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United States Department of the Interior
National Park Service



cover

National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.

X New Submission _____ Amended Submission

A. Name of Multiple Property Listing

U.S. Government Lifesaving Stations, Houses of Refuge, and pre-1950 U.S. Coast Guard Lifeboat Stations

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Federal Government Lifesaving Programs from 1848 to 1950, overview and administrative history, nationwide.

American Lifesaving Practices and Technology, techniques and equipment, nationwide, 1848 to 1950,

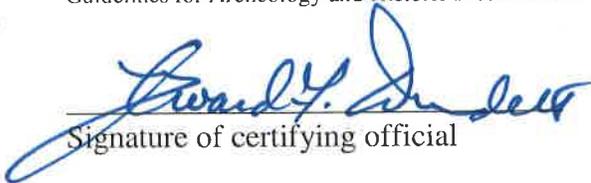
Significant Persons Associated with Federal Lifesaving Programs, individuals, nationwide, 1848 to 1950.

C. Form Prepared by:

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.


Signature of certifying official

Chief, CG-47
Federal Preservation Officer
Title
Date 25 Jan '13

United States Coast Guard
State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.


Signature of the Keeper

3/15/2013
Date of Action

United States Department of the Interior
National Park Service

U.S. Government Lifesaving Stations,
Houses of Refuge, and pre-1950 U.S. Coast
Guard Lifeboat Stations

Nationwide

Name of Multiple Property Listing

State

Table of Contents for Written Narrative

Create a Table of Contents and list the page numbers for each of these sections in the space below.

Provide narrative explanations for each of these sections on continuation sheets. In the header of each section, cite the letter, page number, and name of the multiple property listing. Refer to *How to Complete the Multiple Property Documentation Form* for additional guidance.

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E. Statement of Historic Contexts

(If more than one historic context is documented, present them in sequential order.)

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American Lifesaving Practices and Technology

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F. Associated Property Types

(Provide description, significance, and registration requirements.)

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H. Summary of Identification and Evaluation Methods

(Discuss the methods used in developing the multiple property listing.)

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(List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

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Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 250 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, PO Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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E. Statement of Historic Contexts

Federal government Lifesaving Programs from 1848 to 1950

The economic history of the United States is characterized by a substantial reliance on maritime transportation of goods and people. Waterborne transportation has been important from colonial times to the present and will continue to be so into the future. While nautical transport is generally efficient and economical, it is subject to a variety of hazards and perils. These include bad weather, dangerous obstructions, and collision, to name just a few. A vessel may run afoul of reefs, rocks, or shoals due to environmental conditions or human error and thereby be wrecked with loss of life and cargo. The story of waterborne transportation in America includes many thousands of incidents where vessels have been damaged, destroyed, or sunk. Intertwined with this story is the related history of maritime lifesaving. This is a significant aspect of marine transportation in which the U.S. federal government has been actively involved since the mid-nineteenth century. These federal efforts are exemplified today by the U.S. Coast Guard’s fulfilling its search and rescue mission requirement to aid persons in distress and minimize property damage or loss in the maritime environment.

The federal government has been active in maritime lifesaving since 1848. In that year, the U.S. Congress appropriated funds that were used by the U.S. Treasury Department to construct and equip lifesaving boathouse stations along the New Jersey coast. This federal lifesaving station program was administered by the Treasury Department’s Revenue Marine division and expanded over time to other states. The crews of these stations consisted of local volunteers who mobilized in response to an emergency and were rewarded for successful rescues. The system combined government facilities and volunteer staff, and had mixed results.

In 1871, Congress appropriated funds to the Treasury Department’s Revenue Marine division to hire paid employees to staff its system of federally-supported lifesaving stations. Under the leadership of the Revenue Marine’s General Superintendent, Sumner Kimball, the number of federal lifesaving stations grew, and the competency and professionalism of the staff who operated them increased. The U.S. Life-Saving Service (USLSS) was established as a separate agency within the Treasury Department in 1878, with Kimball as its Superintendent. During following decades the network of professionally-staffed lifesaving stations continued to expand along the nation’s coasts. These facilities generally included a station building with integral living quarters and boat storage space. Other structures commonly included were a flagpole, a wreck pole, lookout tower, equipment storage sheds, privy, and a water collection system. A number of stations had separate buildings for the crew’s dwelling and the boathouse, and sometimes a lifeboat launch way and garage.

In 1915, the U.S. Life-Saving Service was merged with the Treasury Department’s Revenue Cutter Service to form the U.S. Coast Guard (USCG). An emphasis on maritime lifesaving continued as an important Coast Guard mission and many former U.S. Life-Saving Service properties became USCG lifeboat stations.

This multiple property documentation form addresses the historical background and architecture of the federal government’s lifesaving program. It includes discussion of stations constructed prior to the establishment of the U.S. Life-Saving Service, USLSS stations, and pre-1950 USCG lifeboat stations. A number of these properties exist today and several continue to be operated as U.S. Coast Guard Stations. Some portion may merit being listed, or determined eligible for listing, in the National Register of Historic Places. The information contained herein is provided to assist in the process of evaluating properties for potential National Register status.

Antecedents of American Maritime Lifesaving

Losses of ships and boats have affected seafaring societies all over the world throughout recorded history. Efforts at rescue occurred in response to specific events and there was a generalized absence of institutional of

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planning to prepare for such incidents. The first historically documented organized program for rescuing shipwreck survivors was developed in China during the early eighteenth century. There in 1708, the *Chinkiang Association for the Saving of Life* was established. This voluntary, non-governmental group organized and maintained a system of manned lifesaving stations along a portion of the Chinese coast, and inspired the formation in China of other similar private organizations. The usefulness of these efforts motivated China's imperial government to organize its own lifesaving service which it supported financially by taxation.¹

European commercial and maritime interests active in Asia became knowledgeable of Chinese achievements in lifesaving. A number of similar lifesaving organizations, both privately and publicly supported, were subsequently established in various European countries. One of these was the *Society for the Recovery of Persons Apparently Drowned*, founded in England for maritime lifesaving purposes in 1774. Later renamed the *Royal Humane Society*, it established several coastal stations to aid shipwreck victims who had nearly drowned and to recover the bodies of ones who had.

The idea of establishing a lifesaving organization spread from England to the newly independent United States. Shortly following the 1783 conclusion of the Revolutionary War, the concept of a system of coastal lifesaving stations inspired action at one of the country's important seaports, Boston, Massachusetts. A group of several prominent Bostonians, including physicians and clergy, who were interested in finding ways to prevent deaths from drowning and shipwrecks began meeting together in 1785. Deciding to organize themselves, they established the *Humane Society of the Commonwealth of Massachusetts (HSCM)* in 1786. The Society's membership elected the Governor of Massachusetts, James Bowdoin, as its first President. Formally incorporated in 1791, the *HSCM's* official charter stated that its "end and design" was "for the recovery of persons who meet with such accident as to produce in them the appearance of death, and for promoting the cause of humanity, by pursuing such means from time to time, as shall have for their object the preservation of human life and the alleviation of its miseries."²

The *Humane Society of the Commonwealth of Massachusetts* undertook a variety of activities including rewarding individual persons who selflessly rescued others from drowning, supporting lifesaving research, and promoting instruction in swimming. Also of great importance was its establishment of the first coastal lifesaving installations in the United States. The *HSCM* built its first station, termed a "hut of refuge," in 1787 on Lovell's Island at the entry to Boston Harbor. Sometimes called humane houses or charity houses, these huts of refuge were unmanned and stocked with food, candles, a tinderbox, kindling, fuel, and a wood stove. Their purpose was to provide shelter and sustenance for surviving victims of wrecked vessels who had made it to shore. Such persons, even if they escaped drowning, might perish if stranded in a remote location or exposed to harsh environmental conditions. The *HSCM's* refuge huts were small, rectangular, wood-framed front-gabled structures approximately eight feet wide by 10 to 12 feet long. They had simple board siding and shingled roofs. The *HSCM's* lifesaving program concerning shipwrecks was oriented to coastal seashore areas where future incidents could be expected according to the known occurrences of vessel losses.

The *Humane Society of the Commonwealth of Massachusetts* undertook improvements to its lifesaving program through time. This included commissioning William Raymond of Nantucket to build a 30-foot lifeboat in 1807. This was the first watercraft in the U.S. built specifically for the purpose of maritime lifesaving. It was delivered to Cohasset, Massachusetts, located on the southern side of Massachusetts Bay. This marked the first

¹ Ralph Shanks and Wick York, *The U.S. Life-Saving Service: Heroes, Rescues and Architecture of the Early Coast Guard* (Petaluma, CA: Costano Books, 1996), 1.

² Howe, *Humane Society of the Commonwealth of Massachusetts*, 224-225.

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establishment of a lifeboat station in the United States.³ The *HSCM* established additional lifeboat stations along the coast of Massachusetts during the early nineteenth century. Typically, these facilities consisted of a simple 8-foot by 20-foot board and batten boat house equipped with a lifeboat, rafts, and other lifesaving equipment. Each location was staffed by a volunteer crew made up of local residents who served when called and were paid for rescues.

In June 1846, the U.S. Secretary of the Treasury received a report from U.S. Navy Lieutenants Thornton A. Jenkins and Richard Bache that included discussion of the British government’s support for the *Royal Humane Society* and other lifesaving activities. This report recommended that the U.S. federal government allocate funds for similar activities in the United States. The report was transmitted to Congress and led to the first federal appropriation supporting maritime lifesaving in March 1847. These funds were not used right away for their designated purpose, but were instead carried forward until 1849 when they were disbursed to the *Humane Society of the Commonwealth of Massachusetts*. At that time the *HSCM* maintained 16 lifeboat houses and several refuge huts in Massachusetts. The Society continued to expand its lifesaving program over time and by the end of 1872 administered the maintenance of 76 lifeboat houses and eight refuge huts. The trend of this program over time was to increase the number of lifeboat houses while phasing out refuge huts.⁴

The *HSCM* also encouraged improvements in lifesaving technology, including providing financial support for the work of Edward S. Hunt of Weymouth, Massachusetts. His activities included designing an improved lifeboat. He also developed the Hunt Gun in 1879. This was a small cannon used to shoot a line out to a stranded vessel to aid in bringing crew and passengers safely ashore. The Hunt Gun was an important advancement in lifesaving efforts and contributed to the *HSCM*’s decision to award Hunt a gold medal in 1891.

The achievements of the *Humane Society of the Commonwealth of Massachusetts* demonstrated that an organized approach to lifesaving and an investment in lifesaving stations was extremely important to alleviating losses of human life from maritime disasters. The Society’s example and successes motivated a number of private citizens and organizations to call upon the federal government to organize and fund its own lifesaving program.⁵ Through time, the *HSCM* continued its traditional role of supporting the rescue of shipwreck victims. It remains active today in promoting lifesaving efforts. Its ongoing program includes supporting research concerning resuscitation of drowning victims, as well as a cooperative relationship with the U.S. Coast Guard.

Federal Recognition of Need and Early Efforts

United States maritime commerce expanded tremendously during the 60 years following the end of the Revolutionary War. The number of shipwrecks and other maritime accidents increased as well. Efforts in the U.S. to assist and rescue mariners in distress during this period were privately-funded and performed by volunteers. These lifesaving activities were successful on many occasions, but many deaths resulted from nautical disasters where assistance was limited or lacking. A number of influential members of the American public sought to convince governmental officials that federal action promoting maritime lifesaving was needed. This ultimately led to Congressional appropriations that supported initiation of a federal program as well as its expansion through time.

³ Howe, *Humane Society of the Commonwealth of Massachusetts*, 3–37; Shanks and York, *U.S. Life-Saving Service*, 6.
⁴ Means 1987; Howe, *Humane Society of the Commonwealth of Massachusetts*, 226.
⁵ Howe, *Humane Society of the Commonwealth of Massachusetts*, 234.

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During the early decades of the nineteenth century, privately-administered lifesaving efforts for shipwreck victims provided important public safety benefits. However, their potential for success was inhibited by limited equipment, staffing, and geographical scope. Overall, the number of deaths from maritime casualties along the U.S. coastline continued to be substantial. Public support for federal involvement in expanding and institutionalizing maritime lifesaving increased through the 1840s. Meaningful progress required Congressional action and this was ultimately achieved through the efforts of Representative William A. Newell, a medical doctor from New Jersey whose district had experienced several coastal shipwrecks.

Congressman Newell introduced legislation to authorize federal government financial support for lifesaving efforts. His proposal was adopted in August 1848 as an amendment to the Congressional bill covering lighthouses. Known as the Newell Act, this legislation provided a \$10,000 appropriation to the U.S. Department of the Treasury in pay for the construction of eight lifesaving station boathouses and the purchase of "surf boats, rockets, carronades, and other necessary apparatus for the better preservation of life and property from shipwreck on the coast of New Jersey, between Sandy Hook and Little Egg Harbor." These facilities were to be located along a stretch of coastline south of New York Harbor where heavy maritime traffic and environmental conditions led to vessels being stranded or wrecked in near shore waters.

Each of the Newell Act boathouses was a one-story wood frame structure 28 feet long by 16 feet wide used for storing lifesaving equipment. These eight lifesaving boathouse stations were located approximately 10 miles apart along the northeastern section of New Jersey's Atlantic coast. Their construction and furnishing with equipment was supervised by the New York Board of Underwriters and Captain Douglas Ottinger of the U.S. Treasury Department's Revenue Marine division.⁶ The Newell Act did not include funding to pay wages for personnel to staff these stations. Instead, the lifesaving boathouses were manned by volunteer crews from local communities who responded to call in the event of a wreck. This was similar to the manner in which stations supported by the *Humane Society of the Commonwealth of Massachusetts* operated.

Another Congressional appropriation in March 1849 provided \$20,000 to fund the establishment of 14 additional lifesaving boathouse stations. Of these, eight were to be located along the Atlantic shore of Long Island, New York, and six along New Jersey's southeastern coast between Little Egg Harbor and Cape May. Congress also appropriated subsequent funding that supported the establishment in 1850 of lifesaving station boathouses in Rhode Island, North Carolina, South Carolina, Georgia, Florida, and Texas. Additional appropriations in 1852, 1853, and 1854 provided a total of \$32,500 to support boathouse construction and equipment purchases, including facilities in the Great Lakes region.

During this early period of federally-funded lifesaving boathouses, the stations functioned principally as equipment storage structures without resident personnel or designated custodians. This lack of dedicated staff led to problems. The structures and their contents were subject to deterioration from a variety of causes including poor maintenance, storm damage, equipment misuse, theft, and vandalism.

Despite these issues, the various stations' volunteer crews normally performed in a suitable manner when called to duty and many lives were saved. Competency levels, however, levels varied a great deal among individual crews and individuals. While service in a volunteer capacity provided for satisfactory functioning under many circumstances, it did not excel in developing a professional mindset and skills needed for lifesavers to

⁶ The Revenue Marine was established as a Treasury Department component by Secretary Alexander Hamilton in 1791. It was later renamed the U.S. Revenue Cutter Service, forerunner of the U.S. Coast Guard.

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confront and overcome situations fraught with imminent danger of bodily harm and possible death both to persons in need of rescue as well as themselves.

Incidents occurred from time to time in which a lifesaving crew’s ability and equipment were not adequate to achieve a successful rescue. One such event took place in April 1854 when the emigrant ship *Powhattan* wrecked near the shore at Beach Haven, NJ, approximately six miles from a lifesaving station boathouse. The volunteer lifesavers could not overcome the adverse circumstances of this incident and more than 200 lives were lost. In November of the same year another emigrant ship, the *New Era*, wrecked near Deal, NJ, and some 220 died. The volunteer crew of a nearby lifesaving boathouse saved 163 people from the *New Era*, but their efforts were hampered by ineffective lifesaving equipment. These fatal events highlighted problems with the federal government’s lifesaving efforts up to that time.⁷

Subsequent Congressional interest for expanding and improving the federal lifesaving program was overtaken by events. The national political climate grew increasingly divisive during the late 1850s, leading to the 1861 outbreak of the Civil War. The ensuing conflict and the following Reconstruction Period focused attention away from coastal lifesaving for more than a decade. By the beginning of the 1870s, however, interest in expanding the federal government’s maritime lifesaving program had become prominent again.

Establishment of the U.S. Life-Saving Service and Expansion of Federal Lifesaving

The winter of 1870-1871 produced storms that led to major and well-publicized fatal shipwrecks along the U.S. Atlantic seaboard and in the Great Lakes. This provided an impetus for Congressional action to expand federal lifesaving activities.⁸ In April 1871, Congress appropriated \$200,000 for the Department of the Treasury to organize and staff a professional federal lifesaving service within the department’s Revenue Marine division, which then administered the U.S. Revenue Cutter Service. The Revenue Marine’s General Superintendent, Sumner I. Kimball, took on the added responsibility of directing the new service which soon developed into an effective and expanding organization with trained personnel who were paid federal salaries.

In 1878, the Treasury Department implemented a reorganization that established the U.S. Life-Saving Service as an agency separate from the Revenue Marine and Revenue Cutter Service. President Rutherford B. Hayes appointed Kimball to fill the post of General Superintendent of the U.S. Life-Saving Service (USLSS), which was confirmed by the U.S. Senate. His salary was set at \$4,000 per year. Kimball’s staff at USLSS headquarters included an assistant superintendent, an inspector, a civil engineer, a topographer and hydrographer, a draftsman, and clerical staff.

USLSS field units were organized into 12 Life-Saving Service districts. Each district had a superintendent who supervised its various stations, submitted requisitions for supplies and repairs, served as paymaster, and made routine visits to each station four times per year. District superintendents also served as customs inspectors, when necessary. A district also had an assistant inspector with a mandate to visit each “station monthly and investigate all the disasters.”⁹ USLSS headquarters recognized that improvements in lifesaving equipment and technology were important to its mission and established a Board on Life-Saving

⁷ *Annual Report of the Operations of the United States Life-Saving Service* (Washington: Government Printing Office, 1876); Means 1987.

⁸ *Annual Report of the Operations of the United States Life-Saving Service* (Washington, DC: Government Printing Office, 1876) 42.

⁹ Kimball, *Organization and Methods*, 10–12, quote on 11.

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Appliances for the purpose of encouraging technological innovation.¹⁰

Lifesaving stations were manned by a crew commanded by the station “Keeper.” The qualifications for being appointed Keeper included having boating experience, being a reliable and physically capable person between 21 and 45 years of age, and having sufficient education to run station business. Typically, the USLSS sought to employ Keepers who were local men with leadership qualities and experience with boats. General Superintendent Kimball commented that, “In the vicinity of nearly all the stations there are numbers of fishermen and wreckers who have followed their callings from boyhood and become expert in the handling of boats in broken water, and among these there is usually someone who, by common consent, is recognized as a leader par excellence.” Keepers had to live at the station, were accountable for station property, and were required to keep a daily log with weekly transcripts dispatched to the district superintendent. They also were required to prepare detailed reports for incidents of maritime accident or loss in their area of responsibility.¹¹ Keepers also served as guardians of property recovered following a maritime loss until it could be returned to owners or agents, or until it was disposed of by order of superiors. The annual salary for a lifesaving station keeper was usually approximately \$700, although keepers at isolated stations received slightly more. The keepers of houses of refuge, which were established at remote locations and operated without the assistance of a crew, typically earned nearly \$800.¹²

Station keepers usually staffed their crews by hiring local men who were experienced on the water. Early on, some crewmen did not have the requisite experience and were hired for other reasons. This led Superintendent Kimball to adopt regulations that defined crew requirements and forbade the hiring of relatives unless absolutely necessary. USLSS rules required new hires to submit to a rigorous physical exam, be tested on their knowledge of boats, and to sign an agreement to reside continuously at their assigned station during the lifesaving season. In 1889, crewmen earned \$50 per month. They received free housing at the station, but were required to supply their own food and clothing.¹³ Crew members were not eligible for a retirement pension.

Because of a potential conflict of interest, USLSS employees were forbidden from holding an interest in any wrecking or salvage operation and could not benefit financially from their lifesaving efforts. If a keeper or crewman died in the line of duty, their widows and children under age 16 received the deceased’s pay for two years unless the widow remarried or the child reached 16 years of age.¹⁴

The size of the crew serving at a USLSS station depended how many oarsmen were required to operate the station’s largest rescue boat. This amounted to six men at most Atlantic coast stations where 6-oared surfboats were standard equipment. An additional crewman was generally added in December, so that one person could stay onshore to assist with launching from the beach through the surf. Lifesaving crews became known as

¹⁰ Sumner I. Kimball, *Organization and Methods of the United States Life-Saving Service*, Prepared for and read before the Committee on Life-Saving Systems and Devices, International Marine Conference, November 22, 1889 (Washington, DC: Government Printing Office, 1894), 11; Dennis L. Noble, *A Legacy: The United States Life-Saving Service. A Bicentennial Publication for the Coast Guard Historian*. N.p.: n.d. [PDF available online at <http://www.uscg.mil/history/articles/uslss.pdf>], p. 3.

¹¹ Kimball, *Organization and Methods*, 13.

¹² Kimball, *Organization and Methods*, 13.

¹³ Kimball, *Organization and Methods*, 15.

¹⁴ Kimball, *Organization and Methods*, 13–15.

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“surfmen” from their use of surfboats and their method of launching. Great Lakes stations generally required an eight-man crew to man the 8-oared lifeboat widely used in that region.¹⁵

Most USLSS lifesaving stations were manned seasonally. This was because the frequency of shipwreck occurrences in a region tended to vary at different times of the year. Stations along the Atlantic and Gulf Coasts were generally fully-manned from September 1 until May 1. USLSS stations on the Great Lakes were maintained with full crews during the region’s navigation season from approximately mid-April to mid-December. The Louisville, Kentucky, USLSS station on the Ohio River and some Pacific Coast stations were fully manned year-round because maritime disasters in those areas were not largely related to seasonal weather.¹⁶ A crew was put on unpaid furlough during the offseason while the station’s keeper continued in residence performing custodial and maintenance functions.

When the local lifesaving season began, a station’s crew moved into their station building and allocated housekeeping and cooking duties. The keeper organized his crew in order of merit by designating the most highly qualified as “No. 1, the next No. 2, and so on.” This ranking system made it clear in any circumstance who was in charge — the person with the lower number.¹⁷

By late 1889, the USLSS operated 227 lifesaving stations. These included 165 on the Atlantic Coast, eight along the Gulf of Mexico, eight on the Pacific Coast, 45 in the Great Lakes region, and one floating station on the Ohio River. Decisions on where stations were established took into account various factors including the volume of shipping traffic and the likelihood of maritime losses due to weather conditions, marine hazards, and coastal geography. There were 16 USLSS stations along the 415 miles of rocky coast from Maine to Cape Cod (10 of these were on Cape Cod), with additional stations managed by the *Humane Society of the Commonwealth of Massachusetts*. There were 39 stations on Long Island in New York, and 40 stations along the New Jersey coast. Twenty-three stations were strung along the 121 miles of seacoast from Cape Henry, Virginia, to Cape Hatteras, North Carolina. Farther south, there were long stretches of seacoast with few or no stations because maritime traffic and losses were limited. For example, no USLSS lifesaving stations were established between Charleston, South Carolina, and the Florida state line. This was because the normal shipping lanes were far from shore, the weather at sea and water temperatures were generally moderate, the seacoast was relatively well-settled, and there were generally few wrecks in near shore waters where the USLSS operated. Most USLSS stations established in Florida were houses of refuge staffed only by a keeper where shipwreck survivors would be provided with food and shelter.

A limited number of lifesaving stations were established along the Texas seacoast. They were located principally in areas where maritime traffic was endangered by hazardous shoals such as at coastal inlets. The prevailing weather patterns and lakeshore geography in the Great Lakes region contributed to a substantial number of maritime losses, leading the USLSS to establish 45 stations in the region by 1889.¹⁸ Only eleven lifesaving stations were established along the U.S. Pacific coast by 1889.¹⁹ This was due to the limited number of wrecks along much of the California, Oregon, and Washington seashore due to prevailing weather patterns and coastal geography.

¹⁵ Kimball, *Organization and Methods*, 15.
¹⁶ Kimball, *Organization and Methods*, 14–15.
¹⁷ Kimball, *Organization and Methods*, 15.
¹⁸ Kimball, *Organization and Methods*, 1–8.
¹⁹ Kimball, *Organization and Methods*, 1–8.

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Most USLSS stations included an integral watch deck or watch tower, and some had separate lookout towers. From these, crew members kept a visual watch over the waters offshore of their station during the day. They rotated on lookout duty, which included keeping track of passing ships and watching for signs of a vessel in distress. Lookout watches were normally divided into four-hour cycles, with two men on duty each watch. Crew members also patrolled the area’s shoreline at night and during storms. When stations were located relatively close to one another, crew members from neighboring stations exchanged metal “checks” at the halfway point between them so that keepers would know they had completed their requisite patrol. Men on shoreline patrol carried beach lanterns and several Coston lights (hand-held signal flares). If a wreck was discovered, a flare was ignited to signal those on the distressed vessel that they had been spotted and to alert the remaining crew at the lifesaving station.²⁰

A typical USLSS station building included a boat room to accommodate one or two boats and lifesaving equipment, a kitchen, a dining area (mess), a bedroom for the keeper, a bunk room for the crew, a spare room to accommodate visitors, and storage areas including space for storm clothes (boots, coats, etc.). Some station buildings had a separate room for storm clothes storage. The crew’s living quarters were simple and utilitarian, reflecting the seasonal character of their work. The station keeper remained on duty year-round and occupied quarters that were generally more comfortable, though it was usually just a private room. Few station buildings provided a separate apartment for the keeper and his family.

Events that required USLSS personnel to engage in lifesaving were intermittent and generally infrequent. Most of the time, a station’s crew followed a scheduled routine. In addition to watch-standing and patrol requirements, crewmen conducted regular drills with each piece of their equipment according to standards implemented through General Superintendent Kimball’s administration. On Mondays, station personnel practiced with beach equipment and inspected their boats. On Tuesdays, they trained with the boats. Wednesdays included conducting drills with signal flags for communicating messages. On Thursdays, they practiced using beach equipment again. Friday drills included practice in “restoring the apparently drowned” (resuscitation). On Saturdays, the crew cleaned the station. Keepers recorded these activities in the station’s logbook, which was an official daily journal they were required to maintain.²¹

Routine drills included practice with a station’s allotted lifesaving equipment, which was called beach apparatus. Crew leader commands and crew member responses were memorized and recited according to established USLSS protocols which emphasized standard procedures to be applied in most rescue situations. The drills often involved the crew working with their equipment carts and using the station’s life-saving equipment to simulate securing a line from shore to a ship in distress. The grounds used for training included a dummy ship’s mast with cross spar, which was called a wreck pole or drill pole. Crew members practiced throwing weighted heaving-sticks with lines attached to the drill pole at distances up to 50 yards. For greater distances, they practiced shooting a line to the drill pole using their assigned equipment which might be rockets, a mortar, the Hunt gun, or the Lyle gun. Drills included exercises using a line secured to the wreck pole for hauling simulated shipwreck victims to shore using a life car or a breeches buoy.²² Station keepers timed each practice rescue. Following a month of practice at the beginning of the life-saving season, a station’s crewmen had to complete each rescue simulation in less than five minutes.

²⁰ Kimball, *Organization and Methods*, 17–18.

²¹ Kimball, *Organization and Methods*, 18, Shanks and York, *U.S. Life-Saving Service*, 67–73.

²² Kimball, *Organization and Methods*, 19.

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Houses of Refuge, and Pre-1950 U.S.

Coast Guard Lifeboat Stations

Name of multiple listing (if applicable)

The U.S. Life-Saving Service was an exhibitor at various national expositions including the 1893 World's Columbian Exposition in Chicago. These events provided an opportunity for the USLSS to showcase the organization's skills and architecture. At the 1893 Columbian Exposition, it constructed a working lifesaving station on the Lake Michigan shore of the exposition grounds. This remained in place and in service after the exposition closed. The exposition's official program described the station in detail and noted the size of its building, room arrangement, life-saving equipment, and total cost which was \$10,000.²³ The 1893 Exposition include demonstrations of lifesaving and lifeboat drills by the crew of Captain Henry Cleary from the USLSS station in Marquette, Michigan, on the Lake Superior shore of the state's Upper Peninsula.

Over time, the USLSS performed admirably in accomplishing its mission to save lives and property. Its achievements have been preserved in detailed narratives and statistics as a result of the stringent record-keeping requirements that recorded the service's many successes. They also provide documentation of tragic failures resulting from insurmountable circumstances. In addition, popular magazines of the day published narrative stories about several of the more dramatic and dangerous rescues. One such story in *Harper's New Monthly Magazine* described the October 1880 rescue of the *Hartzel*, a schooner on Lake Michigan. While waiting for daylight to enter Frankfort harbor, the *Hartzel* was caught in a violent storm and drifted southward until it grounded near the shore amid strong, cold winds and heavy breakers. The local USLSS station's keeper was named Mathews. He and his crew could not approach the wreck site by way of the beach and had to take a circuitous 10-mile route, pulling their beach apparatus. They were joined by several local men who aided in the rescue. Soon after arriving at the lakeshore near the wreck, the rescuers fired a line to the ship but the schooner's crew dropped it. The line had to be pulled back and fired again, this time successfully. The schooner's crew pulled on the heaving line to bring a stronger rope to the stricken vessel and secure it. This process took more than two hours amid harsh conditions. The *Harper's Magazine* story noted that the "volunteers expressed themselves utterly baffled and discouraged," while "Keeper Mathews and his gallant crew" remained undeterred despite seeing their efforts frustrated. Eventually, the life-savers rescued the *Hartzel's* crew one by one using their breeches buoy and life car. Unfortunately, one woman aboard the schooner died before she could be rescued.

*"[T]he saddened party clambered in the darkness, one by one, up the steep in the face of the blinding storm, burdened with the conviction that they had been defrauded in their labors of love, and faint for want of food, having eaten nothing since breakfast; and wearied beyond expression by the extraordinary exertions of the day, they tramped with their apparatus over the rough ten miles to the station reaching it early the next morning."*²⁴

This rescue was typical in that the USLSS crew had to work long hours in harsh weather amid demanding situations with little or no respite or food. Many rescue attempts put members of the U.S. Life-Saving Service at risk and over the years many lost their lives. The professionalization of the lifesaving crews and regular drilling allowed them to work in a disciplined and effective manner under the worst conditions, ultimately minimizing the loss of life among both rescuers and those they sought to save. The dedication of USLSS surfmen and lifeboat crews may be summed up by their service's informal motto, "You have to go out, but you don't have to come back."

In addition to lifesaving stations, the USLSS established a system of houses of refuge to provide

²³ Moses P. Handy, ed., *The Official Directory of the World's Columbian Exposition* (Chicago: W.B. Gonkey Company, 1893), 158.

²⁴ Lamb, "American Life-Saving Service," 357-373, quote on 369.

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Name of multiple listing (if applicable)

assistance and sustenance to shipwreck survivors in remote areas of the Florida coast. Five of these facilities were constructed in 1875. Over the following 11 years, the USLSS established five more houses of refuge and one lifesaving station along Florida’s east coast.²⁵

The Florida seacoast during the late nineteenth century was largely an unsettled wilderness with a shoreline consisting predominantly of sandy beaches. The circumstances of vessels being wrecked there commonly resulted in victims being able to reach the shore on their own, though once on land such survivors were faced with “the terrors of starvation and thirst.”²⁶ The purpose of the USLSS houses of refuge was to assist these people. A house of refuge station was maintained by a keeper who was normally accompanied by his family. It did not have a lifeboat or crew. Keepers were responsible for providing assistance, shelter, and provisions to shipwreck survivors until they could be transported back to civilization. A keeper’s duties included inspecting the seashore following a storm for miles in either direction to look for wrecks and survivors.

The USLSS continued to improve and professionalize through time under General Superintendent Kimball’s direction and rescued thousands of shipwreck victims, earning nationwide respect and admiration. Ultimately, the U.S. Life-Saving Service’s stellar reputation and traditions passed to its descendant agency, the U.S. Coast Guard, which has embraced and preserved them.

Establishment of the U.S. Coast Guard

A governmental reorganization in 1915 during the administration of President Woodrow Wilson established the U.S. Coast Guard (USCG). It was formed by merging the U.S. Revenue Cutter Service (USRCS) with the U.S. Life-Saving Service. This resulted from recommendations made in 1912 by the federal government’s Commission on Economy and Efficiency that proposed merging the Treasury Department’s USLSS with the Department of Commerce and Labor’s Bureau of Lighthouses, and assigning the merged agency to the latter department. The Commission also recommended that the Treasury Department’s U.S. Revenue Cutter Service be eliminated.²⁷

In 1913, the Treasury Department requested that the USRCS and USLSS be merged and remain within that department. A bill to combine those agencies and establish the resulting entity as the U.S. Coast Guard was passed by the U.S. Senate in 1914 and by the House of Representatives in early 1915. President Wilson signed it into law in late January 1915. Meanwhile, the U.S. Bureau of Lighthouses retained its status as an agency within the U.S. Department of Commerce and Labor.

As a result of the merger that established the U.S. Coast Guard, all of the 279 active USLSS stations were renamed Coast Guard stations and USLSS personnel positions were converted to USCG officer and enlisted ranks. District superintendents became USCG commissioned officers, station keepers became warrant officers, and lifesaving station surfmen and boat crews became enlisted men. All these persons became subject to military discipline as well as being eligible for the federal government’s retirement system.²⁸

²⁵Sandra Henderson Thurlow, “Lonely Vigils: Houses of Refuge on Florida’s East Coast, 1876–1915,” *Florida Historical Quarterly* 76 (2): 152–173.

²⁶ Kimball, *Organization and Methods*, 7, quote on 13.

²⁷ Robert Erwin Johnson, *Guardians of the Sea: History of the United States Coast Guard, 1915 to the Present* (Annapolis, MD: Naval Institute Press, 1987), 19.

²⁸ Darrell Hevenor Smith and Fred Wilbur Powell, *The Coast Guard: Its History, Activities, and*

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Name of multiple listing (if applicable)

The USLSS and USRCS were very different from one another and combining them to form the U.S. Coast Guard proved to be challenging. The U.S. Revenue Cutter Service had been part of the Treasury Department since its establishment in 1790 and functioned as a maritime law enforcement agency. Its operational organization and personnel structure were similar to that of the U.S. Navy. As a military-like agency, the USRCS was characterized by a disciplined, hierarchical, and full-time organization. This was very unlike the system used in the U.S. Life-Saving Service which was made up of civilian personnel, most of whom worked for only part of the year. The staff of the former USLSS required reorientation and additional training to integrate with the organizational character of the new U.S. Coast Guard. USLSS General Superintendent Kimball and USRCS Captain Commandant Ellsworth Price Bertholf collaborated to make the transition as smooth and cost-efficient as possible. Bertholf, who had been Captain Commandant of the Revenue Cutter Service since 1911, was appointed Commandant of the new U.S. Coast Guard. Kimball soon retired and his principal assistant for 10 years, Oliver M. Maxam, was designated Chief of Operations.

Most of the significant changes in forming the USCG occurred at higher levels within the new agency. The former USLSS and U.S. Revenue Cutter Service were left essentially intact as separate entities within the Coast Guard. Each continued to fulfill its respective duties and was allowed to operate largely as it did before the merger. From 1915 to 1917, the USCG was essentially divided into two branches and was characterized as having a “dual character” in that it functioned as a combined civilian and military marine emergency service.²⁹ This dualistic structure resulted in “little exchange of personnel between the two” parts, which reflected and reinforced the continuity of their respective missions.³⁰ One branch utilized cutters, vessels of medium to large size that were operated to accomplish missions oriented towards offshore navigation.³¹ USCG cutters patrolled U.S. coastal waters and engaged in ship inspection, along with search and rescue when needed. The other branch used lifeboats, surfboats, and other small watercraft and was oriented to lifesaving activities in near shore waters.

The Coast Guard’s lifesaving branch was allowed to keep the previous USLSS organizational structure. Its personnel continued to operate the same land-based boat stations and to use the same lifeboats, surfboats, and lifesaving equipment. The principal mission remained the accomplishing of rescues and maritime salvage in near shore waters and the promotion of maritime safety. The Coast Guard was also assigned responsibility for policing vessels. During fiscal year 1917, USCG personnel boarded over 20,000 vessels to examine papers, and provided assistance or rescue to almost 16,000 other watercraft. In addition to maritime rescue duties, Coast Guard lifeboat station personnel engaged in a variety of miscellaneous safety-related activities such as restoring lost children to their parents, rescuing stranded animals, and helping to put out fires.³²

In mid-1917, the USCG’s inventory of vessels included 22 offshore cruising cutters and 26 harbor cutters, with a personnel roster of approximately 2,000 men. At the same time, the USCG’s several regional districts included 279 lifeboat stations and approximately 2,300 Coast Guard surfmen.

The Coast Guard’s fiscal year 1917 appropriation included approximately \$110,000 in funding to help repair and rebuild stations along the Gulf Coast and to establish others. There was also a \$400,000 appropriation

Organization, Service Monographs of the U.S. Government No. 51 (Washington, DC: The Brookings Institution, 1929), 37–38.

²⁹ *Annual Report of the United States Coast Guard 1917* (Washington, DC: Government Printing Office, 1917), 49.

³⁰ Johnson, *Guardians of the Sea*, 33, 35.

³¹ *Annual Report of the United States Coast Guard 1917*, 9–10, 32–33.

³² *Annual Report of the United States Coast Guard 1917*, 9–10, 32–33.

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Name of multiple listing (if applicable)

for the construction of new cutters. This included funding for two steam cutters for the Pacific Coast, one steam cutter for use as an anchorage patrol boat in New York Harbor, two cutters for use in harbors and shoal waters, and three river steamboats to be used primarily for helping with rescues during floods along the Mississippi and Ohio rivers and their tributaries.

World War I

Administrative control of the Coast Guard was transferred to the U.S. Navy in 1917 by an executive order of President Woodrow Wilson when the United States entered World War I. This action was preceded by a planning report prepared in 1915 by USCG Commandant Bertholf and Captain William H. G. Bullard, Chief of the U.S. Navy's Radio Service. The report described how the Coast Guard could work efficiently under a different supervisory organization, such as the Navy. Under this plan, the USCG would continue to carry out its search and rescue mission while becoming involved in naval affairs such as enforcing neutrality laws and providing armed vessels to escort merchant shipping. The Coast Guard's lifeboat stations would also take on greater national security responsibility through the addition of coast watching activity to its normal shoreline patrol duty for rescue activities.

In 1917, the United States entered World War I and the plan for integrating the Coast Guard with the U.S. Navy was implemented. A number of USCG boats and cutters were lent to the Navy for operation as naval vessels.³³ The coast watching activities resulted in a USCG lookout on Cape Cod observing a surfaced German submarine firing on the tugboat *Perth Amboy* on 21 July 1918. This was reported to a nearby U.S. Naval Air Station which dispatched seaplanes that fired on the submarine, but it escaped. Other USCG wartime duties included providing armed guards at U.S. Navy bases, antisubmarine operations for Atlantic convoy protection, and transporting U.S. soldiers overseas.³⁴

The USCG's added mission responsibilities contributed to a manpower shortage. A factor in this was the departure of foreign-born personnel who quit the Coast Guard to join the war efforts of their respective countries. However, the shortage was alleviated following the implementation of mass conscription for the U.S. military in 1917. This led to an increase in the number of men volunteering for service in the USCG, which exempted them from the draft. By late 1918, the Coast Guard amounted to nearly 5,000 men.

The Coast Guard's wartime duties and its association with the U.S. Navy led to the USCG's Communication Division being organized, which led to substantial improvements in its communications system. These included establishment of telephone, telegraph, and radio links between the several Coast Guard district headquarters and the Navy Department, as well as between USCG stations, lighthouses, and lookout points. The communication improvements included leasing "special telephone and telegraph circuits" to "connect the [Coast Guard to] . . . the various navy yards, navy stations, and district headquarters along the Atlantic and Gulf Coasts."³⁵ By mid-1919, there was phone service at 44 USCG units and offices and 282 of the 325 Coast Guard stations that existed in 1917, along with 22 maritime radio compass stations, 139 lighthouses and lightships, and

³³ *Annual Reports of the Navy Department for the Fiscal Year 1917* (Washington, DC: Government Printing Office, 1918), 6.

³⁴ Johnson, *Guardians of the Sea*, 44; Van R. Field and John J. Galluzzo, *New Jersey Coast Guard Stations and Rumrunners* (Charleston, SC: Arcadia, 2004).

³⁵ *Annual Reports of the Navy Department for the Fiscal Year 1917*, 12, 46.

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56 other governmental activities.³⁶

World War I Aftermath to World War II

Following the November 1918 armistice that marked the conclusion of World War I combat, the U.S. Navy returned administrative control of the Coast Guard to the Department of Treasury. With the coming of peace, the USCG entered a period of retrenchment. Congressional appropriations for the USCG declined from 1919 to 1923 and the number of personnel was reduced from its wartime peak of approximately 5,000 to less than it was before the U.S. entered the war. The USCG amounted to approximately 4,300 men in 1915. In 1923, it numbered 4,169 including 3,496 enlisted men, 395 warrant officers, 206 commissioned officers, and 72 cadets attending the Coast Guard Academy. In addition, a reorganization of the U.S. Treasury Department resulted in transferring the U.S. Customs Bureau's patrol vessels to the USCG.

The Coast Guard also began to upgrade other equipment during this period, particularly its lifeboats. In 1919, the Coast Guard completed design work on "the first standard model lifeboat design developed" for the federal lifesaving program since circa 1907. This was the 36-foot Type H Motor Lifeboat, of which 76 were built from 1919 to 1929. The Type H boats could reach speeds of just under nine knots and were easier to operate than earlier motorized lifeboats. They had steering wheels instead of a steering tiller, and included a sailing mast and rowing equipment for use in case of engine malfunction.³⁷

During the post-World War I period, the Coast Guard continued performing its traditional missions including search and rescue. From 1919 to 1924, the USCG rescued 381 persons from peril and provided non-emergency assistance to 3,858 more. It also seized or reported 2,053 vessels for law violations, and removed or destroyed 65 derelict or abandoned vessels. Noteworthy rescues included the *Cape Horn* (Texas, 1919), *H.E. Runnels* (Michigan, 1919), and *Powhatan* (North Atlantic, 1920). In addition, disaster responses were implemented for victims of storms and floods including the powerful 1926 hurricane in southwestern Florida. During a period of major flooding in the Mississippi River valley in 1927, the USCG rescued a total of 43,853 persons, ferried animals to safety, and distributed supplies.³⁸

The 18th Amendment to the U.S. Constitution, prohibiting the sale of alcoholic beverages, took effect in January 1920, and Congress passed the Volstead Act which authorized the federal government to enforce it. The U.S. Coast Guard's role in enforcement measures was directed at U.S. ports and along the nation's coasts. The waterborne transport of contraband alcohol became known as "rum running." USCG efforts to stop this included cutter patrols, vessel inspections by lifeboat station personnel, and airplane patrols. The U.S. Congress authorized increases in USCG funding and personnel to improve execution of the Coast Guard's anti-smuggling mission. This included more money for vessels, aircraft, and equipment.³⁹

The increased appropriations led to improvements in lifesaving equipment and station facilities. USCG boat stations in the early 1920s were equipped with a variety of wooden watercraft including surfboats, pre-1908 34-foot lifeboats, and 36-foot lifeboats built in 1919 and later. The lifeboat station buildings were generally

³⁶ Johnson, *Guardians of the Sea*, 50.

³⁷ Dring, Tim, "Summary of the Development of Early Motorized Lifeboats for the USLSS and USCG," U.S. Coast Guard History Program, accessed at <http://www.uscg.mil/history/articles/DringDevelopmentEarlyMotorizedLifeboats.pdf>, 6, 7.

³⁸ Johnson, *Guardians of the Sea*, 81.

³⁹ Johnson, *Guardians of the Sea*, 79-85.

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Name of multiple listing (if applicable)

legacy structures from the USLSS and many needed renovation or replacement. The Coast Guard undertook a major effort in 1929 to upgrade its lifesaving program. Four new 36-foot lifeboats were added to its fleet that year. A Congressional appropriation of \$800,000 in 1931 and the same amount in 1932 provided funds to improve a number of USCG stations.⁴⁰

From 1915 to 1930, the Coast Guard's cutter forces and boat forces branches remained distinct units with limited operational interaction. The cutter forces expanded a great deal during this period due to Prohibition-related increases in anti-smuggling operations.

Following the great stock market crash of 1929, President Herbert Hoover's efforts to cope with economic decline included reductions in federal expenditures. In 1931, USCG Commandant Rear Admiral Frederick C. Billard determined that the Coast Guard required a major reorganization and upgraded efficiency. Coast Guard personnel strength at this time included 400 commissioned officers, 500 warrant officers, and 9,000 enlisted men.

Commandant Billard's plan included reconsidering the Coast Guard's missions and initiation of a series of changes that affected the USCG overall and especially lifesaving operations. This led to a 25 percent reduction in funding allocated to the boat forces branch, resulting in 15 lifeboat stations being deactivated in 1933. Ten of these were in New England, New York, and New Jersey. Additional USCG boat stations were closed during the remainder of the 1930s as a result of improved radio, motorboat, and aircraft technology. These changes did not degrade the Coast Guard's lifesaving mission performance, however. From 1929 to the mid-1930s, the number of lives saved by rescue each year averaged 5,040.⁴¹

The 18th Amendment's repeal in 1933 ended Prohibition, although the U.S. economy remained mired in the Great Depression. Even so, the Coast Guard's improvement program continued. This included decommissioning a number of cutters that had been used to chase rum-runners and transferring other cutters to new locations. Measures to increase USCG efficiency included the disposal of obsolete lifeboats and equipment, as well as the discharge or retirement of outdated personnel.

The early 1930s changes led to ending the role of "the sand pounders," a historical tradition of the old U.S. Life-Saving Service. These were men who "maintain[ed] a walking patrol of lonely beach areas and stretches of sand dunes [searching for signs of shipwrecks]...[They] were a breed apart [who were] clannish to a superlative degree," some of them descended from pirates and wreckers. Culturally, they were "deeply religious — grace was said before meals at all stations, profanity an unheard of thing — many of them bore such Biblical first names as Aaron, Amos, Caleb, Elijah, Moses, and Zedediah. Bred within sight and sound of the sea, they were 'born with an oar in their teeth'...and were recruited from fishing villages, [and]...generally assigned to stations close to their homes."⁴²

The Coast Guard maintained 240 lifeboat stations in 1934. Each was manned a crew of eight to ten enlisted men under the command of a USCG petty officer. Even though the total number of stations was less than

⁴⁰ Johnson, *Guardians of the Sea*, 123.

⁴¹ Gregory Gerrett, "The Hurricane of 1938: A Rescue," U.S. Coast Guard History Program, accessed at <http://www.uscg.mil/history/sar/GregoryGerrett1938SAR.pdf>, 3; Bob Gordon, "The Coast Guard to the Rescue," *Popular Mechanics Magazine* 62, no. 1 (July 1934): 56–58

⁴² Harold Waters, *Adventure Unlimited: My Twenty Years of Experience in the United States Coast Guard* (New York: Prentice-Hall, 1955), 53.

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earlier, they were more efficient. This was due to better lifeboats that were self-bailing and practically unsinkable, as well as improved communications technology such as ship-to-shore radio for reporting emergencies.⁴³ The surfmen of these stations continued to be trained in the use of lifesaving equipment that had been mainstays of the USLSS prior to 1915, including breeches buoys, and used them to accomplish rescues.

World War II to Mid-20th Century

World War II broke out in Europe in 1939 and as time passed the U.S. drew nearer to becoming a belligerent. On 1 November 1941, President Franklin D. Roosevelt issued an executive order directing the Coast Guard to be placed under U.S. Navy authority as it had during World War I. The United States was not at war at the time, but circumstances had led it to undertake a national military mobilization and actions supporting Great Britain against the Axis powers. Following the attack on Pearl Harbor in December 1941, the USCG took on added wartime responsibilities. These included port security and convoy protection, along with the operation of landing craft for amphibious landings on Japanese-held islands in the Pacific and the D-Day Normandy invasion in France.

At the same time, the Coast Guard adhered to its traditional missions including vessel inspections and lifesaving. USCG boat stations continued to save lives and property, such as in December 1941 during the offshore rescue of the crew of the steamship *SS Willapa* by Coast Guardsmen from the Port Orford Lifeboat Station in Oregon. In addition, German and Japanese submarine activity off U.S. seashores resulted in a number of vessel losses, with many survivors being rescued by the USCG.

The Coast Guard's lifeboat stations were ideally suited for performing coastal security functions. The Coast Guard Beach Patrol was established to provide an around-the-clock watch over U.S. coastlines to prevent German submarines from landing enemy agents to sabotage industrial plants and conduct espionage. In June 1942 on Long Island in New York, a Coast Guard surfman patrolling the beach near the East Amagansett USCG Station accosted a suspicious group of men at the shoreline. Unarmed and outnumbered, he was able to extricate himself from danger and report the incident. A subsequent search of the area found a hidden boat and a cache of supplies buried by German agents. The Federal Bureau of Investigation (FBI) subsequently apprehended this group of infiltrators, as well as other German agents landed in Florida.

Patrolling the vast U.S. coastlines on foot using available manpower was difficult, and measures were undertaken to improve the USCG Beach Patrol's effectiveness. This included developing a dog patrol program to obtain and train canines to accompany Coast Guardsmen. These dogs possessed smelling and hearing senses far better than humans, and could provide individual surfmen on patrol with aggressive assistance if needed. The USCG also instituted a mounted beach patrol nicknamed the "Coast Guard Cavalry." Lifeboat station personnel patrolling on horseback were able to travel faster and cover more territory with less fatigue than the earlier foot patrols.

Following World War II's conclusion in 1945, administration of the Coast Guard reverted again to the U.S. Treasury Department's civilian control and the number of personnel was reduced. The USCG had by then adopted wartime advancements in maritime technology that provided for better communications and navigation. The widespread use of radar and growth of the electronic LORAN (long range navigation) system were important improvements. Better weather forecasting also contributed to maritime safety, as did changes in vessel technology such as the replacement of commercial sailing vessels by engine-powered watercraft less susceptible to weather-related accidents.

⁴³ Field and Galluzzo, *New Jersey Coast Guard Stations*, 31.

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Name of multiple listing (if applicable)

During the post-World War II period, USCG lifeboat stations continued to perform maritime search and rescue, vessel inspection and licensing, nautical communications watch, coastal patrol, and weather reporting. A number of new stations were built from 1945 to 1950, while other USLSS legacy stations were decommissioned and disposed as excess property. Even so, by 1950 many former USLSS stations continued to serve as USCG facilities. A number of these legacy stations continue to be operated by the Coast Guard today.

American Lifesaving Practices and Technology

Maritime lifesaving in the United States is characterized by various aspects that contribute to the achievement of successful rescues. Perhaps the most important one is the character of the lifesavers themselves. Through time, persons engaged in American lifesaving have tended to be distinguished by dedication to duty, courage, resourcefulness, and determination. While manifestations of these qualities vary from one individual to another, the nature and circumstances of lifesaving tends to select for persons who internalize and exercise each of them.

Another important aspect of lifesaving is the equipment available for accomplishing a rescue. In the United States, this has been distinguished by a series of major improvements through time. Both the U.S. Life-Saving Service and its successor, the U.S. Coast Guard, developed on-going programs to seek out, develop, and adopt advancements in lifesaving technology. The USLSS institutionalized its efforts to foster technological innovation by creating the Board on Life-Saving Appliances, and also sought continuing improvements in lifesaver training and rescue protocol. The boats used for lifesaving have been a major part of these technological improvements. So have other equipment items relating to removing persons from a distressed vessel and bringing them safely ashore.

In 1889, USLSS General Superintendent Sumner Kimball reported on the equipment and supplies generally provided to his agency’s lifesaving stations. This items enumerated were “two surfboats, . . . a boat carriage, two sets of breeches-buoy apparatus (including a Lyle gun and accessories), a cart for the transportation of the apparatus, a life-car, 20 cork jackets, 2 heaving sticks, a dozen Coston signals, a dozen signal rockets, a set of the signal flags of the International Code, a medicine chest with contents, a barometer, a thermometer, patrol lanterns, patrol checks or patrol clocks, the requisite furniture for rude housekeeping by the crew and for the succor of rescued people, fuel and oil, tools for the repair of the boats and apparatus and for minor repairs to the buildings, and the necessary books and stationery.”⁴⁴

Rescue Boats: Evolution and Innovations

A variety of rescue boat types and designs have been used in American lifesaving. Watercraft employed by the U.S. Life-Saving Service and the U.S. Coast Guard changed through time as a result of technological advancements. In addition, rescue boats assigned to USLSS and Coast Guard stations from the late nineteenth century to the mid-twentieth century differed from one place to another depending upon the maritime environment, coastal geography, and climate of a station’s area of responsibility.

⁴⁴ Kimball, *Organization and Methods*, 9.

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The three main categories of American rescue watercraft are surfboats, lifeboats, and motorized lifeboats. While the terms “surfboat” and “lifeboat” have been sometimes used interchangeably, they were two distinct types of watercraft with significant differences between them. USLSS and pre-1950 USCG rescue watercraft included various classes of surfboats and lifeboats. At the beginning of the twentieth century, rescue boats began to be fitted with internal combustion engines. This heralded the demise of oar-powered rescue craft, which were soon superseded by motorized lifeboats.

Surfbuoats were the smallest and lightest class of rescue boats used in the United States. They were more widely used by the USLSS than the larger lifeboats. The surfboat design was originally developed by fishermen along the Atlantic coast. These boats were typically from 25 to 27 feet long with a 7-foot beam and a flat bottom, and weighted from 700 to 1,000 pounds. Surfboats had wooden hulls made with white oak framing and white cedar strakes. There were sealed air chambers in the bow and stern for buoyancy. Surfboats were manned by six oarsmen and a steersman who was positioned in the stern to control a steering oar that was approximately 18 to 20 feet long. These boats could accommodate up to 12 additional rescued persons. The cost of a surfboat in 1889 was approximately \$275.

The limited weight of Surfboats was an important factor in their usefulness. It was commonplace that a USLSS lifesaving station crew needed to transport a rescue boat overland to the scene of a distressed vessel. In such cases, the boat was mounted on a wheeled carriage that might be hitched to a horse but was more often pulled by the lifesaving crew themselves, often in bad weather and sometimes over distances of several miles. In addition, the manageable weight of surfboats allowed for launching them relatively easily from a sandy beach into shallow water near the shore. Once in the water, these boats were easy to maneuver and could cut through breakers better than the larger lifeboats.⁴⁵ However, characteristics that made surfboats suitable for beach launching also made them less stable in heavy seas than the larger lifeboats. Even so, USLSS records for 1889 showed that while surfboats had been launched 6,730 times that year there were only 14 incidents of capsizing.

The U.S. Life-Saving Service adopted a series of improved surfboat designs during the late nineteenth century. These included the Beebe, the Higgins & Gifford, and the Beebe-McLellan surfboats, named for the men who designed their distinctive characteristics. The local coastal geography of a USLSS station’s area of responsibility influenced which boat design was most appropriate for that location.⁴⁶ These surfboats were not self-righting, and capsize drills were crucial training exercises for U.S. Life-Saving Service crews. The ability to quickly right a capsized surfboat in harsh environmental conditions was an essential skill. During the early twentieth century, the USLSS also used the Richardson-type of self-righting, self-bailing surfboat. Around 1910, the USLSS began replacing its oar-powered surfboats with ones equipped with engines.⁴⁷

Lifeboats are a type of rescue craft that are larger and heavier than surfboats. The ones used by the USLSS were wooden-hull craft that weighed approximately 4,000 pounds and were 29 to 34 feet long. These rescue boats required a crew of eight oarsmen and a steersman, and were designed to support a removable mast for sailing. The weight and length of these lifeboats made them less maneuverable than surfboats. While it was possible to transport a lifeboat overland from a lifesaving station to a launching point on the shore using a boat carriage, most lifeboats operated by the USLSS were launched from a station building directly into the water using a launch way. Some lifeboats were kept moored in the water rather than stowed in a boat house on land. Lifeboat use by the USLSS was generally restricted to the Great Lakes and Pacific Coast regions where stations

⁴⁵ Shanks and York, *U.S. Life-Saving Service*, 107–109.

⁴⁶ Kimball, *Organization and Methods*, 20–22.

⁴⁷ Shanks and York, *U.S. Life-Saving Service*, 107.

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were often built adjacent to waters suitable for boat navigation. As with surfboats, USLSS lifeboat crews practiced capsizing drills to gain the essential skill of quickly righting a capsized boat.

The first lifeboat design adopted by the USLSS was one developed in England. Technological advancements during the late nineteenth century to early twentieth century led to the development of later designs that were self-bailing and self-righting. One of these was the Dobbins lifeboat, designed by USLSS District Superintendent David Porter Dobbins. It was smaller and lighter than earlier, traditional lifeboats, but still required deeper water for launching than the even smaller and lighter surfboats. The Dobbins lifeboat was easier to transport and maneuver in the water than many other lifeboats and was self-bailing and self-righting. It was best suited to Pacific Coast and Great Lakes stations where it could be launched into water of sufficient depth, and was in widespread use in those regions by 1916.⁴⁸

Motor Lifeboat (MLB) is the U.S. Coast Guard designation for watercraft designed specifically for lifesaving and powered with an internal combustion engine. This term was adopted to distinguish **MLBs** from earlier lifeboats and surfboats that were rowed. The technological advancement of providing lifesaving boats with internal combustion engines was one of the major innovative accomplishments of the U.S. Life-Saving Service. It substantially increased a lifesaving station's operational range and ability to respond quickly to assist a vessel in distress. It also relieved a rescue boat's crew from becoming exhausted from rowing. Despite these advantages, it took several years for motorized lifeboat technology to become predominant in the federal government's lifesaving program. The use of both oar-powered and motorized lifesaving watercraft overlapped for a period of time during the early twentieth century.

The first motorized rescue boat in the world dates to 1899 and was developed at the USLSS Station in Marquette, Michigan. It was a standard 34-foot long, oar-powered lifeboat modified by installing a locally-manufactured 12-horsepower engine in its stern flotation compartment. The modified boat performed well and a series of experiments and further improvements followed. Success in these efforts resulted in a USLSS program lasting until 1909 to install engines in its inventory of oar-powered 34-foot lifeboats.⁴⁹ However, it soon became apparent that the additional weight of a stern engine affected the boats' stability and maneuverability, and that new lifeboat designs were needed.⁵⁰ In 1907, the USLSS awarded its first contract for constructing rescue craft built specifically to use motorized power. This contract adopted the plans for a 36-foot engine-powered lifeboat designed by Charles McLellan of the U.S. Revenue Cutter Service (USRCS).

After the U.S. Coast Guard was established in 1915 by merging the USLSS and USRCS, all its motorized rescue boats were officially designated Motor Lifeboats (MLBs). The USCG also instituted a series of classifications to distinguish models. The 36-foot McLellan-design lifeboats built under the 1907 contract were identified as "Class E" to designate "Early." Several of the Class E MLBs stayed in service until 1930.⁵¹ The next motorized lifeboat design adopted by the USCG was the "Class H." It was also 36 feet in length but differed from the Class E by having its engine located in the center of the boat. A subsequent revision of the Class H design included an added forward cabin and was designated as the "Class HR."

In 1929, Alfred Hansen developed the "Class T" 36-foot MLB with a longer bow compartment and

⁴⁸ Shanks and York, *U.S. Life-Saving Service*, 109.

⁴⁹ Shanks and York, *U.S. Life-Saving Service*, 111. By 1914 there were 147 power lifeboats and surfboats in service; however, only 10 were McLellan's 1907 36-foot design.

⁵⁰ Dring, "Early Motorized Lifeboats," 1-7.

⁵¹ Shanks and York, *U.S. Life-Saving Service*, 113.

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longer engine compartment. Modifications of the "Class T" boats included the revised "Class TR" and the revised and simplified "Class TRS." The Class TRS MLB was produced until 1956 and was the last wooden rescue boat operated by the U.S. Coast Guard. The final "Class TRS" lifeboat in active service was decommissioned in 1987 at Coast Guard Station Depoe Bay in Oregon.⁵²

During the early 1960s the Coast Guard developed a 44-foot steel-hulled MLB. One hundred-ten of these were constructed from 1962 to 1972.⁵³ The USCG lifeboat in active service in 2012 is the 47-foot Motor Lifeboat, of which 117 are in service. It weighs 40,000 pounds and has two engines amounting to 870 horsepower that provide a top speed of 25 knots. The 47-foot MLB has a maximum range of 200 nautical miles and can operate in environmental conditions up to 30-foot seas, 20-foot surf, and 50 knot winds.

Communication Technologies

The crews of federal government lifesaving stations initially relied upon verbal or written messages, lookouts, and beach patrols to identify the need for a rescue event. The standard means for quick communication between lifesaving personnel on lookout duty and their colleagues on beach patrol consisted of visual signals, which were also the only means of communication between lifesavers and the crews of distressed vessels. The equipment used for these visual communications included signal flags and hand-held Coston flares. After telephones became widely available in the U.S. during the 1880s, they were installed at USLSS stations wherever possible. This provided a tremendous advancement in overland communications, but did not improve the situation regarding ships and boats afloat. Maritime communications improved dramatically during the early 1900s when radio was developed and commercialized for widespread use. It provided an instantaneous means to send messages between vessels offshore and stations on land.

Signal Flags have been in use since ancient times and were standard equipment in the USLSS. Using an internationally-recognized code, they served as the principal means to send and receive messages between lifesaving station personnel and offshore vessels. Each USLSS station included a flagpole that was 60 feet tall with lines for hoisting flags strung together to form a coded message. The station's weekly schedule of drills included regular training and practice in signal flag communications. Handheld signal flags were also used to transmit messages between a station's lookout and a crew member on beach patrol. Even after telephone and radio communications came into widespread usage, federal government lifesaving personnel maintained signal flag equipment and conducted training in its use. The possibility remained that signal flags might be needed for communication if a telephone line was interrupted or radio was inoperable due to a power failure.⁵⁴

The **Coston Signal** was another standard means of communication in the USLSS. This was a hand-held flare developed in the 1840s by Benjamin Franklin Coston of the U.S. Navy Scientific Laboratory in Washington, DC. Its original intended use was night communication between ships with flares of various colors to indicate different messages. Coston died in 1848 before perfecting the flares. His widow, Martha Coston, continued his work with the aid of chemists and ultimately found a manufacturing company to produce them. She also met with U.S. Navy and other governmental officials to advocate the use of these flares. The Coston signal was eventually adopted as standard maritime safety equipment by the United States and other nations.

Each U.S. Life-Saving Service station was equipped with a supply of Coston signals and personnel on

⁵² Shanks and York, *U.S. Life-Saving Service*, 113.

⁵³ Clayton Evans, *Rescue at Sea: An International History of Lifesaving, Coastal Rescue Craft and Organisations* (Annapolis: Naval Institute Press, 2003).

⁵⁴ Kimball, *Organization and Methods*, 9.

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shore patrol always carried flares with them.⁵⁵ USLSS protocol mandated that a red Coston Signal was used to signal that a ship had run aground as well as to signal a vessel in trouble that it had been seen and that rescue was on the way. Red flares would also be lit on shore to warn a vessel that it was in imminent danger from running afoul of shallow water, sandbars, or shoals. A red Coston signal could also be used by a distressed vessel’s crew to alert persons on shore that they needed assistance. White Coston flares were used to provide illumination during nighttime rescues.

Telephone and Radio Technology came into widespread use in American lifesaving during the late nineteenth century to early twentieth century period. They provided USLSS stations with instantaneous long distance communication, and enabled quicker response times for maritime emergencies. During the early 1880s, lifesaving stations along the New Jersey shore were the first USLSS units to install telephones. Stations elsewhere in the U.S. subsequently installed telephones as quickly as circumstances allowed. The development of radio communications during the early 1900s was quickly adapted to maritime uses. It greatly improved the potential ability of the USLSS and, from 1915 on, the U.S. Coast Guard to act in cases of emergency. After the U.S. Navy took over administrative control of the USCG during World War I, the Coast Guard Communication Division (CGCD) was established to improve the service’s operations and equipment. “Special telephone and telegraph circuits” were leased to “connect the [Coast Guard to] . . . the various navy yards, navy stations, and district headquarters along the Atlantic and Gulf Coasts.”⁵⁶ By the middle of 1919, the Coast Guard had installed telephone service at 282 USCG stations.⁵⁷ The network developed by the CGCD provided radio, telegraph, and telephone communications links between Coast Guard stations and other lookout points, and between USCG field installations and the various USCG District Headquarters, Navy Department facilities, and units of the U.S. Bureau of Lighthouses. By 1928, Coast Guard communications included an up-to-date combined, integrated network that used telephone, telegraph, and radio for land communications, and used radio aboard USCG cutters and aircraft, and at onshore stations, to communicate with each other and with non-USCG vessels and aircraft.⁵⁸ Radio was also associated with improvements to navigation. A radio receiver’s orientation to a transmitter’s location could be determined using radio direction finder equipment, enhancing the ability to determine their relative positions.

Lifesaving Practices

The *Humane Society of the Commonwealth of Massachusetts*, and later the U.S. Life-Saving Service, sought constantly to identify or develop improved methods for resuscitating the victims of drowning. Through time, USLSS committees reviewed efforts at resuscitation, wrote reports, and adopted procedures for better methods and techniques.⁵⁹ General Superintendent Kimball established policy that required lifesaving station crews to practice the resuscitation of drowning victims every Friday as part of their weekly drills. Lifesaving station personnel received “Instructions for Saving Drowning Persons by Swimming to their Relief,” along with the “Schafer Prone Pressure Method of Artificial Respiration.”⁶⁰ Those practices were eventually superseded by later improvements and developments in techniques and technology. Today’s modern practices are implemented

⁵⁵ Paul Giambarba, *Surfmen and Lifesavers, Including Heroes of the Lifesaving Service* (Centerville, MA: Scrimshaw, 1985), 52; Shanks and York, *U.S. Life-Saving Service*, 123, 125.

⁵⁶ *Annual Reports of the Navy Department for the Fiscal Year 1917*, 12, 46.

⁵⁷ Johnson, *Guardians of the Sea*, 50.

⁵⁸ Kimball, *Organization and Methods*, 29; Smith and Powell, *Coast Guard: Its History*, 34, 58.

⁵⁹ Kimball, *Organization and Methods*, 18.

⁶⁰ Howe, *Humane Society of the Commonwealth of Massachusetts*, 254.

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by U.S. Coast Guard helicopter-borne rescue swimmers and other personnel.

Other Lifesaving Equipment

The federal government's lifesaving program has been characterized throughout its existence by the use of a variety of equipment which has changed and been improved through time. These have included commonplace gear such as foul weather clothing ("sou'westers"), rope, and signaling devices, as well as other distinctive implements developed especially for lifesaving purposes. USLSS and U.S. Coast Guard personnel conducted regular practice drills using a variety of these specialized items in order to become expert in their use. They included the following.

Boat Carriage: The USLSS used a two-axel, four-wheel boat carriage wagon to haul a surfboat from a lifesaving station for launching at the shore nearest a vessel in distress. Boat carriages had wide metal wheels to prevent them from getting bogged down in a beach's soft sand.⁶¹ A surfboat rested atop its carriage while in storage at the lifesaving station, ready to be moved for launching where needed. Boat carriages were pulled by either horses or surfmen, which could be heavy work depending on the distance traveled and terrain traversed. Using the station's crew to pull a boat carriage was standard practice at many stations. Lifeboats were less commonly transported using a boat carriage because of their greater size and weight.

Beach Carts: A beach cart was used to haul lifesaving apparatus along the seashore from a lifesaving station to where a rescue was to be conducted. The cart most widely used had one axle and two metal wheels. The wheels were wide to prevent them from sinking into the sand. Some carts had two axles and four wheels. A station's cart was usually pulled by surfmen, though one or two horses might be used instead. A beach cart had raised sides and carried large reels for spooling throwing line and rope hawser. Additional apparatus included a block and tackle, Coston signals, lanterns, anchors, a line-throwing gun with its accouterments, a life car or breeches buoy, tally boards, and other gear as needed. Tally boards were used to write messages. They could be sent along a line to a vessel in distress with instructions for its crew, and sent back ashore with information for the lifesavers.⁶²

Cunningham Rocket: The Cunningham rocket was invented in the 1840s by Patrick Cunningham. It was propelled by gunpowder, included an attached lightweight rope line, and had a maximum range of 1,000 yards. This rocket was similar in design to the Congreve artillery rockets used by the British during the War of 1812 attack on Fort McHenry. Cunningham rockets were made in various sizes depending on the required length of shot-line. They were fired from shore over and past a vessel in distress in order for the people onboard to take hold of the shot-line and use it to pull a heavier rope hawser out to their vessel.⁶³ These rockets became available in the United States by 1849, and were purchased and used by the U.S. Life-Saving Service.

Lyle Gun: The Lyle Gun is a portable line-throwing cannon invented in 1878 by U.S. Army Captain David A. Lyle. It was tested by the USLSS and selected as the service's standard line-throwing gun. The Lyle Gun used by the USLSS was bronze, weighed 185 pounds, and had a maximum range of 695 yards. It fired a 17-pound shot with a lightweight line attached, using a charge of up to six ounces of gunpowder. The specific charge used depended on how far the line needed to be shot. When fired, the Lyle Gun was aimed to overshoot the vessel in distress and its shot-line played out from a faking box onshore. Faking boxes were wooden boxes with

⁶¹ Shanks and York, *U.S. Life-Saving Service*, 109; Giambarba, *Surfmen and Lifesavers*, 66-67.

⁶² Shanks and York, *U.S. Life-Saving Service*, 68, 73; Giambarba, *Surfmen and Lifesavers*, 56.

⁶³ Kimball, *Organization and Methods*, 25-27.

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tall spikes in neat rows used to coil a shot-line in a particular manner. The spikes were removed before the Lyle Gun was fired. As the shot-line played out, the special coiling prevented it from getting tangled. Once a shot-line reached the distressed vessel, the people aboard used it to pull over a stronger rope hawser which was secured to a mast or other appropriate location. This hawser was used to support a life car or breeches buoy which was pulled from shore to the vessel and then back again repeatedly to bring victims to safety.⁶⁴

Hunt Gun: The Hunt Gun was developed by Edward Hunt in 1879 and was similar to the Lyle Gun in design and use. It had a range of 735 yards and fired a cylindrical projectile with the shot-line coiled inside. The *Humane Society of the Commonwealth of Massachusetts* selected the Hunt Gun to replace earlier line-throwing mortars and rockets it had used previously. The Hunt Gun was not selected by the USLSS as its standard equipment line-throwing gun, although some stations did use it.⁶⁵

Life Car: The Life Car (also called a Surf Car) was a small, iron-sheathed double-ended boat with an enclosed, hinged top and raised air holes that prevented water from filling the inside. It included large rings on its upper side through which a rope hawser was threaded. In use, ropes were attached to both ends of a Life Car so it could be pulled along a hawser that had been sent from shore to a distressed vessel. The rope lines allowed the car to be pulled back and forth between the vessel and the beach. A Life Car could transport two to four shipwreck survivors at a time. Its substantial weight required a great deal of time and effort for moving it between shore and a vessel, especially if the water was rough. The Life Car was superseded in 1899 by the Breeches Buoy, which was lighter and easier to use. Life Cars were little used after that, although USCG personnel continued to be trained with this apparatus until approximately 1940.⁶⁶

Breeches Buoy: The Breeches Buoy was developed in 1899. It included a cork-filled life ring (buoy) with large canvas pants sewn inside and was suspended by short rope lines from a traveler block. This apparatus was modeled after early life preservers and cork life jackets, combined with knee-length trousers (breeches) such as were worn by men and boys. The device's traveler block was hung from a hawser that extended from shore to a vessel in distress. A rope threaded through the traveler block and extending along the hawser provided the means to pull the Breeches Buoy from shore to the distressed vessel and back again. This apparatus carried one person at a time and allowed a shipwreck survivor to be hauled to shore above the water. A person would step into the breeches with the ring around their waist and hold onto the lines suspending the apparatus from the traveler block.⁶⁷

Significant Persons Associated with the Federal Lifesaving Program

Life-Saving Service Administrators, Station Keepers, and Surfmen

The federal government's lifesaving program has been distinguished throughout its history by the high caliber, resourceful and resilient character, and personal qualities of many individuals associated with it, from the highest leadership levels to the lowest ranking members. This has held true from its beginning using voluntary

⁶⁴ Kimball, *Organization and Methods*, 25–26.

⁶⁵ Shanks and York, *U.S. Life-Saving Service*, 65, 67; Kimball, *Organization and Methods*, 9.

⁶⁶ Shanks and York, *U.S. Life-Saving Service*, 69; Kimball, *Organization and Methods*, 27–28; Giambarba, *Surfmen and Lifesavers*, 61.

⁶⁷ *Annual Report of the United States Coast Guard 1904* (Washington, DC: Government Printing Office, 1905); Shanks and York, *U.S. Life-Saving Service*, 69; Giambarba, *Surfmen and Lifesavers*, 61.

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crews, through the existence of the Life-saving Service, and continues to the present-day U.S. Coast Guard. While the administrators and senior members of this program have demonstrated important leadership qualities, it has been the diligence and heroism of lifesaving station officers, keepers, and surfmen, and the men and women of the U.S. Coast Guard, that have been most directly involved with the successful accomplishment of lifesaving missions and the preservation of individual lives.

Persons who voluntarily risk their own lives to save others may not be abundant in the general population, but they have made up a significant portion of personnel who have served the cause of maritime lifesaving. This has been and continues to be a very good circumstance, for it substantially enhances the potential for success in such difficult endeavors. The ultimate merit of a maritime lifesaving program is reflected by what happens at the scene of a rescue event, for this is where the persons involved simply live or die.

The actions of a station’s lifesaving personnel merit consideration when the historical significance of a specific station property is being considered. Research providing information on past lifesaving accomplishments by a station’s crew can reveal information that promotes a better understanding of a property’s historical context and significance.

The following is summary information concerning some persons associated with the history of the federal government’s lifesaving program. These are presented as representative examples of the many thousands of people who have been involved. Additional research concerning individual USLSS and USCG stations, as well as their personnel and specific lifesaving events, is likely to provide useful information for better understanding a property’s role in American lifesaving history.

Sumner Increase Kimball was born in Lebanon, Maine, in 1834. The son of a lawyer, he graduated from Bowdoin College in 1855 and went on to teach school and study law, passing the Maine bar exam in 1858 and practicing law in the town of North Berwick. He was elected to the Maine state legislature in 1859. During the Civil War, Kimball relocated to Washington, DC, and went to work for the U.S. Department of the Treasury. In 1871, he was promoted to the position of Chief of the United States Revenue Marine which then included the Revenue Cutter Service and the newly formed Life-Saving Service. Kimball immediately undertook a series of reforms to improve the Life-Saving Service by implementing professional standards and a merit system for promotions and leadership assignments. This gained for him the respect of servicemen and outsiders alike.⁶⁸ Kimball believed that the mission of saving lives and property at sea was a moral good, and to do so effectively required a paid professional organization. He was able to effectively argue his convictions and communicated this message so successfully that in 1878 the Life-Saving Service was upgraded from a subunit of the U.S. Revenue Marine to the status of the U.S. Life-Saving Service, a separate agency within the Treasury Department. Kimball was then appointed the General Superintendent of the USLSS. He continued to serve in this position until 1915 when the USLSS was merged with the U.S. Revenue Cutter Service to form the U.S. Coast Guard. He retired soon after that.

Richard Etheridge was born a slave in 1842 and enlisted the Union Army during the Civil War. He joined the Life-Saving Service as a surfman in 1875 and served with distinction over a career lasting 25 years. Etheridge’s superior work performance and leadership skills led to his appointment in 1880 as the Keeper of the Pea Island Life-Saving Station in North Carolina with the rank of Captain. He was the first African American to command a federal lifesaving station. Captain Etheridge found it most effective to recruit a local crew composed entirely of African American men. As Keeper, he supervised the construction of a new station building and

⁶⁸ Irving H. King, *The Coast Guard Expands, 1965–1915: New Roles, New Frontiers* (Annapolis, MD: Naval Institute Press, 1996), 4–21.

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developed improved lifesaving drills. Captain Etheridge’s crew at Pea Island maintained a stellar reputation and participated in hundreds of rescues over his career. He and his entire crew received the Congressional Gold Lifesaving Medal for the 1896 rescue of the crew of the sailing vessel *E.S. Newman* during a powerful storm. The Pea Island surfmen accomplished this feat by swimming out from shore ten times through heavy seas to the wrecked ship in order to bring people to safety. Captain Richard Etheridge died in 1900 while still on active duty with the USLSS.⁶⁹

Henry J. Cleary was born in 1861 and joined the USLSS in 1879. He was appointed Keeper of the U.S. Life-Saving Station Marquette when it was established in 1891 on the Lake Superior shore of Michigan’s Upper Peninsula. Holding the rank of Captain, Cleary was renowned in the USLSS for his leadership and innovation. He was regarded by many as the best and most respected lifesaver on the Great Lakes because of his courage and tenacity when performing rescues under difficult circumstances. One of the most famous incidents was the September 1895 rescue of the crew of the wrecked steamship *Charles J. Kershaw*. Known as the “Showman of the Service,” Captain Cleary trained his crew to such a degree of expertise that it was selected to perform training at other USLSS stations and demonstrations of lifesaving skills and procedures at public expositions and World Fairs. During the late nineteenth century, newly developed gasoline-fueled internal combustion engines began to be manufactured at the Lake Shore Engine Company in Marquette. In coordination with USLSS headquarters in Washington, DC, and USRCS Captain Charles McLellan, Captain Cleary and his crew installed a 2-cylinder, 12 horsepower Lake Shore *Superior* engine in a standard 34-foot USLSS oar-powered lifeboat. This was the world’s first motorized lifeboat. Following successful testing of this modification, the USLSS undertook a program to install similar engines in more of its lifeboats and supported a development program that led to subsequent motorized lifeboat innovations. Captain Cleary served 25 of his 37 years of service at Station Marquette and died there in 1916.

Hilman Persson was born in 1888 in Sweden. After immigrating to the U.S. and settling in Washington State, he began working for the USLSS as a surfman at the Grays Harbor Lifesaving Station. His quality of work led to promotions, and he continued this employment when the USLSS became part of the U.S. Coast Guard in 1915. Persson transferred to the USCG Station Willapa Bay in 1919 as its second in command. In 1922, he returned to Station Grays Harbor as officer-in-charge. In 1937, USCG Warrant Officer Persson lead his crew in a mission lasting over 12 hours in life-threatening sea conditions to rescue 20 men from the disabled lumber schooner *Trinidad*. His actions during the *Trinidad* rescue resulted in Persson being awarded the Congressional Gold Lifesaving Medal for heroism. He was also awarded the Medal of Merit from the American Legion’s Second Division Post in Baltimore, an annual award for the most outstanding act of heroism in the United States. Persson retired from the USCG in 1939 but returned to duty for service during World War II. He died in 1973.⁷⁰

Architects

The architects who designed U.S. government lifesaving stations made a notable contribution to the history of American architecture. Their work resulted in the construction of facilities that supported the saving of thousands of lives. The structures they developed contributed to establishing the remarkable traditions of selfless dedication and courage for engaging in rescue that is fundamental to the present-day Coast Guard’s identify and organizational ethos.

⁶⁹ David Wright and David Zoby, *Fire on the Beach: Recovering the Lost Story of Richard Etheridge and the Pea Island Lifesavers* (New York: Scribner, 2000).

⁷⁰ Dennis L. Noble, *Rescued by the U.S. Coast Guard: Great Acts of Heroism Since 1878* (Annapolis, MD: Naval Institute Press, 2005), 101–6

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The designers of the earliest 1840s and 1850s federal lifesaving stations are unknown. No original plans for these boathouses are known to exist that might reveal their preparers' identity.

The 1871 establishment of the Life-Saving Service as part of the U.S. Treasury Department's Revenue Marine created a federal government entity charged with building, equipping, and staffing an integrated system of professional lifesaving stations. A program for constructing these facilities began right away and a number of stations were soon built at various locations based on standardized plans of the 1871 Red House Design. The architect who prepared the Red House Design is not known, however this use of the standardized planning method for multiple structures was successful. The efficiency of this approach led the Revenue Marine's General Superintendent Kimball to ask Treasury Department architect Francis W. Chandler to prepare another lifesaving station standardized design, which was also applied successfully.

Sustained Congressional support for constructing a nationwide system of lifesaving stations led the USLSS to develop an in-house cadre of architectural staff that specialized in designing these distinctive buildings. Through time, several professional architects employed by the U.S. Life-Saving Service or its parent department made especially important contributions. The USLSS also contracted with private-sector architects from time to time. Several of these persons are important to the history of American architecture.

Francis Ward Chandler was born in Boston in 1844 and attended Harvard College before serving two years in the Civil War. He joined an architectural firm after returning to Boston, and later studied architecture in Paris before being hired by the federal government. Chandler was Assistant Supervising Architect for the U.S. Treasury Department in 1874 when Sumner Kimball asked him to design station buildings for the USLSS. Chandler's 1874 Design, with Carpenter Gothic details, moved the agency's architecture from a strictly utilitarian mode to one that reflected contemporary stylistic trends in American buildings. Chandler left the Treasury Department after his work for the USLSS and returned to Boston where he partnered with Edward Cabot to form the architectural firm of Cabot and Chandler. He subsequently designed a number of residences in Boston, as well as cottages and coastal homes along the Maine coast. Chandler was appointed head of the Massachusetts Institute of Technology's Department of Architecture in 1888. He died in 1926.⁷¹

Paul Johannes Pelz was born in 1841 in Silesia, Germany, and moved to the United States in 1857 to join his immigrant father. He studied and practiced architecture in New York under Detlef Lienau from 1859 to 1866, and subsequently worked as an architect for the U.S. Lighthouse Board. Pelz subsequently went to work for the Life-Saving Service and between 1872 and 1877 designed several lifesaving stations including the ornate Deal Type. He later established an architectural practice in partnership with John L. Smithmeyer. In 1886, Congress selected Pelz and Smithmeyer to design and oversee construction for the proposed Library of Congress in Washington, DC. This monumental edifice today is the Library of Congress's Jefferson Building. Pelz also designed numerous other notable buildings including the Hall of Christ at Chautauqua, New York, the Louisiana Purchase Exposition's Machinery Hall, and the Carnegie Library in Allegheny, Pennsylvania. He died in 1918.⁷²

Albert Burnley Bibb was born in 1853 in Washington, DC. He attended Georgetown College before going to work for the Treasury Department in 1872. In 1882, Bibb wrote *The Life-Savers on the Great Lakes* and

⁷¹ Kevin D. Murphy and Kim Brian Lovejoy, *Colonial Revival in Maine* (Princeton: Princeton Architectural Press, 2004), 54–55; Shanks and York, *U.S. Life-Saving Service*, 229–233; *The Letters of Henry Wadsworth Longfellow*, ed. Andrew Hilen, vol. 6, 1875–1882 (Cambridge, MA: Harvard University Press, 1982), 382–383.

⁷² Shanks and York, *U.S. Life-Saving Service*, 222–223.

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by 1885 was employed by the U.S. Life-Saving Service as an architect. In 1885, he designed renovations to provide more equipment storage space at USLSS stations built from 1871 to 1873 using the Red House Design. His remodeling efforts provided shed-roofed additions on one or both sides of these buildings. These renovations included adding elements of the Shingle Style, which was then popular, to what were otherwise undecorated utilitarian buildings. Bibb also designed renovations for other Life-Saving Service buildings. He left the USLSS in 1890 and continued to work as an architect. By 1906, Bibb was a Professor of Architecture at George Washington University.⁷³

George Russell Tolman was born in Boston in 1848. In 1870 at age 22, he was working as a draftsman. Later in the 1870s, Tolman partnered with George F. Moffette to form the architectural firm of Moffette and Tolman. The firm's most famous building is the Five Cents Savings Bank in Charlestown, MA, built in 1876 and an example of the Victorian Gothic style.⁷⁴ In 1889, Tolman was doing architectural work at a Navy Yard in Maine. After designing barracks for the Norfolk Navy Yard, he settled in Washington, DC, in 1890. Tolman began working as an architect for the U.S. Life-Saving Service in 1891 and continued in that employment until 1896. Tolman's work for the USLSS included the 1892 Quonochontaug Design that was modified and built for the 1893 World's Columbian Exposition in Chicago, Illinois. The Quonochontaug standardized design was eventually used at 20 lifesaving stations. Tolman's 1892 Duluth design featured the Colonial Revival style and was used at 27 stations constructed from 1893 to 1907.⁷⁵ Tolman left the USLSS in 1896. He moved to Richmond, Virginia, in 1902 where he joined an architectural firm.⁷⁶ Tolman eventually retired to Massachusetts where the 1930 Census recorded him as living in Plymouth and 82 years of age.

Victor Mindeleff⁷⁷ was born in England in 1860. By 1863, his family had settled in Washington, DC. In 1881, John Wesley Powell hired him to work for the Bureau of Ethnology.⁷⁸ During that employment Mindeleff traveled to the Southwestern U.S. to record, photograph, and sketch the people, traditions, and architecture of several Native American tribes. Mindeleff, assisted by his brother Cosmos, recorded Pueblo Indian architecture at Zuñi and Hopi villages, and the archaeological ruins at Chaco Canyon, Casa Grande, and Canyon de Chelly.⁷⁹ The Mindeleff brothers wrote "A Study of Pueblo Architecture: Tusayan and Cibola" which was initially published in the *Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian 1886-87*. This has been republished by the Smithsonian Institution Press.⁸⁰ During the 1890s, Victor Mindeleff designed buildings at Glen Echo Park, Maryland, and residences in the Washington, DC, area. He began working for the USLSS in 1897. During this tenure he produced a variety of station designs, from the ornate to the simple. His lifesaving

⁷³ Shanks and York, *U.S. Life-Saving Service*, 223-229.

⁷⁴ Mary Melvin Petronella, *Victorian Boston Today* (Northeastern University Press, 2004), 175.

⁷⁵ Shanks and York, *U.S. Life-Saving Service*, 233-234.

⁷⁶ "Creating a Chronology of Architect George Tolman - update," Renaissance Richmond (blog) 5 April 2010, <http://renaissancerichmond.com>.

⁷⁷ Mindeleff's name has been misspelled "Mendleheff" and "Mendelff" in various publications.

⁷⁸ William A. Longacre, "Why did the BAE Hire an Architect," *Journal of the Southwest* 41 (1999): 359-369.

⁷⁹ "Victor (1861-1948) or Cosmos (b. 1863) Mindeleff Photographs," *Guide to the Collections of the National Anthropological Archives*, National Anthropological Archives, <http://www.nmnh.si.edu/naa/guide/m3.htm>.

⁸⁰ Cosmos Mindeleff and Victor Mindeleff, *A Study of Pueblo Architecture: Tusayan and Cibola*, Classics of Smithsonian Anthropology (Washington, DC: Smithsonian Institution Press, 1989).

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station plans were used to construct buildings for over two decades. Mindeleff's architectural work eventually reflected a shift towards a simple symmetrical station plan, which became typical of U.S. Coast Guard lifeboat stations constructed after 1915. Although known for his use of shingles for siding, Mindeleff applied a variety of architectural styles including Bungalow Style elements which he adopted to include large porches for stations in the Southern U.S. During his federal government employment, Mindeleff also occasionally prepared building plans for private sector clients. After leaving the USLSS he designed several lodges and resorts, and at least one residence. He also constructed a model of the University of Virginia for the 1926 Sesquicentennial International Exposition in Philadelphia, PA.⁸¹ Late in his career, Mindeleff served on the architectural jury that selected the design and oversaw the construction of the Tomb of the Unknown Soldier in Arlington National Cemetery.⁸² He died in 1948 in Wayside, Maryland.⁸³

McKim, Mead, and White was a nationally-prominent architectural firm during the late nineteenth century to early twentieth century. Its partners were Charles Follen McKim, William Rutherford Mead, and Stanford White.⁸⁴ This firm was renowned for designing many significant buildings throughout the United States. Its projects included the USLSS station at Narragansett Pier, RI, built in 1888, as well as the Narragansett Towers at a nearby resort community. Both buildings are characterized by rusticated granite block construction with broad arches that reflect the Richardsonian architectural style, Henry Hobson Richardson's adaptation of Romanesque architecture. The Narragansett Pier Life-Saving Station stands today and is listed in the National Register of Historic Places.

⁸¹ Elisabeth Hicks, "New Research on the Academical Village Model Constructed for the 1926 Philadelphia's World Fair," *Building a Living Legacy* (blog), University of Virginia Art Museum 14 October 2009 http://www.uvamblogs.com/jeffersons_academical_village/?p=439.

⁸² "Arlington National Cemetery Tomb of the Unknowns Monument Repair or Replacement Project, June 1, 2006," (draft report, Arlington National Cemetery, 2006) accessed at http://www.arlingtoncemetery.mil/photo_gallery/ANC.pdf.

⁸³ "Victor (1861-1948) or Cosmos (b. 1863) Mindeleff Photographs," *Guide to the Collections of the National Anthropological Archives*, National Anthropological Archives, <http://www.nmnh.si.edu/naa/guide/m3.htm>.

⁸⁴ "Narragansett Towers History" The Historic Narragansett Towers, accessed July 2010 at <http://www.thetowersri.com/History1.html>); Shanks and York, *U.S. Life-Saving Service*, 229.

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F. Associated Property Types

A federal government lifesaving station was commonly characterized by a discreet parcel of land occupied by one or more buildings used to house equipment and personnel. The character of these facilities changed through time in form and design. This reflected evolving needs and differences relating to lifesaving staff and equipment, as well as changes in architectural style and agency policy.

The earliest federally-funded lifesaving stations were constructed as individual storage structures designed to house lifesaving boats and equipment. The personnel who staffed them were groups of local volunteers who resided in the vicinity and mobilized in response to specific shipwreck incidents, operating in a manner similar to volunteer firemen. There was no need for a station to have living quarters occupied by a resident crew.

Through time, the government's lifesaving program developed to include stations manned by a resident crew during seasons of the year when shipwrecks most often occurred. The requirements for sheltering and supporting such groups meant that living space to accommodate them needed to be included in a station's facilities. Stations built following the federal Life-Saving Service's 1871 establishment included living quarters along with utilitarian equipment and boat storage under one roof. In some locations, local geographical characteristics required separate buildings to be constructed for boat storage, living quarters, and other station functions. Lookout towers were sometimes necessary to fulfill mission requirements. These were built either integral to a station's principal building or as separate structures.

After the U.S. Coast Guard was established, the architectural and functional layout of federal lifesaving stations shifted to reflect changes in equipment and administration. Advances in lifesaving technology led to modified building designs to accommodate new functional requirements such as the adoption of motorized lifeboats and their improvement through time. Other design influences included advancements in maritime communication and navigation such as radio and radar. Living facilities for USCG personnel were designed to reflect military hierarchy. Unlike the USLSS civilian personnel system with seasonal crews, the Coast Guard's organization is based on naval rank and personnel who serve year round.

Station Types

In the following discussion, the earliest federal government lifesaving station buildings are identified as *lifesaving boathouses*. A facility established later by the Life-Saving Service is designated as an *integral station*, *station complex*, or *house of refuge*. Pre-1950 USCG lifeboat stations include a number of legacy USLSS facilities and Coast Guard installations built following its establishment in 1915. For USCG stations, the number of *integral stations* declined through time while the number of *station complexes* increased.

Lifesaving Boathouse: The earliest lifesaving stations built under federal government sponsorship were lifesaving boathouses constructed between 1848 and 1855 on the coastlines of New Jersey, New York, and Rhode Island. Each was a single building used to house equipment and boats.

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No living quarters were provided in these buildings. A lifesaving boathouse’s crew was made up of volunteers who resided in their own homes. They mobilized in response to a specific shipwreck event and received a financial reward for making a successful rescue. A typical lifesaving boathouse was a one-room, rectangular, gable roof building measuring 16 feet wide by 28 feet long. The design of these simple buildings was functional and without ornamentation. The front gable end faced the water and included a wide doorway allowing a boat to pass, and a window. The single interior room provided space to store one or two boats, lifesaving equipment, and some provisions for shipwreck victims. An 1855 boathouse design provided for a larger rectangular building that was 17 feet wide by 36 feet long. This design included some ornamentation including jigsaw-cut gable decorations, eave brackets, and an overhanging gable on the end above the boat door. A single pedestrian doorway and two windows along one of the boathouse’s long sides provided for easier entry and more interior light. No original plans for this 1855 design exist. However, historic photographs are available.

Integral Station: The 1871 establishment of the Treasury Department’s Revenue Marine Life-Saving Service was a major development in the federal government’s lifesaving program. It marks the beginning of a large scale paid, professional workforce dedicated to lifesaving operations. It is also associated with the construction of buildings designed specifically to house and support lifesaving personnel who resided at the station.

Federal lifesaving installations established by the Life-Saving Service commonly consisted of a single station building that integrated multiple functions. These integral stations included space for boat and equipment storage along with living quarters for the crew. Such facilities were analogous to an American firehouse where personnel reside while on duty in proximity to their equipment, in order to respond quickly to an emergency. Integral station buildings that housed boat storage and living quarters under one roof were the most common type of federal lifesaving installation constructed from 1871 to the establishment of the U.S. Coast Guard in 1915. The design of these integral stations often adapted aspects of contemporary residential architectural styles, sometimes giving them a dwelling-like appearance.

The Red House Design was the Life-Saving Service station building plan that incorporated living facilities for its crew with boat and equipment storage under one roof. Its name derives from the red roof that was its standard coloration. Stations built according to this plan were established along the coasts of New England states from 1871 to 1873. The footprint of Red House station buildings was not significantly larger than the earlier 1855 design boathouses. They included space for living quarters by increasing the building’s height from one story to one-and-one-half or two stories. A Red House station’s usual plan included two principal spaces on the first story level. One room was used for boat and equipment storage while the other was used by station personnel. The upper half-story or second story was divided in a similar fashion into two rooms for the staff.

Technological advancements in lifesaving equipment through time led to changes in storage needs. As the quantity and size of lifesaving equipment increased, larger station buildings were needed. A program undertaken in 1887 to 1888 was directed at enlarging a number of the Red House stations built in 1871 to 1873. This work consisted of constructing a shed roof addition along one or both of a Red House station’s long sides. In addition, the design process for new stations built after 1888

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included a requirement for greater storage space. This resulted in enlarging the parts of an integral station building used for boat and equipment storage. By the early twentieth century, designs for integral stations had evolved to include storage spaces so large that they resembled boathouses with attached dwellings.

The development of integral station buildings is associated with inclusion of an architectural feature used to visually scan nearby waters. This feature was an elevated viewing platform that took the form of a watch deck, watch room, watch tower, or lookout tower. The configuration and size of this feature varied from one station to another. A station design prepared in 1874 incorporated an open-air watch deck atop the roof that was integral to the station building. Such lookouts were often accessible from inside the building. They provided a valuable addition to a station's traditional on-foot beach patrol to maintain a lookout for vessels in distress.

An 1882 standardized design for integral stations was the first to include an enclosed watch room with a roof. Enclosed and roofed watch rooms were also added to a number of integral station buildings constructed before 1882. These lookouts provided protection from the elements and enabled the station's staff to maintain a continuous effective watch over nearby waters. Enclosed watch rooms at integral station buildings were located either on the roof or in an attached tower. They were usually square or octagonal in plan with an interior watch room deck measuring approximately ten feet across.

Integral station designs after 1882 initially incorporated an enclosed watch room on the roof. These were later superseded by designs where the rooftop room was replaced with a watch tower that reached four stories in height that was integral to the building. Detached watch towers were also built at a number of stations where the terrain required taller structures or where the lookout tower had to be located away from the station building. These detached towers are associated with the station complex facility type.

Station Complex: Several lifesaving facilities were established where the local topography required that various lifesaving station functions, such as boat storage and living quarters, be dispersed among multiple buildings. This non-integrated, multi-building installation type may be termed a station complex.

The earliest lifesaving station complexes were generally located along the Pacific coast in northern California and the states of Washington and Oregon. Rocky coastlines and treacherous surf conditions are common in this region. Designs for most lifesaving stations in these areas included separate buildings for the living quarters and boathouse. This provided for a dwelling to be situated at a higher elevation with an improved view of the vicinity. The station's boathouse was typically situated near sea level next to the shore. An 1890 lifesaving station design that included separate buildings was also used for facilities constructed in the Great Lakes, Maine, and South Carolina.

The USLSS integral station type was superseded by station complexes at a number of legacy installations that became Coast Guard stations following the 1915 establishment of the USCG. This occurred when an original integral station building was replaced by a station complex. In such locations, an integral building was normally demolished after the new construction of multiple structures

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that included separate dwellings for officers and enlisted men, office spaces, garages, and detached buildings for boat and equipment storage. The early twentieth century shift to detached boathouses is also associated with the Coast Guard's replacement of lightweight surfboats with larger and heavier lifeboats that needed launching facilities and larger spaces for storage.

House of Refuge: A house of refuge was a USLSS station meant to provide a place to shelter, provision, and assist shipwreck survivors until they could make their way back to civilization. Its mission did not include engaging in offshore rescue. The boat assigned to a house of refuge was used for transportation to and from settlements in the vicinity. This station type was generally staffed by a single keeper. It did not have the rescue boat, equipment, and crew characteristic of other lifesaving stations. Houses of refuge were established from 1875 to 1885 along remote undeveloped sections of the Florida and Texas coastline. They were designed with southern regional architectural styling including a veranda. These stations were usually situated in environmental settings characterized by sandy beaches or another shoreline type that favored shipwreck survivors making it ashore on their own. A house of refuge included dwelling space for the keeper's family, storage space, and provisions to sustain as many as 25 shipwreck survivors for ten days. Living space for survivors was provided in the attic.

Lifesaving Station Components

USLSS stations and USCG lifeboat stations were composed of one or more buildings and structures providing housing for the functional components necessary to perform lifesaving missions. The initial architectural design policy for federal government lifesaving stations was to include all necessary functions in a single building. During the late nineteenth century to early twentieth century, factors such as local geography, technological developments, and changes in administration resulted in a trend for separating these functions among multiple buildings and structures. Following the Coast Guard's establishment in 1915, the distribution of functions among separate buildings became the predominant design policy for station development and redevelopment.

The various functional components associated with federal lifesaving stations changed through time as the program evolved and developed. Components generally present at USLSS lifesaving and USCG lifeboat stations included the following.

Boathouse: The first federally-funded lifesaving stations were along the Atlantic coast of New Jersey, New York, and New England. These were small boathouse buildings of simple design that housed a boat and lifesaving equipment. The boats they sheltered were relatively small in size and mounted atop a cart for overland transport to where they were launched by hand into the surf. Following establishment of the USLSS, boathouses were superseded by buildings that included space for boat and equipment storage, living quarters, and administration functions under one roof. Most lifesaving stations built between 1871 and 1915 were of this integrated type. From the early twentieth century forward, the trend in station design developed towards facilities with living quarters for staff and administrative functions being housed in buildings that were separate from the boathouse. Station buildings that had originally housed integrated functions were sometimes converted to boathouse use

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exclusively after new living quarters were constructed. This trend evolved into a station design policy in which multiple buildings were standard. It was largely a result of advances in lifeboat design that resulted in bigger and heavier watercraft equipped with more elaborate technology. Structures used for housing these boats changed to accommodate these developments. Boathouse design was also influenced by a station’s location. If the water next to the boathouse had sufficient depth for floating a lifeboat, a launch way was often built for putting the boat directly into the water.

Living Quarters: A major component of USLSS and USCG stations is typically the living quarters provided for onsite staff. Inclusion of this station component became necessary when the Department of the Treasury’s Life-Saving Service began requiring crews to remain at a station for extended periods. USLSS station architecture generally incorporated the living quarters into the design of an integral station building that included other functional components such as boat and equipment storage, and a watch room or lookout tower. The living quarters provided facilities for rest, cooking and dining, administrative activities, and recreation. It typically included one or more sleeping areas for the crew, a separate bedroom for the keeper or officer in charge, a kitchen, dining room (mess), bathroom, administrative office, and storage.

Lookout: A station’s lookout was an elevated platform providing a place to observe the surroundings. It was typically situated atop a station building’s roof or on the top deck of a tower. This station component enabled the lifesaving staff to maintain a watch over nearby waters and shoreline for vessels in distress. Whoever was on watch would look for indications of trouble such as a vessel displaying emergency signals, or one that was approaching a known danger area such as the shoreline or a shoal. The usefulness of incorporating a lookout platform in lifesaving station design was recognized early in the federal government’s lifesaving program. Plans for a USLSS facility prepared in 1874 by Francis Ward Chandler, Assistant Supervising Architect of the Treasury Department, incorporated an open-air watch platform atop the station building. A simple platform of this nature allowed for better visibility and required little in terms of materials. However, an open-air deck is exposed to the elements. Covered watch rooms appear in station plans prepared in 1882. This was followed later by station designs that included a tall watch tower that was an integral part of the station building. Lookout towers that stood alone, separate from a station building, were built at several USLSS stations during the early twentieth century. They were generally situated away from the main station building at a place providing for a better view of the surroundings.

Flagpole: Each U.S. Life-Saving Service and U.S. Coast Guard station included a flagpole. These commonly consisted of a tall monopole with a cross piece near the top. As federal installations, each station flew the United States flag. They also displayed storm warning signal flags, and could use international maritime signal flags to communicate with vessels offshore. Flag poles could also be used for signaling messages to station crew members on beach patrol. A station’s allotment of signal flags was commonly stored in one or more wooden flag lockers near the flag pole.

Drill Pole or Wreck Pole: A drill pole, also called a wreck pole, was a tall wooden monopole with a cross piece resembling the mast of a sailing vessel. It was used by the station’s crew during practice drills as a target for shooting a line from a line-throwing gun. The drill pole/wreck pole was placed in a level open area that was used for training. Being able to effectively shoot a line from shore

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to a vessel in distress was very important to rescue procedure. It provided a means for moving people to safety from a vessel in distress using line-traveling rescue equipment such as a life car or breeches buoy.

Storage Structures and Garages: Storage sheds for equipment were built at many USLSS and USCG stations. These were used to shelter items such as beach carts, life jackets, Lyle guns, flares, ropes, and other lifesaving gear. The design of these utilitarian structures varied from one location to another and was generally simple with an emphasis on functionality. As the use of motor vehicles became widespread during the early twentieth century, it became necessary to construct garage structures to shelter trucks, trailers, and automobiles from damaging environmental conditions. Garages at lifesaving stations were commonly one to three bays in width, and more than one garage might be present.

Privy: Prior to the widespread installation of indoor plumbing, a privy (outdoor toilet) was an essential feature of each lifesaving station. It was commonly a small, simple rectangular wooden structure located to the rear of the main station building. More than one privy might be located on a station property. Privies were moved to new locations, their old waste pits backfilled, and new waste pits dug from time to time. From around the 1920s onward, the USCG undertook to install indoor plumbing at existing station buildings and incorporate it into new construction. The interior of older station buildings was often altered by modifying an existing room to accommodate the added toilet facilities.

Water Collection Systems: Each USLSS and USCG station required fresh water to sustain and support resident personnel. Almost all USLSS stations did not have access to public utility water, so some other source was required. Wells were commonly dug, but ones at many seashore locations provided brackish water unfit for drinking or cooking. Wells at other stations provided potable water and at least one had an artesian well. The most common practice was for stations to install a system for collecting and storing rainwater. This usually employed gutters and downspouts that channelled rainwater to cisterns. Some stations properties existing today retain their water collection systems, including cisterns.

Launch Ways: A number of stations included launch ways for putting lifeboats into the water and retrieving them to shore. A launch way commonly consisted of one or more ramps extending from the front door of the boathouse to the water. It often included a marine railway on which a wheeled boat cart connected to a cable and winch traveled along a set of parallel rails. Boats mounted atop such carts could be kept in storage and moved quickly between the boathouse and water. For launching, the boat cart was let down along the railway into the water until its lifeboat floated free. Launch ways were often needed when a station was located along rocky coastline or where the shoreline's terrain was sloped or elevated above the water level.

Miscellaneous Structures: A variety of miscellaneous structures might be present at a lifesaving or boat station depending on the specific circumstances, geographical location, or chronological period. For example, stations located in areas with colder climates often included a separate coal or oil house to store fuel used for heating and lighting. Sheds were used in many locations to house poultry or livestock. The Isle of Shoals lifesaving station, off the Maine coast, included a

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covered walkway connecting the main station building to a separate watch tower.

Structures at USLSS lifesaving and USCG lifeboat stations were subject to deterioration from harsh coastal environmental conditions. This required the staff to engage in regular maintenance activities. Station buildings, launch ways, bulkheads, breakwaters, and other structures often needed repairs and sometimes rebuilding.

Lifesaving Station Regional Location and Design Variations

The federal government’s lifesaving program was originally focused on coastal states in the northeastern region. Through time, it expanded to include all of the nation’s Atlantic, Pacific, and Gulf of Mexico coastline, the Great Lakes, and part of the Ohio River. There was also one station in Alaska, at Nome.

The planning process for a new station was complicated, and a number of factors affected where stations were situated and how they were designed. Considerations included differences in regional maritime traffic patterns, seasonal weather conditions, coastal and offshore geomorphology, and local cultural traditions. The interplay of these various factors led to adaptations and variations that influenced station location, configuration, and components.

Lifesaving station locations were selected based on a need to provide rescue and salvage assistance in areas where environmental conditions tended to cause vessels to wreck. Attention was directed to the presence of shoals, rocks, or currents that increased the likelihood of maritime accidents. Annual weather conditions were reviewed, and the need to provide coverage for remote coastlines remote from developed areas was considered. Each station needed to have easy access to water for launching a boat, as well as good visibility of waters and shoreline in the vicinity. It was also important for a station to be visible from vessels offshore in order that mariners in distress could see and steer towards it. A proposed lifesaving station location’s relationship to other stations in the vicinity was an important factor in order to ensure appropriate distances between them.

Since the natural settings of all USLSS stations and USCG boat stations were near to or adjacent to water, their designers had to plan for the effects of humidity as well as for exposure to saltwater for seacoast stations. Stations situated in unprotected locations were also subject to damage or destruction from storms. Their buildings needed to be constructed to withstand potentially damaging conditions such as strong winds, flooding, and wave action.

Stations along the middle and southeastern Atlantic coasts and in the Gulf of Mexico region were often situated along sandy barrier islands where the shoreline was generally low-lying and relatively flat. These locations are prone to erosion and changes caused by storms. Station buildings in these areas were often constructed with the superstructure elevated on piers above ground level, or built in a manner allowing them to be moved to a new location if necessary.¹ These stations typically consisted of a building with integral boat storage space and living quarters. A separate lookout tower was also

¹ Kimball, *Organization and Methods*, 11.

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common.

There were other site selection challenges for lifesaving stations on rocky coasts such as in New England, along the Pacific Coast, and in parts of the Great Lakes. These stations had either a boat room integral to the main station building, or a detached boathouse. Many also included launch ways. A station building along a rocky coast, perhaps atop a promontory with good visibility of the vicinity, might have shoreline unsuitable for boat launching. In such cases, the station's boathouse would be placed at a sheltered shoreline location nearby having access to offshore waters. Some Great Lakes lifesaving stations were built perched over the water so their boats could be moved quickly down a launch way.

The station design policies adopted by the USLSS changed following the Coast Guard's 1915 establishment for a variety of reasons. In contrast to the U.S. Life-Saving Service's civilian organization, the Coast Guard is a full-time military service organized according to a naval system of ranks. In addition, the USCG has multiple statutory missions. This meant that work performed by its stations was more diverse and complex than the USLSS. USCG station design was also affected a great deal by the rapid pace of twentieth century developments in maritime technology and communications.

These factors led the Coast Guard to change from the earlier USLSS design tradition of having personnel living quarters and boat storage in a single building that normally operated with full staff on a seasonal basis. Instead, USCG design policies emphasized developing a complex of buildings that were normally fully staffed year-round, and included housing for commissioned and senior noncommissioned officers in buildings separate from the enlisted men. The standard concept for USCG stations was a group of separate buildings used for administration, living quarters, boathouses, garages, equipment sheds, and other purposes.

Architectural Styles in Lifesaving Station Design

The earliest federally-funded lifesaving stations were simple, rectangular pitched-roof storage buildings that were plain, functional, and lacking in decorative details. The inclusion of more elaborate architectural detailing for station buildings dates to soon after the Life-Saving Service was established in 1871. Through time, designs developed for USLSS and USCG stations adopted elements of a variety of U.S. architectural styles and regional characteristics. In some cases, elements of multiple architectural styles were combined in a single building.

One popular late nineteenth century American architectural style is Carpenter Gothic. It is characterized by a combination of features such as wooden construction by house carpenters, rustic character, and a steeply pitched roof. It includes elements of Gothic Revival design such as decorative barge-boards along the lower edges of the roof at a building's end gables. Several of the earliest USLSS stations were designed in this style. These include stations at Cross Island (1874) and Whitehead (1873–1874) in Maine; Plum Island (1874–1877), Manomet Point (1874), and Surfside (1874) in Massachusetts; New Shoreham (1874) in Rhode Island; Vermilion Point (1876) in Michigan; and Kitty Hawk (1874), Chicamacomico (1874), and Little Kinnakeet (1874) in North Carolina.

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The Stick architectural style was used in the design of lifesaving stations constructed between 1875 and 1882. It includes the use of triangular trusses to support the roof's gable ends, along with upright and horizontal timbers visible on the building's exterior. Stations built with Stick style features include Middle Island (1881), Port Austin (1881), and Harbor Beach (1881) in Michigan; Saluria (1880) and Aransas (1883) in Texas; Barnegat (1883–1884) in New Jersey; Wallops Beach (1883) in Virginia; Ocracoke (1882) in North Carolina; Lewes (1884) in Delaware; and Hunniwells Beach (1883) in Maine.

The Queen Anne style became popular in U.S. architecture during the 1880s. It is characterized by wooden construction with exterior decorative elements and a porch at the main entrance. A distinguishing feature is an asymmetrical front façade that often incorporates a circular or polygonal tower. This style was adapted to the design of several USLSS stations, including Deal (1882–1883), Bay Head (1884–1885), and Great Egg (1888) in New Jersey; New Shoreham (1888) in Rhode Island; and Plum Island (1893) and Gurnet (1892) in Massachusetts.

The Richardsonian style was developed during the late nineteenth century by architect H. H. Richardson and was a distinctively American variation based on revival of the Romanesque architectural style. It emphasized the use of stone masonry with materials such as granite or sandstone for constructing substantial buildings with arched elements that communicated feelings of solidity and stability. The Narragansett Pier Life-Saving Station (1888) in Rhode Island was designed based on the Richardsonian style and was one of the few USLSS stations built of stone masonry.

The Shingle style was applied to the design of several lifesaving stations built between 1892 and 1910. It is characterized by a building's exterior sides being clad with wooden shingles and structural massing that emphasizes horizontal continuity and simplicity with minimal decoration. Stations with Shingle style architecture included Chicago (1903) in Illinois; Lorain (1910) in Ohio; Buffalo (1903) in New York; Quonochontaug (1892) in Rhode Island; Brant Rock (1892) in Massachusetts; Caffey's Inlet (1897) and Chicamacomico (1911) in North Carolina; Cape Henry (1904) in Virginia; Duluth (1894) in Minnesota; Cape May (1896) in New Jersey; and Damariscove (Damiscove) Island (1897) and Isle of Shoals (1910) in Maine.

The Colonial Revival style was developed in the United States during the late nineteenth century. It is an adaptation of the eighteenth century English Georgian style as manifested in the American colonies. Colonial Revival combines Greek and Roman Classical design features with seventeenth century Renaissance-based architectural themes developed by the Italian architect Palladio. The USLSS commissioned several stations in the Colonial Revival style. These include Fort Point (1889) in California; Point Adams (1889) in Oregon; Point Reyes (1889) in California; Marquette (1890) and Portage (1902) in Michigan; and Sullivan's Island (1894) in South Carolina.

The designs of a number of Atlantic coast stations were based on regional vernacular building traditions in their locality. These include Bay Head (Point Pleasant) (1872) and Ship Bottom (1872) in New Jersey; Quogue (1872) in New York; and Gilberts Bar (1876) and Bulow (1885) in Florida.

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Standardized Station Designs

Standardized designs were used from the beginning of the federal government's lifesaving program. They facilitated construction and reduced the cost of buildings especially suited to the program's unusual needs. Early stations were based on sets of uniform specifications for small, rectangular boat storage buildings with a gable roof. These provided facilities that were suitably functional and closely resembled one another. The use of standardized designs for lifesaving stations continued following the establishment of the Life-Saving Service. It resulted in the efficient construction of specialized facilities built from the ground up as lifesaving stations. This design method subsequently became a principal characteristic of lifesaving station architecture throughout the existence of the USLSS, and was subsequently continued under U.S. Coast Guard administration.

The standardized design method provided construction plans suitable for a number of proposed station locations. While some designs were used for projects in a variety of U.S. regions, most were produced with a particular geographical area in mind. The standardized method allowed for a simplified and effective bidding and contractor selection process. Local builders were provided with solicitations that included detailed building plans. These designs sometimes incorporated elements that reflected regional building types and features adapted to the local climate.

The first group of Life-Saving Service stations was constructed from 1871 to 1873. They were based on a simple and utilitarian set of standardized plans called the Red House Design. The success of this approach led General Superintendent Sumner Kimball in 1874 to request that Treasury Department Architect Francis Ward Chandler prepare a second standardized design. Chandler's work incorporated decorative elements and features found in popular architectural styles of the day. Through time as the need for lifesaving facilities grew, a number of government-employed and contracted private architects worked on behalf of the Life-Saving Service and USLSS. They produced several additional standardized station designs.

Station architecture during the service's early years reflected styling characteristics of the northeastern United States, which is where the effort to establish stations was initially concentrated. Subsequent designs prepared for locations along the southeastern seacoast and Gulf of Mexico adapted traditional regional styles from those areas. Stations in the southern states often had broad porches or verandas that made living conditions more comfortable.

The standardized Chatham Design, developed by the USLSS in 1914, was adopted by the new U.S. Coast Guard. It was used up to the 1947 construction of a lifeboat station building in Highland, Massachusetts. The Chatham Design provided symmetrical, two-story station structures with little ornamentation. It set the pattern for later USCG standardized station designs characterized by symmetrical, two-story Colonial Revival style buildings with a shed or hipped red roof and white clapboard siding.

The following standardized lifesaving station designs are based on types defined by Ralph Shanks and Wick York in *The U.S. Life-Saving Service*, along with David Pinyerd in his academic thesis entitled *The Preservation of Pre-World War Two Coast Guard Architecture in Oregon*. Illustrated

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descriptions of these designs are provided in Appendix 1 of this multiple property documentation form (see Continuation Sheets).

1848, 1849, and 1850 Designs: The first lifesaving stations built with federal funding were constructed from 1848 to 1850. The designers are unknown. These stations were small, rectangular boathouse structures with a simple front gable roof, shingle siding, and minimal elaboration or ornamentation. Typically, these boathouses had a wide two-leaf door extending across most of the front-facing façade, sometimes with a small window alongside. There was a small window on one or more of the building's other three sides. The boathouse interiors consisted of an open plan single room, sometimes with a storage loft. These early designs were used for stations along the seacoasts of New Jersey and New York. One example of the 1850 Design was built in Rhode Island.

1855 Design: A standardized boathouse design developed in 1855 was larger and more elaborate than the earlier boathouses. Its designer is unknown. The 1855 Design provided for a rectangular building with shingle siding. It was influenced by the Carpenter Gothic Style, which is reflected in various architectural details including jigsaw-cut gable ornamentation, wide eaves supported by brackets, and a front gable with an overhang wider than the eaves. This boathouse design had a standard entry doorway in addition to its wide doorway for the boat. The windows had plain surrounds. Examples of the 1855 Design were constructed along the New Jersey and New York seashore.

1871 Red House Design: The Red House Design was used for stations built from 1871 to 1873. Its designer is unknown. This design's name is derived from the building's red shingle roof, which was brightly colored and highly visible. Stations of this type are simple, one-and-a-half story buildings with a rectangular footprint measuring 42 feet by 18 feet. The interiors of the upper and lower stories are each divided into two sections according to function. The first story room towards the front sheltered the station's boat, its wagon or cart, and other lifesaving apparatus. The rear room was used for administrative and living space. The half-story above is also divided to provide a storage room for equipment and a room for sleeping quarters. Several lifesaving stations in New Jersey, New York, and Massachusetts were constructed using the 1871 Red House Design. A number of these stations were altered in 1887 to 1888 using an 1885 design in the Shingle Style prepared by architect by Albert Bibb. These alterations included adding a shed-roofed boat room on one or both sides of the building to provide more space for equipment and the station's crew. A rectangular watch room cupola with a pyramidal roof was also added atop the building near the front.

1874 Design: The first federal lifesaving station design associated with an identified architect was prepared in 1874 by Francis Ward Chandler, Assistant Supervising Architect for the U.S. Treasury Department. The 1874 Design combines plans for a functional building that met the needs of a lifesaving station with aspects of contemporary American architectural styling. It provides for a building approximately the same size as the 1871 Red House stations, and includes exterior styling using elements of the Carpenter Gothic and Stick Styles. This design is characterized by board and batten vertical siding, decorative wood scroll-cut ornamentation, Gothic arched windows on the second story, and Gothic arched decorative gable trusses along with bracketing at the building's overhanging gable ends and beneath the side eaves. The 1874 Design's exterior corner braces cross one another in the shape of an "X." The eave brackets are ornate. A wood-cut dolphin motif and projecting stick work are

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placed at the outer extremes of the roof gables beneath the peak. This design includes a centered, open-air watch deck atop the roof where the station's crew could view the nearby waters and coastline. The design's first story Interior features a front room for the surfboat and other rescue apparatus. An adjoining rear room with a stove was used by the crew for meals and relaxation. The crew's sleeping quarters on the second story includes space for extra beds to accommodate rescued survivors temporarily. The 1874 Design was used primarily for lifesaving stations built in North Carolina, as well as a number of stations in New England.

1875 Design: The standardized design prepared in 1875 by Francis Ward Chandler is similar to his 1874 Design in dimension and massing. It includes the same cladding with vertical siding and exterior corner braces. The 1875 Design differs from the 1874 one in that its various elements are simplified and follow the Stick Style more than the Carpenter Gothic Style. Its eave brackets are less ornate than those of the 1874 Design, and the gables incorporate an angular design. The decorative gable trusses at the building's ends include a king post combined with beams positioned in an "M" configuration in place of the 1874 Design's more ornate Gothic arch. The corner braces of the 1875 Design form a diamond pattern. The second story windows are rectangular and there is no watch deck on the roof. Chandler also produced a variant of the 1875 Design that features clipped gables.

1876 Design: The architect for the standardized 1876 Design was J. Lake Parkinson. It is similar to the 1874 Design in dimension and appearance except that its architectural detailing is simpler. The 1874 gable end Gothic decorative truss is replaced in the 1876 Design with a Stick Style feature consisting of a collar brace and king post terminating at the bottom with a dropped pendant. The second story's board and batten siding is less detailed than in the 1874 Design, and is without cross braces. The first story's exterior is clad with shingles instead of the 1874 Design's board and batten siding. The 1876 Design also includes a hipped roof dormer on each side of the roof, and the watch deck is positioned near the front of the building's roof instead of the center. A station building of the 1876 Design was constructed as an exhibit at the 1876 United States Centennial Exposition in Philadelphia, PA. It was moved afterwards to Cape May, NJ, and used as an active lifesaving station. Most of the station buildings built using the 1876 Design were in Virginia and North Carolina.

1876 Lake Superior Design: The 1876 Lake Superior Design is the first standardized station that deviates from a simple rectangular plan. It adapts Gothic Revival styling with numerous arched details and features a cross-shaped plan. The architect for this design was J. Lake Parkinson. The 1876 Lake Superior Design's architectural elements include a wing extending from the left and right sides of the rectangular main structure, a steeply-pitched gable roof crossed by a hipped roof, and pointed ridge-cresting and angular stick work along the roof ridges. A central chimney with decorative dentils and brickwork pierces the ridge of the gable roof. The building's gable ends are decorated with fan trusses. One wing of the station building is used to house the lifeboat. Another wing is used as a living room for the crew. Sleeping quarters are on the second story.

1876 House of Refuge Design: The 1876 House of Refuge Design was prepared by Francis Ward Chandler and used exclusively for constructing ten station buildings along the coast of Florida. This standardized design includes elements of regional vernacular housing that were adaptive to the Florida coast's warm, humid climatic conditions. It provides for a rectangular building measuring 15

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feet by 37 feet with three apartments on the first story and a second story loft. There is ample space for the storage of provisions. The superstructure is supported six feet above grade by foundation pilings to prevent damage from waves driven by storm surge. The building's roof has a broad front gable and there is a wide, hipped roof veranda on the front and two sides. Windows are fitted with wire screens instead of glass glazing to provide year-round ventilation. The second story loft is ventilated with wide, shed roof dormers. The 1876 House of Refuge Design provides accommodations for the station's keeper and family, and as many as 25 shipwreck survivors. These stations were constructed using heart pine or cypress, woods that are naturally resistant to weather deterioration and termite damage.

1879 Michigan Design: The 1879 Michigan Design was used for constructing stations along the shores of Lake Michigan and Lake Huron. While no original copy of these plans is known to exist, the 1879 Michigan Design's similarities to the 1876 Lake Superior Design suggest they were prepared by the same architect, J. Lake Parkinson. The 1879 Michigan Design is characterized by an L-shaped plan and a cross-gable roof. Its extended wing is larger than the 1876 plan's wings. The 1879 Design's decorative details are very similar to the 1876 version. The building's gable ends and gabled wall dormers include decorative trusses with a king post, drop pendant, and collar brace. The first stations built using the 1879 Michigan Design included an open watch deck on the ridgeline above the front gable. A revision to this design replaced the open watch deck with an enclosed watch tower topped with a side gable roof oriented perpendicular to the main roof's ridgeline.

1880 Texas Design: This design was prepared in 1880 by J. Lake Parkinson for stations constructed in Texas. Its layout, massing, and architectural details are similar to the L-shaped 1879 Michigan Design used in the Great Lakes. The 1880 Texas Design is distinguished by a front gable main roof with a hipped roof on the cross gable end. It also has simple decorative gable trusses with a king post, and a narrow, enclosed watch tower atop the roof. The initial 1880 Design included an open rooftop watch deck, but this was replaced in a subsequent modification by an enclosed watch tower.

1882 Design: The 1882 Design was prepared by J. Lake Parkinson using characteristics of the Stick Style and is similar in dimensions, massing, details, and layout to his 1879 Design. It provides for an L-shaped plan with a cross gable roof, and gable roof dormers. The exterior is clad on the first story with clapboard. Board and batten siding is used on the second story. The gables and dormers include decorative trusses with a king post that is simpler than used for the 1879 Design. A watch tower with a hipped roof is positioned atop the station's roof near the front gable. This watch tower design was used to replace open rooftop watch decks atop earlier stations. The 1882 Design was used in constructing lifesaving stations along the Atlantic Coast from Maine to Florida.

1882 Deal Design: The 1882 Deal Design is named for the lifesaving station at Deal, New Jersey, which was the first one built using these standardized plans. It was also used in building other stations in New Jersey and Rhode Island. The USLSS obtained this design through a contract with Paul J. Pelz, a former U.S. Lighthouse Board architect who had resigned to establish his own practice. The 1882 Deal Design provides for a rectangular building that includes elements of earlier station designs such as multiple exterior sheathing materials, a tall lookout tower, and exterior diagonal braces. It differs in its use of Queen Anne Style elements. The front gable roof includes a large cross gable dormer at the midpoint on each side. The exterior is sheathed with clapboards and scallop-edged

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shingles. The watch tower on the roof rises to 56 feet above ground level and is topped with ornamental ironwork.

1886 Northeast Design: The 1886 Northeast Design was prepared by USLSS architect Albert B. Bibb. He had previously designed an 1885 renovation to Red House stations built in the early 1870s. The 1886 Design includes Queen Anne Style elements and suggests a coastal cottage having a large porch. It includes clapboard siding, small windows, and turned porch columns. The boat room portion of the structure is in a wing on one side that resembles an attached garage. This wing has a hipped roof topped with pyramidal roof watch tower. The building's main roof is steeply pitched with a front gable and two hipped dormers on one side. The 1886 Design was used in constructing several stations in the Northeast from New Hampshire to New Jersey.

1886 Great Lakes Design: USLSS architect Albert B. Bibb prepared another design in 1886 for lifesaving stations to be constructed in the Great Lakes region. His 1886 Great Lakes Design includes few decorative elements and is simpler than his design for stations in the Northeast. The building's hipped-roof boat room is its most prominent section. This faces toward the shore while the dwelling section extends to one side under a side gable. The boat room includes a band of small-paned windows across the front. There is a pyramidal roof watch tower connected to an open roof deck atop the dwelling. Stations built using this design were constructed in the Great Lakes region from 1886 to 1893.

1889 Fort Point Design: The first USLSS lifesaving station design that did not include integral boathouse and living quarters under one roof was prepared by Albert B. Bibb in 1889. It was intended specifically for a station at Fort Point in San Francisco, CA. The 1889 Fort Point Design includes a Colonial Revival Style dwelling for the staff and a separate building for boats and equipment. Separate buildings were needed because of the rugged topography along this part of the Pacific Coast. The detached boathouse needed to be positioned near the water while the station building with living quarters was placed at a suitable location away from the shore. The dwelling is rectangular, two stories tall with a gambrel roof, and has three bays along its front façade. The second story has a large gable roof dormer above each first story bay. The front entrance is centered on a flat roof porch that has a balustrade on the second story level. The dwelling is clad with clapboard siding. The gambrel roof is covered with shingles. The first story includes a rear extension with a shed roof. The detached boathouse is rectangular plan with Gothic Revival styling. It is clad with board and batten siding and has a hipped roof topped with a pyramidal roofed ventilator.

1890 Marquette Design: The 1890 Marquette Design by Albert B. Bibb was a modification of the 1889 Fort Point Design and included a detached boathouse. The station building with living quarters is designed with a side gable roof instead of a gambrel roof, and is clad with a combination of clapboard and shingle siding. The Marquette Design's detached boathouse has a front gable roof and shingle siding. The 1890 Marquette Design includes a freestanding, detached lookout tower.

1892 Quonochontaug Design: The USLSS hired George R. Tolman as an architect in 1892. His first design was prepared the same year for a station at Quonochontaug, RI. Similar to Bibb's 1886 Northeast Design, Tolman's 1892 work includes Shingle Style elements such as shingle cladding throughout, simple porch supports, and minimal elaboration. The station building's dwelling section is

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at one end under a side gable. A hipped roof covers the boat room on the opposite end. A porch wraps around three sides of the station building. A gable roof dormer and a hipped roof watch tower are positioned over the boat room portion of the building. Lifesaving stations were built using this design along the U.S. eastern seaboard from Massachusetts to Florida, and in Illinois.

1893 Duluth Design: Tolman designed another Shingle Style building in 1893 for a station in Duluth, MN. It is rectangular in plan with a clipped side gable roof and shed roof dormers. A large, rectangular, four-story watch tower with a pyramidal roof is centered on the front façade and divides the dwelling space from the boat room. The dwelling section’s entrance includes a recessed shed roof porch with simple post supports and balusters. The boat room includes two large doors.

1893 Niagara Design: The 1893 Niagara Design prepared by George R. Tolman was a variant of his 1892 Quonochontaug Design. This station building includes integral living quarters and a boat room. It features a front clipped-gable roof with an intersecting gable and gable roof dormers. Exterior siding includes both shingles and clapboard. The station’s lookout tower is a separate freestanding structure.

1897 Petersons Point Design: USLSS architect Victor Mindeleff prepared a design in 1897 for two lifesaving stations along the Pacific Coast, including Petersons Point which remains today. The other station has been demolished. This design provides for a rectangular, two story building having a broad gambrel roof with side gables. Architectural details combine the Shingle and Colonial Revival styles. This includes shingle siding, a shingled gambrel roof, Tuscan columns on the porch, and fanlights in the building’s gable ends. The front façade includes a prominent octagonal lookout tower with a tall peaked roof.

1897 Port Huron Design: The 1897 Port Huron Design by Victor Mindeleff combines elements of the Shingle Style with a greater use of Colonial Revival Style elements than used for the Petersons Point Design. This station building is characterized by broad massing, a pitched roof with side gables, shingle siding, and an integral 3-story octagonal watch tower centered on the front façade. The tower is flanked by two entrances. The main entry porch is crowned with a pediment supported by Tuscan columns. The secondary entrance has a recessed front porch with Tuscan columns. The building’s windows are flanked with Colonial Revival shutters.

1897 Jersey Pattern Design: The 1897 Jersey Pattern Design by Victor Mindeleff includes themes from his other designs of the same year, but with a greater emphasis on the Colonial Revival Style. This design duplicates the prominent, octagonal 3-story tower of the Port Huron Design. It has a pitched roof dwelling section on one side resembling the Port Huron recessed porch section except that it has a front gable instead of a side gable. The building’s overall plan is L-shaped with the tower where the two wings intersect. The Jersey Pattern dwelling section’s porch is recessed and supported by Tuscan columns. The building’s Colonial Revival elements include gable roof dormers located on its hipped-roof wing, a fanlight in the dwelling section’s front gable, and a 3-part window adjacent to the corner porch. Several lifesaving stations of this design were built in New Jersey, and one each in Ohio and New Hampshire.

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1899 Southern Pattern Design: Mindeleff prepared a standardized design in 1899 for several stations along the Atlantic shoreline of North Carolina. Known as the 1899 Southern Pattern, it was adapted from the Bungalow style then popular in the southeastern region’s coastal areas. This design provides for a rectangular one-story building with a wide, wrap-around veranda bordered by a balustrade that is painted white. The broad, gently sloping hipped roof includes wide, hipped-roof dormers and broad eaves above the veranda that are supported by simple wood posts. The building’s exterior elevations are clad with unpainted shingles. The windows are fitted with double hung sash. An integral three-story square watch tower with hipped roof is attached at one corner of the building. The tower’s roof has wide, overhanging eaves above a row of windows that light the third story watch room.

1903 Gulf Design: The 1903 Gulf Design was prepared by Victor Mindeleff for lifesaving stations along the Gulf of Mexico coast of Texas and Louisiana. It is characterized by rectangular station buildings elevated several feet above grade atop a pile foundation. This provides protection from destructive storm surge and coastal flooding due to hurricanes that make landfall in the region. The open area beneath the building’s first story provides sheltered space for storing boats and equipment. These stations have a hipped roof with broad eaves covering a wide, wrap-around veranda that surrounds the building’s elevated first floor. There is a wide, gable roof dormer at the front and hipped dormers on the sides. A square, hipped-roof watch tower is centered atop the station building’s roof.

1903 Old Chicago Design: Mindeleff’s 1903 Old Chicago Design is characterized by a combination of Shingle Style and Colonial Revival elements. It was used for constructing lifesaving stations at Chicago, IL, and Buffalo, NY, two important Great Lakes ports. This design provides for a building with an L-shaped plan that is more massive than Mindeleff had designed previously. It includes a broad, two-story boat storage section with four side-by-side lifeboat bays having individual doors below a wide front gable facing the water. The second story gable above the lifeboat doors includes a row of four windows separated by decorative panels that is flanked by quarter-arch windows at the ends. The boat section with front gable intersects the station building’s two-story main block which has a hipped roof with hipped roof dormers on two sides. An integral four-story watch tower with a hipped roof and open air watch room is adjacent to the lifeboat bay front gable. The station building’s exterior is clad with shingles.

1903 Racine Design: Mindeleff’s 1903 Racine Design also combines the Shingle and Colonial Revival Styles. It was used for stations in Wisconsin and Michigan. This design provides for a station building with a rectangular plan and a steeply-pitched side gable roof. The front façade is dominated by a four-story square watch tower rising above the building’s main entrance. The entry includes a portico supported by Tuscan columns. A porch with Tuscan columns extends across one side bay of the front façade, and another extends across the entire rear façade. The elevations are sheathed with shingles. The roof includes jigsaw-cut gable decorations and eave brackets. The roof’s front elevation has a shed-roof dormer on either side of the watch tower. The rear elevation includes a prominent triangular pediment dormer flanked by shed-roof dormers on either side, with a smaller triangular pediment dormer higher up on the roof above the larger one.

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1910 Lorain Design: Mindeleff's 1910 Lorain Design again combined elements of the Shingle and Colonial Revival Styles and was used for lifesaving stations built in Ohio, Michigan, New York, and Virginia. This station design provides for a shingle-clad building with a rectangular plan, side gable roof, hipped dormers, and a square, three story watch tower centered on the front façade. The tower is flanked by a recessed porch in the dwelling section and a boat storage section with two lifeboat bays. The roof includes three hipped roof dormers on the front and five on the rear. The roof on the gable ends is flush with the side elevations.

1910 Chicamacomico Design: Mindeleff also produced a design in 1910 for a new station building at Chicamacomico and three other sites in North Carolina. The 1910 Chicamacomico Design has a rectangular plan with a broad front-gabled roof. Each side of the roof includes three hipped-roof dormers. A square watch tower with a hipped roof sits atop the gable at the front of the building. A projecting entrance porch with a front-gable roof supported by stout corner posts is joined on either side to a hipped roof veranda that wraps around the side elevations. There are three tall windows in the front gable above the porch. This design's watch tower, shingle siding, and massing resemble George R. Tolman's 1892 Quonochontaug Design.

1910 Isles of Shoals Design: A station building designed by Victor Mindeleff in 1910 for the Isles of Shoals, off the Maine coast, features elements of two earlier designs. The 1910 Isles of Shoals Design combines the 1897 Port Huron Design's one-and-a-half story building with side gables, two front porches, and shingle siding with the 1910 Lorain Design's square, three story tower. The Isles of Shoals Design was also used for building a station in Rhode Island and one in Massachusetts.

1914 Chatham Design: Victor Mindeleff's 1914 Chatham Design was produced the year before the USLSS merged with the U.S. Revenue Cutter Service to form the U.S. Coast Guard. This design was adopted by the Coast Guard and used for the construction of 29 station buildings with the last one built in 1947. The 1914 Chatham design is strongly influenced by Colonial Revival architectural styling and provides for a rectangular, two story building with five bays. The pitched roof includes two small end gables above sloping hipped-roof sections. This design includes a centered, first story, three-bay porch with Tuscan column supports. A number of the Chatham Design station buildings incorporate a square watch room cupola centered atop the roof. Buildings constructed using this design were usually clad with shingles.

1934 Roosevelt Design: The 1934 Roosevelt Design was used during the 1930s and 1940s for the construction of 46 Coast Guard stations on the Atlantic and Pacific coasts and in the Great Lakes.² The Roosevelt Design is not attributed to any single architect and is similar to the 1914 Chatham Design. It includes a rectangular plan, two full stories, symmetrical elevations, a three-bay wide front porch with classical columns, and an optional rectangular watch room cupola centered atop the roof. It incorporates additional Colonial Revival elements such as a pitched roof with side gables, an attic half-story with pitched roof dormers, window shutters, and clapboard siding that is painted white. A number of Roosevelt Design station buildings were constructed with one story wings flanking the main two-and-

² David A. Pinyerd, "The Preservation of Pre-World War Two Coast Guard Architecture in Oregon" (Master's thesis, University of Oregon, 2000).

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a-half-story central block. The basic Roosevelt Design’s interior includes a mess, kitchen, office, two bedrooms, and a bath on the first story. The second story includes four small bedrooms and one bath. The attic was used for storage. The boat house at a Roosevelt Design station was separate from the main building.

1877 to 1910 One-Of-A-Kind Designs: Various USLSS and private sector architects produced one-of-a-kind designs for lifesaving stations at locations requiring a unique site-specific design. This was because of special considerations such as an unusual environmental setting, or being located at a highly visible site in an area with interested, influential people and fashionable contemporary architecture. Unique designs produced by a USLSS architect were often similar to their other designs while incorporating a number of alterations or elaborations. The first USLSS unique design was prepared by J. Lake Parkinson in 1877 for a Gothic cottage built at the Grosse Point Lifesaving Station in Illinois. Parkinson also produced unique designs for a small one-story station in Buffalo, NY, and for the Golden Gate Park Lifesaving Station in San Francisco, CA. USLSS architect Albert B. Bibb produced unique designs for stations at Cape Elizabeth in Maine and Cuttyhunk Island in Massachusetts. George R. Tolman produced a design specifically for the USLSS station at Gay Head on Martha’s Vineyard Island, MA. Victor Mindeleff produced unique designs for lifesaving stations at Nahant in Massachusetts and Jackson Park in Illinois. Private sector architects were occasionally contracted by the USLSS to produce a specific site’s station design. These included John G. Pelton, who designed a keeper’s residence in 1884 to be constructed next to J. Lake Parkinson’s Golden Gate Station in California. The New York architectural firm of McKim, Mead, and White was contracted to design the Narragansett Pier Life-Saving Station in Rhode Island.

1915 to 1950 USCG Lifeboat Stations: Following the Coast Guard’s 1915 establishment, all former U.S. Life-Saving Service stations were designated U.S. Coast Guard stations. Substantial improvements in the design and technology of motorized lifeboats during the early twentieth century led to corresponding changes in the infrastructure needed at various USCG stations. A number of the USLSS stations taken over by the Coast Guard had been built to accommodate light weight surfboats that were transported overland to a launching site. Many of these buildings were not suitable for motorized lifeboats. Structural modifications were frequently necessary in order to accommodate the increased size and weight of newer rescue craft. Other stations required new buildings, or were designated surplus property and disposed. From 1915 onward, the USCG undertook a sustained program to relocate or decommission unsuitable stations. New structures for launching or mooring motorized lifeboats were built at several existing station locations.

Victor Mindeleff’s 1914 Chatham Design for the USLSS turned out to be well-suited to the changes in technology, staffing, and procedure that characterized USCG lifeboat stations from 1915 onward. The Coast Guard continued to use the Chatham Design, with modifications, for building station buildings until 1947.

Advances in maritime technology from 1915 to 1950 resulted in substantive changes in the building infrastructure at USCG boat stations. The need for a dedicated boathouse building diminished as the evolving design and increasing size of rescue boats led to storage in the water becoming standard procedure. In addition, continuing improvements in motorized lifeboats and radio communications

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affected the Coast Guard's strategy for station distribution. These changes diminished and eventually eliminated the historical need to space stations at close intervals along the coastline.

USCG architects produced few new designs for lifeboat stations during the period from 1915 to the later 1930s. The designs that were prepared reflected a shift from building a single, integrated station building to facilities composed of a complex of multiple special-purpose structures. Individual buildings were dedicated to administration, various utilitarian uses, and separate dwellings for the station commander, officers, and enlisted men. The shift to larger motorized watercraft also led to boathouses being modified or replaced. Existing boathouses could sometimes continue in use for that purpose by adding or improving a launch way for the newer lifeboats coming into service. In other cases, a boathouse was replaced by constructing or leasing docks or wharves where a station's boats could be moored for in-water storage. The requirement for dedicated office space also increased through time with the growing importance of organizational administration. Another characteristic of USCG boat stations from 1915 to 1950 was the adoption of standard coloration for buildings. The highly visible, brightly colored red roof adopted for lifesaving station buildings in 1871 became the standard roof color for all USCG structures. In conjunction with this, white was adopted by the USCG as the standard color for a building's painted siding.

Registration Requirements³

As of 2010, 36 USLSS lifesaving stations had been listed individually in the National Register. Two of these are designated National Historic Landmarks. An additional nine lifesaving stations are included in the NRHP as contributing properties in a National Register historic district. A total of six lifesaving stations have been documented for the Historic American Buildings Survey (HABS) with documentation deposited in the Library of Congress. A number of other lifesaving stations and station sites, as well as USCG lifeboat station properties, may be eligible for listing in the National Register. Determining this will require evaluations for historical significance using the National Register of Historic Places eligibility criteria. The following discussion provides information concerning what aspects of a property need to be considered and addressed in determining whether an entire or partial station property, or a station site, is eligible for listing in the NRHP.

Significance

Federally-funded lifesaving boathouses, stations, houses of refuge, and lifeboat stations built before 1950 are potentially eligible for inclusion in the National Register based on the criteria that have been established for listing. These include association with an important aspect or theme of American history, or association with a significant person, or representation of a style of architecture or engineering design, or for information a property can yield about the past. Properties associated with the federal lifesaving program are associated with the history of American maritime transportation and specifically with the occurrence of shipwrecks and other marine accidents. These properties were part

³ Information in this section is primarily from the website for the National Register of Historic Places (<http://www.nps.gov/history/nr/publications/bulletins/nrb34/>) and from the National Register *Light Stations of the United States* Multiple Property Documentation Form.

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of a long-term governmental program to promote maritime safety and the rescue of people and property from marine peril, and represent the establishment, improvement, and professionalization of federal maritime lifesaving through time.

A lifesaving station property may also be historically significant in terms of its architectural or engineering character. They were often designed with consideration for contemporary architectural styling. In addition, these buildings frequently included adaptive aspects relative to regional and local characteristics of site topography and natural environment. Their designers often took into account other considerations including the prevailing climate, local hazards to navigation, shoreline settlement and development in the vicinity, and changes in lifesaving practices and technology through time.

Any property associated with the federal lifesaving program that dates to 1950 or earlier meets the 50-years-of-age standard for National Register listing. The 1950 ending date adopted for this NRHP Multiple Property Documentation Form marks the close of the U.S. Coast Guard’s historical period during the first half of the twentieth century. A Coast Guard property in commissioned service after 1950 may qualify for this overarching MPDF if it operated as a lifeboat station in 1950 or earlier. Thus, a property may be covered by this Multiple Property Documentation Form if its period of historical significance begins in 1950 or earlier and extends to a later time 50 years or more before the present, or less than 50 years if qualifies as exceptionally historically significant.

The historical significance of a station is based on its state of preservation, representation of a type, or its association with significant themes in American history. Assessing and describing a property’s significance requires scholarly research into primary and secondary sources, as well as an onsite investigation of the property’s physical character.

The evaluation of a station property must include thorough historical research into its original construction and subsequent modifications including building additions, changes to sites and equipment, and operational history. This includes a chronological discussion of the historical context for its local, state, or national level of significance, and how the property relates to that context. The historical narrative included in the NRHP registration form’s *Statement of Significance* section should document a station’s history and its functional operation through time, along with its place in the context of the NRHP criterion or criteria being applied. Aspects addressed may include its value as representative of a station architectural design or type, role in maritime transportation, social history, or how the property relates to the history of the federal government’s lifesaving program. This should include discussion of specific historical events associated with the property.

Information on a station’s history may address reasons for establishing the station, such as nearby maritime hazards or other environmental factors associated with shipwrecks, or the influence of political concerns. It should also discuss factors relating to selection of the site and the station design adopted, as well as logistical or funding problems affecting construction, along with how the natural setting affected the station’s operation. The significance statement should be concise and well-developed. The information in the NRHP registration form must relate to the property’s level of significance. In discussing significance, it is necessary to link the station to national, regional, or local historic contexts, as appropriate, and to convey the station’s association with significant events. This

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may include information on a person or persons significant in American history associated with the property.

The Statement of Significance must discuss the period during which the property achieved historic significance. The period of significance relates to the date that the current station was built or to the dates of significant historical associations. The ending date for the period of significance may be when the property was decommissioned from lifesaving service, or the time of some other important change in the property's historic function. The significance period's terminal date should not be less than 50 years ago unless the station has achieved exceptional significance within the past 50 years.

Stations eligible for listing in the National Register will usually qualify because of their significant contribution to the broad patterns of American history, and/or because they embody a distinctive characteristic of a type, period or construction method, and/or because they represent the work of a master. Consequently, most lifesaving stations that possess historic architectural integrity are likely to qualify for listing at least on the local level. Thus, the following justifications may be used for the applicable criteria: (A) Lifesaving Station/Lifeboat Station/House of Refuge **X** is significant for its association with federal efforts in **Y** region to promote maritime safety as part of the government's program to establish and maintain an integrated nationwide system of stations staffed and equipped to perform lifesaving and the rescue of maritime property; (B) Property **X** is significant for its association with **Y** person who is important in American history because of the following reasons; (C) Property **X** embodies the characteristics and is representative of the distinctive **Y** design which adapted the **Z** architectural style/styles during the **W** time period.

Criteria for Determining Significance

Properties eligible for listing in the National Register may be buildings, structures, sites, districts, or objects. The NRHP nomination process uses the following criteria to determine a property's historic significance:

- A. Associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Associated with the lives of persons significant in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

Under **Criterion A**, a lifesaving station, house of refuge, or lifeboat station can qualify for listing in the National Register through its association with historic themes. Applicable areas of significance may include historical context associations such as maritime transportation; contribution to the history of a town, state, or region; the development of the federal program for promoting maritime safety and lifesaving; evolution of lifesaving practices and equipment; or the history of architecture or engineering. Background information must be provided to explain the significance of the station within the selected historical context. Areas of significance to consider may include transportation, architecture,

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engineering, or government.

Under **Criterion B**, a station property may possess significance if a person important in American history is associated with that particular property to a meaningful degree. National Register Bulletin 32, *Guidelines for Evaluating and Documenting Properties Associated with Significant Persons*, provides guidance on Criterion B and its application. Examples of prominent persons who have made significant contributions to the history of the U.S. Life-Saving Service and U.S. Coast Guard include Station Keepers Richard Etheridge and Hilman Persson. The stories of other persons who have made a significant contribution to lifesaving in the United States may have been neglected or largely forgotten. This could be rectified for such persons through documentary recordation in a property's NRHP registration.

Under **Criterion C**, a house of refuge, lifesaving station, or lifeboat station may possess historical significance if it embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction. A lifesaving station property must possess various qualities and features to be representative of its type, period, or method of construction. Lifesaving stations may be eligible for National Register listing under Criterion C within the following categories:

Architecture: A lifesaving station may be significant under Criterion C if it is representative of a particular style of architecture such as the Stick style or Shingle style, or is an example of a specific standardized station design such as the Marquette type, or is the result of work by a master such as USLSS architects Francis Chandler, Albert Bibb, George Tolman, or Victor Mindeleff.

Engineering: A lifesaving station may be significant because of the engineering required for its construction. Compared to other stations, construction of a lifesaving facility in a topographically challenging location or harsh environment may have required engineering that is especially noteworthy.

Under **Criterion D**, a lifesaving station may be significant if archeological research at the site has yielded or is likely to yield information important to history or prehistory. These data may include information on the design or methods of construction, or undocumented or poorly documented aspects of the crew's life at that station location. Archeological remains of earlier lifesaving stations on the site, or cultural materials associated with missing components of an existing station may have the potential to provide information that is otherwise obtainable and can enhance the historical record. In addition, a lifesaving station property may contain archeological materials that are important but unrelated to the station's functioning, such as a prehistoric habitation site or a historic period site predating the station's establishment. Archeological significance is assessed through field investigation of the archeological resource, scientific analysis of data collected, and interpretation of results in the context of information obtained previously. The outcome may yield important information, or demonstrate that the remaining intact archeological deposit is likely to yield significant information through further research. NRHP documentation of lifesaving station properties should include discussion of buildings and structures

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identified through historical research but which are no longer standing, as well as the results of any archeological investigation concerning them. This should include a site plan map showing where any excavation units were placed and information on cultural materials and features encountered, along with photographs of these features and significant artifacts.

Criteria Considerations

In general, there are certain property categories that do not usually qualify for listing in the National Register. These include properties less than 50 years of age, reconstructed structures, and stations that were moved from their original or historic sites after the period of significance. A property of this nature may qualify for National Register listing, however, if it meets certain exceptions.

Resources less than 50 years old: A station achieving significance within the last 50 years can be listed in the National Register if it is of exceptional significance. To qualify, a station must be associated with important but recent themes or developments that scholarly or professional research has recognized as significant in the history of engineering, construction, or operation. An example of this is a property that represents the first or best example of a new technology, architectural style or experimentation, or engineering.

Assessing Integrity

When assessing a property’s integrity for National Register eligibility, it is necessary to consider its location, design, setting, materials, workmanship, feeling, and association. One or more of these may be better preserved than others. A property needs to retain at least two consideration aspects to a significant degree in order to be listed in the NRHP. All of these aspects should be addressed when evaluating a property’s significance. If a resource is potentially significant for its architecture, engineering, or construction method or type, then aspects of its design, materials, and workmanship merit emphasis. Historic integrity of location, setting, and association are important as well, especially for resources associated with significant historical events or persons.

Location means the place where the historic property is presently situated, where it was originally built, or where an historic event significant to the property took place. Integrity of location may relate to whether a property has been moved or relocated since it was originally built, or the extent of disturbance to a historic event site due to subsequent development or natural processes such as erosion. Even if a property has been moved, it may still retain integrity of location if the moving occurred before or during its period of historical significance (normally dating to 50 years or more before the present). Some lifesaving station buildings were relocated one or more times during their period of operation. Possible reasons for this include mitigating the effects of various problems such as shoreline erosion, or because a particular site proved to be dangerous, or because an original site was ill-suited in terms of visibility or water access. Even though moved buildings may incur loss of location integrity, they may still retain significant levels of other integrity aspects.

Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. Lifesaving and lifeboat stations, and houses of refuge, may exhibit aspects of design

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exemplary of a particular standardized design used at multiple station locations. In general, the main station building is the principal character-defining feature of a station property, and is likely to be considered as more important than ancillary buildings. Assessment of design integrity should consider changes to a property through time. Station buildings were sometimes renovated, with rooms or dormers added or otherwise changed. Modifications that were made during a property's period of historical significance do not necessarily detract from its historical integrity. An example of this is the 1887 to 1888 renovations made to lifesaving stations originally built using the 1871 Red House design. Such changes may be significant historical examples of improvements supporting the property's functional purpose. The design integrity of a property may also relate to the survival of ancillary buildings and structures such as boathouses, oil houses, water catchment systems, and launch ways. The evaluation of a station property's significance should include assessment of all its building and structural features.

Setting is the physical environment surrounding a property. This may be an important aspect of historic character. Integrity of setting should be considered in terms of the relationship between a property's present-day setting and the setting during its period of historic significance. A station property's setting may be compromised if development has substantially altered the surrounding environment. A station property's connection to the shoreline and its viewshed to the water may be important for evaluating the existing setting.

Materials are the physical elements of a property that were combined in a particular pattern or configuration to form the way it exists today or existed in the past. Integrity of materials is important to assessing whether or not a property is an authentic historic resource. A number of station properties have had their roofs covered with asphalt shingles when wood shingle or standing seam metal was the original covering, or had original shingle or clapboard siding covered with vinyl or aluminum siding. If changes such as these are reversible, it may be possible to replace non-original materials with materials appropriate to a period of historical significance without causing harm to other remaining historic materials associated with the property that still retain integrity.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. Workmanship is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles. The presence of preserved original workmanship in a property enhances its potential to be historically significant.

Feeling is the quality that a historic property may possess that evokes the aesthetic or historic sense of a past period of time. Although this quality is intangible, integrity of feeling can be an important element of a station's physical characteristics and setting that conveys a sense of its historic character and qualities. Assessing this aspect of integrity may depend upon the degree to which persons visiting a property sense the feel of its historic character.

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Association is the link between a property and an event, person, or other concept or entity. A station property's association with federal efforts to promote lifesaving may make it an example of how this nationwide program was manifested at a particular location. A solid association with the government program for enhancing maritime safety and rescuing lives and property may contribute to qualities that enhance historical significance.

Levels of Significance: Local, State, and National

There are three levels of significance for which a historic property may qualify for NRHP listing. These relate to the property's place in American history and whether it is important in a local, statewide, or national historical context. The level of significance may derive from the property's association with a part of American history or the property's character in terms of content and preservation. A station property's NRHP registration form should include discussion of applicable historic context on the local, state, or national level, and provide an explanation of the station's place within that context.

Local significance: A local historic context provides an explanation of the station property's relationship to the history of the vicinity. The locality considered may be a town, county, geographical area such as the Outer Banks, cultural area, or some other spatial entity. A determining factor for this level of significance is whether the property's importance in history transcends the history of the surrounding locality.

State significance: A lifesaving station, house of refuge, or lifeboat station may qualify for determination that it represents a significant aspect of the overall history of the state or state-equivalent entity where it is located. In this case, the property's historic context needs to include information on why its significance extends beyond the local area to the state level.

National significance: Station properties may be determined eligible for NRHP listing on the national level when they have a significant relationship to the history of the United States as a whole. In such a case, the discussion of historic context must demonstrate how the station property's story and qualities relate to aspects of the nation's history, and why this is important nationwide. A station property with national significance helps us understand the history of the United States by illustrating the nationwide impact of events or persons associated with the station, its architectural type or style, or information potential. A station must be of exceptional value in representing or illustrating an important theme in the history of the nation. Properties that are listed in the NRHP as nationally significant are automatically considered to be candidates for identification as a National Historic Landmark. Criteria for determining that a property qualifies for National Historic Landmark designation are discussed in National Register Bulletin Number 15 Part IX: *Summary of the National Historic Landmarks Criteria for Evaluation*.

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Hierarchy of Character-Defining Features

Because of the potential loss of original features, a lifesaving station, house of refuge, or lifeboat station may be assessed according to a hierarchy of character-defining features. The station building is generally the principal feature of such a property. There are other features that may also contribute to a property's historical significance, though to a lesser degree. The following is a priority listing of physical elements commonly associated with stations and houses of refuge.

1. **Station building:** The presence of a station building that is greater than 50 years in age at a lifesaving station, house of refuge, or boat station generally serves to enhance a property's historical significance. A station building that retains integrity dating to the property's period of significance represents its historic character better than one that does not. There are various aspects to assessing a station building's integrity. Does it retain original form and footprint? Is it in a historic location? If the building has been moved, when did the relocation occur? Was this done more than 50 years ago, and how does the move relate to the property's period of historical significance? The presence of a station's principal building generally adds to its significance, while the absence of such a structure may lessen it. Other issues to consider include whether the building's overall design and major elements are exemplary of the architecture of a particular period of time or style. Are the massing, roof type, and examples of original windows and doors intact, and is the siding original? Major character-defining elements and interior spaces that are intact from a station's period of historical significance add to its integrity. There are portions of a historical station building that may be present and merit consideration when evaluating a property's significance. These include the following:
 - a. **Watch tower or lookout deck:** If the building originally had a watch tower or lookout deck that was incorporated into the station structure, is this feature intact or missing? A tower or watch deck was an important character-defining feature of several USLSS station designs. If intact, a feature of this nature will enhance the property's architectural integrity.
 - b. **Boat room:** If the station building had a boat room when originally built, is this feature intact and are the doors original to the structure and in their initial location? If the boat room had an adjoining launch way leading to the water, is this important feature intact? With the decline in the practice of storing lifeboats indoors, many station buildings' boat rooms were altered for other uses. If this has occurred, are the alternations reversible?
 - c. **Living quarters and administrative areas:** A station building was generally used as living quarters for the crew and for administrative tasks relating to the station's operation. How well the station building's existing conditions reflect these uses informs an assessment of its integrity. In addition, if the building under consideration originally included space to quarter shipwreck survivors such as an attic area, how well does the structure today reflect this past use?
 - d. **Interior:** The quality of a station building's integrity is affected a great deal by the preservation of its original interior detailing. This includes a variety of elements such as molding, doors, door hardware, and cabinetry.

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2. **Boathouse:** Does the station include a boathouse separate from the main station building? Even if it has been modified for some other use, a boathouse may retain significant elements of its original form and fabric relating to its original use. A variety of questions relate to evaluating a boathouse's integrity. Does the building retain its original form and footprint? Are the original windows and doors intact? Is the siding original? Is it in its original location? If moved from its original site, has it been in its present location 50 years or more? It may be helpful to consider additional questions. Is the boathouse original to the station, or was it added later? Is it a nineteenth century or early twentieth station building converted to boathouse use? If the boathouse had an associated launch way, the presence of a preserved launching facility generally adds to the property's significance.
3. **Separate watch tower:** Some stations had a watch tower that stood separate from the main station building. If a tower of this nature is present, how well does it retain its original form? Was it original to the station's establishment or built later? Towers of this type could be moved if necessary. It is important to determine if the present-day location is original or if it has stood at its existing location for more than 50 years.
4. **Wreck pole:** Practice drills using lifesaving equipment were an important routine procedure at lifesaving and lifeboat stations. A common feature used for drills was a wreck pole, which was built to resemble a vessel's mast and used to practice throwing and rigging lines, and operating lifesaving equipment. Almost all wreck poles have been taken down or otherwise lost, though archaeological evidence of them may remain. The presence of an original wreck pole or its archaeological remains would enhance the property's historical significance.
5. **Other associated structures and features:** Lifesaving and lifeboat stations might include a variety of associated structures and features such as a flagpole, equipment storage sheds, garage, privy, water collection system, oil or coal house, and walkways. The presence of surviving original examples of any of these serves to enhance to the quality of a property's preservation and contribute to its historical significance.

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G. Geographical Data

This MPDF may be used with an individual NRHP registration or determination of eligibility for a lifesaving station property, boat station property, or house of refuge property along the Atlantic, Gulf of Mexico, or Pacific coasts, or in the Great Lakes region, in the following states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Missouri, Kentucky, Washington, Oregon, California, Alaska, and Hawai‘i; as well as in the following state-equivalent entities: District of Columbia, Puerto Rico, U.S. Virgin Islands, Samoa, Guam, and the Northern Mariana Islands.

The following table provides the locations of Federal government lifesaving stations, houses of refuge, and Pre-1950 USCG boat stations. This table includes additional information concerning each property.

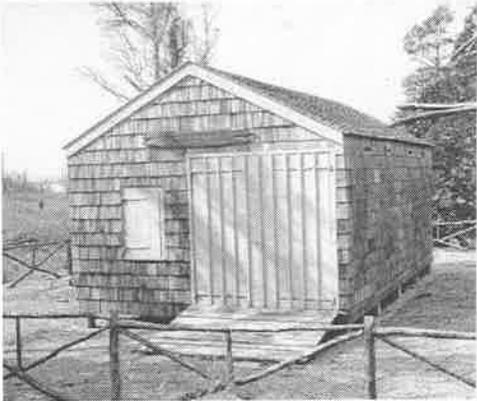
Although most of the lifesaving stations built in the United States were from standardized plans, those plans varied in size, style, and function. To better understand the variations, the station design types are organized according to function, style, and date using terminology from U.S. Life-Saving Service plans and terms defined by Ralph Shanks and Wick York in *The U.S. Life-Saving Service: Heroes, Rescues and Architecture of the Early Coast Guard*. Some of the subtypes defined by Shanks and York are grouped into broader, over-arching types. Information sources for individual lifesaving stations include Shanks and York, David A. Pinyerd’s master’s thesis “The Preservation of Pre-World War Two Coast Guard Architecture in Oregon,” and U.S. Coast Guard files at its headquarters and civil engineering units. Because the series of architects who drew these styles served sequentially, some understanding of each architect’s style can also be seen in this table as well. Unless otherwise noted, the images presented are from U.S. Coast Guard files.

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Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornamental Features	Doors/ Windows
(1) Lifesaving Boathouse						
<p>(1.1) 1848 Design/ Lifesaving Boathouse Unknown designer</p> 	<p>1848 Bonds, NJ 1848 Chadwick, NJ 1848 Deal, NJ 1848 Harvey Cedars, NJ 1848 Island Beach, NJ 1848 Monmouth Beach, NJ 1848 Spermaceti Cove, NJ 1848 Spring Lake (Wreck Pond), NJ</p>	<p>Rectangular 16 x 28 feet/ Front gabled, no overhang No living quarters</p>	<p>Open, with storage loft; boat storage dominant use</p>	<p>Shingles/ Shingles</p>	<p>Vernacular None</p>	<p>One door for boat Small window left of door</p>

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<p>(1.2) 1849 Design / Lifesaving Boathouse</p> <p>Unknown designer</p> 	<p>1849 Amagansett, NY 1849 Atlantic City, NJ 1849 Barren Island, NY 1849 Bellport, NY 1849 Brigantine, NJ 1849 Cape May, NJ 1849 Eaton's Neck, NY 1849 Fire Island, NY 1849 Fishers Island, NY 1849 Great Egg, NJ 1849 Hereford Inlet, NJ 1849 Long Beach, NJ 1849 Long Beach, NY 1849 Mecox, NY 1849 Moriches, NY 1849 Pt. Lookout, NY 1849 Quogue, NY 1849 Townsend Inlet, NJ</p>	<p>Rectangular 16 x28 feet/ Front gabled, no overhang No living quarters</p>	<p>Open, with storage loft; boat storage dominant use</p>	<p>Shingles/ Shingles</p>	<p>Vernacular/ None</p>	<p>One door, for boat Small window left of door</p>
<p>(1.3) 1850 Design / Lifesaving Boathouse</p> <p>Unknown designer</p> <p>(Image not available)</p>	<p>1850 Coney Island, NY 1850 Gilgo, NY 1850 Southampton, NY 1850 Watch Hill, RI</p>	<p>Rectangular 16 x 28 feet/ Front gabled, no overhang</p>	<p>Open, with storage loft; boat storage dominant use</p>	<p>Shingles/ Shingles</p>	<p>Vernacular/ None</p>	<p>One door for boat Small window left of door</p>

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(1.4) 1855 Design / Lifesaving Boathouse
 Unknown designer



(Richard Boonisar, from Shanks and York)

- 1855 Absecon, NJ
- 1855 Barnegat, NJ
- 1855 Blue Point, NY
- 1855 Cold Spring, NJ
- 1855 Corsons Inlet, NJ
- 1855 Ditch Plain, NY
- 1855 Forked River, NJ
- 1855 Georgica, NY
- 1855 Great Egg, NJ
- 1855 Two Mile Beach (Turtle Gut), NJ
- 1855 Jones Beach, NY
- 1855 Little Egg, NJ
- 1855 Lone Hill, NY
- 1855 Long Branch, NJ
- 1855 Manasquan Inlet (Squan Beach), NJ
- 1855 Montauk, NY
- 1855 Napeague, NY
- 1855 Oak Island, NY
- 1855 Point of Woods, NY
- 1855 Potunk (Petunk), NY
- 1855 Rockaway Point, NY
- 1855 Sandy Hook, NJ
- 1855 Sheepshead Bay, NY
- 1855 Shinnecock, NY
- 1855 Ship Bottom, NJ
- 1855 Smiths Point, NY
- 1855 Stone Harbor (Tathams), NJ
- 1855 Toms River, NJ

Rectangular
17 x 36 feet/

Front gabled, with
eaves

Open, with
storage loft;
boat storage
dominant use

Shingles/

Cedar boards

Carpenter
Gothic/

Jigsaw-cut
gable
decoration,

Bracketing
under eaves,

Gabled
eyebrow over
windows and
door

1 door for boat, 1 side entry
door

2 windows

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
(2) Integral Station						
<p>(2.1) 1871 Red House Design / Integral Station</p> <p>Unknown designer</p>  <p>(photos of Red House stations with later additions)</p> 	<p>1871 Absecon, NJ 1871 Far Rockaway, NY 1871 Forge River, NY 1871 Forked River, NJ 1871 Great Egg, NJ 1871 Hither Plain, NY 1871 Two Mile Beach (Turtle Gut), NJ 1871 Jones Beach, NY 1871 Little Beach, NJ 1871 Long Beach, NJ 1871 Loveladies Island, NJ 1871 Mantoloking (Swan Point), NJ 1871 Meadow Island, NY 1871 Pecks Beach, NJ 1871 Sea Isle City (Ludlams Beach), NJ 1871 Shark River, NJ 1871 South Brigantine, NJ 1871 Tiana (Tyana) , NY 1872 Atlantic City, NJ 1872 Barnegat, NJ 1872 Bay Head (Point Pleasant), NJ 1872 Bellport, NY 1872 Blue Point, NY 1872 Bonds, NJ 1872 Brigantine, NJ 1872 Cedar Creek, NJ 1872 Chadwick, NJ 1872 Chatham, NY 1872 Corsons Inlet, NJ 1872 Deal, NJ 1872 Fire Island, NY 1872 Gilgo (Oak Island) , NY 1872 Harvey Cedars, NJ</p>	<p>Rectangular, 18 x 42 feet/</p> <p>Front gabled, with no eaves, ventilator on roof</p> <p>[Many expanded with shed addition in 1887-88]</p>	<p>2 rooms on first floor, 2 rooms on attic floor; 1889 expansion included mess room, keeper's room, kitchen pantry, closets, storm clothes storage, and a boat room on the first floor, with storage and crew quarters with closets on the second floor</p>	<p>Shingles/ Shingles</p>	<p>Vernacular/ Buildings were painted red for visibility along the coast</p>	<p>1 door for boat, side door/ Gable window; 1889 expansion included dormer windows on second floor</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>1871 Red House Design - Continued</p>  <p>(photo of Red House station with later addition)</p>	<p>1872 Hereford Inlet, NJ 1872 Highland, MA 1872 Island Beach, NJ 1872 Little Egg, NJ 1872 Lone Hill, NY 1872 Long Beach, west end, NY 1872 Manasquan Inlet (Squan Beach), NJ 1872 Monmouth Beach, NJ 1872 Moriches, NY 1872 Nauset, NY 1872 Oak Island, NY 1872 Ocean City (Beazleys), NJ 1872 Point Lookout, NY 1872 Point of Woods, NY 1872 Potunk (Petunk) , NY 1872 Quogue, NY 1872 Sandy Hook, NJ 1872 Seabright, NJ 1872 Shinnecock, NY 1872 Ship Bottom, NJ 1872 Smiths Point, NY 1872 South end, Island Beach, NJ 1872 Spermaceti Cove, NJ 1872 Spring Lake (Wreck Pond), NJ 1872 Stone Harbor (Tathams), NJ 1872 Toms River, NJ 1872 Townsend Inlet, NJ 1872 Two Mile Beach, NJ 1872 Zacks Inlet , NY 1873 Block Island, RI 1873 Cahoons Hollow, MA 1873 Monomoy, NY 1873 Orleans, MA 1873 Pamet River, MA 1873 Peaked Hill Bars, MA 1873 Race Point, MA</p>					

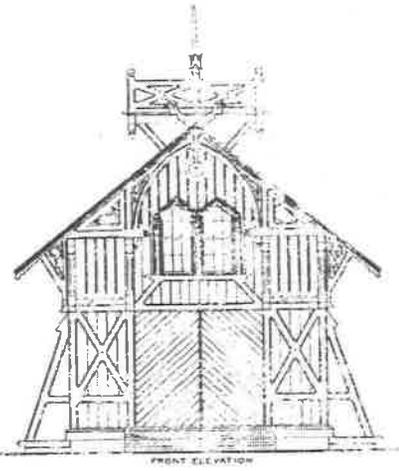
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 Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.2) 1874 Design / Integral Station Francis W. Chandler</p>  	<p>1874 Browney's Island, ME 1874 Caffey's Inlet, NC 1874 Chicamacomico, NC 1874 Cross Island, ME 1874 Currituck Beach (Jones Hill), NC 1874 Dam Neck Mills, VA 1874 Fletchers Neck, ME 1874 Gurnet, MA 1874 Kitty Hawk, NC 1874 Little Kinnakeet, NC 1874 Nags Head, NC 1874 New Shoreham, RI 1874 Oregon Inlet, NC 1874 Plum Island, MA 1874 Quoddy Head, ME 1874 Rye Beach, NH 1874 Straitsmouth (Davis Neck), MA 1874 Surfside, MA 1874 White Head, ME 1874 Manomet Point, MA 1875 Assateague Beach, VA 1875 Cape Henry, VA 1875 False Cape, VA 1875 Green Run Inlet, MD 1875 Smith Island, VA</p>	<p>Rectangular, 19 x 45 feet, 1-1/2 stories/ Front gabled, with small watch deck</p>	<p>2 rooms on first floor, 2 rooms on attic floor; boat storage dominant use</p>	<p>Shingles/ Board and batten</p>	<p>Carpenter Gothic and Stick Style/ Scroll-cut gable ornamentation and crossed brackets under eaves, gothic windows on upper story</p>	<p>1 door for boat, 1 side door/ Gable windows on first floor</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
(2.3) 1875 Design / Integral Station Francis W. Chandler 	1875 Beaver Island, MI 1875 Cleveland, OH 1875 Fairport, OH 1875 Grand Haven, MI 1875 Oswego, NY 1875 Point Betsie, MI 1875 Saint Joseph, MI 1875 Sturgeon Point, MI 1875 Two Rivers, WI 1876 Cape Henlopen, DE 1876 Charlotte, NY 1876 Eatons Neck, NY 1876 Erie (Presque Isle), PA 1876 Hammond Bay, MI 1876 Indian River Inlet, DE 1876 Marblehead, OH 1876 Point Judith, RI 1876 Pointe aux Barques, MI 1876 Tawas (Ottawa Point), MI 1876 Thunder Bay Island, MI 1877 Big Sandy, NY 1877 Grande Pointe au Sable, MI 1877 Mecox, NY 1877 Milwaukee, WI 1877 Neah Bay, WA 1877 North Manitou Island, MI 1877 Willapa Bay (Shoalwater Bay), WA 1878 Cape Arago (Coos Bay), OR 1878 Humboldt Bay, CA 1883 Long Branch, NJ 1883 Spring Lake (Wreck Pond), NJ	Rectangular, Rectangular, 19 x 43 feet, 1-1/2 stories/ Front gabled (clipped on modified design for Great Lakes), with two watch decks connected by walkway, gabled dormer Modified design on West Coast lacked open watch deck	2 rooms on first floor, 2 rooms on attic floor; boat storage dominant use	Shingles/ Board and batten	Stick Style/ Scroll-cut gable ornamentation and diamond- shaped brackets under eaves, gothic windows on upper story, bracketed gable hood	1 door for boat, 1 side door/ Double-hung sash (DHS) 4/4 and DHS 6/6

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.4) 1876 Design / Integral Station J. Lake Parkinson</p> 	<p>1875 Cobb Island, VA 1876 Cape May, NJ 1876 Hog Island, VA 1878 Big Kinnakeet, NC 1878 Bodie Island, NC 1878 Cranberry Islands, ME 1878 Creeds Hill, NC 1878 Durants (Hatteras), NC 1878 Gull Shoal (Cedar Hummock), NC 1878 Kill Devil Hills, NC 1878 Little Island, VA 1878 Ocean City, MD 1878 Paul Gamiels Hill, NC 1878 Pea Island, NC 1878 Penneys Hill (Currituck Inlet), NC 1878 Popes Island, VA 1878 Poyners Hill, NC 1878 Rehoboth Beach, DE 1878 Short Beach, NY 1878 Southampton, NY 1878 Virginia Beach (Seatack), VA 1878 Wash Woods (Deals Island), NC 1879 Fourth Cliff, MA 1879 Watch Hill, RI 1880 Amagansett, NY 1880 Seabright, NJ</p>	<p>Rectangular, Rectangular, 19 x 43 feet, 1-1/2 stories/ Front gabled, with watch deck or tower</p>	<p>2 rooms on first floor, 2 rooms on second floor; boat storage dominant use</p>	<p>Shingles/ Primarily shingles</p>	<p>Stick Style/ King-post with drop pendant ornamentation in gable, watch deck or room varied, scroll- cut gable ornamentation, bracketed gable hood</p>	<p>1 door for boat, 1 side door/ DHS 4/4</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
(2.6) 1876 House of Refuge Design / Integral Station Francis W. Chandler 	1875 Fort Lauderdale, FL 1876 Biscayne Bay, FL 1876 Gilberts Bar, FL 1876 Orange Grove, FL 1883 Bethel Creek (Indian River), FL 1885 Bulow (Smiths Creek), FL 1885 Cape Malabar, FL 1885 Chester Shoal, FL 1885 Indian River Inlet, FL 1885 Mosquito Lagoon, FL	Rectangular, 15 x 37 feet plus 8-foot- wide wraparound porch on 3 sides, 1-1/2 stories/ Side gabled, with hipped porch and shed dormer	3 rooms on first floor, second story loft No interior boat storage	Cypress shingles/ Clapboard	Vernacular/ None	3 doors in front/ DHS 4/4 on first story Single-Hung Sash with 4 lights (SHS 4) in dormers
(2.7) 1879 Michigan Design / Integral Station J. Lake Parkinson 	1879 Ludington, MI 1879 Muskegon, MI 1881 Harbor Beach, MI 1881 Middle Island, MI 1881 Port Austin, MI	L-shaped, 2-story plus watch room/ Cross gabled	First floor living quarters and boat room, second floor living quarters, watch room above	Metal/ Clapboard	Stick Style/ King post in gable	Boat room doors on front, entrance on side

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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.8) 1880 Texas Design / Integral Station J. Lake Parkinson</p> 	<p>1879 San Luis, TX 1880 Saluria, TX 1883 Aransas, TX 1888 Velasco, TX</p>	<p>L-shaped, with entrance porch in L, 1-1/2 stories/ Front gabled with hipped L, hipped dormer, gabled roof on watch tower</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Clapboard</p>	<p>Stick Style/ King post in gable</p>	<p>Boat room doors on front, entry door with porch on front/ DHS 2/2</p>

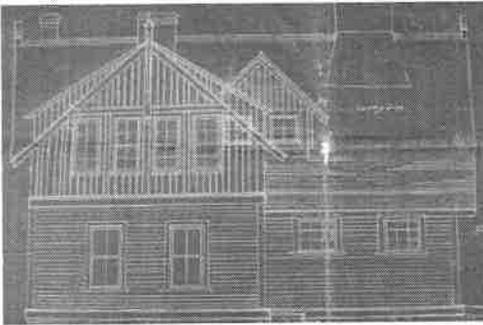
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Name of Property
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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.9) 1882 Design / Integral Station</p> <p>J. Lake Parkinson</p>  	<p>1881 Cape Fear, NC 1882 Cape Hatteras, NC 1882 High Head, MA 1882 Ocracoke, NC 1883 Coskata, MA 1883 Hunniwells Beach, ME 1883 Muskeget, MA 1883 North Beach, MD 1883 Parramore Beach, VA 1883 South Brigantine, NJ 1883 Wallops Beach, VA 1884 Barnegat, NJ 1884 Chadwick, NJ 1884 Lewes, DE 1885 Ditch Plain, NY 1885 Jupiter Inlet, FL 1885 Morris Island, SC 1885 Santa Rosa, FL 1886 Georgica, NY 1886 Ocean City, NJ 1887 Cape Lookout, NC 1888 Metomkin Inlet, VA 1888 Oak Island, NC 1891 Fenwick Island, DE 1891 Ocean City, MD 1894 Smith Island, VA</p>	<p>L-shaped/ Side gabled, with cross gabled L, gabled dormer, hipped watch tower</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Board and batten above, clapboard below</p>	<p>Stick Style/ King post in gables and dormers</p>	<p>Entry door on front, side door, boat room door on side/ DHS 2/2, DHS 8/8, and SHS 8</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
 <p>1882 Design (with addition)</p>						

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.10) 1882 Deal Design / Integral Station Paul J. Pelz</p> 	<p>1883 Deal, NJ 1884 Atlantic City, NJ 1884 Brenton Point, RI 1885 Bay Head, NJ</p>	<p>Rectangular/ Cross gabled</p>	<p>First floor kitchen mess, keepers quarters, closets, storm cloths storage, shed, boathouse; second floor crew quarters, spare room, closets</p>	<p>Shingle/ Clapboard on first story, board and batten above</p>	<p>Queen Anne/ Exterior diagonal braces, belted siding above and below windows, shutters, watch room in tower, roof cresting on tower</p>	<p>Entry door, side door, boat room door/ DHS 4/4 and DHS 2/2</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.11) 1886 Northeast Design / Integral Station</p> <p>Albert B. Bibb</p> 	<p>1886 Block Island, RI 1886 North Scituate, MA 1886 Shark River, NJ 1886 Townsend Inlet, NJ 1887 Bonds, NJ 1887 Jerrys Point, NH 1888 Great Egg, NJ 1888 Hereford Inlet, NJ 1888 New Shoreham, RI 1888 Sea Isle City, NJ 1889 Napeague, NY 1889 Point Judith, RI 1889 Wallis Sands, NH 1890 Maddaket, MA 1890 Point Allerton, MA 1890 Rye Beach, NH 1891 Cold Spring, NJ 1891 Newburyport (Merrimack River), MA 1891 Sandy Hook, NJ 1891 Seabright, NJ 1892 Gurnet, MA 1893 Plum Island (Knobbs Beach), MA</p>	<p>Rectangular, with additional porch on front and one side/ Hipped, with front gabled cross and 2 hipped dormer on one side</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Shingle and clapboard</p>	<p>Queen Anne/ Turned porch columns, small paned windows</p>	<p>Front and rear doors, boathouse door on front/ DHS 8/4 and SHS 8</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.13) 1892 Quonochontaug Design / Integral Station</p> <p>George R. Tolman</p> 	<p>1892 Quonochontaug, RI 1892 Brant Rock, MA 1892 Jackson Park, IL 1894 Cahoons Hollow, MA 1894 Muskeget, MA 1894 Portsmouth, NC 1895 Core Bank, NC 1895 Santa Rosa, FL 1895 Spring Lake, NJ 1896 Little Beach, NJ 1897 Caffey's Inlet, NC 1897 Dam Neck Mills, VA 1897 False Cape, VA 1897 Oregon Inlet, NC 1898 Isle of Wight, MD 1898 Sandy Point, RI 1902 Amagansett, NY 1903 Currituck Beach, VA 1903 Virginia Beach, VA 1904 Cape Henry, VA 1904 Monomoy Point, MA</p>	<p>Rectangular, with wraparound porch on three sides/ Front gabled ending in hipped, with hipped roof on square watch tower</p>	<p>First floor kitchen, pantry, mess room, closets, storm clothes storage, and boat room; second floor crew quarters, closets, storage room, keepers room, watch room above</p>	<p>Shingle/ Shingle</p>	<p>Shingle Style</p>	<p>Doors on front and two sides, boat room doors on two sides/ DHS 2/1 and DHS 6/2</p>

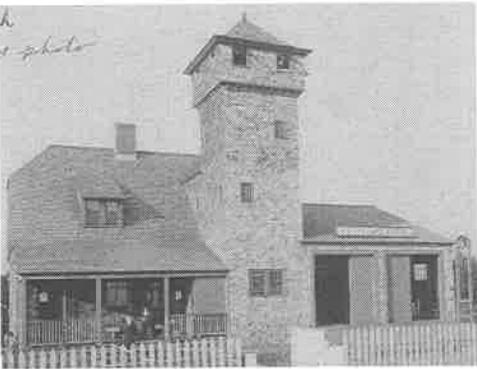
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Name of Property
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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.14) 1893 Duluth Design / Integral Station</p> <p>George R. Tolman</p> 	<p>1894 Avalon, NJ 1894 Duluth, MN 1894 Spermaceti Cove, NJ 1895 Baileys Harbor, WI 1895 Chadwick, NJ 1895 Monmouth Beach, NJ 1895 Stone Harbor, NJ 1896 Absecon, NJ 1896 Cape May, NJ 1896 Plum Island, WI 1896 Rocky Point, NY 1896 Wood End, MA 1897 Hog Island, VA 1897 Salisbury Beach, MA 1898 Old Harbor, MA 1899 Charlevoix, MI 1900 Gloucester, MA 1900 Grand Marais, MI 1900 Straitsmouth, MA 1901 Harvey Cedars, NJ 1901 Manomet Point, MA 1902 Manasquan Inlet (Squan Beach), NJ 1904 Fletchers Neck, ME 1904 Grande Pointe au Sable, MI 1907 Bethany Beach, DE 1907 Forked River, NJ 1907 Long Beach, NJ 1907 Portsmouth Harbor, ME</p>	<p>Rectangular/ Clipped, side gabled, square tower with pyramidal roof; shed dormer</p>	<p>First floor kitchen, pantry, mess room, keeper's quarters, closets, storm storage, and boat room; second floor crew quarters, closets, storage room; watch room above</p>	<p>Shingle/ Shingle</p>	<p>Prominent tower</p>	<p>Front and rear doors, front and side doors for boat room/ DHS 4/4 and DHS 6/6</p>

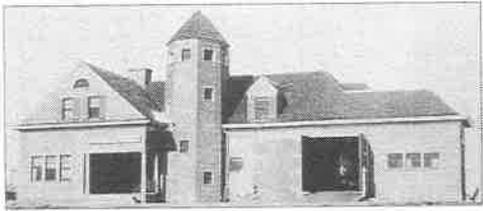
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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
(2.16) 1897 Jersey Pattern Design / Integral Station Victor Mindeleff 	1898 Brigantine, NJ 1898 Hampton Beach, NH 1898 Island Beach, NJ 1898 Mantoloking, NJ 1898 Ship Bottom, NJ 1899 Corson Inlet, NJ 1899 Holly Beach, NJ 1899 Little Egg, NJ 1899 Pecks Beach, NJ 1899 Toms River, NJ 1900 Cleveland, OH	Roughly square, with an L-shaped boathouse attached on one side/ Complex hipped, with octagonal watch room	First floor kitchen, mess, storm clothes closet, office, boathouse; second floor keeper's quarters, crew quarters, spare room, closets; watch tower above second story; cellar and cistern underneath building	Shingle/ Shingle, clapboard	Shingle Style/ Octagonal tower	Doors on each façade, boathouse has doors on two facades/ DHS 6/2
(2.17) 1899 Southern Pattern Design / Integral Station Victor Mindeleff 	1904 Bogue Inlet, NC 1904 Fort Macon, NC 1904 Little Kinnakeet, NC 1904 Ocracoke, NC	Rectangular, with incised porch/ Hipped, with hipped dormers and watch tower	First floor living quarters and boat room, second floor living quarters, watch room above	Shingle/ Shingle	Bungalow	Accessed from water level, doors open onto wraparound porch/ DHS 4/4, SHS 4

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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.18) 1903 Gulf Design / Integral Station Victor Mindeleff</p> 	<p>1904 Sabine, TX 1913 Brazos, TX 1916 San Luis, TX 1917 Velasco, TX 1918 Barataria, LA 1920 Aransas, TX</p>	<p>Rectangular, with wraparound porch, 1-1/2 stories plus watch room, on stilts/ Hipped, with large front gabled dormer, hipped dormers on 3 sides, hipped roof on watch room</p>	<p>Boat anchorage beneath first floor, first floor living quarters, second floor living quarters, watch room above</p>	<p>Shingle/ Clapboard</p>	<p>Decorative columns on porch</p>	

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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.19) 1903 Old Chicago Design / Integral Station Victor Mindeleff</p> 	<p>1903 Buffalo, NY 1903 Old Chicago, IL</p>	<p>Irregular/ Broad front gabled with cross gable, hipped dormer, hipped watch tower roof</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Shingle</p>	<p>Shingle Style/ Shingling, small windows, 1/4 windows in gable</p>	<p>Doors on all sides, 4 boat room doors/ DHS variable, all small panes</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.20) 1903 Racine Design / Integral Station Victor Mindeleff</p> 	<p>1903 Racine, WI 1904 Muskegon, MI</p>	<p>L-shaped/ Side gabled, with shed dormers, watch tower has pyramidal roof</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Stick/ Jigsaw-cut gable decoration, Bracketing under eaves, Gabled eyebrow over windows and door</p>		

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Name of Property
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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.21) 1910 Lorain Design / Integral Station</p> <p>Victor Mindeleff</p> 	<p>1910 Lorain, OH 1912 Eagle Harbor, MI 1912 Moriches, NY 1912 Potunk, NY 1912 Quogue, NY 1912 Smiths Point, NY 1912 Tiana, NY 1912 Wachapreague, VA 1913 Blue Point, NY 1913 Rockaway, NY</p>	<p>Rectangular/ Side gabled, with hipped dormers, square watch tower room on corner</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Shingle</p>	<p>Shingle</p>	

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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.22) 1910 Chicamacomico Design / Integral Station</p> <p>Victor Mindeleff</p> 	<p>1911 Chicamacomico, NC 1911 Kitty Hawk, NC 1912 Nags Head, NC 1913 Poyners Hill, NC</p>	<p>Rectangular, with entrance and wraparound porch/ Front gabled with hipped dormers and hipped watch room roof</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Shingle</p>	<p>Shingle</p>	<p>Front and side entrances, boat room entrance/ DHS 6/2</p>

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Name of Property
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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.23) 1910 Isles of Shoals Design / Integral Station</p> <p>Victor Mindeleff</p> 	<p>1910 Isles of Shoals, ME 1912 Green Hill, RI 1913 Peaked Hills Bars, MA</p>	<p>L-shaped, with incised porch on one side of tower, extended gabled porch on other side of tower/</p> <p>Side gabled, with hipped dormers, square watch tower room</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Shingle</p>	<p>Shingle</p>	

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Not applicable
Name of Property
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U.S. Government Lifesaving Stations, Houses of Refuge, and Pre-1950 U.S. Coast Guard Lifeboat Stations
Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(2.24) 1940 Moriches Design / Integral Station Unknown</p> 	<p>1941 Moriches, NY 1942 Ocracoke, NC</p>	<p>Boat storage block separated from living quarters by five-story rectangular lookout tower.</p> <p>Hipped roof above boat storage and tower, pitch roof above living quarters</p>	<p>Living quarters has five bays</p> <p>Boat storage has three bays</p> <p>An additional one-and-one-half tall, colonial revival style wing may be attached to the boat storage block</p>	<p>Red roof with dormers</p> <p>White siding</p>	<p>Combines colonial revival living quarters with rectangular tower and boat storage block</p>	

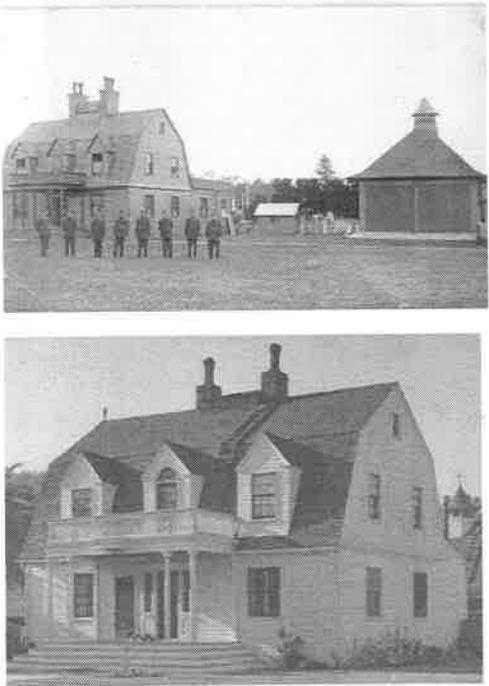
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Not applicable
Name of Property
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U.S. Government Lifesaving Stations, Houses of Refuge, and Pre-1950 U.S. Coast Guard Lifeboat Stations
Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
(3) STATION COMPLEX (with Detached Boathouse)						
<p>(3.1) 1889 Fort Point Design / Station Complex Albert B. Bibb</p> 	<p>1889 Fort Point, CA 1889 Point Adams, OR 1889 Point Reyes, CA</p>	<p>First instance of separate dwelling and boathouse.</p> <p>Dwelling: Rectangular, 1-1/2 stories/ Gambrel roof</p> <p>Separate boathouse with hipped roof and "Witch's hat" cupola.</p>	<p>Station first floor divided by center hall; keeper has living room, kitchen, bedroom, and sitting room on one side; other side has crew mess, and living rooms; second floor rooms open to central hall, three closets the size of other bedrooms, a men's sleeping room, a bedroom for No. 1 & 2, a keeper's bedroom, and 2 additional bedrooms</p>	<p>Dwelling: Shingle/ Clapboard</p> <p>Boathouse: Board and batten siding</p>	<p>Dutch Colonial/</p> <p>Columned entrance porch with balustrade above</p> <p>Three roof dormers on dwelling</p>	<p>Three-day dwelling with center entrance. Doors in front and rear, door in center dormer in front/ DHS various</p> <p>Two-bay boathouse</p>

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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.2) 1890 Marquette Design / Station Complex</p> <p>Albert B. Bibb</p> 	<p>1890 Marquette, MI 1890 Coos Bay, OR 1890 Coquille River, ORI 1890 Umpqua River, OR 1891 Bois Blanc, MI 1891 Burnt Island, ME 1891 Klipsan Beach (Ilwaco Beach), WA 1894 Southside, CA 1894 Sullivans Island, SC 1895 Yaquina Bay, OR 1901 Sleeping Bear Point, MI 1901 South Manitou Island, MI 1902 Portage (Ship Canal), MI</p>	<p>Separate dwelling, watch tower, and boathouse.</p> <p>Dwelling: Rectangular, 1-1/2 stories, side gables, with gabled dormer in front and rear</p> <p>Boathouse: Separate, same design as at Fort Point, CA</p>	<p>Station first floor divided by center hall; keeper has living room, kitchen, bedroom, and sitting room on one side; other side has crew mess, and living rooms; second floor rooms open to central hall, thee closets the size of other bedrooms, a men's sleeping room, a bedroom for No. 1 & 2, a keeper's bedroom, and 2 additional bedrooms</p>	<p>Shingle/ Clapboard siding on first story; shingles on upper gables and porch sides</p>	<p>Colonial Revival Style</p> <p>Three roof dormers on dwelling, turned porch columns</p>	<p>Four-panel doors</p> <p>Transom windows</p> <p>DHS various</p>

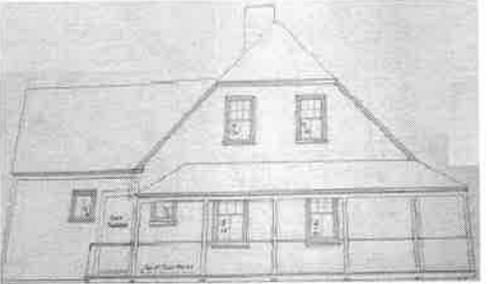
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U.S. Government Lifesaving Stations, Houses of Refuge, and Pre-1950 U.S. Coast Guard Lifeboat Stations
Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.3) 1893 Niagara Design / Station Complex George R. Tolman</p>  	<p>1893 Niagara, NY 1897 Cape Disappointment, WA</p>	<p>Rectangular, with wraparound porch on 3 sides, 1-1/2 stories, boathouse is attached by walkway at rear/ Front clipped gabled with gabled dormer on each side Watch towers were detached</p>	<p>Station first floor divided by center hall; keeper has living room, kitchen, bedroom, and sitting room on one side; other side has crew kitchen/dining room, and smoking room; second floor has closets, three bedrooms for crew, and a spare room</p>	<p>Shingle/ Clapboard on first floor, shingle above</p>	<p>Porch posts have simple diagonal bracing</p>	<p>Front and two rear doors/ SHS 6/2 and SHS 4</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.4) 1897 Petersons Point Design / Station Complex</p> <p>Victor Mindeleff</p> 	<p>1898 Grays Harbor (Petersons Point), WA 1908 Tillamook Bay, OR</p>	<p>Dwelling: Rectangular plan, with incised porch</p> <p>Gambrel roof with kick</p> <p>Two shed-roof front dormers flanking a 5-sided (semi-octagonal) dormer in the middle of front roof</p> <p>Separate boathouse</p>		<p>Shingle/ Clapboard</p>	<p>Colonial revival style</p> <p>Fanlight window with keystone at top of end gables, band siding between floors, Tuscan columns on front porch</p> <p>Octagonal dormer serves as lookout, chimneys with flared tops.</p>	<p>Doors on front and rear facades/ DHS 6/2</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.5) 1914 Chatham Design / Station Complex</p> <p>Victor Mindeleff</p> 	<p>1914 Chatham, MA 1915 Oswego, NY 1916 Cape Lookout, NC 1916 Point Betsie (cupola), MI 1916 Point of Woods (cupola), NY 1917 Bolinas Bay, CA 1917 Hatteras Inlet (cupola), NC 1917 Siuslaw River (cupola), OR 1918 Cape Fear, NC 1918 Creeds Hill, NC 1918 Golden Gate Park, CA 1918 Quoddy Head, ME 1919 Wash Woods, NC 1921 Long Beach, NY 1922 Assateague Beach, VA 1922 Marblehead, OH 1922 Fairport, OH 1923 Whitefish, MI 1924 Little Island, VA 1925 Bodie Island, NC 1927 Point Reyes, CA 1929 Big Kinnakeet, NC 1929 Cross Island, ME 1929 Merrimac River, MA 1931 Pamet River, MA 1931 Race Point, MA 1933 Cape Elizabeth, ME 1933 Munising, MI 1933 Orleans, MA 1937 Galloo Island, NY 1947 Highland, MA</p>	<p>Rectangular/ Hipped, may have shed dormer in front, hipped 3-bay porch on front, may have watch tower with pyramidal roof</p>	<p>First floor living quarters and boat room, second floor living quarters, watch room above</p>	<p>Shingle/ Clapboard or shingle</p>	<p>Colonial revival style elements, classical porch columns, porch roof has balustrade</p>	

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 Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.6) 1933 Modern Design / Station Complex Unknown</p> 	<p>1934 Jones Beach, NY 1935 Short Beach, NY</p>	<p>Reinforced concrete construction with flat roof, asymmetrical floor plan and elevations</p>	<p>Administrative spaces on first story, five story lookout tower, living quarters for officers separate from quarters occupied by enlisted personnel</p>	<p>Flat roof, except for hipped roof atop tower Concrete walls Optional brick veneer</p>	<p>International-Modern style Absence of exterior decoration</p>	<p>Main entry on opposite side from lookout tower Main entry provides access to a foyer lobby attached to the main building</p>

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Name of multiple listing (if applicable)

Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>(3.7) 1934 Roosevelt Design / Station Complex</p> <p>Unknown</p> 	<p>1936 Cape Cod Canal, MA 1936 Fort Macon, NC 1936 Humboldt Bay, CA 1936 Lake Worth, FL 1936 Little Machipongo, VA 1936 Wallops Beach, VA 1936 Manasquan Inlet (Squan Beach), NJ 1936 Nauset, MA 1936 Old Chicago, IL 1936 Point Arguello, CA 1936 Sandy Hook, NJ 1937 Block Island, RI 1937 Cape Henry, VA 1937 Cuttyhunk, MA 1937 Fort Pierce, FL 1937 Gay Head (Menemsha), MA 1937 Little Creek, VA 1937 Little Egg, NJ 1937 Point Judith, RI 1937 Scituate, MA 1938 Ashtabula, OH 1938 Barnegat, NJ 1938 Cobb Island, VA 1938 Eagle Harbor, MI 1938 Eatons Neck, NY 1938 Galveston, TX 1938 Grand Marais, MI 1938 Lewes, DE 1938 Montauk, NY 1938 Napeague, NY 1938 Point Adams, OR 1938 Ponce de Leon Inlet 1938 St. Simons, GA 1939 Charlotte (Rochester), 1939 Great Egg, NY</p>	<p>Rectangular with symmetrical wings, 2-1/2 stories separate boathouse/</p> <p>Side gabled roof with gabled dormers on front, 3-bay porch on front; optional watch room is centered on gable to form a fourth story</p>	<p>First floor has mess, kitchen, office, two bedrooms and a bath; second floor as four small bedrooms and one bath; attic is for storage, watch room above attic</p>	<p>Shingle/ Shingle</p>		

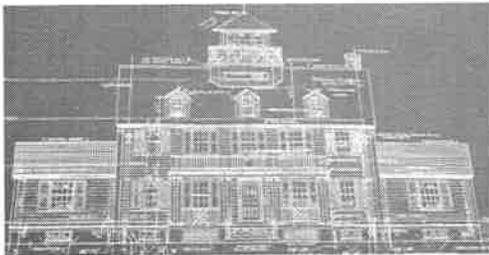
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Not applicable
Name of Property
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Table 1. Architecture Styles of Lifesaving Stations by Station Types.

Design/ Architect	Year Built and Location	Building Plan/ Roof Plan	Room Layout	Roofing/ Siding	Style/ Ornament al Features	Doors/ Windows
<p>1934 Roosevelt Design - Continued</p> 	<p>1939 Hereford Inlet, NJ 1939 Point Adams, OR 1939 Umpqua River, OR 1940 Georgica, NY 1940 Grays Harbor, WA 1940 Shinnecock, NY 1941 Atlantic City, NJ 1941 Castle Hill, RI 1941 Two Rivers, WI 1943 Tillamook Bay, OR 1949 Yaquina Bay, OR</p>					

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Name of multiple listing (if applicable)

**Table 2. Lifesaving Stations, Houses of Refuge, and Lifeboat Stations
Listed in the National Register of Historic Places (NRHP)**

Station	Location	Architectural Type	Date Constructed	Date Listed	NRHP/HABS Status
Racine Harbor Life-Saving Station	Wisconsin	Racine Design	1903	09/1975	Individual
Klipsan Beach (Ilwaco) Life-Saving Station	Washington	Marquette Design	1891	07/1979	Individual
Willapa Bay	Washington	One-of-a-kind	1885	03/1986	Individual
Virginia Beach Life-Saving Station	Virginia	Quonochontaug Type	1903	07/1979 (See U.S. Coast Guard Station)	Individual
Sullivans Island Life-Saving Station	South Carolina	Marquette Design	1894	06/1973 (See U.S. Coast Guard Historic District)	Contributes to District
New Shoreham (moved from Block Island) Life-Saving Station	Rhode Island	Bibb #2 Design	1888	MPS 08/2001	Contributes to District
Narragansett Pier Life-Saving Station	Rhode Island	One-of-a-kind	1888	06/1976	Individual
Coquille River Lifeboat Station	Oregon	Marquette Design	1891	08/1984	Individual
Port Orford Lifeboat Station	Oregon	One-of-a-kind	1934	05/1998	Individual
Cleveland Lifeboat Station	Ohio	Jersey Pattern	1900	Cleveland Harbor Station	Individual
Oak Island Life-Saving Station	North Carolina	1882 Design	1889	12/2000	Individual, HABS
Cape Lookout Life-Saving Station	North Carolina	1882 Design	1887	02/1989 (See Cape Lookout Coast Guard Station)	Individual
Portsmouth Life-Saving Station	North Carolina	Quonochontaug Design	1894	06/1977 (See Portsmouth Village Historic District)	Contributes to District
Ocracoke Lifeboat Station	North Carolina	Southern Pattern	1904	09/1990 (See Ocracoke Historic District)	Contributes to District
Chicamacomico Life-Saving Station	North Carolina	Chicamacomico Design	1911	12/1976	Individual
Oregon Inlet Life-Saving Station	North Carolina	Quonochontaug Design	1897	12/1975	Individual, HABS
Bodie Island Life Boat Station	North Carolina	One-of-a-kind	1925	02/1979	Individual

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Name of multiple listing (if applicable)

Table 2. Lifesaving Stations, Houses of Refuge, and Lifeboat Stations Listed in the National Register of Historic Places (NRHP)					
Station	Location	Architectural Type	Date Constructed	Date Listed	NRHP/HABS Status
Bodie Island Life-Saving Station	North Carolina	Chatham Design	1878	02/1979	Individual
Kitty Hawk Life-Saving Station	North Carolina	Chicamacomico Design	1911	10/1984	Individual
Caffeys Inlet Life-Saving Station	North Carolina	Quonochontaug Design	1897	01/1978	Individual, HABS
Quogue Life-Saving Station	New York	Lorain Design	1912	05/1999	Individual
Toms River (Seaside Park) Life-Saving Station	New Jersey	Jersey Pattern	1899	01/1978	Individual
Avalon Life-Saving Station	New Jersey	Duluth Design	1894	03/1979	Individual, HABS
Island Beach Life-Saving Station	New Jersey	Jersey Pattern	1898	01/1978 (See U.S. Life-Saving Station #14)	Individual, HABS
Manasquan Inlet (Squan Beach) Life Boat Station	New Jersey	Duluth Design	1902	03/2008 (See Squan Beach Life-Saving Station #9)	Individual
Spermaceti (Fort Hancock) Life-Saving Station	New Jersey	Duluth Design	1894	11/1981	Individual
Sleeping Bear Point Life-Saving Station	Michigan	Marquette Design	1901	04/1979	Individual
South Manitou Island Life-Saving Station	Michigan	Marquette Design	1901	10/1983	Contributes to District
North Manitou Island Life-Saving Station	Michigan	1875 Design	1875	08/1998	Contributes to District, NHL
Pointe aux Barques	Michigan	1875 Design	1876	04/1995	Contributes to District
Old Harbor Life-Saving Station	Massachusetts	Duluth Design	1898	08/1975	Individual
Damariscove (Damiscove) Life-Saving Station	Maine	Port Huron Design	1897	06/1987	Individual
Fletchers Neck (Biddiford Pool) Life-Saving Station	Maine	Duluth Design	1904	11/1974	Individual

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Coast Guard Lifeboat Stations

Name of multiple listing (if applicable)

**Table 2. Lifesaving Stations, Houses of Refuge, and Lifeboat Stations
Listed in the National Register of Historic Places (NRHP)**

Station	Location	Architectural Type	Date Constructed	Date Listed	NRHP/HABS Status
Point Allerton Life-Saving Station	Massachusetts	Bibb # 2 Design	1890	06/1981	Individual
White Head Life-Saving Station	Maine	1874 Design	1874	10/1988	Individual
West Quoddy Head Life-Saving Station	Maine	Chatham Design	1918	04/1990	Individual
Point Barrow Refuge Station	Alaska	One-of-a-kind	1889	1972	Contributes to District
Humboldt Bay (Samoa)	California	1875 Design	1876	10/1979	Individual
Arena Cove	California	Port Huron Design	1902	Part of Point Arena MPS 09/1990	Individual
Point Reyes	California	Chatham Design	1927	11/1985	Individual
Fort Point Life-Saving Station	California	Fort Point Design	1889	10/1970	Contributes to District
Indian River Inlet Life-Saving Station	Delaware	1875 Design	1876	09/1976	Individual
Gilbert's Bar House of Refuge	Florida	House of Refuge	1876	05/1974	Individual
Jackson Park (Chicago) Life-Saving Station	Illinois	Quonochontaug Design	1892		Individual
Louisville Life-Saving Station	Kentucky	One-of-a-kind Floating	1929	04/1972 (See Belle of Louisville)	Individual, NHL

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Name of multiple listing (if applicable)

H. Summary of Identification and Evaluation Methods

The U.S. Coast Guard evaluates properties under its jurisdiction for determinations of eligibility and listing in the National Register of Historic Places as part of its cultural resource management responsibilities under Section 106 and Section 110 of the National Historic Preservation Act of 1966, as amended. In 2009, the U.S. Coast Guard contracted with HDR|e²M to produce a National Register of Historic Places Multiple Property Documentation Form (MPDF) for U.S. Government Lifesaving Stations, Houses of Refuge, and pre-1950 U.S. Coast Guard (USCG) Lifeboat Stations. The purpose of this MPDF is to aid in evaluating properties for eligibility determinations and listing in the National Register. In addition, HDR|e²M prepared a spreadsheet listing U.S. government lifesaving stations and houses of refuge, and pre-1950 U.S. Coast Guard lifeboat stations.

Research was conducted at the following information repositories: U.S. Coast Guard Historian's Office at USCG Headquarters, the U.S. National Archives and Records Administration (NARA) in Washington, DC (Archives I) and College Park, MD (Archives II), Library of Congress, and the Maritime Heritage Program of the U.S. National Park Service (NPS). HDR|e²M investigated the NARA Archives II Media Archives collection which has maps and plans for lifesaving stations and lifeboat stations and still photographs of lifesaving stations including discontinued ones as part of Record Group 26. HDR|e²M also consulted with the U.S. Life-Saving Service Heritage Association (USLSSHA) which resulted in obtaining partial data on their recent study of lifesaving stations for the NPS Maritime Heritage Program. HDR|e²M researchers also made research visits to several U.S. Coast Guard units including the USCG Civil Engineering Units (CEUs) in Providence, RI; Miami, FL; Cleveland, OH; Oakland, CA; as well as the USCG Maintenance and Logistics Center Pacific (MLCP) in Oakland, CA.

Types of information compiled include historic photographs, architectural and engineering drawings; maps; artist depictions; contractual documents, logs, memoranda; the Annual Reports of the U.S. Life-Saving Service and the U.S. Coast Guard; historic structures reports and records in the Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) collections; and information from the National Register of Historic Places. HDR|e²M researchers digitally photographed and/or scanned historical records, photographs, drawings, and other materials. Data was uploaded to company servers, labeled, reorganized, and analyzed.

The historical contexts for this nomination were derived from primary and secondary research, including *The U.S. Life-Saving Service* by Ralph Shanks and Wick York, edited by Lisa Woo Shanks. Registration requirements were developed using National Register criteria. Information on assessing integrity is based on NRHP guidance concerning location, design, setting, materials, workmanship, feeling, and association.

Both U.S. Coast Guard and non-U.S. Coast Guard property owners may use this NRHP MPDF as overarching documentation to assist the listing of USLSS lifesaving stations and houses of refuge, and pre-1950 USCG lifeboat stations, in the National Register of Historic Places.

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Coast Guard Lifeboat Stations

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Houses of Refuge, and Pre-1950 U.S.

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Coast Guard Lifeboat Stations

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