demands of wartime changed all that. With millions of able-bodied men called up for military service, industrial firms had to turn to an untapped and untrained pool of personnel to help build ships: the women of America.



Rosie the Riveter became a cultural icon during World War II, representing the millions of women who entered the industrial workforce. Mothers, daughters, sisters and servicemen's brides and girlfriends produced munitions and materials of every description. They built warplanes and warships...and Liberty Ships.

In 1941, six million women entered the work force for the first time. Songs, films and posters, like this famous one, were produced by the US government to encourage even more women to support the war effort. By 1944, the number of American women working full time had increased to 20 million.

Their efforts and accomplishments encompassed every aspect of shipbuilding as they toiled at every imaginable job associated with the construction of Liberty Ships. As an example, at the Brunswick shipyard, Jones trained and employed a work force that peaked at sixteen thousand. Over two thousand of these skilled workers were women.

The bulk of this feminine work force was engaged in such physically demanding jobs as riveter, welder, shipwright, machinist and pipe fitter. Recruited from small towns and farms, thousands of novices were quickly trained in waterfront technical schools and then put to work in shops, in open subassembly areas – called platens – and on the slopes of adjacent inclined shipways. They side-by-side often toiled with male production workers, at times high above the decks of nearly-completed Liberty Ships.



When not working long hours, these ladies participated in a variety of work-related events, including campaigns to promote the sale of millions of dollars of war bonds.

The title *Libertys' Ladies* applied to some well-known women as well. A total of 114 Liberty Ships were named after famous American women, and included familiar names in history such as Dolly Madison, Amelia Earhart and Annie Oakley.

Other ladies served as sponsors of ships and launching ceremony attendants. A typical launching scene would include a smiling





lady in her Sunday best, along with one or more friends serving as her attendants. Often, a ship's sponsor was a close relative of the person for whom the ship was named. But in wartime, and faced with travel limitations, even sponsors were

sometimes in short supply.

On those occasions, wives and daughters of shipyard officials happily served as sponsors. Because of the numerous Carolina Connections associated with Liberty Ships, many of these ladies were from North Carolina.

At the two JA Jones-operated shipyards, officials' wives and the wives of prominent Charlotteans often were present on the launching stand.

In addition, as Liberty Ships slid down the ways on America's coastlines, a new and novel tradition became commonplace. Not unlike a formal wedding, maritime launching protocol dictates that someone 'special' serve as Flower Girl for the festivities. Shipyard officials realized that morale could be boosted by selecting one of their production

employees to fill this role. As a result, many sets of launching party pictures include a photo of a shipyard worker presenting a bouquet to the ship's sponsor.

The sponsor, of course, had to be dressed in her finest for the occasion. But the Liberty Ship program's unique version of a flower girl was typically depicted in the workaday coveralls of a waterfront production worker with her long hair caught up and tucked beneath a welding shield and her only visible jewelry a plain chain securing the inevitable ID badge.



Newspaper accounts of that period dutifully identified this local 'star of the show' at each launching event by name and occupation – right along with the other honored guests. One can well imagine that more than one yellowed newspaper clipping remains amidst the tangible memories of such a Libertys' Lady.



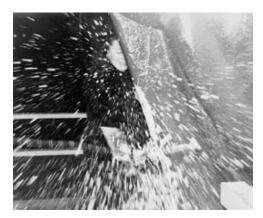
As another important morale booster, female shipyard employees occasionally were selected to be Liberty Ship sponsors. The fifth Liberty to slide at Brunswick did so after being christened by a young female welder who was accorded this honor because she won a yard-wide welding contest, even out-performing male welders.

The 33rd Georgia-built Liberty was christened by 'Miss Brunswick Shipbuilder of 1944'. She had not one, but four attendants at the launching ceremonies, all runners up in a contest that attracted forty participants. The five finalists cheerfully traded in their coveralls for frocks for the launch-day ceremonies.

Launching ceremonies for Liberty Ships took place, on average, <u>more than once a day</u> somewhere in America. These events were held on nearly every day of the year between September 1941 and June of 1945. Workers nearby often only paused momentarily to witness another of their products slide to the sea.

Nevertheless, launchings were not without suspense and drama – and the risk of a sailor's greatest fear – that his ship would not be properly christened. On a few occasions a bottle of the traditional champagne failed to break on the sponsor's first swing, despite careful coaching to timid ladies to 'swing strongly'.





But, much more often than not, all went well...

When World War II was over, the emergency shipyards closed down as quickly as they had opened, and Libertys' Ladies returned to their homes and more traditional ways of life. For many, participation in the war effort would be remembered years later as their finest hour. ~ MERCHANT MARINERS AND NAVAL ARMED GUARD ~



The United States' wartime merchant fleet constituted one of the most important contributions made by any organization to victory in World War II. But, the ships they sailed in were too slow to run away, and too big to hide. Consequently, the merchant mariners and naval personnel that manned the thousands of civilian-operated vessels that sailed in harm's way paid a high price for their success.

The U.S. Merchant Marine suffered the highest rate of casualties of any of the services; more than the Army, Navy, Marines or Coast Guard. In the 1940s, <u>one out of every 26</u> of the brave individuals who went to sea in cargo ships and tankers did not survive.

An estimated 9,300 mariners were killed, and over 12,000 wounded during World War II. In addition, over 660 members of the Merchant Marine were captured by the enemy and languished in prison camps; some for years.

During the war years, the number of American merchant seaman increased from 55,000 to over a quarter of a million. They were all volunteers; as young as 16, as old as 78. Many had serious disabilities that prevented them from entering the armed forces.

But they served anyway, braving not only enemy attacks, but also the unforgiving sea itself. A sizable number of these men served in ships that were sunk. Many of these Mariners, following rescue, went back to sea repeatedly.



Over 1,500 of America's civilian-manned ships were sunk during World War II. Casualties were kept secret during those perilous times to keep information about their success from the enemy. Newspapers carried essentially the same story each week: "Two medium-sized Allied ships sunk in the Atlantic." In reality, the average for 1942 was 33 Allied ships sunk each week. Many of these losses took place off the barrier islands of the North Carolina.

This tanker, for example, was one of many that were torpedoed, then burned and sank off the North Carolina coastline in the early days of the war. Nevertheless, enormous volumes of supplies for the war effort still had to delivered.

It took upwards of 15 tons of supplies to support one soldier for one year overseas. For the most part, mariners delivered those goods. In addition, almost all the troops sent overseas during World War II went by sea. Liberty Ships played a



significant role in this effort. Each Liberty could carry enough cargo to fill three hundred railroad boxcars. Liberty Ships and other merchant vessels participated in every major amphibious invasion of World War II.

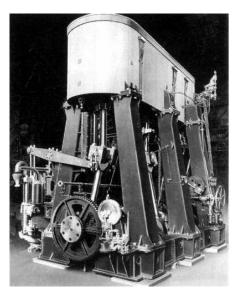


Two hundred Liberty Ships constituted a major part of the greatest armada of all time, the ships that made the D-Day invasion of Normandy a success. Several of them, loaded with cargo, were deliberately sunk in place off the beachheads to help form an artificial harbor.

The success of this class of vessels is all the more impressive, when one realizes that their main engines' design dated to the late 1800s. In 1941, the turbine manufacturing capacity of America's industrial arsenal was dedicated to building modern steam turbines for the Navy. Therefore, domestic suppliers were solicited to mass produce reciprocating engines. Twenty firms, of which two were Canadian based, used the same plans to build hundreds of identical vertical triple expansion reciprocating marine steam engines.

These massive machines stood twenty feet tall and weighed over 130 tons. Moving them by rail in one piece to shipyards hundreds of miles away and then installing them in Liberty Ships under construction was not easy. Nevertheless, this task was successfully repeated many times over.

But that was not the end of the difficulties associated with these complicated beasts. Operating and maintaining them required experience that was in short supply in the 1940s. Keeping them properly aligned and well oiled was an ongoing task that required not only skill, but considerable dexterity. The engines' multiple and rapidly moving parts could easily snag an unwary engineer's clothing and result in injury.



In spite of all these dangers, civilian merchant mariners were not accorded the benefits that the military received at war's end. In the ensuing years, some recognitions and benefits were eventually retroactively provided, but the approximately 11,000 mariners who survive today still seek the benefits promised to them at the end of World War II.



Merchant ships were provided defensive armament to ward off attacks from enemy submarines and aircraft. These weapons were manned by sailors who constituted the Naval Armed Guard.

The Armed Guard peaked at 145,000 men during the WWII. The casualty rate in the Armed Guard was second only to the Marine Corps amongst the uniformed services. Many members of the Armed Guard were killed in action or died from exposure in lifeboats, freezing water or blistering sun.

The most common characteristic of men of the Armed Guard was that few of them had ever been on the ocean. Since there was an urgent need to man the guns on merchant ships, the Navy assigned officers and enlisted men to training schools to qualify as members of the Naval Armed Guard. Men who had never done more serious shooting than at wildlife soon found themselves firing heavy weapons at submarines and aircraft.

The typical Armed Guard complement for a Liberty Ship was one naval officer and 27 enlisted personnel. Their primary duty was to man a 5"/38 caliber dual purpose stern gun, a 3"/50 caliber bow-mounted AA gun, and eight 20 mm machine guns. They stood watches four hours on and four hours off around the clock. During their off time, they were kept busy maintaining their weapons, painting, cleaning, etc.



Members of the Armed Guard lived for months aboard ships in close company with merchant seamen. Their quarters were usually located in a raised deckhouse at the very stern of their ship. The 5"/38 caliber stern gun was located directly above their living space.

Disagreements often arose between the civilians and the military. But when a ship fell under attack, the mariners assisted the sailors by passing ammunition. When sailors fell wounded or were killed, the mariners even fired the weapons.

On all the oceans white caps flow You see no crosses row on row But those who sleep beneath the sea Rest in peace for your country is free



About 2,500 Libertys survived World War II. In the late 1940s, several hundred Liberty Ships was parceled out to domestic and foreign shipping companies to replace their wartime losses. Others were converted to a wide variety of uses other than carrying general cargo. Their design life was considered to be only five years. Many of them had useful careers for far longer, and a few of these famous ships still exist.

Sixteen of them were converted by the Navy for use as Radar Picket Ships and were stationed off America's coastlines to provide early warning of any attacks during the Cold War. All sixteen vessels were extensively modified by JA Jones during their construction at the Panama City shipyard to facilitate transport of boxed aircraft overseas. The larger cargo holds that resulted proved to be ideal later on for installation of the Navy's huge sea-going radar detection systems.



To eliminate the cost of maintaining large reserve fleets, many were scrapped or sunk off the Gulf Coast to form artificial reefs. Ironically, the former shipbuilding complex in Panama City, Florida, was utilized for ship breaking, so more than one Jones-built Liberty returned to her birthplace to be dismantled.



Over 800 of the Libertys were simply put in reserve, rafted together in great "Idle Fleets" at several locations around the United States. Some of these Liberty Ships did serve again, after being removed and reconditioned for use during the Korean and Viet Nam Wars. Eventually, the Government decided that these vessels were both obsolete and surplus to the nation's needs.



Today, just a literal handful of Liberty Ships remain in existence. Fortunately, two of them have been lovingly restored to their original configurations by dedicated volunteers; many of whom manned Liberty Ships in World War II. Primarily serving today as museum ships, the SS JOHN W. BROWN is normally berthed in Baltimore harbor; the SS JEREMIAH O'BRIAN is located in San Francisco.



Improbably, both of these sixty-five year-old vessels are still capable of actually going to sea <u>under their own power</u>. Several times a year, both of these historic vessels make 'day cruises' to offer the general public a taste of what it was like to sail in a Liberty Ship in the 1940s. The last, great cruise for a Liberty Ship took place in 1994. To help celebrate the 50th anniversary of D-Day, the *JEREMIAH O'BRIAN* sailed under her own power from San Francisco to Europe and back again.

This particular Liberty Ship participated in the support operations for the D-Day landings in June 1944, when she made eleven round trips between Southampton and the Normandy to deliver supplies to the Allied invasion forces. On June 6, 1994, she was there once again, the only vessel present, amongst many, that had been there a half century before. As one might expect, she received a tumultuous welcome on September 23, 1994, when she steamed under the Golden Gate.



Scattered around the world are a few additional surviving Libertys. However, none of them are in their original configuration, or operational. The last remaining radar picket ship is in Portsmouth, Virginia, where she awaits scrapping. Periodically, volunteer crews from the Liberty Ship museums make pilgrimages there to obtain spare parts.

Near by, in the James River Idle Fleet, floats a much-modified Liberty Ship. Originally built in Panama City, Florida, she was converted in 1964 by the Corps of Engineers to become a floating nuclear power plant. Towed to the Panama Canal Zone, she supplied electrical power between 1968 and 1975, when the Viet Nam war demands exceeded the Canal Zone's electrical generation capacity. In 1977, she was towed back to the United States and her nuclear fuel removed. Today, she quietly awaits final disposition.

Soon, only the *SS JOHN W. BROWN* and the *SS JEREMIAH O'BRIAN* will remain. How long they can stay active depends on the longevity of their rapidly aging volunteer crews; many of whom served in the merchant marine in the 1940s. However, younger generations are stepping up to take their place. The spirit of the Liberty Ships endures...



"But for the Merchant Marine who brings us food and munitions of war, Britain would be in a parlous state and indeed, without them, the Army, Navy and Air Force could not operate." --Winston Churchill on January 27, 1942

Liberty Ships carried 75% of the cargo used by our armed forces in World War II. They were instrumental in restoring liberty to oppressed nations all over the world, thereby fulfilling Roosevelt's pre-war prophesy. The nation's ability to build merchant ships at a rate faster than they were lost, while maintaining a steady stream of supplies to multiple warfronts, was one of the keys to winning the war.

Almost certainly, the world will never again see a program so vast, so diverse, yet so successful and beneficial to world peace as the mass production of Liberty Ships. By today's standards, building 2,710 ships of any size or complexity in less than five years seems highly improbable.

Today, the great fleet of Liberty Ships is all but gone, but the memory of those famed ships and their significant contribution to America's wartime effort during World War II

remains. However, in the final analysis, Libertys' Legacy is not just about the ships. Of equal or even greater importance is the inspiration provided to future generations by the accomplishments of the Greatest Generation. In particular the shipbuilders who created the Liberty Ships, the civilian merchant seaman who sailed them into harm's way, and the members of the Naval Armed Guard who so ably defended the Liberty Ships and Liberty itself.



"The officers and men of the Merchant Marine, by their devotion to duty in the face of enemy action, as well as natural dangers of the sea, have brought us the tools to finish the job. Their contribution to final victory will be long remembered."

--General Dwight D. Eisenhower on National Maritime Day, 1945





Born within sight of Newport News Shipbuilding & Dry Dock Company, Bill Lee entered the firm's Apprentice School in 1954. After completing an apprenticeship, he attended college on a shipyard scholarship and received a degree in Mechanical Engineering from North Carolina State University. Returning to the shipyard, he became qualified as a nuclear test engineer and participated in the initial nuclear refueling of the nation's first nuclear-powered aircraft carrier, the USS ENTERPRISE (CVN 65).

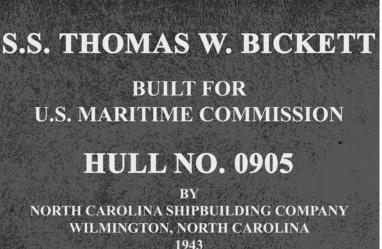
In 1966 he joined a handpicked team of designers and engineers, engaged in the engineering design of the nuclear propulsion plant for the NIMITZ-class of aircraft carriers. Bill considers his participation in that project, which lasted nine years, to be his greatest achievement during almost thirty years as a shipbuilder. In parallel with that effort, he received an MBA from the College of William & Mary in 1973 and a Professional Engineer's License.



On NIMITZ Sea Trials, 1975

In 1984, he joined the JA Jones Construction Company and launched a 'second' career in engineering and construction management activities associated with commercial nuclear power plants and nuclear weapons facilities. Retired since 1998 and living in the Union County community of Wesley Chapel, Bill likes to research and write about ships, shipbuilding and shipbuilders.

Several years ago, accompanied by his wife, Janie, Bill spent a glorious time onboard the *SS JOHN W. BROWN* as this venerable Liberty Ship steamed for a day in Chesapeake Bay. Always a marine design engineer at heart, he spent a large portion of that memorable trip in the vessel's engine room. There he savored the sights, sounds, smells and vibrations of a Liberty Ship's main engine being operated by a truly ancient mariner over eighty years old who had performed those very same duties during World War II.



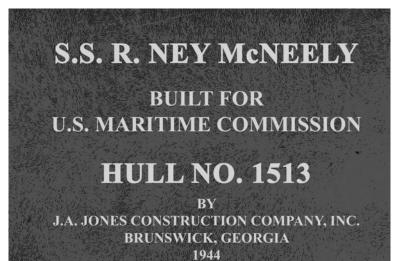
1943

S.S. DAVID F. HOUSTON

BUILT FOR U.S. MARITIME COMMISSION

HULL NO. 1989

BY NORTH CAROLINA SHIPBUILDING COMPANY WILMINGTON, NORTH CAROLINA 1943



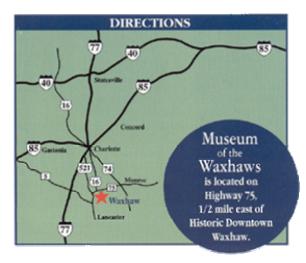
The Liberty Ships of World War II Their Union County and Other Carolina Connections

is a production of

THE MUSEUM OF THE WAXHAWS



The museum is a regional attraction dedicated to the history of the Waxhaws region and the memory of our nation's 7th President, Andrew Jackson, who was a native of the Waxhaws.



MUSEUM HOURS Friday and Saturday, 10am - 5 pm Sunday, 2-5pm Closed Thanksgiving, Christmas and New Year's Holidays

ADMISSION

Adults \$4.00 Children 6-12 \$2.00; Children 5 and under FREE