



CAPE LOOKOUT LIGHTHOUSE

A COASTAL ICON

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2019

About the Author

Herb Stanford retired from his engineering practice in Raleigh, North Carolina in late 1998 and moved to Carteret County. In late 2018, Herb moved to Lincoln County, NC.

While he is now retired from the engineering firm he founded in 1977, Herb has volunteered his engineering expertise to the Carteret County Schools 2002-2012. He and his wife Jan were volunteer “keepers” at the Cape Lookout Lighthouse from 2003 through 2012. As a volunteer, Herb also worked with the National Park Service to research the lighthouse keepers and to promote the return of the lighthouse’s original 1859 Fresnel lens.

His is the author of two books, on the history of Carteret County: *A Look Into Carteret County, North Carolina: History, Economics, Politics, and Culture: 1607-2030* and *In Our Country’s Service, A Biographical Dictionary of the Men and Women from Carteret County Who Served in World War I, 1917-1919*.



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PREFACE

The centerpiece of Carteret County tourism and an important part of the county's history is the Cape Lookout Lighthouse, first constructed in 1812 and replaced in 1859, located at the southern tip of South Core Banks. Today, the lighthouse is contained within the Cape Lookout National Seashore and managed by the National Park Service. The Cape Lookout Light Station consists of the scattered remains of the 1812 Light, the 1859 Light, the 1873 Keepers Quarters, and Visitors Center.

This book resulted from research done while my wife Jan and I served as volunteer "relief keepers" from 2003-2012. From April through September each year, we spent 3-day periods at the Station to give the long term volunteers the opportunity to go back to mainland to rest and restock their supplies.

This research was necessary primarily to allow us to accurately answer the hundreds of questions posed by visitors during our stays at the Station. Additional with research was done in preparation for the 150th anniversary celebration in 2009 and it was necessary to do some research in order to update the text to reflect changes to the Light Station since 2012.

This is not an official publication of the Cape Lookout National Seashore or the National Park Service. However, I am grateful for the cooperation and support provided by Cape Lookout National Seashore staffers, especially former Superintendent Russ Wilson, Volunteer Coordinator Richard Meissner, and park staff members Karen Duggan and Dr. Michael Rikard.

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NORTH CAROLINA LIGHTHOUSES

While shore lights (fires on the shore) have been used for thousands of years to help sailors navigate around hazards such as rocks and shoals, it wasn't until lighthouses came along that these navigational aids became really effective.

One of the Seven Wonders of the Ancient World was a lighthouse, the famous Pharos of Alexandria, Egypt. It is the first lighthouse that is recorded in history and was built about 280 BC. Records tell us that it was the tallest one ever built (450 feet) and used an open fire at the top as a source of light. This fantastic structure survived for 1500 years until it was destroyed by an earthquake in the 14th Century.

The oldest existing lighthouse in the world is considered to be La Coruna in Spain that dates from about 20 BCE. A Roman lighthouse located on the Cliffs of Dover in Britain was constructed in 40 CE.

The first "modern" lighthouse was the Eddystone Light constructed on the south coast of England in 1703, after earlier towers constructed in 1698 and 1701 were destroyed (the current tower dates from 1882). The first lighthouse in America was constructed on Little Brewster Island (1716) at Boston harbor. The original tower, destroyed by the British during the Revolutionary War, was reconstructed in 1784 and is still in use today. By act of Congress, it is the only manned lighthouse in operation in the United States. The oldest lighthouse in America still in operation is located at Sandy Hook, New Jersey, built in 1764.

ROLE OF NORTH CAROLINA COASTAL LIGHTHOUSES

During the Colonial period, and even well into the first quarter of the 20th century, roads were few in number and poor in quality in eastern North Carolina, making them essentially useless for commercial transportation. The railroad came along in the 1850s, but didn't become a significant part of commercial transportation until well after the Civil War. Thus, shipping was the key element of commercial transportation in the United States for almost 300 years.

Sailing vessels, and later steam and diesel powered vessels, that plied the waters of the East Coast tried stay as close as possible to shore. But, at North Carolina, this was difficult because the northern half of the coast ran Northwest/ Southeast, while the coastline south of Cape Hatteras ran Northeast/Southwest. Thus, vessels traveling north or south, had to turn at Cape Hatteras. Additionally, the three capes along North Carolina's shore each had treacherous shoals that extend outward for 10-20 miles...Frying Pan Shoals at Cape Fear, Diamond Shoals at Cape Hatteras, and Lookout Shoals at Cape Lookout.

During colonial and the early federal periods, the two major ports on North Carolina's

coast were Wilmington and Portsmouth/Ocracoke, shipping primarily "naval stores" to England and receiving manufactured products in return. Both of these ports had severe navigation hazards at their entrance (the shifting Cape Fear River and Ocracoke Inlet) that required navigational warnings for entering ships.

Lighthouses were common in Europe by the 16th century. Thus, building lighthouses to aid coastal navigation was a known solution that could be applied in America.

It was recognized very early that lighthouses at Cape Fear, Cape Lookout, Cape Hatteras, and Ocracoke Inlet would improve the safety for commercial shipping along North Carolina's coast. Later, it was deemed desirable to position lighthouses at approximately 40 mile intervals along the coast. (This spacing was chosen so that when a ship was beginning to lose sight of one lighthouse, the next lighthouse would be coming into view.) This desire led to the construction of the lighthouses at Bodie Island and Currituck Beach.

Today, with the wide use of Global Positioning System (GPS) navigation, North Carolina's lighthouses no longer play a significant role in commercial navigation. However, they are grand examples of yesterday's technology and an important part of our history.

Three of North Carolina's tall lighthouses are regularly open to the public for climbing at this time: Hatteras Lighthouse is open from spring through fall, Currituck Beach Lighthouse is open from Easter weekend through Thanksgiving weekend, and Cape Lookout Lighthouse is open from late May through September. [Note: Dates and times for climbing routinely change.] There is a small fee charged at each lighthouse for climbing. Each lighthouse has a visitor's center that is open year around (except Currituck Beach, which closes during the winter months, and Cape Lookout, which closes from late November through March, although the Park Headquarters building on Harkers Island is open year around).

LIGHTHOUSE SERVICE

Twelve lighthouses were built in America during the Colonial period (prior to 1789), but none of these were in North Carolina. All early lighthouses were constructed of wood or stone. Those built of wood fell victim to fire sooner or later. The stone towers were built simply by stacking stones on top of one another. While the stones were held together by mortar, the walls contained no additional support or reinforcing. Thus, the walls had to be steeply tapered as they rose in order from the base to support the ever-increasing weight and to prevent the tower from becoming unstable. Therefore, the higher the tower, the thicker the tower had to be at the base. Given the flat terrain of the southern Atlantic coast, there was a need to build the lighthouses as tall as possible. But, the maximum practical height for a stone tower built during this era was only about 90 feet.

In August 1789, Congress assumed control and responsibility for lighthouses. During the next twenty years, Presidents George Washington, John Adams, Thomas Jefferson, and James Madison made all appointments within the lighthouse system personally...lighthouses were considered that important to the young nation. But, as the scope of lighthouse management needs increased, the responsibility passed to the Commissioner of the Revenue and then to the Secretary of the Treasury (when the department was renamed), who managed the Lighthouse Establishment.

During this era, cut stone and brick were used for the first time. This permitted the construction of taller and stronger towers because the weight could be more evenly distributed vertically. Even so, of the first forty towers built, only a handful survive today. During this period, North Carolina's first lighthouse at Cape Fear (Bald Head Island), which had been started by the state some years earlier, was transferred to and completed by the Federal government in 1795.

As the number of lighthouses increased in the early 19th century, lighthouse

administration became too large to remain as the direct responsibility of the Secretary of the Treasury. Thus, lighthouse administration was assigned to the Fifth Auditor of the Treasury, Stephen Pleasonton, in 1820...a responsibility he retained until he was removed by Congress in 1852.

Pleasonton was a bookkeeper and a financial zealot who prided himself on returning unspent Treasury funds appropriated for the construction and repair of lighthouses, year after year. However, he knew nothing of lighthouses when assigned the task of managing them and did little to improve his knowledge of lighthouse technology during his 32-year tenure.

During Pleasonton's period, over 300 new lighthouses were constructed, almost all under the supervision of Winslow Lewis. However, with Pleasonton's emphasis on low cost construction, the lighthouses built during this period were inferior structures, constantly in need of repair or replacement. In addition, the Lewis lighting system used in all of these lighthouses was grossly inferior to the Fresnel lens employed in lighthouses in Europe. Not surprisingly, there are few examples of the Fifth Auditor lighthouses that have survived to today.

But, Stephen Pleasonton, despite his poor record with lighthouses, was a hero of the War of 1812.

In 1814, before the British attack on Washington, Pleasonton was a senior clerk in the State Department. Responding to vague instructions by then Secretary of State James Monroe to secure national documents and department records as best he could, Pleasonton bought a large quantity of heavy, durable linen cloth and had State Department employees cut and sew the cloth into book bags. Then, they packed these bags with rare documents, including the Declaration of Independence, the Constitution, George Washington's correspondence, international treaties, the secret journals of Congress, etc.

With the packing done, Pleasonton assembled a number of carts and had the documents transported across the Potomac and upriver to Edgar Patterson's abandoned gristmill across from Georgetown. But, fearing that this was still too close to Washington, Pleasonton procured some local farm wagons and led his caravan of carts and wagons, loaded with valuable state documents, to Leesburg, Virginia, about 35 miles away. There, he stored the documents in an abandoned house and placed it under the protection of Rev. John Littlejohn, Sheriff of Leesburg and a former collector of internal revenue.

All of this was done in one day!

Stephen Pleasonton died in early 1855 and is buried at the Congressional Cemetery in Washington, District of Columbia.

In 1851, a special committee of professionals, appointed by Congress, completed an investigation begun in the 1840s into the U.S. lighthouse system and concluded that it was grossly inadequate. At that time, the lighthouses in the United States were considered by many to be the worst in the world. Based on the committee's recommendations, on August 31, 1852, Congress created a nine-member Lighthouse Board and with it a new era in American lighthouse construction began.

Prior to 1840, there were few people in America with formal architectural or engineering training. The first college engineering courses were at the U.S. Military Academy at West Point, New York. So, in 1842, Congress assigned the U.S. Army Corp of Topographical Engineers to take over the construction of lighthouses being built by the Lighthouse Establishment and West Point graduates provided most of the know-how for improved and varied lighthouse construction until about 1880.

When Pleasonton was removed and the Lighthouse Establishment became the Lighthouse Board in 1852, the new organization immediately began the construction of new brick towers of increasing height, all fitted with the new Fresnel lens. Based on a prototypical light tower concept developed by Lt. Thornton Jenkins (U.S.N.) in 1851, by 1859 nine brick towers over 150 feet tall had been built and six more were constructed between 1867 and 1876. Each new tower replaced an existing inadequate tower 100 feet or less in height.

All fifteen towers were built along the low-lying Atlantic Coast between Fire Island, New York and Florida, and included four in North Carolina...Cape Lookout, Cape Hatteras, Bodie Island, and Currituck Beach. (The tallest of these towers is Cape Hatteras and, at 193 feet, it is also the tallest lighthouse ever constructed in the United States.) All but one of these fifteen towers are still standing, although erosion and sea level rise is threatening several.

The Lighthouse Board was transferred from the Department of the Treasury to the Department of Commerce and Labor on July 1, 1903 and, in 1910, its name was changed to the Bureau of Lighthouses. In 1913, the Bureau was assigned to the Department of Commerce when the separate Department of Labor was created. Finally, under the Government Reorganization Act of July 1, 1939, the Bureau of Lighthouses was merged into the United States Coast Guard, now a unit of the Department of Homeland Security.

After World War II, the Coast Guard embarked on a program of automating the lights to reduce the cost and manpower requirements of staffing lighthouses. Between 1945 and 1962, about 150 lighthouses were automated (or retired). The remainder were automated between 1968 and 1989, except for the Boston Lighthouse.

By the late 1950s, radio navigation systems, such as LORAN (LOng RANGE Navigation), began to significantly reduce the importance of lighthouses for commercial shipping and the next-to-last U.S. lighthouse was constructed in North Carolina by the Coast Guard at Cape Fear (Oak Island) in 1958. Now, the satellite-based global positioning system (GPS) has effectively ended the need for lighthouses as commercial navigation aids.

Nationally, over 1,500 lighthouses were constructed between 1789 and 1962 (the last being the Sullivan's Island Light at Savannah, Georgia). But, no more than 850 were in use at any one time. By the time the Coast Guard took over control of the lighthouses in 1939, there were only about 450 in active service.

NORTH CAROLINA COASTAL LIGHTHOUSE CHRONOLOGY

Between 1795 and 1958, coastal lighthouses were constructed at seven hazardous locations along the coast of North Carolina, as shown by the adjacent map, some of them several times.



The following is a short listing and chronology of these sites:

No. 1 and 2: Cape Fear: Bald Head Island and Oak Island (N33° 53' 34" / W78° 02' 73")
ARLHS No. USA-032/USA-558

Light: 169 feet high, 24 nautical mile range

1784 - Tax to fund NC's first lighthouse, to mark Cape Fear and the river entrance to the port of Wilmington, was established.

1784 - Land for the lighthouse on Smith Island (now Bald Head Island) was donated to the state.

1792 - U.S. Congress appropriates funds for a lighthouse at Bald Head Island.

1795 - Lighted after construction was completed under Federal ownership.

1816 - Lighthouse severely threatened by shore erosion and a new lighthouse was planned.

1818 - Current lighthouse (109 feet high) was completed at a cost of \$15,915.45.

1866 - Bald Head light was discontinued when the screw-pile Federal Point lighthouse was built eight miles up the Cape Fear River. However, this new light was deactivated in 1879 when the New Inlet closed, and "Old Baldy" was returned to service.

1898 - Lighthouse Board approved a 159-foot, skeleton tower, named the Cape Fear Light, to be located on the southeastern end of Bald Head Island.

1903 - Cape Fear Light became operational.

1935 - Bald Head Island Light was decommissioned and its Fresnel lens removed.

1941-1958 - Bald Head Island Light tower housed a radio beacon.

1958 - Cape Fear Light was demolished and replaced by the Oak Island Lighthouse across the Cape Fear River from Bald Head Island (153 feet high). With four rotating, 24-inch parabolic mirrors and 1000 watt quartz lamps producing 2,500,000 candlepower, the Oak Island light is the third most powerful lighthouse in the world, surpassed only by a light in France and the Sullivan's Island (Georgia) Lighthouse. The light signal characteristic is 1 flash each second for 4 seconds and 6 seconds off. The light's daymark is three horizontal bands, one each of black, white, and gray.

1963 - The Bald Head Island Lighthouse was sold to a private owner. After another change of hands, the lighthouse was then given to the Old Baldy Foundation, organized to restore and maintain the lighthouse.

1988 - Old Baldy light relighted with a decorative light (but it is not an official aid to navigation).

2004 - Oak Island Lighthouse ownership transferred to the Town of Caswell Beach, NC (though maintenance of the light itself remains the responsibility of the Coast Guard).

No. 3: Ocracoke Inlet (N35° 06' 32" / W75° 59' 11")
ARLHS No. USA-561

Light: 75 feet high, 15 nautical mile range

1789 - State acquired gift of 1 acre for a lighthouse on Shell Island.

1794 - Congress authorized lighthouse for Ocracoke, to be constructed on Shell Island (a 25 acre oyster reef that no longer exists).

1798 - Shell Island Lighthouse, constructed of wood on a stone foundation, became operational.

1818 - Shell Island lighthouse destroyed by lightning strike.

1822 - Replacement lighthouse authorized by Congress and two acre site near Silver Lake was purchased.

1823 - Current lighthouse (65 feet high), constructed of brick with a plaster outer coating, was completed at a cost of \$11,359.35 and equipped with a 3rd order Fresnel lens.

1899 - Light replaced with a new 4th order Fresnel lens with 8,000 candlepower.

1955 - Light was automated.

No. 4: Cape Hatteras (N35° 15' 02" / W75° 31' 44" after the 1999 relocation)
ARLHS No. USA-119

Light: 193 feet high, 24 nautical mile range

1794 - U.S. Congress authorizes a lighthouse at Cape Hatteras.

1799 - Construction of the first Cape Hatteras Lighthouse began.

1802 - First lighthouse (90 feet high) was completed, along with a keepers quarters. This lighthouse was blown up to remove it on February 16, 1871, after completion of the current lighthouse.

1828 - Keepers quarters was replaced.

1854 - Lighthouse elevated to 150 feet high with brick addition and first order Fresnel lens installed.

1854 - Duplex keepers quarters constructed to house two assistant keepers and their families.

1861 - Fresnel lens destroyed/removed by Confederate forces.

1862 - Temporary 2nd order Fresnel lens installed.

1863 - New 1st order Fresnel lens installed.

1868 - Construction of a new, taller lighthouse began, modeled on the Cape Lookout Lighthouse, with an additional stone base.

1870 - Current lighthouse (nominal 180 feet high) was completed, modeled on the Cape Lookout Light, and new flashing first order Fresnel lens installed.

1871 - Keepers quarters completed to house the head keeper and an assistant keeper, with their families.

1873 - Day markings added (black and white spiral bands).

1892 - Assistant keepers quarters renovated and expanded to house three assistant keepers and their families.

1913 - Lamps changed to incandescent oil vapor type.

1934 - Light was electrified.

1935 - Cape Hatteras National Seashore was created as a unit of the National Park Service.

1936 - Due to concerns about erosion, the lighthouse was removed from service. In 1939, it was abandoned by the Coast Guard and later ownership was transferred to the National Park Service. A new steel skeleton light tower was constructed to mark Cape Hatteras.

1950 - The erosion problems were found to be less severe than earlier surveys and the lighthouse was reopened. (During this period, the Fresnel lens was vandalized.) A new electric light was installed in the 1870 light tower and controls were automated (maintenance of the light remained a Coast Guard responsibility).

1970 - Light tower opened to the public.

1972 - The 1950 electric light was replaced with a pair of 1000 watt airport beacons mounted on a continually rotating turntable (4 rpm), producing 250,000 candlepower and flashing white every 15 seconds..

1986 - Keepers quarters restored by the Cape Hatteras National Seashore.

1999-2000 - Lighthouse moved 2,900 feet inland.

No. 5: Cape Lookout (N34° 72' 22" / W76° 31' 28")
 ARLHS No. USA-126

Light: 150 feet high, 14 nautical mile range

1804 - Congress approved funding for a lighthouse at Cape Lookout.

1805 - Four acre site for lighthouse was donated (for \$1) by Joseph Fulford, Jr. and Elijah Pigott.

1812 - First lighthouse (96 feet high) and keepers' quarters constructed. Lighting consisted of several "spider" lamps.

1815 - "Spider" lamps replaced with 13 Lewis lamps.

1930 - Additional 11 acres purchased for the light station.

1859 - Current lighthouse completed (nominal 150 feet high) and lighted with a 1st order Fresnel lens manufactured by Lenonnie-Suter in France. . The 1812 tower was removed from service, but the 1812 keepers quarters continued in use until 1873, when it was abandoned and disappeared early in the 20th century. First assistant keeper added.

1860 - Second assistant keeper added. The 1812 lighthouse was renovated as assistant keepers' quarters.

1861-1863 - Lamps and lens removed by Confederates and lighthouse out of service.

1863-1867 - Temporary 3rd order Fresnel lens used while 1st order lens was recovered and repaired.

1864 - Confederate raiders attempt to destroy both Cape Lookout light towers, but fail.

1867 - Tower steps repaired and original 1st order lens was reinstalled.

1873 - Day markings added (black and white "checkers") and new keepers' quarters built to house a principal keeper and two assistant keepers.

1907 - Principal keeper quarters built adjacent to 1873 building. The 1873 building was renovated later to form two apartments, one upstairs and one downstairs, to house the two assistant keepers and their families.

1912 - Incandescent oil vapor lamp installed.

1914 - Light was changed from a steady light to a flashing signal by adding a clockwork mechanism to the Fresnel lens.

1933 - Light was electrified, with electric power provided by generators installed in the 1907 summer kitchen.

1933 - Barden Inlet opened during the hurricane of September 15-16, separating Shackleford and South Core Banks.

1942 - Light extinguished for the duration of World War II.

1950 - Light was fully automated. Both keepers quarters were abandoned and declared "surplus".

1958 - Dr. Graham A. Barden, Jr. purchased the principal keeper's quarters building and moved it down the beach to serve as a summer house.

1960s - The State of North Carolina purchased most of Shackleford and Core Banks, including the lighthouse property, for a new state park and to protect it from development.

1966 - Cape Lookout National Seashore is authorized by Congress.

1972 - Cape Lookout Lighthouse is listed on the National Register of Historical Places.

1973 - North Carolina turned over the property to the federal government.

1975 - The electric lamps and 1st order Fresnel lens were replaced with a pair of 1000 watt airport beacons mounted on a continuously rotating turntable (2 rpm). The Fresnel lens was placed on display at the USCG Support Center, Portsmouth, Virginia, which opened on November 4, 1975.

1976 - Cape Lookout National Seashore funded by Congress and established.

1982 - Cape Lookout Coast Guard Station closed and underwater electrical service from Harkers Island installed.

1988-90 - The Assistant Keepers Quarters was renovated into a visitors center and volunteer keepers residence.

1995 - The Cape Lookout Fresnel lens was installed at Block Island (Rhode Island) Southeast Lighthouse.

1996-97 Major electrical upgrade made to the tower, including replacement of the underwater cable from Harkers Island.

2003 - Lighthouse ownership was transferred from the Coast Guard to the National Park Service (though maintenance of the light itself remains the responsibility of the

Coast Guard).

2007 - New Visitors Center and Museum (first floor of Assistant Keepers Quarters) opened.

2010 - Safety renovations to light tower stairs, gallery and gallery railings, etc. completed at a cost of over almost \$400,000.

2017 - USCG replaced airport beacons with solar-powered LED light.

No. 6: Bodie Island (North Side of Oregon Inlet, N35° 49' 07" / W75° 33' 40")
ARLHS No. USA-067

Light: 150 feet high, 18 nautical mile range

1847 - First lighthouse (54 feet high) was completed on south side of Oregon, but had to be abandoned by 1858 because the poorly constructed foundation failed and allowed the tower to tilt.

1859 - Second lighthouse (90 feet high) was completed near the first, equipped with 3rd order flashing Fresnel lens.

1862 - Lighthouse blown up by Confederate troops.

1872 - Current lighthouse (nominal 150 feet high), modeled after the Cape Lookout light was constructed on the north side of Oregon Inlet at a cost of approximately \$140,000 and a first order flashing Fresnel lens installed. The tower was painted with day markings consisting of black and white horizontal bands.

1932 - Light electrified and automated with a flashing pattern, 2.5 seconds on, 2.5 off, 2.5 on, 22.5 off. (Original Fresnel lens remained in use.)

1953 - Lighthouse property transferred to the National Park Service.

1950s - Lamp replaced with new 160,000 candlepower electric light.

1992 - Keepers quarters renovated.

2000 - Lighthouse ownership was transferred from the Coast Guard to the National Park Service (though maintenance of the light itself remains the responsibility of the Coast Guard).

2009-2010 - General repairs and renovations made to the tower and Fresnel lens to correct general degradation of the lighthouse.

No. 7: Currituck Beach (Corolla, N36° 22' 36" / W75° 49' 51")
ARLHS No. USA-212

Light: 150 feet high, 18 nautical mile range

1875 - Current lighthouse was completed (nominal 150 feet high) and first order flashing (20 second cycle-3 on, 17 off) Fresnel lens installed. The tower was left unpainted (i.e., red brick) to distinguish it from the Cape Lookout, Cape Hatteras, and Bodie Island lights during the day.

1876 - Keepers quarters for two families completed (head keeper and an assistant keeper).

1920 - Small house moved to site to serve as a residence for a third keeper and his family

1939 - Light was automated.

1980 - Outer Banks Conservationists, Inc., a private non-profit organization dedicated to the conservation of the character of the Outer Banks of North Carolina, signed a lease with the State of North Carolina to begin a phased restoration.

1991 - Lighthouse opened to the public.

2003 - Ownership of the lighthouse transferred to Outer Banks Conservationists, Inc.

OTHER NORTH CAROLINA LIGHTS

In addition to the tall coastal lights, there were many other lighthouses constructed near coastal shoals and along North Carolina's rivers and sounds. Most of these lights have been lost. The following is a summary of basic information about these lights, but for more information on each, go to <http://www.unc.edu/~rowlett/lighthouse/nc.htm>.

Name/ Location	ARLHS Number	Period of Service	Approx. Coordinates		Description
			Lat (N)	Long (W)	
Beacon Island Light Pamlico Sound	USA 1164	1853- 1859	35° 6.0'	76° 2.9'	Brick keeper's dwelling with light copula, served as range light for the Ocracoke Channel light vessel.
Bluff Shoal Light Pamlico Sound	USA 1165	1904-?	35° 12.6'	76° 4.4'	Screw pile foundation, wooden dwelling, 4th Order Fresnel
Bogue Banks Beacon Fort Macon/Atlantic Beach	USA 1166	1855- 1862	34° 41.7'	76° 40.7'	30' wood tower, front range light, 6th Order Fresnel
Bogue Banks Light Fort Macon/Atlantic Beach	USA 1167	1855- 1862	34° 48.8'	76° 40.8'	50' octagonal brick tower, rear range light, 4th Order Fresnel
Brant's Island Light Pamlico Sound	USA 077	1867-?	35° 12.7'	76° 26.6'	Screw pile foundation, 1-story cottage style dwelling with lantern copula.
Campbell's Island Light Cape Fear River	USA 1169	1849- 1865	33° 51.7'	78° 0.2'	Southwest corner of Bald Head Island, 6th Order Fresnel on elevated structure.
Croatan Shoal Light Channel between Croatan and Albemarle Sounds	USA 204	1850s-?	35° 56.7'	75° 46.7'	Screw pile foundation, 1-story cottage style dwelling with lantern copula 4th Order Fresnel.
Diamond Shoal Light Cape Hatteras	USA 230	1967- 2001	35° 9.1'	75° 17.9'	Offshore "Texas tower", DCB 224 light.
Federal Point	USA	1817-	33°	77°	Earlier 30-40' high brick

Name/ Location	ARLHS Number	Period of Service	Approx. Coordinates		Description
			Lat (N)	Long (W)	
Light New Inlet, Cape Fear River	1159	1879	55.6'	56.7'	towers replaced in 1866 with screw pile, 2-story wood dwelling with octagonal lantern tower.
Frying Pan Shoal Light Cape Fear	USA 313	1966- 2003	33° 29.0'	77° 35.0'	Offshore "Texas tower", DCB 224 light.
Gull Shoal Light	USA 1029	1851- 1950s	35° 22.0'	75° 57.5'	Screw pile foundation, 1-story hexagonal cottage style dwelling with lantern copula.
Harbor Island Bar Light Channel between Core and Pamlico Sounds	USA 1160	1867- 1922+	35° 0.0'	76° 35.0'	Screw pile foundation, 1-story cottage style dwelling with lantern copula.
Laurel Point Light Albemarle Sound	USA 430	1880- 1950s	36° 0.1'	76° 23.6'	Screw pile foundation, 1-story hexagonal cottage style dwelling with lantern copula, 4th Order Fresnel.
Long Point Beacon Currituck Sound	USA 451		36° 24.1'	75° 57.4'	1-1/2 story wooden keepers dwelling on shore, lantern-on-pole light.
Long Shoal Light Pamlico Sound	USA 1170	1867-?			Screw pile foundation, 1-story cottage style dwelling with lantern copula, 4th Order Fresnel.
Neuse River Light Neuse River at Pamlico Sound	USA 534	1828-?	35° 5.9'	76° 34.2'	Northwest side of Neuse River at Piney Point, screw pile foundation, 1-story cottage style dwelling with lantern copula, 5th Order Fresnel.
North River Light Albemarle Sound	USA 1171	1866- 1917	36° 9.9'	75° 54.1'	Screw pile foundation, 1-story cottage style dwelling with lantern copula.
Oliver Reef Light	USA 1031	1874- 1950s	35° 15.8'	75° 45.6'	Screw pile foundation, 1-story cottage style dwelling with lantern copula.
Orton's Point	USA	1849-	34° 2.5'	77°56.7'	West bank of Cape Fear

Name/ Location	ARLHS Number	Period of Service	Approx. Coordinates		Description
			Lat (N)	Long (W)	
Light Cape Fear River	1175	1865			River, beacon on elevated structure, 6th Order Fresnel.
Pamlico Point Shoal Light Pamlico Sound	USA 579	1828- 1850s	35°18.8'	76°27.3'	Screw pile foundation, 1-story hexagonal cottage style dwelling with lantern copula, 4th Order Fresnel
Price's Range Light Cape Fear River	USA 072	1849- 1861	33°56.2'	77°59.4'	Front tower survives, brick, 20' high, west bank of river
Roanoke Marshes Light Croatan Sound	USA 1032	1877- 1955	35°49.0'	75°42.0'	Screw pile foundation, 1-1/2 story wooden keepers dwelling with 3-story lantern tower, 4th Order Fresnel.
Roanoke River Light Albemarle Sound	USA 694	1887- 1941	36°3.6'	76°37.0'	Screw pile foundation, 1-1/2 story wooden keepers dwelling with 3-story lantern tower, 4th Order Fresnel.
Royal Shoal, Northwest Point Light Pamlico Sound	USA 1172	1857-?			Screw pile foundation, 1-story hexagonal cottage style dwelling with lantern copula, 4th Order Fresnel
Royal Shoal, Southwest Point Light Pamlico sound	USA 1161	1867-?			Screw pile foundation, 1-story cottage style dwelling with lantern copula.
Shell Castle Island Light Pamlico Sound (Ocracoke Inlet)	USA 1176	1798- 1818	35°5.0'	76°1.2'	Pyramid-shaped wooden tower covered with shingles, stone foundation, 1 large lamp with 4 wicks.
Wade Point Light Pasquatank River at Albemarle Sound	USA 870	1855- 1950s	36°9.3'	75°58.5'	West bank of Pasquatank River, screw pile foundation, 1-story cottage style dwelling with lantern copula, 4th Order Fresnel.

2

CAPE LOOKOUT LIGHTHOUSE

LIGHTHOUSE HISTORY

The Cape Lookout Lighthouse of today is the second lighthouse constructed on this site. The first Cape Lookout Lighthouse was completed in 1812. This lighthouse consisted of a brick central stairwell with granite staircase, enclosed by an octagonal outer wood tower covered in wood shakes and painted with large horizontal red and white stripes. The 96 foot high tower was constructed on a tall sand dune just southeast of the current lighthouse and its light was 104 feet above sea level.



Congress authorized the construction of a lighthouse at Cape Lookout in 1804 and an entry in the records at the Carteret County Courthouse in Beaufort, NC, dated Feb 18, 1805 shows the gift of land by Joseph Fulford and Elijah Pigott for the lighthouse, as follows:

"We, Joseph Fulford and Elijah Pigott of the County of Carteret and State of North Carolina, in consideration of the sum of \$1 paid to us by the United States of America, the receipt whereof we do hereby acknowledge, do hereby, give, grant, bargain, sell . . . to the said United States of America four acres of land on Cape Lookout so-called in the State aforesaid for the accommodation of a lighthouse to be erected in pursuance of the Act of Congress passed on the 20th day of March 1804." (Deed Book O, pg 427)

Funding for the lighthouse was slow in coming from Congress, however, and it was not until 1810 that the Secretary of the Treasury of the United States instructed the Collector of Customs in Beaufort to publish the description of the proposed lighthouse and keeper's quarters to be built near Cape Lookout in local newspapers to solicit bids

for their construction. This solicitation was also placed in other newspapers along the east coast with all bids to be sent to Washington, DC.

In 1811, the contract for the Cape Lookout lighthouse is awarded to Benjamin Beal, Jr., Duncan Thaxter, and James Stephenson of Boston. The light tower and keeper's quarters was completed the following year at a cost of \$20,678.54. This tower was 95 feet tall from the base of the tower to the lantern house, which stood an additional 14 feet above the top of the tower. It consisted of a circular brick stair enclosure, approximately 10 feet in diameter, enclosing granite steps. The stair enclosure was sheathed with an octagonal wood frame covered with wood shingles.

From the beginning, seamen complained that this lighthouse was inadequate...the light itself wasn't bright enough and the tower was too low for the light not to be blocked by the morning and evening coastal haze.

Robert Miles, in his 1832 work "The American Pharos," provides this description of the then 20-year-old Cape Lookout Light:

"This light stands in latitude 34-36, longitude 76-36. It is stationary and elevated 95 feet above the level of the sea. Its situation is on Cape Lookout and may be seen from 16-18 miles at sea. It is painted with red and white stripes around it. As it is approached it resembles a ship under sail..."

"The light, although clearly seen all night until near the approach of day, cannot then be discerned, owing, it is thought, to a mist which arises above the horizon between the vessel and the lamp. It is judged imprudent to approach the shoals of Lookout in the night nearer than 10 fathoms on the west side. Vessels passing the shoals in the night ought rather to trust to the lead than the light. These shoals are the most dangerous on the American coast and vessels cannot be too cautious in approaching them."

By the 1850s, the old lighthouse was in need of extensive repairs and the Lighthouse Board took action to replace it with a new, taller one. In 1857, Congress appropriated \$45,000 to build a new lighthouse to house a new 1st order Fresnel lens and construction started that year.

It was realized by this time that low-cost lighthouses were not the wisest choice and the new Cape Lookout Lighthouse was to be of quality construction and designed to last a long time. The lighthouse consists of a conical (technically, the frustum of a cone or "truncated" cone) brick tower with its light 150 above sea level and was initially equipped with a first order Fresnel lens that produced a light beam that could be seen eighteen to twenty miles away. Construction was completed in September 1859 and the lighthouse was placed in service in November of that year.

The Cape Lookout Lighthouse was constructed by the Corps of Engineers, United States Army, under the supervision of Capt. William Henry Chase Whiting (1824-1865). In May 1857, Whiting submitted "tracings of section and elevation of 1st order L.H. Tower" to the Lighthouse Board. His "tracings" reflected the design criteria established by Lt. Jenkins in 1851.

W. H. C. "Billy" Whiting was born in Biloxi, Mississippi, on March 22, 1824, the son of Levi Whiting of Massachusetts, an artillery officer in the U.S. Army, and his wife Mary. Whiting was an academic genius who entered Boston English High School, the nation's first public high school, at age twelve.



He graduated as valedictorian two years later and entered Georgetown College (later Georgetown University), graduating second in his class at age sixteen. He entered the United States Military Academy in 1841 and graduated at the head of his class as a 2nd Lieutenant in the U.S. Army Engineer Corps on July 1, 1845.

After graduation, Whiting was assigned duty as assistant engineer at Pensacola, Florida. There, he helped supervise repairs and improvements at military installations in the area until 1848, when he was assigned duty in Texas to scout a wagon road between San Antonio and El Paso. That expedition came to be known as the "Whiting and Smith Expedition", which located what would become the important southern commercial and military route between the two cities.

On 22 April 1857 he married Catherine Davis "Kate" Walker (1836-1901) in Wilmington, New Hanover, North Carolina.

Whiting was promoted to First Lieutenant on March 16, 1853 and to Captain on December 13, 1858. In 1860, he was in Savannah, Chatham, Georgia overseeing improvements to defenses along the Savannah River.

He resigned from the U.S. Army on 20 February 1861 to join the Confederate Army as a Major in the Confederate Engineer Corps and his first assignment was to aid General P.T. Beauregard in improving the defenses of Charleston harbor in South Carolina. By July 1861 he was a brigadier general commanding two brigades.

In November 1862, Whiting was assigned to the Cape Fear District of North Carolina to keep the port of Wilmington open. He was promoted to Major General in February 1863 and placed in command of the District. During attacks on Fort Fisher by Federal forces in late 1864 and early 1865, he refused to usurp the command of Col. William Lamb at the fort and participated in the battles as a "volunteer" under Lamb's command. He was wounded in the leg during the Second Battle of Fort Fisher and taken prisoner on 15 January 1865.

He died of dysentery on 10 March 1865 at Fort Columbus in New York City harbor and was buried at Greenwood Cemetery in Brooklyn, New York (where one of his brothers was superintendent of the cemetery). In 1900, his body was moved to Oakdale Cemetery in Wilmington, New Hanover, North Carolina and his wife Kate was buried with him in 1901.

Oakdale Cemetery records list Whiting as having died at Fort Hamilton, New Jersey. This is in error, as letters written by Whiting on 9 February 1865 and 2 March 1865, along with New York City newspaper accounts published following his death, clearly show that Whiting was being held in the hospital at Fort Columbus, Governor's Island, New York City, New York when he died.

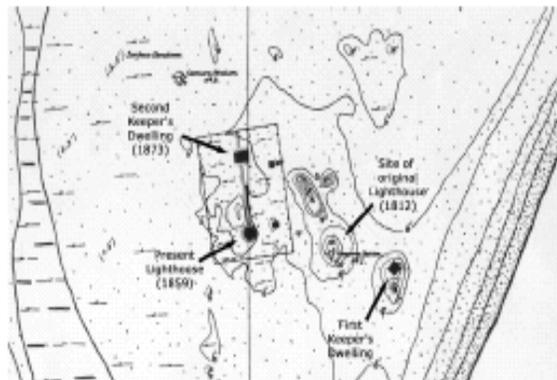
An original drawing of the Cape Lookout Lighthouse is noted "Drawn under the direction of Lieut. Wm. H. C. Whiting, Corps Engr." This drawing is undated, but since we know that Whiting was promoted from Lieutenant to Captain in late 1858, this drawing had to have been prepared prior to the lighthouse's completion and was probably part of the design drawings, even though "as-built" changes were made to it (apparently after 1873, since the "checkers" daymark specified in 1873 is illustrated).

On September 19, 1859, the Lighthouse Board issued the following announcement:

"Official information has been received at this office from Captain W. H. C. Whiting, Corps of Engineers, U.S. Army, that the new lighthouse at Cape Lookout has been completed.... The new lighthouse will be lighted for the first time at sunset on Tuesday, the first day of November next, and will be kept burning that and every night thereafter until further orders....."

For many years after 1859, the abandoned 1812 lighthouse continued to stand. Official records still listed it late into the 19th century, but an 1880s photograph shows that the 1812 lighthouse was no longer there. The tower seems to have disappeared in the 1870s, sometime after the 1873 keepers quarters was constructed. Today, brick shards and parts of the foundation, along with a couple of stone steps mark the tower's location. (Most of the granite from the tower foundation and stairs was salvaged and used in the construction of a number of storage and service buildings at the light station, all of which have since disappeared.)

The following figure is a survey of the light station site and buildings in 1906 by the U.S. Army Corps of Engineers:



Note that the 1812 keeper's quarters was, at this time, still standing, but that the 1812 tower has disappeared.

A "keeper's quarters" was built at the same time as the 1812 lighthouse, southeast of the tower on another high sand dune. This small, story-and-a-half house (about 800 square feet) served the keeper for over 60 years until it fell into such disrepair that a new building was required. The 1812 keeper's quarters was still standing in 1906, but disappeared soon thereafter. (Part of the brick foundation is still visible on a dune just southeast of the 1812 lighthouse site.)

From 1812 to 1859, there was a sole lighthouse keeper who, with his family, occupied the keepers quarters. However, with the building of the new lighthouse, two assistant keepers were assigned in September 1859. Whiting made renovations to the 1812 lighthouse to provide additional quarters for these two assistants. (There is some

confusion on this issue. "Notice to Mariners No. 43", issued on September 19, 1859 to announce the new lighthouse says "The keepers' dwelling, which is part of the old tower, is painted in red and white horizontal bands." This seems to indicate that the 1812 keepers quarters may have been abandoned by this date and that all three keepers lived in the old tower.)

In 1873, the current keepers' quarters, constructed of brick left over from the Bodie Island lighthouse, was built to house the "principal" keeper (called "the Captain") and his two assistants. Finally, a "principal keeper quarters" and adjacent summer kitchen was constructed in 1907. Each house was provided with a fresh water cistern system, a privy, and, later, a partitioned "fuel shed" for storing wood and coal for heating and cooking (lost to storm surge during Hurricane Isabel in 2003). It wasn't until 1934 that "indoor plumbing" arrived and each house was fitted with toilets and a septic system.



The 1873 keepers' quarters was originally constructed with four rooms on each floor, separated by a central hall and stair. On the first floor, one room was designated as the office, one the kitchen, one the sitting room, and one a bedroom. Four additional bedrooms were located on the second floor. After completion of the principal keeper's quarters in 1907, the 1873 building was renovated to create a duplex with individual downstairs and upstairs quarters for each of the assistant keepers and their families.

Lighthouse Service rules did not allow women and children to reside "...at isolated stations, where there are two or more keepers." Thus, from 1859 until 1907, when separate quarters for their families were provided, wives and children of keepers lived ashore (typically on small family farms) or in town at Beaufort or Morehead City. Since the keepers could rotate their shifts at Cape Lookout, each was able to spend significant time with his family...typically working two weeks and being off one week. LHS rules required that the keeper or one of his assistants be present at the station at all times, but operations typically required that two keepers be on duty so that the long night shift could be shared.

When the 1873 house was renovated again in 1988-1990, the upstairs was remodeled into an apartment to house volunteers, consisting of two bedrooms, kitchen, dining room, bath, and sitting room. The downstairs was divided into public toilets, as storage room, a gift shop, and a small museum. Finally, the 2007 renovation to the downstairs returned that part of that house to its original configuration to serve as museum space.

The 1907 principal keeper's quarters contained a sitting room, bedroom, and kitchen on the first floor and three additional bedrooms on the second floor.

Just before 10:00 pm on the evening of August 31, 1886, the largest earthquake to occur in the United States began, centered at Charleston, South Carolina. For about a minute, the earth shook and shock waves reached as far west as the Mississippi River and as far north as Pennsylvania. Chimneys collapsed in Charlotte, Raleigh, Wilmington, and Elizabeth City, North Carolina.

Along North Carolina's outer banks, the quake effect was significant. All of the tall coast lighthouses, including the Cape Lookout Lighthouse, were impacted. The keepers at Cape Hatteras reported that their light tower shook, dislodging loose objects

and making it difficult to stand...conditions that would have been even worse at Cape Lookout, seventy miles further south. Fortunately, none of the lighthouses experienced measurable structural damage.

When the Coast Guard assumed responsibility for the lighthouse in 1939, the keepers were offered the option of resigning or accepting a commission in the Coast Guard. After the Coast Guard automated the light in 1950, fulltime keepers were no longer required and both dwellings were declared "surplus".

Dr. Graham A. Barden Jr., son of the longtime New Bern congressman for whom Barden Inlet was named, was given a lot about a mile south of the lighthouse as a gift from his father's law partner in 1957. He and two friends bought the 1907 keepers quarters for \$666, according to Graham Barden III, and had it moved to their lot to serve as a family vacation cottage in 1958. The 1873 building was simply abandoned until ownership was transferred to the National Park Service when Cape Lookout National Seashore was established in 1976.

In 2009, the 150th anniversary of the 1859 lighthouse was celebrated. As part of that celebration, the land side of the tower was lighted at night, creating a very special display.

THE TOWER

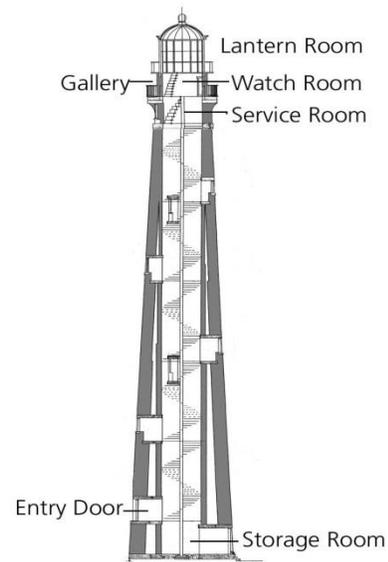
Basic Dimensions:

169 feet high from the ground to the top of the lightning rod above the ball ventilator, 163 feet to the top of the ball ventilator, 161 feet to the top of the roof.

150 feet to the focal plane of the light above the first floor storage room finished floor level.

28 feet 7 inches base diameter, 10 feet 6 inches inside diameter (resulting in an 8 feet 1 inch wall thickness at the base, tapering to 1 foot 7 inches wall thickness at the top of tower).

216 steps, consisting of 18 outside wood steps, 1 step into the entry, 180 cast iron spiral steps (5 landings, 36 steps between each landing), 8 "ship's ladder" steps to the Watch Room, and 9 "ship's" ladder steps to the Lantern Room.



Foundation: Whiting's design drawings do not clearly show the foundation construction. It appears that the foundation consists of a stone rubble base with a dressed stone foundation, probably 8-10 feet thick, capped by a brick platform that creates a 35" walkway around the base of the tower. A deeper foundation or piles may have been installed to support the center stair column that also carried the weight of the Fresnel lens.

Construction: The conical design of the Cape Lookout Lighthouse evolved from the need to build a tall lighthouse that would be lighter than the stone and masonry

lighthouses built prior to 1852. The inner tower wall is cylindrical with a 10'6" diameter, while the outer wall is tapered (or conical) with a base diameter of 28' 7". The inner and outer walls are connected with buttress walls that lock the two together up to approximately 100 feet height, where a single, solid wall continues to the lantern floor level. Overall, the tower is estimated to contain approximately 600,000 bricks and has a total weight of more than 2,500 tons.

The lighthouse builders probably used the "working platform" method to lay the brick walls, a common approach at the time. While most of the work could be done from the inside, a narrow "ring" platform was used on the outside to place outer brick layers. As the lighthouse height increased, the platform was simply moved upward. Where the inner and outer walls came together, the working platform was probably abandoned and wall work was done from the inside. A simple "track hoist", attached to the side of the lighthouse, and powered by a small steam engine, was used to lift the bricks up to the working level.

The light enclosure at the top of the brick tower is constructed of cast iron, copper, and glass in prefabricated sections, like pie slices, and was installed once the brickwork was complete.



The first known photo of the Cape Lookout light station was taken in 1893, shown at the left. The 1812 Keeper's Quarters can be seen in the distance on the left, with the bare dune that was the site of the 1812 lighthouse in front. The storage building to the left is long gone, as are the "privies" that can be seen in the background just to right of the Keepers Quarters. Note the fence that protected the light station from "free range" livestock.

In 1992, the U.S. Coast Guard "renovated" the light tower with new paint, re-mortaring of damaged brick courses, and installing replica windows made of treated wood. Structural steel framing was added above the Service Room level to stabilize the top of the tower. Each of these renovations, however, have resulted in other problems that remain to be corrected.

In 2010, exterior renovations to the gallery and Service Room were made. Some of the 1992 steel reinforcement was removed and/or modified to provide better access from the Service Room to the gallery and the gallery handrail was replaced.

Stairs: The original 1859 stairs were constructed of cast iron. These stairs differ from those in later North Carolina lighthouses. Instead of having an open center "well", there is a hollow cast iron column (which also houses the electrical wiring serving the light) extending from the first floor up to the lantern floor. Each cast iron tread, approximately five feet long, spans from this column to the inner brick wall of the tower. The treads are connected to the column with bolted cast iron brackets, but simply



rest on the bricks of the inner wall.

A small band of Confederate soldiers made their way from Goldsboro to the lighthouse and reached the island on the night of April 2, 1864. Kegs of black powder were placed at the base of the light tower and ignited. Three days later, Col. John N. Whitford of the 67th North Carolina Infantry proudly (but in error) reported to his superiors that the lighthouse had not only been disabled, but also had been destroyed beyond repair. He also claimed the group blew up not just the 1859 lighthouse, but also the original 1812 tower that stood nearby.

Whitford's superiors then wrote a letter to Richmond requesting that the men who led the raid be "entitled to great praise if certainly not reward." This correspondence describes the lighthouse's walls as "injured, cracked and bulged out." However, reports made by the Union commanders tell a very different story. In a letter to his superiors, Benjamin Dove, commander with the North Atlantic blockading squadron, called the Confederate soldiers "four or five mischievous persons." He wrote that an attempt was made to destroy the light, but it was only partially successful. Two kegs of powder were exploded, glass was shattered, and the oil storage building was destroyed. Several stairs at the base of the tower were also ruined.

Dove said a small crew from the supply ship, *USS William Badger*, was sent ashore and "repaired the damage sufficiently to keep the light going, but not so bright as usual."

Damage to the first two flights of cast iron stairs did occur and temporary wooden stairs were installed while new cast iron treads and hardware were ordered. Approximately sixty-one replacement cast iron stair treads and one landing were installed in 1867. Today, it's obvious where repairs were made to the stairs, but there's no evidence that the walls ever "cracked or bulged". As for the destruction of the 1812 lighthouse, that never happened either...that structure was still standing long after the Confederates claimed to have blown it to smithereens.

Daymarks: Contrary to popular accounts, the exterior paint scheme on the Cape Lookout Lighthouse is no accident or mistake. The Lighthouse Board ordered the three North Carolina red brick lighthouses (Lookout, Hatteras, and Bodie Island) painted exactly the way they are on April 17, 1873:

"Cape Hatteras tower will be painted in spiral bands, alternately black and white. Cape Lookout tower will be checkered, the checkers being painted alternately black and white. Bodie's [sic] Island tower is now painted black and white horizontal bands."



Cape Lookout



Bodie Island



Cape Hatteras

When the Currituck Beach Lighthouse was completed in 1875, it was left unpainted as its red brick could serve as its daymark and the cost of painting could be avoided.

While numerous other lighthouses use the same daymark as the Bodie Island and Cape Hatteras lights, the Cape Lookout daymark is unique.

Locals often referred to the paint scheme of the Cape Lookout tower as "diamonds" instead of "checkers" and a connection with the shoals at Hatteras, named Diamond Shoals, was made. Some folks erroneously assumed that the Cape Lookout Lighthouse had gotten the pattern intended for the Cape Hatteras Lighthouse, but, based on the Lighthouse Board orders of 1873, this obviously is not the case. Another local story is that Ca'e Bankers often called the shoals at Cape Lookout "Diamond Shoals", but that too appears to be a myth.

A charred letter, dated 1873, in the National Archives shows that the North/South/East/West orientation of the checkers was intentional. However, there is no documentation to support claims that they provide specific navigational warnings (a black "diamond" is a danger sign in navigational aids that did not come into use until much later) and no other U.S. lighthouse daymark is designed to serve as a directional aid. The original painter lines are, reportedly, still partially etched into the bricks and even today help guide repainting.

Paint: When keepers were on duty, they did the painting, typically taking months to finish as the painting chore had to be fitted in with all their other duties. Today, contractors do the painting. The lighthouse was painted in 1980 and again in 1995. However, the 1995 paint began to fail almost immediately. The lighthouse was cleaned by pressure washing and repainted in the summer of 2004 and again in early 2015.

Weathervane: Photos of the Cape Lookout Lighthouse taken prior to 1976 show a fish (said to be "mullet") weathervane on the top of the tower. Sometime after that date, the weathervane "went missing" and there is a continuing search for it to this day.

Recent Improvements: In late July 2010, the Lighthouse was opened for public climbing. The opening of the Lighthouse was the culmination of 5 years of efforts by the

Park Service and volunteers. In 2005, a preliminary engineering study prepared by Stanford White Associates, Inc. indicated that repairs and improvements required to make the light tower safe for climbing could be completed at a reasonable cost. A more detailed "Historic Structure Report" was completed in late 2008 and validated the findings of the 2005 study. However, this report also recommended that the number of people in the tower at one time be limited and that is the basis for requiring tickets with assigned times for climbing.

In November 2009, during the lighthouse's 150th anniversary celebration, the Park Service announced that funds to implement the required safety modifications would be made available and, in 2010, the following improvements were implemented:

- Replacement of the outdoor wood stairs and landing to match those constructed in 1859.
- Reinforcement of the 1859/1867 cast iron spiral stair treads.
- Repair of the existing stair handrail and the addition of a new handrail on the center column.
- Replacement of several stair treads that were cut or drilled to install the 1916 clockwork mechanism.
- Replacement of the handrail on the gallery, including adding safety mesh to make the gallery safe for children.
- Renovation to the steel bracing at the gallery hatch and adjacent to the stairs between the Storage Room and the Watch Room to provide better, safer access.

While the repairs to the steps and handrails and gallery railings, along with removal of some of the structural steel bracing added by the Coast Guard in the early 1990s, have made the tower safe for routine climbing by the public, there remain more serious issues that must be addressed in the future. The 2008 *Historic Structure Report* identified a number of structural issues with the cast iron tension ring at the top of the light tower and with the brick walls, some resulting from "repairs" made by the Coast Guard during the 1980s.

Oil Storage Building: The original design of the 1859 light tower called for an attached, two-story "oil house" that, however, was never built...perhaps out of concern for the safety of oil storage at the base of 150-foot "chimney". Rather, a remote oil storage building was constructed about 50 feet from the tower.

The concrete building that stands today, located about 100 feet west of the tower, was constructed in 1933. It replaced a metal building dating from 1897 that, in turn, had replaced a wooden oil house constructed in 1864-1867 after the Confederate raid. The 1933 oil house consists of a ventilated cast-in-place concrete building to house 55-gal drums of fuel oil for the generators, along with two much larger tanks that sat on "cradles" outside and were removed in the 1950s.

THE LIGHT

The following table summarizes the types of lamps and lenses used at Cape Lookout Lighthouse as aids to navigation (ATON):

Dates	Lens	Lamp(s)	Signal	Fuel	Candlepower
1812-1815	None	Spider lambs	Fixed	Whale oil	
1815-1859	None (13-21" dia. reflectors)	Lewis lamps	Fixed	Whale oil	
1859-1861	1st Order Fresnel	5-Wick and chimney lamp	Fixed	Whale oil	
1861-1863	Lamps and lens removed by Confederate Lighthouse Board				
1863-1867	3rd Order Fresnel	5-Wick and chimney lamp	Fixed	Whale oil	
1867-1883	1st Order Fresnel	5-Wick and chimney lamp	Fixed	Whale oil	
1883-1912	1st Order Fresnel	5-Wick and chimney lamp	Fixed	Kerosene	
1912-1914	1st Order Fresnel	IOV	Fixed	Kerosene	77,000
1914-1933	1st Order Fresnel	IOV	Flashing	Kerosene	77,000
1933-1975	1st Order Fresnel	4-250w lamps	Flashing	Electricity	160,000
1975-2017	Dual BCD-24 Airport beacons	2-1000w quartz halogen lamps	Flashing	Electricity	800,000
2017+	Marine Beacon, Multi-tiered	LED lamps	Flashing	Solar Array	N/A

Wicks and Reflectors: The first Cape Lookout light was made up of "spider" lamps. Each consisted of a shallow brass pan as a reservoir and four to eight adjustable solid round wicks (without chimneys) that surrounded the pan.

In 1781 a Swiss chemist named Ami Argand invented a lamp that was as bright as seven candles. It had two cylinders of brass, one inside to feed oil to the lamp's wick, and one outside to bring oxygen around the wick. This lamp used half the oil of the spider lamp. A parabolic reflector helped to magnify the light. By 1800, the lamp was in widespread use in Europe and it is believed that Argand's lamp was used in an American lighthouse in 1809. A sketch of Argand's lamp and a typical parabolic reflector is shown below:



Winslow Lewis, a former ship captain from Wellfleet, Cape Cod, Massachusetts

patented his version of the Argand Lamp on June 8, 1810 and sold his “reflecting and magnifying lantern” patent to United States Government just prior to the War of 1812.

Although the Lewis Patent Lamp required only half of the oil used by spider Lamps, the intensity of his lamp was 400 times less that of the Argand Lamp used in Europe. Lewis promoted his device as a “magnifying and reflector lantern” claiming the system was a combined lamp and magnifier with reflectors. In a effort to increase the lamp’s intensity, Lewis placed a lens, a “magnifier” made from a 4-inch diameter green bottle glass, in front of the flame to focus the straying beams of light. His “magnifier” accumulated soot immediately further dimming the Light and was later removed. Lewis lamps required constant adjustment and cleaning due to the inadequate draft and defective brass gears.

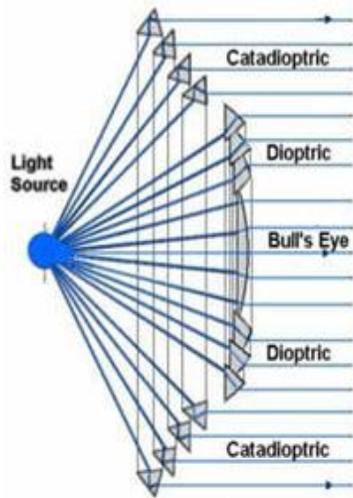
The design of his silvered plated copper reflectors was another reason why the Lewis Patent Lamp was less effective than the Argand Lamp. The reflector’s silver finish was too thin to withstand abrasive cleaning and the thin copper could not hold its original parabolic shape when exposed to the heat of open flame lamps. As a result, as the Lewis reflectors deformed into a spherical shape and the reflective silver finish became worn, the light emitted was severely degraded.

The Lewis Patent Lamp was basically a poorly modified version of the Argand Lamp and parabolic reflectors. As one inspector noted the “magnifier” “made a bad light worse,” yet Lewis did not argue with his critics. He did, however, defend his lamp on the basis of economy, emphasizing the 50% oil savings over the Argand Lamps, which appealed to Pleasonton.

The 1812 Cape Lookout Lighthouse received thirteen Lewis lamps burning whale oil, each with 21" parabolic reflectors to show a fixed light all around the horizon. These lamps’ wicks were difficult to keep trimmed and often smoked up the lantern room, thus rendering the light dim and required a keeper to routinely polish the silver reflectors and clean soot from the glass panes of the lantern house.

In 1857, in response to complaints about the quality of the 1812 light, new "reflector apparatus and extra lamps and wicks" were installed at Cape Lookout. No details about this light modification are known, but it is known that a Fresnel lens was not part of it.

Fresnel Lens and a Better Light: In 1821, Augustine Jean Fresnel (pronounced *Fray-nell*) introduced the lens that would change the world of lighthouses. This French army engineer made a lens consisting of a central drum of a number of convex bullseye lenses, augmented above and below with mirrors to focus more of the emitted light. This design was improved by two Scots engineers who replaced the mirrors with curved "dioptric" prisms and, above those, curved "catadioptric" prisms that bent the light into a horizontal plane as shown in the figure below.



By positioning the prisms around the outside of the lens so that all emerging light rays are parallel to each other, the lens was capable of collecting up to 83% of the lamp's light and focusing it into a horizontal beam, compared to only 17% for the Lewis lamps. Moving screens (also called "eclipsers") could be placed in front of the optic or the whole lens could be rotated in order to create flashing light patterns.

The Fresnel lens design was eventually refined into eleven "orders", with each order representing a specific focal length. "Focal length" is the distance from the center of light source (focal point) to the lens. Of these eleven orders, only six were used in the United States....First Order (largest) through Sixth Order (smallest)...typically as follows:

Order	Focal Length	Inside Diameter	Height
1 st	36.0"	72-7/16"	7' 10"
2 nd	27.6"	55-1/8"	6' 1"
3 rd	19.7"	39-3/8"	4' 8"
4 th	9.8"	29-11/16"	2' 4"
5 th	7.4"	14-3/4"	1' 8"
6 th	5.9"	11-7/16"	1' 5"

Francois Soleil Sr. was the first to build the lenses for Fresnel. His son Francois Jr. took over the work and continued working in Paris until he went to St. Petersburg, Russia, where he continued to build lenses. Several French companies, all located in the vicinity of Paris were responsible for the manufacture of almost all of the Fresnel lenses used in US lighthouses during the nineteenth century. These companies were Letourneau & Co, which took over from Francois Soleil Jr.; Henry-Lepaute; Lemonier; Sauter, who took over from Letourneau, and later merged with Lemonier; Barbier & Fenestre; Barbier, Benard & Turenne, who took over from Barbier & Fenestre; and Grisman, who took over from Barbier, Benard & Turenne.

Eventually, lenses built in accordance with Fresnel's designs were also manufactured in England by the Chance Brothers, and in Germany by Wilhelm Weule. The Macbeth-Evans Company also began manufacturing Fresnel-style lenses in the United States.

While the superiority of the Fresnel lens over the Lewis lamp/reflector was immediately obvious to everyone except Lewis and the Fifth Auditor of the Treasury, Stephen Pleasonton, it wasn't until Congress removed the Lighthouse Establishment from Pleasonton's control in 1852 that the Fresnel lens came into use in U.S. lighthouses.

Responding to long-standing complaints about the performance of the 1812 lighthouse at Cape Lookout, in 1856 the U.S. Lighthouse Board ordered a first order Fresnel lens from Lemonnier-Sauter to be installed in a new, taller lighthouse (finally authorized the following year). This large lens, about 8 feet high and 6 feet in diameter, was specifically designed for use with seacoast lights. The lens was constructed in eight sections, or "faces", of 45-degrees each, with the prisms contained within brass structural frame members. Due to the location, two of these sections were blanked-off by metal panels so the light was displayed in a 270-degree arc. The initial light source for the new lens was called a "five wick and chimney lamp" and burned whale oil.

The 1856 Fresnel lens, which had been in storage in New York City since the fall of 1857, was then installed with its lamp in the new lighthouse and placed in service on November 1, 1859 (though some reports state that the light was not actually in operation until November 9, 1859.)

Eighteen months later, in April 1861, the Civil War began with the shelling of Fort Sumter at Charleston, South Carolina. Sometime after this date, but before the end of April, Governor John W. Ellis of North Carolina sent a telegram to the U.S. Lighthouse Board district superintendents and lighthouse keepers along North Carolina's coast with instructions to immediately extinguish their lights. Most superintendents complied even though Ellis had no authority over them.

In May 1861, North Carolina seceded from the United States and joined the Confederate States of America (CSA). In early June, the newly created CSA Lighthouse Board went one step further by sending instructions to all district superintendents to dismantle, remove, and safely store the valuable lamps and lens from all coastal lights. The Beaufort District Customs Collector and Lighthouse Superintendent, Josiah Bell, had three lights under his control: the Cape Lookout Lighthouse, the 50 foot tall Bogue Banks Lighthouse located adjacent to Fort Macon that marked the Beaufort Inlet channel, and the 30 foot tall range light that was associated with the Bogue Banks light.

The immediate desire of the CSA was to protect the coastal lights from expected capture by Union forces. But, there was also a desire to protect the lights so that when hostilities were over, the lights and lens could be reinstalled and returned to service.

Superintendent Bell contracted with a Beaufort warehouse owner to store the lamps and lenses from his district at a cost to the CSA government of \$5 per month. From various payment vouchers, we know that Bell had the lamps and lenses removed from the light towers by a local "machinist," padded with blankets, and placed in storage between June 21 and the end of September 1861.

In November, Bell wrote a letter stating, "*I have in my charge all the lenses and lighting Complete, of the two lighthouses.*" Bell underlined and capitalized the word "complete," which debunks the oft-heard stories about the lights being damaged by retreating Confederate military.

The expected Federal attacks on the barrier islands of North Carolina began with the capture of Hatteras Inlet by combined U.S. ground and naval forces on August 28-29, 1861. In the early spring of 1862, Federal troops lead by Gen. Ambrose Burnside captured Roanoke Island, effectively destroying all Confederate shipping in the Albemarle Sound (and contributing significantly to the Confederates abandoning Norfolk, Virginia soon thereafter). Federal troops soon captured Elizabeth City, Winton (an important rail hub at the time), Washington, and New Bern. By late March, they were

staging for attack on the large Confederate encampment at Morehead City and on Fort Macon.

Fearing Federal attack, in early April 1862 Josiah Bell arranged for the lamps and lenses in his care to be shipped by the Atlantic and North Carolina Railroad from Morehead City to Raleigh for safekeeping.

With the fall of Fort Macon on April 23, 1862, Morehead City, Beaufort, and the Cape Lookout Lighthouse came under Federal control. In February 1863, a 3rd order lens was installed on a temporary basis at Cape Lookout and was lighted on March 1, 1863 to return the lighthouse to duty.

In early April 1865, Gen. William Sherman's troops reached Raleigh, North Carolina and accepted the surrender of that city on April 13. That day, two young Federal officers were dispatched to the Capitol building, which had been abandoned by the Governor and other state officials less than 48 hours before. They found, stacked head-high in the rotunda between the House and Senate chambers, a large pile of boxes and loose parts that were the lenses, lamps, and other apparatus from the lighthouses and harbor lights of coastal North Carolina.

These officers also found large quantities of state papers scattered about the floor...papers that had been discarded by the hurriedly departing North Carolina government officials.

In late May or early June, 1865, under the supervision of General L.C. Easton, the lamps and lenses found at the Capitol were packed for return to the U.S. Lighthouse Board. Since packing materials to protect the lens panels were scarce, workmen used the papers they found on the floor of the rotunda and in the adjacent legislative chambers for cushioning inside the crates. These papers used for packing were important...many of them dating from the Colonial period. The importance of these papers was recognized by the Federals who retrieved them upon arrival and added them to the archives of the U.S. State Department. (In 1906, these papers were returned to the State of North Carolina.)

Fortunately, the Cape Lookout lens was among those found in Raleigh and it too was shipped to the Lighthouse Board's lamp shops on Staten Island, New York.

The shops at Staten Island were flooded with dismantled, and often damaged, lenses from all over the South. Since the cost of replacing damaged lenses could not be supported by a government dealing with the costs of war and reconstruction, the decision was made to send many of these lenses back to their original French manufacturers for repair. On 17 November 1865, the Light House Board decided to return the damaged lens to Paris for repairs. The Cape Lookout lens was among the first to be sent to France on 28 November 28 generating the following memorandum from the Board Chairman, Adm. William B. Shubrick, to Lemonnier-Sauter and Company indicating the condition of the lens:

'Gentlemen: I have to request that you will make as soon as convenient the following described parts of illuminating apparatus. Upon completions of the work, it should be securely packed, marked "Lighthouse Apparatus," and shipped to the Collector of Customs, New York City, United States, who will pay your bill.

'1. First-order, fixed 270 degrees – Cape Lookout, Lens to be retrofitted with sound prisms in place of the 17, which are badly chipped. Astragals, horizontal rings, Crown for lens, Socket, pedestal Table, lockers, balustrade & Wagner Lamps.'

In mid-August 1866, the ship *Gettysburg* returned the restored lens to Staten

Island. And, by May 1867, after repairs to the lighthouse stairs, the 3rd Order lens that had been installed in 1863 was removed and the repaired 1856 1st Order lens was returned to service.

Whale oil was used as the primary light fuel until 1883, when kerosene was introduced.

In 1912, the Cape Lookout light was significantly improved when it was fitted with an "incandescent oil vapor" (IOV) lamp, which operated much like today's Coleman camping lantern. IOV lamps consumed half as much fuel as wick lamps and were nearly three times as bright, adding three or four miles of visibility. Because the fuel burned cleanly in the new lamps, keepers no longer had to toil long, hot hours cleaning soot from the lens and lantern glass. Lower fuel consumption also meant fewer trips hand carrying kerosene up the stairways. This IOV lamp produced approximately 77,000 candlepower.

The light "characteristic" was changed in 1914 from fixed to flashing, with two 10-second eclipses each minute, i.e., the light was on for 20 seconds, then off for 10 seconds. This was accomplished by modifying the lens with an "occluding mechanism". This mechanism consisted of opaque metal plates secured to a rotating stand that turned on a central lubricated bearing assembly, much like a wheel at the end of an axle. The motive force for rotation was supplied by a battery-powered motor. A "falling weight" clockwork type mechanism (similar to that of a coo-coo clock) regulated the speed of rotation. Weights were suspended down the center of the lighthouse by a series of cables that were looped through small rings that were fashioned into each landing of the stairway. As the rotating stand turned, so did the mechanism. In order to keep the mechanism rotating, the light keeper had to periodically crank the clock system weight back up to the top. (Evidence of the clockworks remain today with the cable holes drilled in the Watch Level floor plates.) From 1913 drawings, it appears that a battery-charging system was located at the base of the tower and a wire extended up the central stair column to the battery, located at the Lantern Room level.

In 1933, the lightship LV-72 was decommissioned. Its electric light, consisting of four 250W lamps, was salvaged and installed within the existing Fresnel lens, increasing light output to 160,000 candlepower. Electric power for the new light was provided by two new 5 kW gasoline-powered generators with two sets of 200 Amp lead-acid storage battery racks installed in the Summer Kitchen.

In 1950, the light was fully automated by the Coast Guard with a "sun sensor" to turn the beacon on and off. Power from the Cape Lookout Coast Guard Station generators was routed via overhead pole lines to serve the lighthouse and the generators in the Summer Kitchen were removed, as were the two fuel oil tanks at the Oil House.

In 1982, an underwater electric cable was run to the lighthouse from Harkers Island and the pole line from the Coast Guard Station was removed (since the station was decommissioned that year). A new emergency generator was installed in the base of the tower to provide power when electrical service from Harkers Island was lost (however, that generator no longer functions.) It was reported that the 1982 electrical cable was to be replaced sometime during the mid-1990s. That replacement never occurred and when the light was replaced in the summer of 2017, a solar power array was installed to meet the much lower electrical requirements of the replacement light.

Today's Light: During the late 1960s and early 1970s, the Coast Guard, which had assumed operational control of U.S. lighthouses in 1939, began planning modernization of the Cape Lookout Light. In 1975, the 1856 first order Fresnel lens and its 1933 electric lamps were removed. The 1856 lens was sent to the Coast Guard Support

Center at Portsmouth, Virginia (now USCG Base Portsmouth), which opened on November 4, 1975.

The transfer of the 1856 lens was protested by citizens of Carteret County and a proposal to place the lens on display at the fledgling Maritime Museum in Beaufort was put forth. Both the National Park Service at the new Cape Lookout National Seashore and the local Coast Guard Commander supported this proposal. Representative Walter Jones (D-NC) wrote the Coast Guard in support of leaving the lens in Carteret County. The Coast Guard response stated that "...it is appropriate to retain this unique lens *for display* on Coast Guard property" (emphasis added). Evidently, the importance of having the lens for display was later negated by Coast Guard operational needs since, in 1994, the Cape Lookout lens was installed at Block Island (Rhode Island) Southeast Lighthouse since it satisfied that lighthouse's need for a 270-degree lens, and ownership of which had been transferred to a private foundation.

The Coast Guard installed two 1000-watt Model BCD-24 airport beacons, each consisting of quartz halogen lamps, a reflector, and a lens housed in an aluminum fixture. The twenty-four-inch diameter beacons each had two lamps, but only one was active at a time...when the active lamp burned out, a drum rotated automatically and engaged the electric contacts of the second lamp, effectively changing itself (though manual intervention was required when the second lamp finally burned out). While the light was "on" continuously, it appeared at a distance to flash once every fifteen seconds since the two beacons are mounted back-to-back on a "turntable" rotating at two revolutions per minute (rpm). Each lamp produced 800,000 candlepower and the beams are visible up to about 20 miles on a clear night.

Obviously, this lighting system required significant maintenance by the Coast Guard. And, as the underwater cable that supplied power to the light station aged, reliability became a serious concern. Thus, in 2011, the Coast Guard began planning to replace the airport beacons with a more modern optic with lower maintenance costs. Also, by transitioning to the use of LED lamps, power consumption could be reduced to a level that could be supported by an onsite solar power array. This replacement occurred during the summer of 2017. The current light is a 12v DC LED powered non-rotating beacon programmed to "flash" on every 15 seconds. It is a multi-tier optic (equivalent to the Vega VLB-44) that has an effective range of approximately 14 nautical miles.

Power for this lamp is provided by a photovoltaic solar panel array located in the woods southwest of the light tower. This array contains sixty 300-watt panels with 102.5 kilowatt-hours of reserve power. A backup generator is provided to power the light in the event the solar array malfunctions.



Radio Beacons: In 1933, a Morse code radio beacon that broadcast the letters "CL" was added to the Light Station to increase the range for warning ships of the dangers of Cape Lookout. The Summer Kitchen was converted to house the generator and batteries to operate the new radio beacon and the electric lamp in the light tower. The Summer Kitchen became the "radio house", while the attached woodshed housed the batteries. The radio antenna stretched from a 60 foot high telescoping pole near the southeast corner of the 1873 Keepers' Quarters to a 60 foot tall tower near the radio house. The radio beacon was upgraded in the early 1940s with a taller antenna mast (120'). Later, the antenna was routed from the light tower gallery to the beacon tower

adjacent to the Summer Kitchen and a "tuning house" was installed between these two points (and the foundation is still visible today). In 1950, the radio beacons were relocated to the Coast Guard Station and, sometime in the 1960s, they were retired as the Loran navigational system was implemented.

LIGHT KEEPERS

From 1812 until 1950, "keepers" were required to manually operate and maintain the Cape Lookout light. The most important part of the Keeper's duties was to keep the light operating from dusk (about 4 pm) till a little after dawn. Prior to 1933, during this overnight period, a keeper was stationed in the Watch Room to keep the light fueled and maintain the lamp. During a storm or hurricane, the light had to be kept operating 24 hours a day.

For most of the nineteenth century keepers were political appointees. Generally the local collector of customs nominated an individual to the Secretary of the Treasury, who formally appointed each keeper. The collector of customs, also a political appointee, most often used keeper nominations to repay political favors. Until the 1850s this system of appointment stymied all efforts to reform the service and establish a merit appointment system. Slowly, however, various reforms were put in place that limited the range of political appointments.

By the 1870s the Lighthouse Board, which then was responsible for the operation of all lighthouses in the U.S., had established basic characteristics that keepers must possess. Newly appointed keepers should be between the ages of eighteen and fifty. A keeper should be able to read and write, keep simple financial accounts, be able to row and sail a boat, and possess sufficient skill to maintain the equipment and perform minor repairs. Nominations from the collectors of customs were forwarded to the Board, which arranged for each nominee to be interviewed. A three month probationary period, overseen by the Board, was also required before an "acting" appointment became permanent.

In 1896 light house keepers became members of the federal civil service, removing them entirely from the process of political appointment. In 1939, when the Lighthouse Service became a part of the U.S. Coast Guard, keepers were given the choice of transferring to the Coast Guard, which about half did, or remaining a civilian employee of the Coast Guard.

Before the light was electrified, the keeper began his day by dressing in the official uniform of the Lighthouse Service. The uniform consisted of blue pants, vest, suit jacket and hat. The uniform could be of wool (winter) or heavy denim (summer). The uniform had to be worn at all times of the day...if a keeper was found not wearing the uniform properly, he could be fined or even fired!

Over the years, the duties of the light keepers changed, but the basic ones before 1933 and electrification of the light were as follows:

- Hand carrying fuel up to the lantern room and fueling the lamp;
- Trimming the wicks (later, replacing the mantles and pumping up the oil vaporizer);
- Regularly cleaning and polishing (with jeweler's rouge and whiting) the glass chimney, lenses and windows;
- Polishing vast amounts of brass fittings and tools;
- Cranking up the clock mechanism weight, latching it, and letting it free when they lit the lamp at night;
- Hand carrying fuel up to the lantern room and fueling the lamp;



- Trimming the wicks (later, replacing the mantles and pumping up the oil vaporizer);
- Regularly cleaning and polishing (with jeweler's rouge and whiting) the glass chimney, lenses and windows;
- Polishing vast amounts of brass fittings and tools;
- Cranking up the weight, latching it, and letting it free when they lit the lamp at night;
- Lighting and extinguishing the lamp (it was wasteful and unnecessary to burn it by day);
- Monitoring the light and nearby shipping at night;
- Closing the lantern room curtains by day to prevent damage from magnified sunlight through the lens and discoloration of the lens glass;
- Cleaning and lubricating the clockwork;
- Painting the structure;
- Routine maintenance and repairs of all buildings;
- Greeting and sometimes lodging visitors and inspectors; and
- Writing reports, keeping records, and ordering supplies.

When the light was electrified in 1933, the work load on the keepers was reduced significantly. However, they were still responsible for fueling the generators that powered the light and for maintaining the Fresnel lens and overall light station.

The keepers typically worked a schedule of two weeks on duty and one week off. The work was strenuous, particularly the night duty requiring a constant watch over the light. The keepers usually split the nights, with one working from dusk to midnight and the other working from midnight to dawn.

Keepers continued to live at the light station until 1950, when the light was automated and the need for full-time keepers ended. Coast Guard personnel were assigned, on an "as need basis", from the Cape Lookout Coast Guard Station to perform maintenance duties at the lighthouse until 1982 when that station was merged into the Fort Macon Coast Guard Station. Since then, Coast Guard ATON staff from Fort Macon have been assigned responsibility for maintenance of the light. However, sometime in 2011, ownership of the light and responsibility for its maintenance will be transferred to the National Park Service.

Life for the keepers at Cape Lookout was not as bleak or lonely as some have

portrayed. While it was difficult being separated from their families, the keepers rotated shifts so that as much time off with their families as possible was provided. And, there were other folks around...the Life-Saving and Coast Guard crews were only a mile away and, until about 1900, Diamond City was located within only a short hike across the "drain". Telephone service came in 1898 and significantly improved communications over the one-a-week mail boat. And, after 1907, when families could be housed there, the light station formed its own little community...even, for a short period, with its own post office.

From 1812, when the first Cape Lookout Lighthouse was completed, until September 1859, as the second Cape Lookout Lighthouse was nearing completion, there was only a single lighthouse keeper. Both Silas Blunt and Abner Parker Guthrie were appointed as "assistants" to the keeper on 27 Sep 1859. After Silas Blunt resigned in 1860, Joseph Royal took his place. We do not know who was designated 1st Assistant vs. 2nd Assistant during this period. But, thereafter, the Cape Lookout Lighthouse was manned by a Keeper, a 1st Assistant, and a 2nd Assistant. Between 1939 and 1950, Coast Guard personnel, under command of an "officer in charge", who was often still called the "keeper", lived at the light station and maintained the light with his assistants.

The following table provides a chronological listing of the keepers and their assistants since 1812:

Keepers	1st Assistants	2nd Assistants
First Lighthouse Completed in 1812		
James Fulford (1812-1828)		
William Fulford (1828 -1854)		
John Ross Royal (1854 - 1859)		
Second Lighthouse Completed in 1859		
John Ross Royal (1859 - 1861)	Abner Parker Guthrie (1859-1861) Silas Blunt (1859-1860) Joseph Royal (1860-1861)	
Civil War: Lighthouse was dark from June 1861 until February 1863 and no keepers were assigned.		
Gayer Chadwick II (1863-1864)	Joseph Royal Guthrie (1864-1864)	John Wallace Guthrie (1863-1864) Abner Parker Guthrie (1864-1864)
John Ross Royal (1864-1869)	William Henry Guthrie (1864-1865) Joseph Royal (1865-1869)	Martin Thomas Royal (1864-1869)
Manaen Washington Mason (1869-1876)	Josephus S. Willis (1869-1870) Thomas Clifford Davis II (1869-1874) Wallace P. Fulcher (1874-1876)	Benjamin P. Davis (1870-1872) Charlotte Ann Mason (1872-1875) John M. Lewis (1875-1876)
Melvin Jennings Davis, Jr. (1876-1978)	Martin Matthew Lewis (1876-1877) Josephus S. Willis (1877-	Millard Fillmore Willis (1876-1877) Joseph B. Whitehurst

Keepers	1st Assistants	2nd Assistants
William Fuller Hatsel (1878-1880)	1880)	(1877-1878) Denard Rumley (1878-1880)
Denard Rumley (1880-1893)	Martin Van Buren Davis (1880-1883) John Todd Brem Noe (1883-1886) Thomas Clifford Davis II (1886-1893)	John Todd Brem Noe (1880-1883) Isaiah Ferren Willis (1883-1883) Unknown (1883-1886) Otway Burns Davis (1886-1893)
Thomas Clifford Davis II (1893-1900)	Otway Burns Davis (1893-1900)	Franklin Pierce Lewis (1893-1894) James Luther Davis (1895-1900)
James Wilson Gillikin (1900-1903)	James Luther Davis (1901-1903) Alpheus B. Willis (1903-1903)	Charles N. Pugh (1898-1901) Alpheus B. Willis (1901-1903)
Alford B. Hooper (1903 - 1909)	Arthur Matholemew Midgett (1903 -1905) W. S. Harrison (1905) James Wilson Gillikin (1905 -1909)	William Gibbons Rollinson (1903 -1903) John B. Quidley (1905 - 1907) William Gibbons Rollinson (1907 -1909)
Charles W. Clifton (1909 - 1924+)	Victor Lawson Watson (1909-1912) Joseph Merritt Burrus (1912 -1913) Isaac Van Willis, Jr. (1915 - 1918, 1920-1923) James Wilson Gillikin (1923 -1925)	William Gibbons Rollinson (1909 -1911, 1913) Charles Oden Peele (1911 -1912) Isaac Van Willis, Jr. (1912 -1915, 1918-1920)
Unknown (1924+ - 1933)	Unknown (1925 -1936)	Unknown (1924+ -1932) Boyd Monroe Smith (1932 -1936)
Benjamin Lloyd Harris (1933-1936)		
During World War II, 1942-1945, the light at Cape Lookout was extinguished.		
James Archie Newton (1936 -1945)	Boyd Monroe Smith (1936-1938) John Daniel Coble (1938 - 1941) James Milford Newcomb (1942 -1945)	Unknown (1936 -1942) Thurston Hill (1942 -1944)
Unknown (1945-1950)	Unknown (1945 - 1948) Alton Leon Chadwick (1948-1950)	Unknown (1945-1950)

The service records for lighthouse keepers and assistants from about 1920 until 1950, when the lighthouse was automated and the keepers were no longer assigned,

are incomplete. The information listed from this period has been developed from letters, interviews with retired keepers, descendants of keepers, etc. and may or may not be correct.

More detailed information on each keeper and/or assistant is provided by the following:

Silas Blunt: Assistant Keeper 27 Sep 1859 - 17 Jul 1860 (Resigned)

Silas was the son-in-law of Head Keeper John R. Royal (he married Hetty Ann Royal, John R. Royal's daughter, in 1857).

Silas' surname was spelled "Blunt" in both the 1860 census and his 1857 marriage record. However, in some records it is shown as "Blount". In the 1860 census, Silas' occupation is listed as "mariner".

Both Silas Blunt and Abner Parker Guthrie were appointed as "assistants" on 27 Sep 1859. After Silas Blunt resigned in 1860, Joseph Royal took his place. We do not know who was 1st Assistant vs. 2nd Assistant during this period, though the 1859 "Official Register of the United States" lists A.P. Guthrie's name first, perhaps indicating that Blunt was 2nd Assistant.

Joseph Merritt Burrus: First Assistant Keeper 20 Jan 1912 - Feb 1912; 1913

Joseph Merritt Burrus was born in 1879 Dare County, North Carolina and died in 1951 at Ocracoke, Hyde, North Carolina. He married Eleanor Bridgeman Oden in 1900.

Joseph Burrus also served at the Cape Hatteras Lighthouse, the Diamond Shoals lightship, and as the last keeper (1926-1946) at the Ocracoke Lighthouse.

Alton Leon Chadwick: First Assistant Keeper Nov 1948 - 5 May 1950

Alton Chadwick was the last assigned USCG assistant keeper at Cape Lookout. In 2009, he reported that he lived in the upstairs unit of the 1873 keepers quarters. New power lines from the Coast Guard Station were installed and the light was automated in 1950, eliminating the need for resident keepers.

Alton Chadwick was born in 1928 in Carteret County, North Carolina and resided in Marshallberg, Carteret, North Carolina.

Gayer Chadwick II: Keeper 24 Feb 1863 - 24 May 1864 (Resigned)

Gayer Chadwick (at the age of 63) was appointed keeper when the temporary 3rd Order lens was installed at Cape Lookout after the lighthouse was re-captured by Federal troops. He was born in 1797 in Carteret County, North Carolina and died there in 1879. He married Caroline Hellen in 1821. In addition to his service at Cape Lookout, Gayer Chadwick was Keeper of the Harbor Island Lightship (located between Core and Pamlico Sounds) 1849-1853 and again in 1867 at the newly constructed Harbor Island Lighthouse.

Charles W. Clifton: Keeper 2 Oct 1909 - 1921+

Charles W. Clifton was born in 1877 in Camden County, North Carolina and died in 1942 in Carteret County, North Carolina. In 1910, the census lists Charles' occupation as "L.H.K., U.S." and the 1920 census lists his occupation as

"light keeping". Only his wife Amy appears the 1930 census, living on Ann Street in Beaufort, Carteret, North Carolina. Prior to serving at Cape Lookout, Clifton was keeper of the Wade Point Light Station.

John Daniel Coble: First Assistant Keeper 1938 - 1941

John D. Coble was born in 1912 and grew up in Wilmington, New Hanover, North Carolina. He joined the U.S. Navy in 1929. While in the Navy, John D. Coble was assigned as a radio operator at Cape Lookout about 1936. He resigned from the Navy and was appointed assistant keeper about 1938, working for the U.S. Bureau of Lighthouses. He chose to remain a civilian working for the Coast Guard after the merger and retired in 1941.

Benjamin Perry Davis: 4 May 1870 - 16 Jul 1872 (Removed)

Benjamin P. Davis was born about 1814 in Carteret County, North Carolina. He listed in the 1870 census as "Asst. Light House Keeper". Benjamin Davis was the uncle of Martin Van Buren Davis, Melvin Jennings Davis Jr., and Thomas Clifford Davis II. He was born in 1814 in Carteret County, North Carolina and died there. In 1837, he married Roda Willis.

James Luther Davis: First Assistant Keeper 1 Jan 1901 - Jun 1903; Second Assistant Keeper 15 Aug 1895 - 10 Apr 1900 (Resigned)

James Luther Davis was the son of Otway Burns Davis. He was born in 1877 at Smyrna, Carteret, North Carolina and died there in 1930. James may have been "acting" between 15 Aug 1895 and 28 Aug 1895 and between 1 Jan 1901 and 7 Feb 1901. Evidently, James never married.

Martin Van Buren Davis: Appointed acting First Assistant Keeper 14 Dec 1880 and confirmed on 28 Feb 1881. Served until 5 Apr 1883 (Resigned).

Martin Van Buren Davis was born in 1831 in Marshallberg, Carteret, North Carolina and died in Davis, Carteret, North Carolina in 1906. He married Anne Hazeltine Judson Davis in 1853. He was the brother of both Thomas Clifford Davis, II and Melvin Jennings Davis, Jr., who were also keepers at Cape Lookout.

Melvin Jennings Davis, Jr.: Appointed acting Keeper on 22 Aug 1876 and confirmed in Mar 1877. He served until 11 Jul 1878 (Removed).

Melvin Davis was born in May 1845 in Carteret County, North Carolina and died there about 1907. In 1872, Melvin married Hannah Frances Lewis. He was the brother of Thomas Clifford Davis II and Martin Van Buren Davis, who were also keepers at Cape Lookout.

Otway Burns Davis: First Assistant Keeper 22 Feb 1893 - Nov 1900; Appointed acting Second Assistant Keeper on 12 Aug 1886 and confirmed on 11 Sep 1886.

Otway Burns Davis was born in Carteret County, North Carolina about 1842 and died there sometime after 1910. He married Mary "Polly" D.

Lewis in 1867 (after posting a marriage bond in 1863). He served in Company A, 1st North Carolina Light Artillery Battery during the Civil War. The 1880 census lists Otway Davis as a "deputy sheriff" in Carteret County, North Carolina and, in the 1900 census, Otway B. Davis is listed as "Light House Keeper".

Thomas Clifford Davis II: Keeper 22 Feb 1893 – 1900; First Assistant Keeper 21 May 1869 - 4 Mar 1874 (Resigned) and 26 Jul 1886 - 22 Feb 1893; Appointed acting Second Assistant Keeper on 8 Jun 1883 and confirmed on 12 Jun 1885.

Thomas Clifford Davis II was born about 1835 in Carteret County, North Carolina and died there before 1900. He married Polly Ann Wade in 1856. He was the brother of both Melvin Jennings Davis, Jr. and Martin Van Buren Davis, who were also keepers at Cape Lookout. The 1870 census lists Thomas Davis as "Asst. Light House Keeper".

Wallace P. Fulcher: First Assistant Keeper 17 Apr 1874 - 19 Aug 1876 (Resigned)

Wallace P. Fulcher was born in North Carolina in May 1832 and died in Carteret County, North Carolina before 1910. He married Martha W. Lewis in 1859 in Carteret County, North Carolina.

James Martin Fulford: Keeper 2 Jun 1812 - 27 Jan 1828

In 1804, Congress authorized a lighthouse at Cape Lookout, and in February, 1805, a four-acre plot of land was deeded to the government by Joseph Fulford and Elijah Piggot for \$1.00. Getting construction for the lighthouse underway took some time, though, and it wasn't until 1812 that the first Cape Lookout Light was completed, at a cost of \$20,678.54. James Fulford was appointed by President James Madison and given a salary of \$300 per year. James Fulford was the son of Joseph Fulford, who sold the land for the 1812 lighthouse, and his wife Mary Martin.

Private James Fulford was listed by the Secretary of State as a North Carolina Revolutionary Pensioner in 1835 under "The Acts of 1818 and 1832." Private James Fulford, b. in 1755, enlisted in Beaufort in May 1776 and served under Capt. Enoch Ward. He applied for a pension in Sept. 1832 and died in Carteret Co. 13 Aug. 1839 stating in his will that he had married Rebeckah Harker in Apr 1785, had 7 children, but only his oldest child, William was named. Rebeckah applied on 5 Nov 1842, at age 73, for widow's benefits.

Rebeckah (Rebecca) Harker was born Abt 1770 in Harkers Island, North Carolina. She married James M. Fulford April 1785 in Carteret County, North Carolina, son of Joseph Fulford.

Rebeckah was the daughter of Zachariah Harker (born 1740 in Harkers Island, North Carolina, died 1824 in Harkers Island, North Carolina) and Ruth Chadwick, daughter of Thomas Chadwick and Rachael Young. Zachariah was the son of Ebenezer Harker (born February 26, 1688/89 in Boston, Massachusetts, died June 01, 1765 in Harkers Island, North Carolina.)

Ownership of Harkers Island (called "Davis Isle" or "Craney Island" at the time) was first titled to Farnifold Green, a native of the Carolina colony, by the Lords Proprietors in 1707. Ebenezer Harker purchased the island in 1730, settled there with his family, and built a plantation and boat yard. The island became known as Harkers Island soon after his death and his will divided the island between his sons James L. Harker, Ebenezer Harker, Jr., and Zachariah Harker.

William Fulford: Keeper 28 Jan 1828 - 16 Jan 1854

William Fulford was the son of James Fulford and Rebeckah Harker, born in Carteret County in 2 Apr 1786. He married Syvil Pigott in 1822 and died in Carteret County, North Carolina in 1864.

The 1850 census finds the family in the Shackleford Banks and Harkers Island Township, Carteret, North Carolina and lists William (at age 64) as "keeper of light house". In 1860, the family is living in Beaufort, Carteret, North Carolina.

In 1850, William Fulford reportedly described the lighthouse as having 13 oil lamps. Oil was stored in a small oil shed. At that time, William had to continually remove sand from the front side of the keeper's house. "The sand banks are now higher than the tops of the windows, and only a few feet from them, at high water mark. On the sea side, it has washed away about 100 feet last year by abrasion and sea flows."

(The town of North Miami Beach, Florida was called Fulford until 1931. It was settled by William Hawkins Fulford, son of William Fulford and Syvil Pigott Fulford. When he moved to South Florida, William Hawkins Fulford was the Keeper of the Biscayne House of Refuge, a lifesaving station on Miami Beach.)

James Wilson Gillikin: Keeper 1 Jun 1900 - 1 Nov 1903; First Assistant Keeper 1 Oct 1905 - 15 Sep 1909 and Oct 1923 - Feb 1925.

James Wilson Gillikin was a long-term U.S. Lighthouse Bureau employee, His career with the U.S. Lighthouse Service spanned 40 years. In addition to his service at Cape Lookout, he served as keeper at Cape Hatteras Light-house (1897-1900) and was assigned to the Roanoke River Light (1885-1888). In addition, he served at the Laurel Point Light, Harbor Island Bar Light, and Ocracoke Light. James was born in 1859 in Carteret County, North Carolina and died there in 1925. He married Anna Wilson Davis about 1887. During his stint as 1st Assistant Keeper in 1923-1925, James kept detailed journals of life at Cape Lookout.

Abner Parker Guthrie: Assistant Keeper 27 Sep 1859 - Jun 1861; Second Assistant 19 Mar 1864 – 28 Jul 1864.

Abner Parker Guthrie was born in 1830 on Shackleford Banks, Carteret, North Carolina and died in 1893 on Bogue Banks, Carteret, North Carolina. Abner married Hancy Jane Moore in 1849. Abner was the brother of Joseph Ross Guthrie and William Henry Guthrie. The 1860 census lists Parker Guthrie living in Carteret County, North Carolina and working as "Ast. L.H. Keeper."

Both Silas Blunt and Abner Parker Guthrie were appointed as "assistants" on 27 Sep 1859. After Silas Blunt resigned in 1860, Joseph Royal took his place. We do not know who was 1st Assistant vs. 2nd Assistant during this period, though the 1859 "Official Register of the United States" lists A.P. Guthrie's name first, perhaps indicating that he was 1st Assistant.

John Wallace Guthrie: Second Assistant Keeper 16 Jul 1863 - 19 Mar 1864 (Resigned)

John Wallace Guthrie was born about 1819 at Diamond City, Shackleford Banks, Carteret, North Carolina and died in 1888 in Carteret County, North Carolina. John married Hope Ann Willis in 1849. John Wallace Guthrie was a distant cousin of Abner Parker Guthrie, Joseph Royal Guthrie, and William Henry Guthrie.

Joseph Royal Guthrie: First Assistant Keeper 19 Mar 1864 - 16 Jul 1864.

Joseph Royal Guthrie was born in 1822 in Carteret County, North Carolina and died after 1880 there. In 1847, he married Parley Willis. Joseph was the brother of Abner Parker Guthrie and William Henry Guthrie.

William Henry Guthrie: First Assistant Keeper 16 Jul 1864 - 3 Aug 1865 (Resigned).

William Henry Guthrie was born about 1818 in Diamond City, Shackleford Banks, Carteret, North Carolina. He was the brother of Abner Parker Guthrie and Joseph Royal Guthrie. William married Elizabeth "Betsy" Willis in 1854 in Carteret County, North Carolina.

Benjamin Lloyd Harris: Keeper 1 Jul 1933 - 1936

Benjamin Lloyd Harris was born in 1879 in Carteret County, North Carolina and died in 1939 in Pamlico County, North Carolina. He married Connie Woodard. From letters he signed as "Keeper", we know Benjamin Lloyd Harris served as Keeper at Cape Lookout until at least 7 Oct 1936.

Harris served the Bureau of Lighthouses from 1914-1938. Prior to his service at Cape Lookout, Benjamin Lloyd Harris was Keeper at the Tangier Sound Light Station, Virginia and he also served on numerous light vessels: LV46 (1915-1917), LV101/WAL624 (1917), LV72 (1917), LV52 (1917, 1920-1922), LV91/WAL515 (1919), LV105/WAL527 (1926).

W. S. Harrison: First Assistant Keeper 9 Aug 1905 - 30 Sep 1905.

William Fuller Hatsel: Keeper 12 Jul 1878 - 24 Nov 1880 (Removed).

William Hatsel was born in North Carolina about 1828 and married Rebecca S. Pigott in Carteret County, North Carolina in 1855. Before transferring to Cape Lookout, William Hatsel was the principal keeper at the

Bodie Island Lighthouse 1872-1878 and assistant keeper at Point of Shoals, Virginia 1870-1872. Two different 1880 census records from Carteret County, North Carolina list W.F. Hatsel as "U.S. Light House Keeper".

Thurston Hill: Second Assistant Keeper 1942 – 1944.

Interviews with the daughters of James Milford Newcomb confirm that Thurston Hill was 2nd Assistant in 1942-1944, though his actual period of service may have been longer.

Alfred B. Hooper: Keeper 1 Nov 1903-10 Feb 1909.

Alfred B. Hooper was born in 1863 in Kennekeet Banks, Dare, North Carolina and died in 1914 in Carteret County, North Carolina. He married Maria Annie Cooper. Alfred B. Hooper's family were the first to occupy the Principal Keeper Quarters that was constructed in 1907. At that same time, the 1873 keepers quarters was remodeled into a duplex, with one assistant keeper family living upstairs and one downstairs.

After leaving Cape Lookout, Alfred transferred to the Ocracoke Lighthouse and the 1910 census lists him as "light keeper, light house", living in Ocracoke, Hyde, North Carolina. Sometime between 1910 and 1914, he returned to Carteret County, North Carolina, and was living in Beaufort at the time of his death.

Franklin Pierce Lewis: Second Assistant Keeper 4 May 1893 - 6 Dec 1894 (Resigned).

Franklin Pierce Lewis was born in 1852 in Carteret County, North Carolina and died in Marshallberg, Carteret, North Carolina in 1920. He married Martha W. Fulford in 1876. Franklin Pierce was the brother of Martin Mathew Lewis.

John M. Lewis: Appointed acting Second Assistant Keeper on 27 May 1875 and confirmed on 16 Apr 1876. Served until 19 Aug 1876 (Removed).

John M. Lewis was the brother-in-law of Wallace P. Fulcher. He was born in 1850 at Harkers Island, Carteret, North Carolina and died in 1916 in Morehead/Newport, Carteret, North Carolina. He married Mary Francis Dixon in about 1875.

Martin Matthew Lewis: First Assistant Keeper 22 Aug 1876 - Mar 1877 (Transferred).

Martin Matthew Lewis as born in 1844 on Bogue Banks in Carteret County, North Carolina. He died in 1901 in Beaufort, Carteret, North Carolina. Martin married Sally Ann Salter in 1872. Martin Matthew Lewis was the brother of Franklin Pierce Lewis.

Charlotte Ann Mason: Second Assistant Keeper 22 Aug 1872 - 27 May 1875 (Resigned).

Charlotte Ann Mason was the only female keeper at Cape Lookout. She was the daughter of "Manie" Mason and his wife Sidney, born in 1854 in Carteret County, North Carolina. She married Alfred Moore in 1877 and died in Carteret County, North Carolina in 1929.

Manaen Washington "Manie" Mason: Keeper 21 May 1869 -19 Aug 1876 (Removed).

In 1873, Manaen "Manie" Mason was the first keeper to live in the new keepers quarters constructed that year and he (and his assistants) painted the distinctive "checkers" daymark that identifies the Cape Lookout tower today.

During early 1875 there were several reported instances when the light was not in operation. During the summer and fall of that year, there was discussion by the Lighthouse Board concerning whether Manaen Mason should be removed. While the initial decision was against removal, on August 19, 1876 an order was issued removing Manaen and both of his two assistants.

Manaen W. Mason was born in Carteret County, North Carolina in 1821 and died there in 1883. While Manaen's pedigree is unknown, researchers seem to agree that he is not related to the large Mason family that settled at "Hunting Quarters", today's Atlantic, in Carteret County, North Carolina, and that his family may have originated in Virginia.

Arthur Matholemew Midgett: First Assistant Keeper 17 Nov 1903 - 3 Aug 1905.

Arthur Midgett may have been "acting" from 17 Nov 1903 until confirmed on 7 Dec 1903. As best can be determined, the "Arthur Midgett" listed in lighthouse records was Arthur Matholemew Midgett, who was born in 1875 at Buxton, Dare, North Carolina and died there in 1943. In 1898, he married Nettie Victoria Barnett.

In addition to serving at Cape Lookout, apparently his first light keeping assignment, Midgett was a career keeper assigned to several sound and river lights in North Carolina, including the North River Lighthouse (around 1910) and the Harbor Island Bar Lighthouse in Carteret County (1918-1922, at least).

James Milford Newcomb: First Assistant Keeper 1942 – 1945.

In interviews with several of his daughters, it was confirmed that James Milford Newcomb served as 1st Assistant in 1942-1945 and that the family lived upstairs in the 1873 assistant keeper's quarters. James Milford Newcomb was born in 1908 in Wayne County, North Carolina. He died in 1981 in Williamston, Martin County, North Carolina.

James Archie Newton: Keeper about 1936 -1945.

In 1939, James Archie Newton was listed as the current Keeper at Cape Lookout. Since the United States Coast Guard took over operation of all coastal lights that year, James Archie Newton transferred to the Coast Guard and was

assigned as the USCG's "Officer in Charge", the equivalent of keeper, at Cape Lookout. Interviews with the daughters of James Milford Newcomb confirm that James Archie Newton was "head keeper" in 1942-1944.

James was born in Carteret County, North Carolina in 1883 and died in Pamlico County, North Carolina in 1959. He married Sarah "Sadie" Lincoln about 1908. Sometime after her death in 1945, James married Grace Nowell.

John Todd Brem Noe: Appointed acting First Assistant Keeper on 5 Apr 1883 and confirmed on 17 May 1883. He served until 26 Jul 1886. Appointed acting Second Assistant Keeper on 14 Dec 1880 and confirmed on 28 Feb 1881, serving until 5 Apr 1883.

John T. B. Noe was born in 1844 in Carteret County, North Carolina and died there in 1903. He married Susan N. Stanton in Carteret County, North Carolina in 1868. He served in Company A, 1st North Carolina Light Artillery Battery during the Civil War.

Charles Oden Peele: Second Assistant Keeper 8 Sep 1911 - 21 Jan 1912.

Charles Oden "Charley" Peele was born in 1886 at Hatteras, Dare, North Carolina, the son of surfman Eugene H. Peele. He married Anna Howard Rollinson, sister of William Gibbons Rollinson in 1907 at Frisco, Dare, North Carolina. Most of his life, as evidenced by census records, Charley was a surfman, first for the U.S. Life Saving Service and then for the U.S. Coast Guard.

Charles W. Pugh: Second Assistant Keeper 5 Sep 1898 - 17 Jun 1901.

Charles W. "Charley" Pugh was born in 1878 in Dare County, North Carolina and died at Nags Head, Dare, North Carolina in 1938. He married Delphine "Dell" Daniels about 1895. In 1900, the census lists Charles W. Pugh living in Nags Head, Dare, North Carolina as "Asst Keeper U.S. Lighthouse". From this, it appears that while Pugh was assigned to Cape Lookout, his family remained in Nags Head. (A Charley Pugh also served as an assistant at Bodie Island Lighthouse, appointed in 1886...perhaps this Charley's father.)

John Bunyan Quidley: Second Assistant Keeper 16 Oct 1905 - Jul 1907.

John Bunyan Quidley served as 3rd Assistant at the Cape Hatteras Lighthouse in 1904-1905 before taking a position at Cape Lookout and as 1st Assistant at Hatteras 1909-1911. He also served at the Cape Hatteras Light, Bodie Island Light, and Cape Charles (Virginia) Light. John was born in 1877 in Hyde County, North Carolina and died in 1924 in Dare County, North Carolina. John married Celia R. Miller before 1900. After her death, John married Emma Hill Midgett in 1903 in Dare County, North Carolina.

In 1918, he registered for the WWI draft in Beaufort, Carteret, North Carolina. and listed his occupation as "U.S. Light Keeper." John lived most of his life in Dare County, North Carolina, but did live in Beaufort, Carteret, North Carolina from about 1915 until just before his death.

William Gibbons Rollinson: He served as Second Assistant Keeper 1 Jul 1903 - 15 Oct 1903, again 1 Aug 1906 - 7 Sep 1911, and in 1913.

William was born in 1873 in Frisco, Hyde, North Carolina and died in 1959 at Portsmouth, Virginia. He married Mariah D. Whidbee. According to NPS research, he served as 3rd Assistant at Cape Hatteras Lighthouse 16 Oct 1905-11 Jan 1906 and 1st Assistant there 16 Oct 1909-31 Mar 1911. These last dates conflict with Ref. 6.

He is listed as "L.H.K., Asst. U.S." in the 1910 census for Carteret County, North Carolina. In 1918, he registered for the WWI draft in Frisco, Dare County, North Carolina and listed his occupation as "U.S. Lighthouse Service at Hatteras Inlet". The 1920 census for Dare County, North Carolina lists him as "U.S. Lighthouse Keeper", but his assignment at that time is unknown.

John Ross Royal: Keeper 17 Jan 1854 - Jun/Sep 1861 (Civil War) and 25 May 1864 - 21 May 1869.

John R. Royal was keeper at Cape Lookout during two significant periods: (1) the transition from the 1812 light tower to the 1859 light tower and (2) the Civil War and its aftermath. John was born in Carteret County, North Carolina in 1806 and died there in 1883. The 1860 census listed John Royal as "Keeper L. House". John Royal was the first keeper with assistants, the first appointed in 1859 and the second in 1860.

After the light at Cape Lookout was dismantled and placed in storage in Aug/Sep 1861, John Royal and his assistants were out of job. John was re-appointed Keeper in 1864, but both he and his assistants were removed on 21 May 1869. (In the 1870 census, John Royal is found living in Morehead City, Carteret, North Carolina and working as a "dry goods grocer".)

Joseph Royal: Assistant Keeper 17 Jan 1860 - Jun/Sep 1861 (Civil War); First Assistant Keeper 3 Aug 1865 - 21 May 1869.

Joseph was John R. Royal's son. The 1860 census records him as "Assist. L.H. Keeper". Joseph was born about 1844 in Carteret County, North Carolina. In 1860, the census lists Joseph living with his parents and his occupation as "Asst. L.H. Keeper". He married Melissa Willis about 1871 and the family lived in Morehead City, Carteret, North Carolina all their lives.

Both Silas Blunt and Abner Parker Guthrie were appointed as "assistants" on 27 Sep 1859. After Silas Blunt resigned in 1860, Joseph Royal took his place. We do not know who was 1st Assistant vs. 2nd Assistant during this period, though the 1859 "Official Register of the United States" lists A.P. Guthrie's name first, perhaps indicating that Blunt was 2nd Assistant, the position taken by Royal.

Martin Thomas Royal: Second Assistant Keeper 28 Jul 1864 - 21 May 1869.

Martin T. Royal was John R. Royal's son, born in 1848 in Carteret County, North Carolina. Martin died in 1919 in Carteret County, North Carolina. In 1867,

he married Ann Maria(h) Harris. From 1870 until their deaths, Martin and Ann Royal lived in Smyrna, Carteret, North Carolina.

Denard Rumley: He was promoted to First Assistant Keeper and appointed acting Keeper on 14 Dec 1880, confirmed on 28 Feb 1881. He served until 21 Feb 1893, the day he died. Second Assistant Keeper 30 Jul 1878 - 14 Dec 1880.

Denard Rumley was born about 1844 in Beaufort, Carteret, North Carolina and died in Beaufort, Carteret, North Carolina in 1893 while serving as Keeper at Cape Lookout. In 1868, he married Mary E. Perry and the 1870 census finds the couple living in Wilmington, New Hanover, North Carolina where Denard is a "customs house collector". Denard returned to Carteret County before 1878 and the 1880 census finds the family living in Beaufort, Carteret, North Carolina and lists Denard's occupation as "keeping light-house".

Boyd Monroe Smith: First Assistant Keeper 1936 - 1939+; Second Assistant Keeper Apr/May 1932 - 16 Feb 1936.

Boyd Smith was born in 1911 in Anderson County, South Carolina and died in 1966 in Polk County, Florida. On 16 Feb 1936, Boyd Monroe Smith apparently was promoted from 2nd Assistant to 1st Assistant. At that time, he had 3 years 8 months of service with the Bureau of Lighthouses at that time, indicating that his service began in April or May 1932, evidently at Cape Lookout. Smith voluntarily requested transfer to the USCG on 11 Jun 1939. At that time, he was First Assistant at Cape Lookout.

Victor Lawson Watson: First Assistant Keeper 1 Oct 1909 - 5 Jan 1912.

Victor Lawson Watson was appointed on 1 Oct 1909, but his pay records don't begin until the second quarter of 1910, indicating that he was not actively serving until then. Prior to serving at Cape Lookout, Victor Lawson Watson served at Bodie Island Lighthouse 1906-1907 and at the Cape Hatteras Lighthouse 1907-1909.

Victor Watson was born in Hyde County, North Carolina in 1874. He died in 1925 in Hyde County, North Carolina. He married Lena Reid Trotman about 1909. He is listed as "L.H.K., Asst. U.S." in the 1910 census for Carteret County, North Carolina.

Joseph Blunt Whitehurst: Second Assistant Keeper 6 Apr 1877 - 27 Jul 1878.

Joseph B. Whitehurst was born about 1835 in Beaufort, Carteret, North Carolina and died in 1881 in Craven County, North Carolina. He Married Nancy Elizabeth Duncan in 1855 in Carteret County, North Carolina. Joseph B. Whitehurst served as an assistant at the Cape Hatteras Lighthouse after he left Cape Lookout.

Alpheus B. Willis: He served as First Assistant Keeper 1 Jul 1903 - 9 Nov 1903. He was appointed acting First Assistant Keeper on 16 Sep 1909, confirmed on 20 Nov 1909, and served until 23 Apr 1911. He was Second Assistant Keeper 1 Nov 1901 - Jun 1903.

Alpheus B. Willis was born in Dare County, North Carolina about 1868 and died there in 1924. He married Elizabeth "Eliza" Allen Stoew in 1887. The 1910 census lists Alpheus B. Willis living in Hatteras, Dare, North Carolina and his occupation as "Keeper, U.S.L.H.E.", indicating that he maintained his home at Hatteras while serving at Cape Lookout.

Alpheus B. Willis served as 1st Assistant at the Cape Hatteras Lighthouse 1 Dec 1905-20 May 1907 and 24 Apr 1911-30 Sep 1912.

Elijah Willis:

After the light at Cape Lookout was dismantled and placed in storage in Jun/Sep 1861, Elijah Willis was paid through the end of that year to serve as caretaker of the light tower and keeper's quarters. There were two Elijah Willis' living in Carteret County during this period...one born in 1817 living in Smyrna in 1860 and one born in 1822 living in Straits in 1860. Both were fishermen.

Isaiah Farren Willis: Second Assistant Keeper 5 Apr 1883 - 8 Jun 1883.

Isaiah Farren Willis was born about 1837 at Davis Shore, Carteret, North Carolina and died about 1915 there. He was the son of Thomas Willis and Elizabeth Fulford and is buried at the Murphy Family Cemetery. He married Lucetta Styron on 24 Mar 1861 in Carteret County, North Carolina.

Isaac Van Willis, Jr.: He served as First Assistant Keeper 1915 – 1918 and again 1920-1923. He was Second Assistant Keeper 2 Feb 1912 – 1915 and again June 1918-August 1920.

Isaac Van Willis, Jr. was born in 1883 in North Carolina and died in 1948 in Carteret County, North Carolina. Prior to his serving at Cape Lookout, Willis was 2nd Assistant at the Thimble Shoal Light Station in Virginia in 1909.

In 1918, Isaac registered for the WWI draft in Carteret County, North Carolina and listed his occupation as "Light House Keeper, Government". In 1920, the census lists Isaac Willis at Harkers Island, Carteret, North Carolina, with occupation "Light House, 2nd Keeper."

Josephus S. Willis: Served as First Assistant Keeper 21 May 1869 - 5 Apr 1870 and again 25 Mar 1877 - 24 Nov 1880.

Josephus Willis was born 1828 in Carteret County, North Carolina and died there in 1910. When not working at the lighthouse, Josephus was a fisherman. Both "Josephus" and "Joseph" were used in various historical records. His middle name was probably "Styron". The 1880 census lists Josephus Willis as "Asst Light House Keeper".

(His son Josephus S. Willis, Jr. was a sea Captain and well known whaler off Shackleford Banks. He was best known as Captain of the "red oar" whaling crew in which his six sons served as his crew. They successfully landed the

Mayflower whale, whose skeleton is on display in the North Carolina Natural History Museum.)

Millard Fillmore Willis: Second Assistant Keeper 22 Aug 1877 - ?

There are two Millard Fillmore Willis' that may have served at Cape Lookout...we don't know which is correct:

1. Millard Fillmore Willis, the son of Johan Abram Willis and his wife Mary Ann, who was born in Morehead City, Carteret, North Carolina about 1857 and died there before 1900. He married Cora Virginia Arthur about 1884.

2. Millard Fillmore Willis, son of David W. Willis and Jane Eliza C. Davis, who was born in Smyrna, Carteret, North Carolina in 1857 and died in Straits, Carteret, North Carolina in 1917. He married Maude Chadwick about 1884.

For a short period during 1901-1904, the Cape Lookout Lighthouse was assigned 3rd Assistant Keepers. The roles of these keepers is not clear.

James Wilson Gilliken

Joseph Royal Guthrie: Served Jan 1901 - 3 Oct 1901.

Jones Lawrence: Served about 1903. Jones Lawrence is buried at the Lawrence - Gillikin Families Cemetery, located at on the east side of Harkers Island Road (SR 1332) at the corner of Elnora Jones Lane.

Isaiah Farren Willis: Served about 1900.

While numerous published accounts state that Emily Julia Mason, a daughter of Manaen Mason, was a keeper at the Cape Lookout Lighthouse from 1876 to 1878, this is incorrect. In the 1970s/1980s the NPS contracted for a history of Life-Saving Stations along Core and Shackleford Banks and the Cape Lookout Lighthouse. This typewritten, unpublished manuscript entitled "Soldiers of Surf and Storm" is the source of Emily being identified as a keeper. Unfortunately, the manuscript contains a typographical error in the list of keepers...it lists an "M.J. Mason" as being keeper from 1876 to 1878. The NPS staff at the time tried to match this name to a local resident and came up with the possibility of it being Emily Julia Mason. No one questioned the validity of the listing at the time or the assumption that the initials "M.J." may have stood for "Emily Julia." The name that should have been on the manuscript's list is "M.J. Davis", for Melvin Jennings Davis, Jr.

In addition to the keepers and assistants identified above, there are several others that may or may not have served at Cape Lookout:

Homer Tredwell Austin II: In a 2007 interview, John Daniel Coble mentioned a Homer Austin whom he knew as a keeper while at Cape Lookout. Homer, whose father was a lighthouse keeper from 1907 until his retirement, was born on 15 Oct 1925 in Dare County, North Carolina. He died there on 9 Feb 1998. Homer served in the U.S. Coast Guard for 29 years, joining during WWII, and retired as a Lt. Commander. He may have been assigned during the 1940s at Cape Lookout.

James E. English: From a 1979 interview with his daughter Evelyn, the Park Service determined that James E. English served as First Assistant at Cape Lookout lighthouse from Jun 1918 through Aug 1920.

The daughter's report was that the family lived downstairs in the 1873 quarters when she was about 10 years old. In this oral history, she reported that Isaac Van Willis, Jr. was Second Assistant living downstairs and that the keeper was "Capt. Meekins". There are a number of problems with this report.

1. There is no written record of James E. English serving at Cape Lookout. From records, we can substantiate the following:
 - a. He was appointed to the Lighthouse Service in Carteret County and that he tended the beacon lights of Core Sound, stationed at Sea Level, Carteret, North Carolina.
 - b. In 1917, he was the assistant keeper of the Harbor Island Light Station in Core Sound, North Carolina.
 - b. In 1919, he is not listed as employee of the Lighthouse Service. (He may have served in the Coast Guard or been in service in WWI.)
 - c. In 1921, he was keeper of the Thomas Point Shoal Light, Virginia.
2. Ref. 6 indicates that Isaac Van Willis, Jr. did serve as 2nd Assistant at Cape Lookout 1912-1914 and 1918-1920, he was 1st Assistant 1915-1918 and 1920-1923.
3. The "Capt. Meekins" from the oral history probably refers to Ephraim Meekins, who had a long tenure with the Lighthouse Service and was keeper of the Cape Hatteras Light 1900-1906.

William Luther Geaslen: In a 2007 interview, John Daniel Coble mentioned a Bill Geaslen whom he knew as a keeper while at Cape Lookout. This individual appears to be William L. Geaslen. Bill was born on 30 Jun 1909 in Massachusetts and died in Charlotte, Mecklenburg, North Carolina on 5 May 1997. His death certificate identifies his occupation as "bridge, lock, and lighthouse tenders" and there are anecdotal references to him serving at Cape Lookout and at Cape Henry in Virginia.

Cindy Cathey Beasley reported in May 2012 that she is related to Edna Dellinger Geaslen, Bill's wife, and has a photograph dated August 1937 taken when her grandparents visited Bill and Edna while Bill was stationed at Cape Lookout. When this is verified, Bill can be added to the keepers list.

Joseph Lemuel Willis: A reference to a Joseph Willis appears in a pay record for Cape Lookout Light Station. This appears to be Joseph Lemuel Willis, who was born at Hunting Quarters [Davis], Carteret, North Carolina on 12 Apr 1879 and died at Sea Level, Carteret, North Carolina on 29 Dec 1973. He was a self-employed commercial fisherman and may have worked at Cape Lookout as 2nd Assistant in 1912.

3

CAPE LOOKOUT BANKS and ENVIRONS

THE OUTER BANKS

Cape Lookout is formed by the tip of a group of sand "barrier islands" that parallel North Carolina's coast near the cities of Beaufort and Morehead City, named North Core Banks, South Core Banks, and Shackleford Banks. The entire coast of North Carolina is protected by barrier islands that range from 1-2 miles offshore in the north and south to 30 miles offshore at Cape Hatteras.

Barrier islands in general are highly dynamic, but North Carolina's barrier islands are exceptionally so, especially the islands that make up Core Banks. Much of eastern North America, from New Jersey southward all the way around Florida and then westward and south again to Mexico, has barrier island ecology characterized by low sandy islands that are easily affected by wind, tides and currents that protect the mainland from those forces. What makes North Carolina's islands unique is their distance from the mainland and their close proximity to the Continental Shelf and the Gulf Stream current.

As geologic features, the islands are relatively young. At the close of the last ice age about 18,000 years ago, sea levels were about 300 feet lower than today and the climate was considerably cooler. Gradual climatological warming brought higher sea levels, which are continuing to rise at a rate of about 0.5' to 1.5' per century (though new research into global warming indicates that sea levels will increase by at least 30" by the end of this century). Barrier Islands probably first appeared as sea levels rose and areas behind beach ridges and dunes were flooded.

Sediments being washed down through the major river systems like the Roanoke, Tar, Neuse and Cape Fear rivers continue to feed sand for the formation of islands. Formed initially as sand reefs that were gradually rolled landward to become "banks", hills of sand formed above the water line. The flow of water from the river discharges must enter the sea and that's what keeps inlets open. (Actually, "inlets" should be called "outlets" since their real function is to provide outlet for the water that enters from rivers discharging into the sounds behind the barrier islands.)

Sand also erodes and accretes primarily from north to south along the coast as well. Though fragile, the barrier islands seem to have a mechanism in place to insure

their continued existence in some form, even as they "migrate" toward the West.

In northeast North Carolina, the land is sinking, independent of sea-level rise, while in southeastern North Carolina, the land is rising. This compound effect seems to be responsible for the northern islands increased distance from the mainland compared to the southern areas and is seen illustrated in the character of the river mouths that form the wide Albemarle and Pamlico Sounds (outlets for the Roanoke, Tar and Neuse Rivers in the northern part) compared to the Cape Fear River mouth which flows between substantial cliffs almost until it reaches the ocean, in the south.

Rising sea levels and predominant winds from the northeast cause a landward migration of the islands. During storms, overwash of the islands by the sea pushes sand to the mainland side in large quantities. Strong winter winds blowing predominantly from the northeast also pushes sand towards the land. Though these forces have effects over hundreds and thousands of years, any large storm can bring incredible changes to the islands in a matter of a few hours. Houses get washed away with every hurricane and new inlets can form or old ones close. Erosion is constantly at work and poses threats to any hard structures that are placed on the beach.

These same wind and weather patterns also move sand generally from north to south. At natural inlets, sand tends to erode from the north and accumulate on the south side. Where man puts hardened structures like jetties or groins in place, the opposite is true... sand blocked on its normal southerly migration piles up on the north side of a jetty but is eaten away on the south side by the eddy that is created.

Global climate change is already impacting North Carolina's barrier islands and if sea levels increase by the three feet or so by the year 2100, as predicted, the northern barrier islands will break-up and for the most part disappear, while the southern outer banks, including Core and Shackleford Banks, will become narrower.

CAPE LOOKOUT NATIONAL SEASHORE

The Cape Lookout National Seashore (abbreviated "CALO" by the National Park Service) encompasses 28,243 acres of the undeveloped barrier islands of Shackleford and Core Banks in Carteret County, North Carolina and is a unit of the National Park Service. The park is approximately 56 miles long, extending from Beaufort Inlet in the South to Ocracoke Inlet in the North.



The State of North Carolina began efforts to establish a state park on Core Banks in the 1950s and early 1960s by condemning and purchasing land from private landowners who could show clear title to property. But, by the mid-1960s it was apparent that the undertaking was beyond the capacity of the state alone, and efforts were begun to establish a national seashore, similar to the one that had been established at Cape Hatteras in 1953.

An Act of Congress, Public Law 89-366, signed by President Lyndon Johnson, authorized the Cape Lookout National Seashore on March 10, 1966. The stated purpose of the park was to conserve and preserve for public use and enjoyment the outstanding natural, cultural, and recreational values of a dynamic coastal barrier island environment for future generations.

Cape Lookout Light Station was added to the National Historical Register in 1972.

In 1973, all of the property that had been acquired by the State of North Carolina was transferred to the federal government. Just prior to the transfer of land, the state worked with contractors, volunteers, the National Park Service, and the military to gather and remove almost 3,000 abandoned vehicles and to tear down or burn nearly 400 fishing shacks to return the islands to a more "natural" state.



Funds were appropriated by Congress and the Cape Lookout National Seashore was established in 1976 with its headquarters in Beaufort.

The park service eventually acquired much of the east end of Harkers Island to serve as a gateway to the park at Core Banks. Then, in 1986, Shackleford Banks became a part of the park. Today, the park officially consists of a section of Harkers Island and the barrier islands of North and South Core Banks and Shackleford Banks, altogether consisting of 56 miles of ocean front beach and approximately 100 miles of sound-side marsh and estuarine habitat.

In 1993, park headquarters moved from the Beaufort waterfront to the present site at the eastern end of Harkers Island (often called "Shell Point" because of a "midden" of oyster and other shells discarded there by the Indians over the years). A two-story administrative headquarters and visitor center was established in a renovated hotel building.

Cape Lookout National Seashore is nationally recognized as an outstanding example of a dynamic, natural coastal barrier island system. In 1996, Cape Lookout was designated as a unit of the Carolinian-South Atlantic Biosphere Reserve, United Nations Educational, Scientific and Cultural Organizations (UNESCO) Man and the Biosphere Reserve Program. Cape Lookout provides critical habitat for endangered and threatened species and other unique wildlife including the legislatively protected wild horses of Shackleford Banks.

In 2001, Cape Lookout was designated one of the cleanest beaches in the nation by the Clean Beaches Council's Blue Wave Campaign for public safety and environmental quality. Simultaneously, the American Bird Conservancy in association with The Nature Conservancy recognized Cape Lookout for its significance in the ongoing effort to conserve wild birds and their habitats and designated the park as a Globally Important Bird Area.

Even after formation of the Cape Lookout National Seashore, ownership of the lighthouse remained in the hands of the Coast Guard. However, in 2003, ownership was transferred to the National Park Service, though the Coast Guard still remains responsible for operation and maintenance of the light itself.

Access to Core and Shackleford Banks is by private boat or fee ferry, only. In 2013, a new, up-scaled contracted ferry system administered by the Park Service was implemented. This change included new ferry terminals at both Harkers Island and Beaufort, the use of larger (and more comfortable) water craft, and increased passenger fees.

Since vehicular traffic is allowed on North and South Core Banks, there are two private vehicle ferry services in operation, one in Davis serving South Core Banks and one in Atlantic that serves North Core Banks.

Except for a British naval raid on Beaufort in 1782, the Revolutionary War had little impact on the Cape Lookout area. However, North Carolinians recognized early during the American Revolution that the Bight at Cape Lookout was an excellent harbor.

Without fortifications, it was considered a vulnerable a target for invasion as a safe port by the British. When the French privateer Captain Denis de Cottineau steered his frigate *Ferdinand* into the harbor in February 1778 he, too, noticed the site's potential. In fact, as he fled the British warship *Emerald*, de Cottineau believed that the whaler's cabins along the shore of Shackleford Banks were the makings of a rude fort. The commander of the *Emerald* was apparently deceived as well since he chose not to pursue his quarry. Since the *Ferdinand* required extensive repairs, de Cottineau decided to construct a small fort to protect his vessel and its cargo.

De Cottineau was in America with a cargo of supplies to aid the fight for American independence. Also on board the *Ferdinand* was Luis-Antione Jean-Baptiste, le Chevalier de Cambray, who was a captain of artillery with engineering skills. De Cambray surveyed the area and believed Cape Lookout offered an advantageous military position both to the state of North Carolina and to the Continental forces. Thus, in their general endeavor to aid the cause of American independence, the two men determined that a permanent fort should be constructed and undertook the project immediately and largely at their own expense. His crew and "six countrymen" provided the labor.

The fort was completed and garrisoned by mid-May 1778. Since the state was having difficulty in arming the fort, de Cottineau donated six cannons and two swivel guns, with ammunition, to the fort. He also contributed 10 experienced gunners. Additional guns were transferred from Ocracoke to complete arming the fort.

The installation was named Fort Hancock, possibly in honor of Enoch Hancock, the man on whose land it was built. The fort never saw military action, though it was often "spotted" by British vessels, and it was dismantled in 1780.

As reported by David Stick, significant research and exploration in the 1950s failed to determine the location of the fort. But, anecdotal information from prior residents of Diamond City places the fort northwest of the 1859 lighthouse, within the area where Barden Inlet exists today.

By 1870s, there was a veritable city in the "Lookout Woods" on the east end of Shackleford Banks and a number of the people were employed in a "porpoise" (dolphin) oil processing plant that had been started there by a New Jersey man named Gardiner. The settlement had no name, being referred to simply as "the eastern end" to differentiate it from a smaller community closer to Beaufort Inlet known as Shackleford Banks, or Mullet Shore, or Wade's Shore.

Some of the residents of "Lookout Woods" were of the opinion that a more definitive community name should be adopted. There was, however, disagreement as to what the name should be, and the matter was not resolved until it was brought to the attention of Joe Etheridge, who was superintendent of the lifesaving stations in the area. In 1885, noting that the distinguishing feature of the community was the Cape Lookout Lighthouse, which towered above it to the east, he suggested that a logical name would be "Diamond City" after the daymark pattern on the lighthouse. The suggestion is said to have met with immediate approval and the name Diamond City was quickly adopted.

Almost in the center of the Diamond City was a sand dune estimated to be twelve hundred feet long, four hundred feet wide, and at least forty feet high. For many years the dune offered Diamond City protection from Atlantic storms and provided an elevated location for sighting passing whales.

By 1895, the population of Diamond City approached 500. The residents built a schoolhouse, though it was only used in the summer (usually July and August). Residents also used the schoolhouse as a general meeting center and for religious services.

Hurricanes in the later part of the 1890s eventually tolled the end for Diamond

City and the other smaller communities on Shackleford Banks. In 1896, two storms came over the beach and flooded some homes. People began to talk about leaving and several of them moved to Morehead City, buying lots in an area on the west side of town along Bogue Sound called "the Promise Land." Then, the storm surge of the hurricane of August 17-18, 1899, devastated Diamond City. Homes were washed away, fertile land was over-washed by salty sand, cattle and other livestock were killed, and graves were uncovered or washed away. This storm marked the end of Diamond City, which was totally abandoned by 1903.

Some of the folks living on the west end of Shackleford Banks went down to Bogue Banks, to a place called "Gillikin" (now "Salter Path"). A few moved to lots they bought in the Promise Land in Morehead City and a few others went to Marshallberg. But, two out of three of the families of Diamond City moved to Harkers Island and, by 1902, the population there was four times what it had been only a few years before.

Some of the Diamond City houses were torn down, board by board, and rebuilt at their new location. Others were cut in half, or even moved whole, using a pair of boats joined together by big planks to a form twin-hulled barge.

After the demise of Diamond City and the other small Shackleford Banks communities, a few local whalers still camped on the island each spring. However, few whales were captured during this period and the market collapsed in 1907 when a change in women's fashions virtually eliminated the need for baleen corset stays. The last whale taken off Shackleford Banks was killed on March 16, 1916.

Cape "Village", sometimes referred to as Coast Guard Village, which was never an established community such as Diamond City, grew around the Life-Saving and Coast Guard Stations near Cape Point, about two miles south of the Cape Lookout Light Station.

By the 1890s, some fishermen began constructing more permanent "fish houses," as they are referred to locally, or "shanties," as they were designated on the Life-Saving Service's 1890 map of the cape. Almost certainly, all of these were occupied seasonally and not year-round. These part-time houses were not substantial structures and the cape fishermen often sought shelter in the life-saving station when their camps and fish houses were threatened by high winds and tides. On more than one occasion, as many as fifty fishermen somehow crammed their way into the life-saving station to ride out a storm. The fact that there are only two references in the journals to women or children taking shelter in the station in the 1890s, suggests that the men did not usually expose their families to the harsh living conditions associated with fishing the waters around Cape Lookout.

After the hurricane of 1899, a few residents from Diamond City relocated to Core Banks in the vicinity of the Cape Hills, but even before 1899 these sheltering hills were fast disappearing. Nevertheless, there were, according to writer Fred A. Olds who visited the cape in the early 1900s, as many as 80 residents at Cape Lookout, enough to warrant establishment of one-room school house. A post office was also established in April 1910, with Amy Clifton, wife of the lighthouse keeper, as postmaster. Post office records locate the post office "two miles north of the cape, near the light house landing", most likely in the 1907 Keeper's Dwelling. However, the widespread use of gasoline-powered boats after about 1905 made travel to Harkers Island, Beaufort, and elsewhere far more convenient, and it was soon apparent that the post office was not worth maintaining. It was discontinued in June 1911, barely fourteen months after its inception.

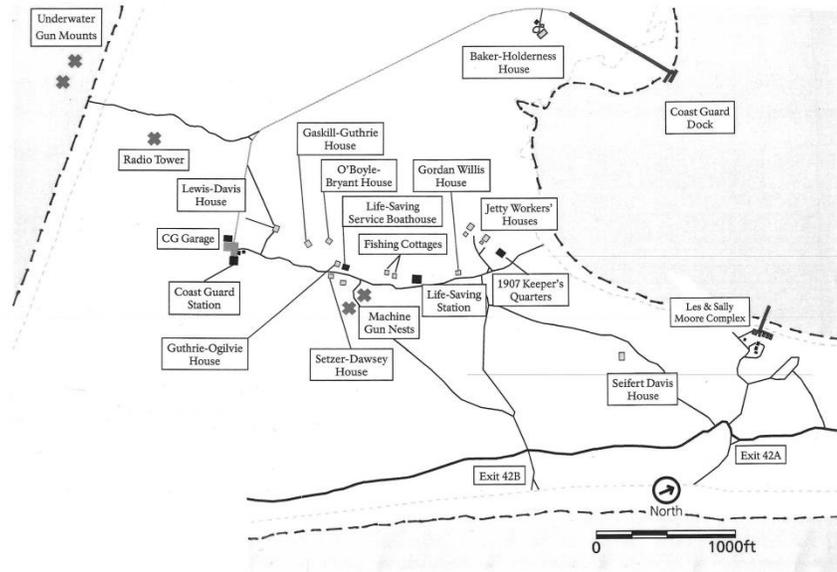
Cape Lookout was, according to one visitor, "a bustling place" in 1905. But, so many power boats were in use by 1911 that the station keeper began recording their appearance in the waters around the cape, with as many as thirty-five of them recorded in a single day. Even before the life-saving service got its first power boat in 1912, many

if not most of the crew had their own boats and were using them to commute from their homes to the station. The convenience of motor boats no doubt contributed to “a general exodus” of year-round residents from the Cape in 1919 and 1920. The one-room school closed at the end of the 1919 school year, and some thirty or forty houses are reported to have been moved from the Cape to Harkers Island around the same time.

The same writer who had visited Cape Lookout in 1905, returned for a second visit in 1921, However, he now found Cape Lookout to be “one of the ‘lonest’ places in the country.” Only two or three families were living there by that time, he wrote, and “most of the houses are mere shacks, innocent of paint.” He also found the landscape littered with “thousands of rusted tin cans” and “grass or any green thing . . . conspicuous by its rarity.” The lighthouse and the Coast Guard station were, he thought, “the only two real places in it all.”

Most of the houses left at the Cape were used as fishing shacks and after World War I Cape Lookout became “an isolated haven for seasonal fishermen and hardy vacationers, most of them connected to the place by deep family roots.” In addition, a few of the Coast Guardsmen with family ties to Cape Lookout maintained private residences that their own families occupied for at least part of the year. Some housing was constructed near the life-saving station to house jetty workers in 1915, but this, too, was abandoned when the jetty project terminated.

While numerous crude “fishing shacks” were removed or burned when the State and the National Park Service took over Core Banks, today there are 17 important structures, built between 1887 and 1960, that remain in the area designated as the Cape Village Historical Site, as follows:



Structure	Origin
1. Lewis-Davis House (Carrie Arendell Davis House)	Built about 1920 by James C. Lewis, a longtime employee of the Coast Guard at Cape Lookout, by relocating and combining two earlier fishing shacks. Lewis retired in 1931 and sold the house to Carrie Arendell Davis, who operated a store and dance hall just west of the Coast Guard dock in the 1930s and 1940s. Davis died in 1955 and the house was

Structure	Origin
	<p>owned by her daughter until transferred to the NPS in 1977.</p>
<p>2. Gaskill-Guthrie House</p> 	<p>Built between 1910 and 1919 by Clem Gaskill. Owned by Odell Guthrie from 1922 to 1951. Owned by Grayer and Barbara Willis until 1974, then transferred to their son Keith Willis. Transferred to the NPS in 1976.</p>
<p>3. Guthrie-Ogilvie House (Luther Guthrie House)</p> 	<p>Built in 1924 by Luther Guthrie, who was stationed at Cape Lookout in the early 1920s. He sold the house for \$225 in 1928 to Robert and Henry Ogilvie, who enlarged it and used the house for fishing vacations. Sold in 1954 to Paul Harvel, a nephew of one of the Ogilvie wives. Sold in 1958 to Headon Willis and Clifton Yeomans, who transferred it to the NPS in 1977.</p>
<p>4. Setzer-Dawsey House</p> 	<p>Built in the 1940s by a Coast Guardsman for his family during WWII. Leased for many years by Dr. Dawsey from Shelby, NC.</p>
<p>5. Life-Saving Station Boathouse (David Yeoman's House)</p> 	<p>Built in 1924, the last of 5 boathouses that were built, 3 of which were demolished or removed.</p> <p>Sold by the Coast Guard to David and Clara Yeoman in 1957 and relocated as a private residence 1958. In 1976, Mr. Yeoman sold the house to the NPS. The front porch added by Mr. Yeoman was removed in 2008.</p>
<p>6. O'Boyle-Bryant House (Bryant</p>	<p>Built in 1939 by Earl O'Boyle, who was stationed at</p>

Structure	Origin
<p>House)</p> 	<p>Cape Lookout from 1938 to 1942 as a Navy radioman. During WWII, the house was used to house Navy personnel stationed at Cape Lookout. Purchased in the late 1940s by Ralph Bryant, a forestry professor at NCSU. In 1961, sold to Hilma and Cecil Phelps, who used it as a vacation home. Transferred to the NPS in 1976.</p>
<p>7. Fishing Cottage No. 1</p> 	<p>Typical of many of the hundreds of "fishing shanties" removed by the State of North Carolina and NPS when the Seashore was formed.</p>
<p>8. Fishing Cottage No. 2</p> 	<p>Built about 1950 by an employee at the Cape Lookout Coast Guard Station for his family. Transferred to the NPS in 1976. This house was renovated in 2007 and used today as housing for park volunteers.</p>
<p>9. Life-Saving Station</p> 	<p>Built in 1887 and manned in 1888. Moved in 1917 to make room for the new Coast Guard Station and used to house Navy radio beacon operators through WWII (when the upstairs dormers were added).</p> <p>Sold as "surplus" by the Coast Guard to Kelly Willis and relocated as a private residence in 1957. Sammie Daniels bought the house in 1969 and transferred it to the NPS in 1976.</p>
<p>10. Gordon Willis House</p>	<p>Built about 1950.</p>

Structure	Origin
	
<p data-bbox="237 485 651 516">12. Jetty Worker's House No. 1</p> 	<p data-bbox="711 485 1386 579">Built in 1915 by the Army Corps of Engineers to house workers building the planned coaling station jetty.</p>
<p data-bbox="237 768 651 800">11. Jetty Worker's House No. 2</p> 	<p data-bbox="711 768 1386 894">Built in 1915 by the Army Corps of Engineers to house workers building the planned coaling station jetty. Later owned by the Holderness family who also owned Casablanca.</p> <p data-bbox="711 936 1386 1157">Haywood Foxhall won the house from Mr. Holderness during a Poker game in the 1920s and later gave the house to Henry Bourne of Tarboro. Upon Mr. Bourne's death, the house passed to his sister June Bourne Long, whose family owned the house until it was transferred to the NPS about 1976.</p>
<p data-bbox="237 1173 688 1236">13. Barden House (1907 Principal Keeper Quarters)</p> 	<p data-bbox="711 1173 1386 1268">Built in 1907 at the Light Station, adjacent to the 1873 Keepers Quarters, to house the Principal Keeper and his family.</p> <p data-bbox="711 1310 1386 1404">Declared "surplus" by the Coast Guard and sold to Dr. Graham Barden (for about \$600) in 1957. Relocated in 1958.</p>
<p data-bbox="237 1562 623 1625">14. Baker-Holderness House ("Casablanca")</p> 	<p data-bbox="711 1562 1386 1730">Built in 1929 by Robert W. Baker, founder of the Blue Bell Company in Greensboro. In the 1950s, the house was bought by a group known as the Tarboro Men's Club that included the Holderness, Moore, Moye, and Barnhill families.</p> <p data-bbox="711 1772 1370 1793">Named by Dail Holderness after his favorite movie.</p>
<p data-bbox="237 1866 634 1894">15. Seifert-Davis House ("The</p>	<p data-bbox="711 1866 1386 1894">Built by Charles A. Seifert of New Bern, owner of</p>

Structure	Origin
<p>Coca-Cola House”)</p> 	<p>the Coca-Cola franchise for the area, in 1928. The house was used for summer and fishing vacations as was typically painted red by the owners.</p> <p>Harry T. Davis, long time director of the N.C. Museum of Natural Sciences, purchased the house in 1953 and used it for scientific field work. Upon Mr. Davis' death, the house was deeded to his nephews and then transferred to the NPS in 1976.</p>
<p>16. Les and Sally's Place</p> 	<p>House and store built by Les and Sally Moore in 1951. One rental cabin was added in the late 1950s and, in the early 1970s, three additional rental cabins were constructed (one of which burned in 2014). This structure has been renovated to serve as the new Environmental Education Center for the Park Service.</p>
<p>17. Coast Guard Station, consisting of the Main Building (1917), the Summer Kitchen (1917), and the Garage/ Equipment Building (1940)</p> 	<p>Built in 1917, occupied January 1918, as one of three Coast Guard Stations on Core Banks that replaced earlier Lifesaving Stations.</p> <p>Deactivated in 1982 when Cape Lookout Station merged with Fort Macon Station. Transferred to the NPS in 1984.</p>

The Army Corps of Engineers announced in 1912 that a coaling station and “harbor of refuge” would be established at Cape Lookout Bight. Sand fences were installed in 1913 and 1914 to stabilize some of the dunes, and in 1915, work began on a rubble-stone breakwater to enlarge and protect the Bight. (This worked very well and has extended the length of the sand “spit” by over a mile.) The project’s most ardent supporter was U.S. Representative John H. Small (Democrat, Washington, N.C.), who envisioned a railroad from the mainland that would help make Cape Lookout a significant port. Small was Chairman of the House Committee on Rivers and Harbors at the time and, after leaving Congress, became President of the National Rivers and Harbors Congress, founded in 1901 to promote use and development of America’s waterways.

Intending to capitalize on those plans, private developers organized the Cape Lookout Development Company in 1913 and laid out hundreds of residential building lots and planned a hotel and club house to serve what they were sure would be a successful resort community.

However, there was less demand for a harbor of refuge than supporters had

anticipated, and funding for the breakwater was suspended before it was completed. Then, when plans for a railroad from Morehead City also failed to materialize, the development scheme was abandoned as well. In the aftermath of WWI, naval ships quickly made the transition from coal to oil for fuel and the need for a coaling station disappeared.

This was not the only development planned for South Core Banks. As reported by newspapers in 1939, ex-U.S. Senator Furnifold M. Simmons (1854-1940) from New Bern planned a significant residential development for the area between the light station and the Coast Guard Station on the shores of the Cape Lookout Bight, near where he maintained a small fishing shack. This plan included a road to be constructed from Harkers Island to Core Banks, a stone breakwater, and dozens of lots. Fortunately, these plans were never implemented, since Simmons died in 1940, and WWII eliminated further interest in development on the islands for some time.

Finally, there were plans to develop the "Cape Lookout Beach Club" in the late 1950s or early 1960s by a group from Sanford, N.C. This club, to be limited to 500 members, was planned for South Core Banks along Bardens Inlet, just northeast of the lighthouse (near the current Visitors Center site). Plans called for a marina with a clubhouse and cabanas constructed with a "rustic Caribbean design". Fortunately, the state's move to purchase Core Banks in the 1960s brought this plan to an end.

From the days of the earliest settlement until 1958, many downeast Carteret citizens kept their livestock...cattle, hogs, sheep, and horses...on South Core and Shackleford Banks, using the islands as free range pastures. The livestock population was so great that the government had put up a fence around the Cape Lookout Light Station to keep out roaming domestic animals. Each year, there would be round-ups (called a "pennings"), when the animals were captured in temporarily fenced enclosures, branded by their owners, and some taken back to the mainland for sale or slaughter.

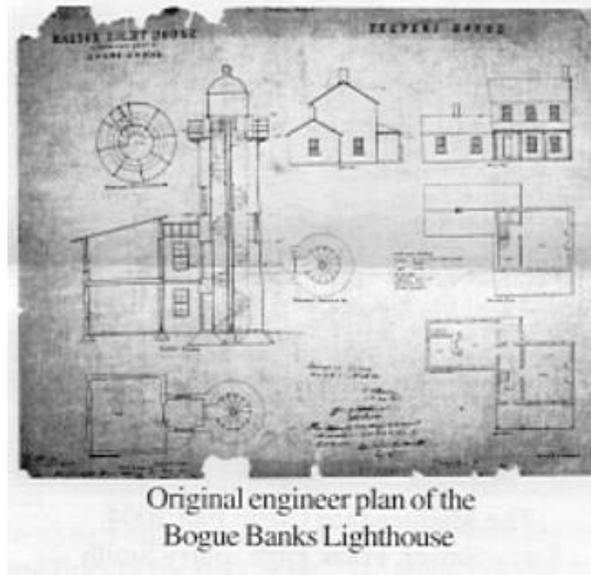
The North Carolina State Legislature changed that in 1957 with a new law that required that all livestock on the islands be removed by 1 Jul 1958. An exception was made for horses...the ones on South Core and Shackleford Banks were allowed to remain on Shackleford Banks. This law came about due to concern that grazing livestock were destroying enough vegetation on the banks to contribute to their erosion during storms, especially north of Drum Inlet. Hurricane Hazel had given the coast a "wake-up" call about shifting and eroding barrier islands and the state was responding.

Thus, the origins of the "Banker Ponies" on Shackleford are clear...they are the descendents of horses owned by locals that used to freely range over both banks.

THE OTHER CAPE LOOKOUT LIGHTHOUSES

In addition to the Cape Lookout Lighthouse, there were other lights that operated along Bogue and Core Banks as listed in Chapter 1...a pair at Fort Macon on Bogue Banks operating as a range light and one at the north end of Core Sound on Harbor Island Bar.

In 1852, Congress appropriated \$5,000 for a light-house to assist vessels entering Beaufort Inlet. The construction of these lights was completed under the superintendence of Captain Daniel P. Woodbury of the Army Corps of Engineers.



To build the Bogue Banks Lighthouse, Woodbury selected a site away from the shifting beach on a large spit of stable, dry land adjacent to the marsh about 200 yards northwest of Fort Macon. Construction began in the summer of 1854 and the lights were put into operation on May 20, 1855.

Plans called for a brick lighthouse tower with a two-story building attached to be used for storage of supplies. The plans originally depicted the tower as being circular. When constructed, however, the tower was built as an octagon. Also included in the lighthouse plans was a small, two-story keepers house, although it is unclear if this was ever built.

The Bogue Banks Lighthouse was fitted with a fixed 4th Order Fresnel lens that stood fifty feet above sea level and the light was visible 12-13 nautical miles out to sea. In conjunction with the lighthouse, a "range light" (sometimes referred to as the Fort Macon Beacon), a fixed white light projected by a 6th Order Fresnel lens on a 30 ft. tall wooden tower, was installed just south of Fort Macon. Together, these two lights provided vessels entering Beaufort Inlet guidance to avoid the Beaufort Bar...aligning the two lights indicated the proper course for the main channel.

In the summer of 1861, both lights were removed under orders of the Confederate Lighthouse Board at the same time the light at Cape Lookout was removed and in 1862 shipped to Raleigh for safekeeping.

In preparation for the defense of Fort Macon in early 1862, one of the key considerations was that the fort's cannons must have a clear field of fire in all directions. Tall structures outside the fort that in any way masked the guns, such as the Bogue Banks Lighthouse and beacon, had to go. On the evening of March 27, 1862 the fort garrison toppled the lighthouse onto the ground, where it broke apart into sections (that have since disappeared). On the following morning the range light was also pulled down.

The only keeper for the Bogue Banks Lighthouse that has been identified is Thomas Delamar, who was born in Georgia about 1794. In 1850, he was a ship's carpenter living in Beaufort with his first wife, Hannah Longis. Hannah died between 1850 and 1855 and Thomas married Abigail Pierce in Beaufort on May 24, 1855. Evidence shows that Thomas was serving as keeper in 1859 (as listed in the "Official Register of the United States), earning \$400 per year, and in 1860 (as recorded in the 1860 census for Beaufort).

The water route between Pamlico and Core Sounds consists of a narrow channel

across the Harbor Island Bar, just east of Cedar Island. Beginning in about 1837, a lightship was posted at the east end of the bar to provide guidance to vessels traveling through the channel. This lightship was captured and burned by Confederate forces in 1861.

In 1867, a typical screw pile lighthouse was constructed on the north end of the bar. This light was discontinued in 1880, but reactivated in 1888. Sometime after 1922, the lighthouse was abandoned, replaced by lighted buoys. Arthur M. Midgett, who started his lighthouse career as an assistant at Cape Lookout (see Chapter 2), was keeper at the Harbor Island Bar Lighthouse for a number of years from at least 1918 through 1922.

4

CAPE LOOKOUT LIFE-SAVING and COAST GUARD STATIONS

South-southeast of the Lighthouse lies the 1887 Life-Saving Station and the decommissioned 1917 Coast Guard Station #190.

LIFE-SAVING STATION, 1887-1916

The legislation that established the U. S. Life-Saving Service as a separate agency in June 1878 included authorization for a number of new life-saving stations, including one at Cape Lookout. But, eight years passed before land for the Cape Lookout station was actually acquired.

On May 19, 1886, C.T. and Nettie Watson, David and Julia Bell, and Thomas and Mary Daniels conveyed to the United States government title to a tract at Cape Lookout for a lifesaving station. Located not far from the point of Cape Lookout and two and a quarter miles southwest of the lighthouse, the land was apparently found to be unsuitable for the station. In July 1887, another transaction with the Watsons, et. al., conveyed a larger parcel further north to the federal government. Located 1-3/8 miles southwest of the Cape Lookout Lighthouse, the property was 300' wide and ran from the high water mark on the Atlantic to the high water mark on Cape Lookout Bight.

This site lay at the southern end of the so-called "Cape Hills," which were a series of sparsely vegetated higher dunes offering a commanding view of the shoals to the southeast. With the tropical storms and "Nor'easters" that regularly swept the cape, the sparsely vegetated landscape was constantly shifting. As early as 1896, the Keeper was commenting that "the hills" north of the light house "have been washed away by the recent storms". Over the next century, Cape Lookout itself would continue to shift to the west, enlarging itself at the same time, so that the station's original location is now more than twice as far from the Atlantic and considerably further from the Bight than it was in the 1890s.

Actual construction of the station at Cape Lookout apparently began in late spring or early summer 1887 and was complete by August of that year. On its original site, which is now occupied by the 1917 Coast Guard Station, the station was oriented toward the east and the Atlantic Ocean. Large double doors opened from the boat room at that end of the building, and there was a wooden ramp, twelve feet long, to facilitate moving the boat in and out of the building.

The main building was two stories with a wood-shingled, cross-gabled roof and exterior

walls finished with shiplap siding at the first floor level and board-and-batten siding at the second. Nearly three quarters of the first floor of the building were taken up by the Boat Room, where the surfboat was stored when not in use. Maintenance of the boat, including periodic repainting, was a regular part of the station's routine.

Separate kitchen buildings were initially not included in construction of the life-saving stations, but the Life-Saving Service soon found that they were a necessity in the hot and humid south. So, in September 1892, the crew began construction of a "cook house" for the station. Finished in November 1892 and measuring about 16' by 18', the building was located about twenty feet from the life-saving station.

There are a number of references to "the village" in the journals of the Cape Lookout Life-Saving Station in the 1890s, but these references should not be confused with the National Register district of Cape Lookout Village. While the life-saving station journals do not name "the village," on more than one occasion, they do note the three-mile distance from the life-saving station, which confirms that "the village" at that time was Diamond City on Shackleford Banks.

Prior to World War I, the life-saving service crew was made up almost exclusively of men whose families had lived in Carteret County for generations. The surf men lived at the station while on duty, but during the inactive season returned to their permanent homes in Morehead City, Harkers Island, Marshallberg, etc.

Before 1916, the station keeper was the only one of the crew who lived year-round at the Cape. He had separate quarters in the life-saving station, but since his family could not be accommodated, he appears to have had a house near the station by 1893. It appears not to have been a full-time residence, however, and in the early twentieth century as motor boats began to make Cape Lookout more accessible, few if any chose to live there year-round.

Changes in the organization of the Life-Saving Service, the migration of people to and from the stations, and the simple passage of time have made it difficult to construct a complete list of these who were designated as Keepers at Cape Lookout Life-Saving Station. The following is the most accurate list we have available at this time:

William H. Gaskill: Appointed 15 December 1887. Resigned 19 April 1912.

William T. Willis: Appointed 19 April 1912. Left 1 July 1914.

Freddie G. Gillikin: Appointed 1 July 1914. Transferred to the Core Banks Life-Saving Station on May 1, 1916.

Walter M. Yeomans: Acting Keeper during 1916.

Leslie Moore: Acting Keeper during 1917. Appointed 11 September 1918. Left 9 July 1929 and assigned to the 4th District as Chief Warrant Officer.

H. G. Gillikin: Appointed 12 September 1929. Transferred to Fort Macon Station on 5 December 1938. Retired 1 December 1939.

The Keeper's position was left vacant in 1939 and the station became part of Beaufort Station in 1940 following the reorganization during which the Life-Saving Service was absorbed by the Coast Guard.

Telephone service between Beaufort and the life-saving station was initiated in March 1898, but there were constant problems with the line, which ran across Shackleford Banks. In August 1917, a new telephone line was run on overhead poles from Beaufort across Shackleford Banks to Cape Lookout and then on to the Core Banks and Portsmouth stations. Phone service was also provided to the Lighthouse Keepers Quarters, since the pole line

passed right by it.

From April 1876 until sometime in 1904, a U.S. Weather Bureau station was located at Cape Lookout, evidently near the life-saving station.

By 1909, the life-saving station was nearly twenty years old and, in spite of regular repairs and maintenance, was beginning to show its age. But, no real improvements had been made by 1915.

Part of the delay may have been due to the impending merger of the Revenue Cutter Service and the Life-Saving Service to create the United States Coast Guard, which occurred in 1916. Once that happened, it appears that appropriations began to be made for much-needed repairs and maintenance. In the spring of 1916, major repairs to the station continued. In addition to repainting the interior, the crew laid new flooring in the kitchen and in the surfmen's "lofting room," and they replaced cords to the counterweights in the building's double-hung windows.

COAST GUARD STATION, 1916-1982

In creating the Coast Guard on 28 January 1916 by merging the Life-Saving Service and Revenue Cutter Service, Congress also made appropriations for new construction to replace some of the run-down buildings inherited from the old Life-Saving Service. By May 1916, plans had been finalized for the new Coast Guard Station at Cape Lookout, and on May 9, the keeper recorded that he had received six sets of "plans, specs, and forms of proposal for new Coast Guard Station at this place."

In early August 1916, the district superintendent approved the final plan for the site, and on August 25, contractor W. B. Shull arrived to begin work. Although there had been some consideration to building the station in a new location, the low rise on which the old life-saving station sat could not be matched elsewhere, and somewhat to the surprise of the station keeper, the decision was made to build the new Coast Guard station on the site of the old Life-Saving station. So, over the last week in August and the first two in September, the old station was jacked up and rolled to a new site barely sixty feet northwest of its old location. When it was moved, the old station was also reoriented, with the boat room doors facing northeast rather than southeast, as they had originally.

Construction began on the new building by the middle of September 1916, and as the new station was going up, the crew was engaged in building new walks and fences as the station compound was rearranged to accommodate the new construction. The new station was completed in 1917 and occupied on January 24, 1918.



The old life-saving station may have been unoccupied through the remainder of 1918 as World War I was fought to its conclusion. By early 1919, however, plans were being laid for converting the old station into a dormitory for Navy personnel who would be manning the Cape Lookout Life-Saving Station's new radio compass station that was planned for the site.

Among the reasons for the demise of the Life-Saving Service as a separate entity were the great improvements in ship-to-shore communications that occurred in the early 1900s. These improvements fundamentally altered the nature of the Life-Saving Service's mission, but they also gave the old life-saving station itself a new lease on life.

Historically, communication between ship and shore had depended entirely on visual contact, with flares and signal flags all that could be done to warn ships against impending disaster. The advent of battery-powered "occulting lights" in the early 1900s allowed the station to

communicate through Morse code, not only with ships at sea but also with the life-saving stations at Core Banks and at Fort Macon. Nevertheless, visual contact was still necessary and even the station's occulting light was virtually useless under foggy or stormy conditions.

The newly developed "radio compass" proved highly effective during World War I in locating ships at sea through the use of radio signal "triangulation". Twenty-nine radio signal stations were built along the East Coast during the war, and in 1919, Cape Lookout was one of nineteen additional signal stations built by the Navy. With the radio compass, came the need for electrical power and, undoubtedly, a gasoline-powered generator and batteries were installed with it in 1919. In January 1922, the station log records the crew's work in laying electrical cable between the radio shack and the 1917 building "for the purpose of installing electric lights in station." Quite likely, electric lights were installed in the old life-saving station at the same time.

Between WW I and WW II, the station served as a typical Coast Guard installation, with life-saving remaining a part of the station's role through 1942. The Coast Guard's life-saving stations on Core Banks (one was located half-way up the Banks near Old Drum Inlet and another at Portsmouth) remained in service after World War I, but the Portsmouth Life-Saving Station closed in 1937 and the Core Banks Station in 1940.

In the early days of WWII, Germany instigated a plan, code-named Operation "Paukenschlag" (meaning "Drumbeat"), for a massive submarine attack against the eastern seaboard of the U.S. By the beginning of 1942, German U-boats prowled the coast from Cape Fear to Montauk Island (New York) looking for easy prey. Between January and April of 1942, German U-boats sank over 80 ships off the coast of North Carolina. This time, none of the lighthouses nor any of the offshore lighted buoys had been darkened, causing German sub commanders to dub the exercise the "Atlantic Turkey Shoot."

In early 1942, even with the U-boat attacks, the Chief of Naval Operations refused to mandate shore or ship blackouts or to employ the successful British convoy tactics to help protect shipping. Thus, the area off the North Carolina coast became known as "Torpedo Junction" as the casualties mounted. (At one point in Lookout Bight, a torpedoed tanker burned for three weeks.)

But, by May 1942, the Chief of Naval Operations was replaced and the slaughter ended when blackouts and convoys were implemented. And, by the end of 1942, the U.S. Navy responded in earnest, deploying anti-submarine vessels and initiating aircraft patrols.

During this time, because of this threat to shipping from the Morehead City port, Cape Lookout was fortified. Battery Cape Lookout, which had two 155mm guns (1942) in revetments and later two 5-inch naval guns (1942-1944) on concrete mounts, was constructed near the old Coast Guard Station. A radar tower was raised in the dunes in front of the Coast Guard Station and a Battery Commander's observation tower was constructed on the shore behind the battery. A new Naval Radio Compass tower was constructed 340 yards west of the radar tower. Observation posts also were located on Shackleford Banks (near Bald Hill Bay) and on South Core Banks (about four miles northeast of the lighthouse). Lookout Bight was a mined and net-protected safe anchorage for allied merchant ships from 1942 to 1944.

Some, if not all, of the residences near the Coast Guard Station were occupied by Army personnel (193rd Artillery) during the war years.

After World War II, the Army base was conveyed to the Coast Guard, which retained only ninety-five of the original 400+ acres that made up the base. Land speculation also increased and several of the old residences were acquired by people without family ties to the cape to be used as summer vacation cabins.

In the 1950s, after automating the Lighthouse, the Coast Guard began to plan significant changes to the operation of the Cape Lookout Station. Several smaller buildings were demolished and, in 1957, the 1923 boathouse and 1887 life-saving station building were offered for sale. The 1887 building was purchased, moved about 500 yards north of its original site, and used as a vacation house until 2003.

In 1982, the Cape Lookout Station was merged into the larger Fort Macon Coast Guard Station and decommissioned. The station buildings and property were transferred to the Cape Lookout National Seashore in 1984.

5

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