Historic Light Station Information
NEW JERSEY

ABSECON LIGHT

ATLANTIC CITY (ORIGINALLY ABSECON BEACH)
Station Established: 1855
Year Current Tower(s) First Lit: 1857; Deactivated 1933
Operational: No
Automated: N/A
Foundation Materials: GRANITE BLOCKS
Construction Materials: BRICK/IRON
Tower Shape: CONICAL ATTACHED TO KEEPERS
Markings/Pattern: YELLOW, BLACK, YELLOW
Height: 171 feet; Height of focal plane: 167 feet
Characteristics: Fixed White
Relationship to Other Structure: ATTACHED
Original Lens: FIRST ORDER, FRESNEL/OIL LAMP 1857
Foghorn: None

Historical Information:

- 1846: A resolution by the New Jersey legislature called for building of a lighthouse. The Federal Government ignored the resolution.
- 1855: Lt. George Meade was the tower's architect. The lighthouse was completed in late 1856 under direction of another engineer Captain W.F. Fraynolds. Daniel Scull was the first lighthouse keeper to use the 228 cast iron steps to the top of Absecon Light.
- 1870s: A battle with the sea began soon after the lighthouse was activated. By the 1870s erosion had reached the station.
- 1876-1878: Protective jetties were built. Eventually there were seven built at 150' intervals. There was some improvement and eventually deep-water jetties were built. These really did the trick of stabilizing the sand and the low water line returned to the 1854 level.
- 1933: Eventually the lights of the fast growing Atlantic City made the Absecon light useless and it was deactivated in 1933.

Historical information was researched and written by Diane Hackney.

AMBROSE LIGHT (see New York)

BARNEGAT LIGHT

NORTH END LONG BEACH ISLAND
Station Established: 1835
Year Current Tower(s) First Lit: 1857
Operational? NO
Automated? YES 1927
Deactivated: 1944
Foundation Materials: GRANITE CRIB
Construction Materials: BRICK/IRON
Tower Shape: CONICAL
Markings/Pattern: RED ABOVE, WHITE BELOW
Relationship to Other Structure: SEPARATE
Original Lens: FIRST ORDER, FRESNEL 1859

Historical Information:

- The area now known as Barnegat Light sits upon the highest land on Long Beach Island. When the inlet was named by Captain Cornelius May in 1614, the area was graced with cedar and oak trees. The inlet was not popular during the sixteen and seventeen hundreds. The Dutch Barendegat means 'Inlet of the Breakers', and the name aptly describes the strong currents that dominate the area.
- After 1750, Cranberry Inlet provided a safer and faster route to the important trading town of Toms River.
- Cranberry Inlet closed up in 1815, and Barnegat Inlet became more important to trade and travel. A 40 feet tall lighthouse tower was constructed in 1835 to mark the inlet. The light was not very strong, and its steady white beam could not be seen beyond 10 miles. To improve the strength of the beacon, a fourth order Fresnel lens was installed in 1854, but the tower was now in poor shape and plans for a new lighthouse were made.
- In the 1850s, Lt. General George G. Meade designed a 170 ft. tall tower with two circular brick walls. The interior wall rose straight up and supported the iron stairs leading up to the lens assembly, while the outer wall tapered from 28 feet at its base to 14 feet at the keeper's platform. The lens was to be of the first order, designed by Augustin Fresnel himself. A counterweight system would keep the

lens assembly rotating. The signature of Barnegat Light would be one flash every ten seconds.

- The tower was completed in 1859, just in time to replace the old lighthouse which had tumbled into the sea due to beach erosion.
- In the 1870s the upper part of the lighthouse was painted red while the lower section was colored white. John Brown, who had renamed the Herring House Ashley House, bucked tradition and painted his boardinghouse white to match the bottom half of the lighthouse. Ashley House remained an important part of Brownsville and was operated by different owners until it closed in 1887.
- The rough waters at the inlet constantly eroded the beach. Originally, Barnegat Lighthouse was built 900 feet away from the ocean, but ten years after it began operation, there were only 450 feet between the tower and the shore. A large, three-family keeper's house was constructed next to the lighthouse in 1889. By that time, several jetties had been built to slow down the beach erosion, but the problem was so bad that they had little effect. The Oceanic Hotel was moved away from the receding shore to a safer location, and people began to fear that the lighthouse itself was in danger.
- The tides slowly wore down the sands at Barnegat Light, the resort became less popular. The trains stopped running to Barnegat City in 1923. A severe storm in 1920 wore the beach away right up to the base of the lighthouse. The keeper's house had to be abandoned and torn down. Barnegat City became a quiet island village, once again enjoying the serenity it had seen in earlier days.
- In 1927 the original lens was removed and was replaced by a lightship anchored off the coast of Barnegat light. The original lens is still on display at the Barnegat Lighthouse Historical Society's Museum.
- The lighthouse was automated in 1927 but would only remain in service another seventeen years. After World War II, the lighthouse was decommissioned and given to the state of New Jersey.
- The Barnegat Lighthouse is shining again, as it was illuminated on January 1, 2009 - exactly 150 years to the day that it was originally lit in 1859. Thanks to the Friends of Barnegat Lighthouse, the nonprofit group dedicated to preserving and promoting the park, funds were raised to purchase a new Coast Guard-approved lens. The new light creates a single beam that can be visible for up to 22 nautical miles.

Researched and written by Andrew Gray, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

BERGEN POINT LIGHT

Location: Newark Bay Station Established: 1849 Year Current Tower First Lit: 1849 Operational: Automated: Deactivated: 1949 Foundation Materials: caisson foundation Construction Materials: Tower Shape: rectangular Height: 54' Markings/Pattern: Relationship to Other Structure: sits atop the keeper's quarters Original Lens: Height of Focal Plane: Appropriation: $4,969.78

Historical Information:

- Dwelling sat on a 60 foot diameter caisson
- Dwelling had 6 rooms and was 2 ½ stories tall
- Fell into disrepair by 1855.
- In 1857, work began on rebuilding the lighthouse. Improvements cost approximately $20,000. Work was completed in 1859.
- In 1873, a large machine-made fog bell replaced a smaller bell made by hand.
- The station was decommissioned in 1949 due to the widening of the Kill Van Kill. The point of land on which the lighthouse stood was to be cut off from the point. The light was eventually torn down and replaced by a skeleton tower.

Light Keepers:

- Peter Girth: Appointed keeper on June 30, 1853 and received a salary of $400 per year. Removed from office on October 17, 1862.
- John McDonald: Appointed keeper on Oct. 17, 1863. Paid $540 per year. Listed as passing on July 16, 1873.
- Hannah McDonald: Took over her husband's duties on Aug. 19, 1873. Resigned in Jan. 1879 and was replaced by John H. McDonald (presumed to be her son).
- John McDonald: Appointed acting keeper on Jan. 28, 1879. Paid $540 per year. Permanently appointed on Feb. 14, 1881 and served until May 17, 1881, when he resigned.
- George V. Post: Appointed acting keeper on May 17, 1881. $540 per year salary. Officially appointed on May 17, 1881. Permanently appointed on Nov. 2, 1881. Served until removed on Aug, 22, 1882.
- Alexander Ferreira: Appointed acting keeper on Aug. 25, 1882. Became permanent on Dec. 1, 1882. Transferred to Throgg's Neck Lighthouse, NY in May 29, 1884.
- John J. Prentiss; Appointed on May 29, 1884, took oath of office on Aug. 1, 1888. Served until Aug. 31, 1888 (unconfirmed) and resigned the post.
- Joseph Coons: Appointed active keeper on Sept. 7, 1888 with a salary of $540 per year. Appointed permanently on March 15, 1889. Served in the Navy. Transferred on Jan. 16, 1902.
- Robert Ray: born in Ireland. Appointed in January 24, 1902, took oath of office on February 4, 1902. On February 15, 1902, listed as "drowned".

- Mrs. Francis Kelly: appointed acting keeper on March 14, 1902, retroactively to February 15, 1902. Listed as serving 30 days.
- August Kjelberg: appointed keeper March 31, 1902, took oath April 22, 1902.
- Jno. R. Carlsson: appointed March 16, 1906, took oath of office March 21, 1906. Received annual salary of $540.
- Hans Beuthe: immigrated from Germany in 1898. Keeper from 1921 to at least 1939.

Researched and written by Jamie Smith, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

BRANDYWINE SHOAL LIGHT

Location: Delaware Bay, ten miles from the mouth of the bay
Station established: 1823 with a lightship, first lighthouse was completed in 1850.
Year lighthouse light first lit: 1850.
Year current tower first lit: 1914.
Operational? Yes.
Automated? Yes, in 1974.
Foundation Materials: First lighthouse: Iron pilings forming a screwpile foundation.
Second lighthouse: Reinforced concrete pier filled with sand, stone and concrete.
Construction Materials: First lighthouse: Cast iron plates lined with wood.
Second lighthouse: Reinforced concrete.
Tower shape: Existing lighthouse caisson architectural style.
Tower height: Existing lighthouse height is 45 feet.
Height of Focal Plane: 60 feet.
Markings/Pattern: White with red top.
Relationship to other structure: Integral.
Lighthouse original Lens: Third Order Fresnel.
Present Optic: solar powered.
Range: 13 nautical miles.
Characteristic: 10 second flash.
Current use: active aid to navigation.
Owner: U. S. Coast Guard, declared excess in June 2011.
Open to the public? No.

Historical Information:

- Brandywine Shoal is located in the Delaware Bay adjacent to the main shipping channel for ships going to and from ports such as Philadelphia.

- In 1823 lightship "N" was located near the shoal and operated until 1850.
- The lightship was anchored about one mile west of the shoal and marked the eastern edge of the channel.
- The lightship was built in 1823 with two masts and displayed a fixed white light on the foremast at 42 feet.
- In 1850 the first screwpile lighthouse in the country was placed into operation on the shoal. A wooden platform was laid across the piles for the location of the first lighthouse.
- In 1851 the lighthouse became the third one in the United States to be equipped with a Fresnel lens. This was a Third Order lens manufactured in Paris by Henry Lepaute.
- The station had a house in the shape of a cone made of cast iron plates and lined with wood. The first floor contained a kitchen and store room, the second floor had sleeping rooms and an oil room. The lantern was on top of the house. The lighthouse was painted red and displayed a fixed white light. A fog bell was at the lighthouse.
- By 1858 a network of 68 interconnected iron piles encircled the lighthouse to provide as an ice breaker for additional protection for the screwpiles.
- A fog signal building was located on the platform of the first lighthouse.
- In 1911 construction of a new lighthouse adjacent to the existing lighthouse was initiated. The foundation of this lighthouse consisted of a reinforced concrete pier filled with sand, stone and concrete with a concrete deck on top. A circular three-story dwelling of reinforced concrete was constructed on the deck. A circular watch room is on top of the dwelling and supports a cylindrical helical-bar lantern.
- In 1914 the third-order Fresnel lens was transferred from the old lighthouse to this new lighthouse and first lit in the new location on October 20, 1914.
- The two towers stood together until the superstructure of the screwpile light was torn down. The platform of second lighthouse was retained and used by the U. S. Navy for several structures during the 1940s and 1950s.
- A wall of riprap surrounds most of the lighthouse to form a protective harbor.
- In 1974 the light was automated, at which time it was the last manned station in the Delaware Bay.
- In 1997, due to solarization of the lighthouse, the Fresnel lens was removed and given to the Tuckerton Seaport Museum.
- In 2006 the lighthouse was designated to the New Jersey and National Registers of Historic Places – Cape May County.
- In 2007 the lighthouse was added to the National Register of Historic Places.
- In June 2011 the lighthouse was declared excess to the needs of the U. S. Coast Guard and offered to eligible organizations under the provisions of the National Historic Lighthouse Preservation Act of 2000.

Researched and written by Ed Shaw, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

CAPE MAY LIGHT

Location: Cape May Point, on the southernmost point of New Jersey and the northern side of the entrance to Delaware Bay.
Station established: 1823
First lighthouse: a conical tower constructed in 1823 with a stucco exterior. It was lost to erosion.
Second lighthouse: a conical tower constructed in 1847 and demolished around 1859 due to poor construction.
Existing historic lighthouse tower was constructed and first lit in 1859.
Operational? Yes
Automated? Yes, 1946
Deactivated? N/A
Foundation material: surface rock
Construction material: brick
Tower shape: conical
Markings/Pattern: beige tower with red lantern
Relationship to other structures: separate
Tower height: 157 feet
Height of focal plane: 175 feet
Original optic: First Order Fresnel (located at Cape May County Courthouse)
Year original lens installed: 1853
Present optic: DCB-36
Year present lens installed: 1946
Range: 24 nautical miles
Characteristic: White, flashes every 15 seconds
Existing sound building? No
Existing Keeper's Quarters? Yes.
Other structures: storage building, brick oil house (1893).
Current use: Active aid to navigation.
Owner/Manager: State of New Jersey with lease to Mid-Atlantic Center for the Arts
Open to public? Yes

Historical Information:

Existing tower is the third tower to be located on Cape May Point.

First tower:

- Built in 1823, was 70 feet tall and made of brick and located on a stone foundation.
- Located west of the present tower at a site presently underwater.
- Lighthouse was arched at top with a revolving light consisting of 15 lamps. The light flashed to distinguish it from the light at Cape Henlopen, across the bay in Delaware.
- The first tower was discontinued in 1847.

Second tower:

- Built in 1847 and located south of the present lighthouse.
- Lighthouse was 78 feet to the base of the light and 94 feet high to the dome.
- The light was produced by 15 concave reflectors mounted on a triangle making a full light every minute.
- Poor construction and maintenance of the second lighthouse lead to the construction of the third lighthouse.
- The second lighthouse remained standing until 1862 when the top was dismantled. The remaining ten feet of the second lighthouse was capped and used for storage, for an icehouse, and later for a stable. The sea has since claimed the remains of the second tower.
- Keeper's quarters constructed in 1847.
- First Order Fresnel lens was supplied by Henry Lepaute.

Existing tower:

- Constructed in 1859 after additional land was acquired in 1858.
- Tower has a base diameter of 27 feet.
- Light originally constructed with kerosene wick lamps.
- In 1860 two keeper's dwellings were completed. These dwellings were one and a half story structures with three rooms on the first floor and four rooms on the second floor.
- In 1878 a Funck style lamp was installed.
- In 1903 a new keeper's quarters was constructed.
- In 1910 an incandescent oil vapor lamp was installed.
- In 1938 electricity was supplied for the light.
- In 1946 the Fresnel lens was removed and is under the possession of the Cape May County
- Historical Museum. A rotating 36-inch aero beacon replaced the Fresnel lens. This produced 350,000 candle-power and had a flash of once every fifteen seconds.

- In 1964 the grounds were turned over to the State of New Jersey which created the Cape May Point State Park.
- In 1968 one of the Keeper's dwellings, which had been converted to a duplex in 1903, was burned in an arson fire. The second Keeper's dwelling is use for the park.
- In 1986 the U.S. Coast Guard leased the tower to the state who subleased the lighthouse to the Mid-Atlantic Center for the Arts.
- In 1988 the Mid-Atlantic Center for the Arts opened the lighthouse to the public after restoration.

Keepers:

- Downes Foster (1850-1876)
- Samuel Stilwell (1876-?)
- Harry H. Palmer (1893-1933)

Researched and written by Ed Shaw, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

The lighthouse is now operated by the Mid-Atlantic Center for the Arts. For more information, contact them at:

Mid-Atlantic Center for the Arts
1048 Washington Street
P.O. Box 340
Cape May, NJ 08204
(609) 884-5404
Email: macmarketing@campemaymac.org

CHAPEL HILL RANGE LIGHTS

Location: Sandy Hook Bay/New York Harbor and Leonardo, NJ in Monmouth County.
Station established: 1856
Chapel Hill Rear Range Light:
Original location: 1.5 miles inland from Front Range light at an elevation of 224 feet above sea level
Year tower first lit: Rear Range: 1856
Operational? No
Deactivated? 1957
Foundation materials: brick

Construction materials: wood
Tower shape: square tower centered on rectangle house
Tower height: 31 feet
Markings/Pattern: beige
Relationship to other structure: integral
Original lens: Second Order 1856
Present Optic: none
Focal Plane: 224 feet
Existing sound building?: No
Existing Keepers Quarters? Yes, two story wood constructed in 1856 supporting the tower
Current use: private residence
Owner/Manager: private owner
Open to the public? No
Current location: 200 feet from Front Range light.
Year current tower lit: 1957
Operational? No
Tower shape: 45 foot steel

CONOVER BEACON LIGHT

Location: Bay side of Leonard Avenue in Leonardo, New Jersey
Year first beacon constructed: 1856
Tower height: 55 feet
Year second beacon constructed: 1941
Tower height: 45 feet
Operational? No
Deactivated: 1957
Foundation materials: concrete
Construction Materials: original- wood; current- metal
Tower Shape: original- hexagonal; current- range
Height: 40'
Focal Plane: 45'
Markings/Pattern: central red band on white tower
Relationship to Other Structure: N/A
Original Lens: 375 MM 1939. Present optic removed.
Existing sound building?: No
Existing keeper's quarters?: No
Other structures?: No
Open to the public?: No

Historical Information:

- The lighthouse guided vessels along the Chapel Hill Channel, alongside the Chapel Hill Rear Range Lighthouse that stands on a hill one and a half miles to the south. The Chapel Hill Channel runs from just off the tip of Sandy Hook south into Sandy Hook Bay towards the town of Leonardo.
- Congress approved funding for a beacon to be established at Leonardo in 1852. On July 30, 1853, beachfront property was purchased from Rulif Conover. The lighthouse would eventually be named after him. In 1856, Richard Calrow, Jr. constructed a hexagonal, wooden tower and a wooden keeper's dwelling at the site. The first keeper was Marsh L. Mount. The beacon's daymark was a central red band on a white tower, which is still used today.
- The Conover/Chapel Hill Range Lights were deactivated in July 1923 and replaced with gas-lighted buoys. The lights were reactivated four months later as tugboat captains complained that "the ranges were absolutely necessary to counteract the side drift of the current through the channels."
- The current tower replaced the hexagonal tower in 1941. The metal tower resembles a submarine periscope. It served as the front light of the Waackaack Range. The former location was just over four miles west along the shore at Point Comfort in Keansburg. It was also known as the Point Comfort or Bayside Beacon.
- The tower has remained inactive since 1957. The tower was transferred to Monmouth County for management by Middletown Township in 2004.
- Rear Range Fourth Order lens is located at the Navesink Twin Lights Museum. Conover Beacon Front Range Light.

Keepers:

- Mark L. Mount (1856-1861)
- Tabor Chadwick (1861-1869)
- S.V. Battleson (1869)
- Carl Grossenger (1869-1872)
- John B. Swan (1872-1889)
- Samuel A Foster (1895-1920s)
- Carl Anderson (?-1941)

Researched and written by Jamie Smith and Ed Shaw, a volunteers through the Chesapeake Chapter of the U.S. Lighthouse Society.

DEEPWATER POINT RANGE LIGHT

Historical Front Range:

Location: Deepwater, New Jersey, historical lights located along the Deepwater Canal near the east end of the Delaware Memorial Bridge.
Station established: 1876
Year tower first lit: November 15, 1876
Operational: No.
Automated: Yes, 1937-38.
Deactivated: Yes. 1952.
Foundation material:
Construction material: wood two-story house with dormers in Second Empire architectural style.
Tower height: lantern on roof of two-story house.
Tower shape: horizontal slatted frame work on top center of roof of house with light on pole centered above frame work.
Markings/Pattern: Large black daymarks comprised of horizontal slates. Frame work and middle section of both stories of the house painted black. Remainder of house a white color.
Related to Other Structure: integral
Original Front Range lens: Fourth Order Fresnel lens in 1876.

Historical Rear Range:

Location:
Station Established: 1876
Year tower first lit: November 15, 1876
Operational: No.
Automated: Yes, 1937-38
Deactivated: Yes, 1952. Demolished in 1956.
Foundation material: masonry
Construction material: wrought iron
Shape: skeletal with cylinder
Tower height: approximately 115 feet
Markings/Pattern: solid black
Relationship to Other Structures: separate Keepers quarters in two-story house.

Active Front Range

Location: Located in Delaware River about 1000 ft southwest of the rear range light and about 2200 ft off the New Jersey shore.
Operational? Yes, but listed as extinguished in aid to navigation report by U. S. Coast Guard, January 2012.

Automated? Yes
Deactivated? No
Foundation Material: piling
Construction material: Square platform supported by a robust pile.
Height: Light height 27 feet night, 30 feet day
Tower: Yellow cylinder tower.
Markings/Pattern: Tower painted yellow.
Focal plane: 41 feet.
Characteristic: Light on 24 hours. White by day and green by night.
Open to public: No. Accessible by boat, tower closed to public.

Active Rear Range

Location: Located in Delaware River about 600 ft off the New Jersey shore and a similar distance south of the original span of the Delaware Memorial Bridge. 1000 feet from Front Range light.
Operational? Yes
Automated? Yes
Deactivated? No
Construction material: Square platform supported by a robust pile.
Tower: Yellow cylinder tower.
Height: Light 89 feet night and 86 feet day.
Characteristic: Light on 24 hours. White by day and green by night.
Open to public: No. Accessible by boat, tower closed to public.

Historical Information:

- Original Deepwater Range lights were built on the east shore of the estuary in New Jersey.
- Original Deepwater Range lights became obsolete when the Delaware Memorial Bridge, built in 1951, blocked the view of the range.
- Lighthouse destroyed in 1956 after becoming obsolete due to the construction of the Delaware Memorial Bridge.
- The replacement range lights were built in the river, which is in State of Delaware. These lights remain an active aid to navigation.

Keepers:

- George Shropshire (acting keeper 1885, keeper 1886-1895)
- William Spear (1908-1939)
- Ferdinand Heizmann (1939-c. 1952)

Researched and written by Ed Shaw, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

EAST POINT (MAURICE RIVER) LIGHT

Location: Near Heislerville, Maurice River, Delaware Bay
Station Established: 1849
Year Current Tower(s) First Lit: 1849
Operational? YES
Automated? YES 1911
Deactivated: 1941-1980
Foundation Materials: STONE
Construction Materials: WHITEWASHED BRICK
Tower Shape: OCTAGONAL ON ROOF OF SQUARE HOUSE
Height: 40 feet
Focal Plane: 43 feet
Markings/Pattern: BLACK LANTERN ON HOUSE W/RED ROOF
Relationship to Other Structure: INTEGRAL
Original Lens: SIXTH ORDER 1849

Historical Information:

- 1849, 10 September: The lighthouse was established with an octagonal tower in the center of a Cape Cod style house. This was the second lighthouse built in the state.
- 1911: The light was automated.
- 1913: The name changed from the Maurice River to the East Point Lighthouse.
- 1941 The USCG decommissioned the lighthouse and it quickly fell into disrepair.
- 1971, July: Fire almost destroyed the building as the Maurice River Historical Society, which was founded earlier that year, was in the process of obtaining the lighthouse from the state.
- Mid-1970s: Fundraising allowed for the rebuilding of the roof and the lantern lost in the fire.
- 1980, 2 July: The USCG reinstated a beacon in the tower to act as an active aid to navigation.
- 1999: The first phase of the exterior restoration was completed.
- 2002: The grounds are open year round. There is an annual open house to tour the lighthouse.

Chronology was researched and written by Diane Hackney.

EGG ISLAND LIGHT

Location: Maurice River Cove
Station Established: 1838
Year Current Tower First Lit: 1838
Operational: no
Automated: 1921
Deactivated: N/A; burned down by fire
Foundation Materials:
Construction Materials:
Tower Shape: hexagonal
Height:
Markings/Pattern: white?
Relationship to Other Structure: attached to roof
Original Lens:
Appropriation:

Historical Information:

- Egg Island Light was first lit on August 20, 1838, and the light was visible for 14 miles.
- Was built at the northwestern end of the Maurice River Cove.
- The light was either extensively repaired or entirely rebuilt in 1856.
- The light burned ten lamps with parabolic reflectors.
- Through its time of use, the lighthouse had many problems with its structure, the surrounding land and water, was moved, oil sheds and boardwalks added and removed, and was subject to several inspections that reported problems. An inspection report conducted in 1838 described the lighthouse as "the lamps (are) badly constructed' house negligently built, and materials bad; several panes of glass in the lantern broken; the walls beginning to crack." The report was for a lighthouse that had been built less than a year before.
- Lighthouse was built on an island and was reachable only by boat. Had a revolving kerosene light and clockwork that was wound with a crank.
- The interior consisted of a hard wood finish and a large fireplace.
- A cove was located on the island and a little creek ran from the cove. Supplies were brought in by a long-boat along this creek. A small crane with a wheel wound the supplies to the dock.
- The lighthouse had 24 keepers throughout its history.
- The lighthouse was believed to have been automated around 1935.

- The light was destroyed by fire on August 20, 1950. It is reported that two fisherman entered the abandoned lighthouse and started a fire to dry their clothes.

Keepers:

- Two early keepers were Mr. Yates and Daniel Bailey. (Mr. Yates was a typical waterman with 'round the face whiskers.)

Researched and written by Jamie Smith, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

ELBOW OF CROSS LEDGE LIGHT

Location: Fortescue, NJ
Station Established: 1870's
Year Current Tower First Lit: April 28, 1904
Operational: yes
Automated: 1951
Deactivated: no
Foundation Materials: metal caisson
Construction Materials: red brick
Tower Shape: octagonal
Height:
Markings/Pattern: red tower, white base
Relationship to Other Structure:
Original Lens:
Appropriation: $75,000

Historical Information:

- The first lighthouse at Cross Ledge was built in the 1870's near the southern end. Years later, the Lighthouse board decided a lighthouse would be more useful to maritime traffic if it were located two miles northwest of the original Cross Ledge Lighthouse on an "elbow" of the ledge that protruded toward the main shipping channel.
- Congress appropriated $75,000 on April 28, 1904 to build a lighthouse and fog signal at Elbow of Cross Ledge.
- Test borings needed to be made at the selected site to make sure the seabed could support the intended caisson foundation. Foundries were invited to submit

bids, but after no satisfactory submissions were received, the project was advertised for a second time. The second round of bids was opened on December 18, 1905. A contract was signed less than two months later. On January 1907, the completed metalwork for the foundation was delivered to the former lighthouse depot on the Christiana River near Wilmington, Delaware.

- A temporary work platform was created atop large scows to help with the construction of the lighthouse. The bottom edge of the caisson was sunk fifteen feet into the ledge, which lay twenty-four feet below the surface of the bay. Strong currents and rough seas complicated the work and delayed the completion of the lighthouse.
- In September 1907, a severe storm caught the workers unprepared, and much of the working platform was swept away. At least one workman fell into the bay and drowned. One of the scows was torn loose by the storm. A government inspector was rescued two days later when a lighthouse tender located the missing scow near Maurice River Cove.
- In late 1907, worked was stopped on building the lighthouse, and the caisson had been filled up with concrete up to its fluted upper sections. A temporary, one-story structure, topped with a lantern and fog bell, were placed on the foundation to mark the incomplete project until work could resume the next year.
- The Lighthouse Board petitioned Congress for an additional $21,500 to finish the lighthouse, and was granted on May 27, 1908. The finished structure consisted of a two-story octagonal dwelling built of brick for the keepers, topped by an octagonal iron watch room and a round lantern room. A brass spindle with a platinum tip was built as a lightning rod atop the spherical ventilator ball on the lantern room. A copper ribbon ran from the rod to the iron veranda, which surrounded the first story of the dwelling.
- The lantern room contained a fourth-order Barbier, Benard and Turenne Fresnel lens with four panels. It rested atop 19 balls that traveled in a circular "v" groove. The light was first exhibited by three keepers, Ethan A. Duffield, Julian Bacon, and Harry W. Sheppard on February 1, 1910.
- A fog bell composed of 78% copper and 22% tin, was mounted on the deck beneath the veranda. It was cast by the McShane Bell Foundry Co. of Baltimore. When visibility was limited, the bell was struck every fifteen seconds.
- In a December 1954 edition of the Philadelphia Evening Bulletin, it was stated that several vessels had struck the lighthouse with glancing blows while trying to navigate the bay in heavy fog. The four-man crew would sleep in their life jackets for fear the lighthouse would collapse. When visibility was poor, ships would pass so close to the lighthouse that the whole structure would shudder from the ship engine vibrations.
- When the light was automated in 1951, the power was supplied via a submarine cable that was put between Fortescue, NJ and the lighthouse. A second cable was run between Elbow of Cross Ledge and Miah Maull Lighthouse. This

permited the keepers at Miah Maull to control the vacant beacon at Elbow's Ledge.

- On October 20, 1953, the Steel Apprentice was traveling from the Middle East to Philadelphia. The ore ship was blind in the thick fog swept over the bay. The vessel passed Miah Maull Lighthouse and continued at low speed, however due to the dense fog, Elbow of Cross Ledge suddenly appeared in its path. Not being able to brace for impact, the vessel toppled the upper two-thirds of the lighthouse into the bay and damaged the caisson. In 1954, Mack Construction of Cape May completed demolition and installed a skeleton tower atop the caisson foundation. They paid $100,000 to complete the demolition and install a skeleton tower atop the caisson foundation.
- Boaters anchoring at the lighthouse have caused the submarine cables to break five times between 1995 to 2004.
- Lighthouse still remains in operation as an aid to navigation.

Researched and written by Jamie Smith, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

FINNS POINT RANGE LIGHT

DELAWARE RIVER
Station Established: 1877
Year Current Tower(s) First Lit: 1877
Operational? NO
Automated? YES 1934
Deactivated: 1950
Foundation Materials: MASONRY
Construction Materials: WROUGHT IRON
Tower Height: 115 feet
Tower Shape: SKELETAL W/CYLINDER
Markings/Pattern: SOLID BLACK
Relationship to Other Structure: SEPARATE
Original Lens: FRESNEL 1876

Chronology:

- 1876: The lighthouse, which was constructed in Buffalo, New York, was shipped by freight train and then pulled by mules to its present location. The light was erected with a cost of $1,200.

- 1877: The light was first lit. The light was a 150,000 candlepower kerosene vapor light.
- 1930s: The front range light that was paired with this rear range light was destroyed.
- 1939: The lighthouse was automated.
- 1951: The channel the lighthouse marked was altered thus making the lighthouse obsolete.
- 1977: The keeper's quarters were destroyed after vandals repeatedly damaged the property.
- 1981: The "Save the Lighthouse Committee" was formed and successfully lobbied Congress for funds.
- 1983: The lighthouse was restored.
- 2002: The light is opened for climbing on a seasonal basis. The oil house still stands as well.

Chronology was researched and written by Diane Hackney.

FORT MIFFLIN RANGE LIGHTS

Historical Front Range

Location: South of Billingsport, New Jersey near Lincoln Park.
Station established: December 1880.
Year tower first lit: December 31, 1880
Operational? No.
Automated? Yes, 1938.
Deactivated? Yes.
Foundation material: Concrete.
Construction material: 1880 wood frame two-story house. 1887 and 1908 wooden tower, approximately three stories high, in two slightly different locations on site.
Tower height: approximately 30 feet.
Original lens: Fifth Order Fresnel range light.
Relationship to other structures: 1880 integral on top of Keepers quarters. 1887 and 1908 separated from Keepers quarters.

Active Front Range

Location: Same as 1908 front range light.
Operational? Yes
Automated? Yes

Deactivated? No
Foundation material: Concrete
Construction material: vertical steel framework of two parallel sections of different heights.
Tower height: Light height 21 feet night and 24 feet day.
Characteristic: Lighted 24 hours.
Relationship to other structures: N/A

Historical Rear Range

Location: about one-half mile from the Front Range light.
Station established: December 1880
Year tower first lit: December 31, 1880
Operational? No
Automated? Yes, 1938
Deactivated? Yes, 1950, lighthouse taken down in 1953.
Tower height: approximately 48 feet
Foundation material: stone masonry
Construction material: Pyramidal wooden tower.
Original lens: Fifth Order Fresnel.
Relationship to other structures: Separate Keepers quarters.

Active Rear Range

Location: Paulsboro Refinery, 479 yards from Front Range light.
Operational? Yes
Automated? Yes
Construction material: steel tower.
Height: Light height 46 feet night and 43 feet day
Characteristic: Lighted 24 hours

Historical Information:

- This light was also known as the Fort Mifflin Bar Cut Range, and Mifflin Bar Range.
- The Front Range light was also known as the Billingsport Light.
- The lights, when originally completed, marked the channel between Ship John Shoal and League Island.

Historical Information (Front Range):

- In 1880 the original light was on the Keeper's six-room dwelling, built on the slope of the river bank, to serve as lights for two front ranges.
- In 1887, to improve function and to deal with shifting river channels, a detached wood frame light tower was located 50 feet east of the Keepers quarters.
- Keeper's quarters and the tower were connected by a wooden walkway for the 1887 location.
- The Front Range light had two lights and served as the Front Range for two ranges - The Mifflin Front Range pointing up the Delaware River (towards Trenton) and the Tinicum Front Range pointing down river.
- In 1908 the lights were realigned and a tower was placed on a cement pier just offshore and connected by an elevated walkway. This may have been a relocation of the 1887 tower as they appear identical in historical photographs.
- A fog signal bell was suspended from the front of the 1908 tower.
- Historical wooden tower and Keepers quarters (original lighthouse) were demolished in the late 1970s or early 1980s.
- In the late1970's or early 1980 two steel skeleton towers, with two lights, were placed on the site of the 1908 tower.
- The lights on the steel towers continue to serve the two ranges (Mifflin Front Range and Tinicum Front Range).

Historical Information (Rear Range):

- Original light was on top of the Keeper's quarters.
- In 1886 the light was on a white pyramidal wooden tower with a black watchroom and lantern with a black slatted daymark above the roof of the lantern.
- A separate Keepers quarter was a two-story white square dwelling.
- Site became part of an oil refinery site and lighthouse and Keepers quarters no longer exist.
- A light on a steel tower, located on oil refinery property, serves as the current rear range light.

Researched and written by Ed Shaw, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

GREAT BEDS LIGHT

Location: Raritan Bay, mouth of Raritan River, South Amboy, New Jersey
Station Established: 1880
Year Current Tower(s) First Lit: 1880
Operational? YES

Automated? 1945
Deactivated: N/A
Foundation Materials: Caisson
Construction Materials: Cast Iron
Tower Shape: Conical
Markings/Pattern: White with Black Lantern Room
Relationship to Other Structure: Integral
Original Lens: Fourth Order Fresnel

Historical Information:

- The area surrounding the Great Beds Lighthouse has been known for its great beds of oysters . This area includes the southern tip of Staten Island, New York. In 1719 the state of New Jersey passed a law protecting these beds from being harvested by boats not registered in New Jersey.
- In 1878 Congress responded to a petition for a lighthouse to be built on the oyster beds. New York ceded a piece of land under the Raritan Bay for the building of the lighthouse. Before construction could be completed, the state lines came into question and New York actually gave land which belonged to New Jersey. Once the boundary dispute was settled the construction was completed; though even today it is still occasionally incorrectly listed as a New York lighthouse.
- Great Beds Lighthouse is a "sparkplug" style light built on a cast iron caisson. The tower was made from five sections of iron.
- On November 5, 1880 the Great Beds Lighthouse was activated with a fourth order Fresnel lens. It wasn't very spacious on the inside. Being situated less than a mile from shore, the keepers and their families were within easy distance of freedom if they required it.
- The lighthouse was automated in 1945. Originally painted a dark color, it was eventually painted white to stand out against the background of trees on shore.
- In 2008, it was placed on the National Register of Historic Places. It has become the symbol of the nearby town of South Amboy.
- While the boats on the Raritan Bay may now be pleasure boats instead of the oyster trawlers of the past, the Great Beds Lighthouse remains an active aid to navigation and warns of the shallow waters surrounded the beds below. It is not open to the public.

Researched and written by Melissa Buckler, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

HEREFORD INLET LIGHT (OLD)

HEREFORD INLET ENTRANCE
Station Established: 1849
Year Current Tower(s) First Lit: 1874
Operational? YES
Automated? YES 1964
Deactivated: 1964-1983
Foundation Materials: WOOD PILINGS
Construction Materials: WOOD
Tower Height: 49.5 feet
Tower Shape: SQUARE
Markings/Pattern: WHITE W/BLACK LANTERN
Relationship to Other Structure: INTEGRAL
Characteristics: Rotating white light with red sector
Original Lens: FOURTH ORDER, FRESNEL 1874

Chronology:

- 1872, 10 June: Congress acted to finance a fourth order light along the New Jersey shoreline.
- 1873, 7 July: Humphrey S. Cresse sold the 1.5 acre site to the US government for $150.
- 1874, 16 April: The US Army Corps of Engineers completed construction of the lighthouse.
- 1874, 11 May: A "Notice to Mariners" announced the operation of the light on the North end of Five Mile Beach.
- 1913, August: A severe storm damaged the foundation of the lighthouse. The lighthouse was moved 150 feet westward where it stands today.
- 1938, May: A fire caused extensive damage to the lighthouse.
- 1963: The lighthouse property was transferred to the New Jersey Marine Police.
- 1964: An automatic light tower was built to replace the lighthouse.
- 1977, 20 September: The lighthouse was placed on the National Register of Historical Places after restoration by the city.
- 1982: A 20 year no-cost lease to the City of North Wildwood from the Department of Environmental Protection was established.
- 1983, 1 July: A portion of the restored lighthouse was used as a tourist information center.
- 1986, April: The US Coast Guard relit the lighthouse using the beacon from the automatic light tower.
- 2002: The lighthouse is open during the summer for tours.

Researched and written by Diane Hackney.

HORSESHOE RANGE LIGHTS, EAST GROUP

Location: Horseshoe Shoal and Horseshoe Bend on the Delaware River, Howell's Cove, Glouchester City, New Jersey.
Station Established: 1881
Year Current Tower(s) First Lit: 1881
Operational? NO
Automated? 1921 - 1933
Deactivated: Unknown
Foundation Materials: Stone
Construction Materials: Wooden Tower
Tower Shape: Pyramidal
Markings/Pattern: Detached square with open framework
Relationship to Other Structure: Separate
Original Lens: Fifth Order Fresnel

Historical Information:

- The East Group of the Horseshoe Range Lights consisted of a six foot wooden square structure, a 41 foot tall square pyramidal tower and a two story keeper's house with a tower attached. The lights helped guide mariners around the dangerous Horseshoe shoals and Horseshoe Bend of the Delaware River.
- The lights were automated between 1921 and 1933. The keeper's house was moved but it was reported as destroyed in 2005. These lights are no longer operational.

Researched and written by Melissa Buckler, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

LUDLAM BEACH LIGHT

Location: Sea Isle City, New Jersey
Station Established: 1885
Year Current Tower(s) First Lit: 1885
Operational: No
Automated: 1924

Deactivated: 1962
Foundation Materials:
Construction Materials:
Tower Shape:
Markings/Pattern:
Relationship to Other Structure:
Original Lens:

Historical Background

- With Absecon Lighthouse to the north and the Hereford Inlet Lighthouse to the south, there was still a dangerous section of New Jersey coastline that was unlit. With many shipwrecks occurring around the Townsend's Inlet and Sea Isle City area, there was already a U.S. Lifesaving Station on-site, but a lighthouse was needed to properly mark the area.
- The founder of Sea Isle City, Charles K. Landis, had requested a lighthouse from the federal government to help protect the area. Congress had appropriated $5000 during their 1884 session for the materials and land needed to construct the lighthouse. Lots 15 and 16 were selected from the Sea Isle City plan and purchased in June of 1885 with construction starting later that summer. The lighthouse would be a white framed dwelling with an integrated lantern room.
- Ludlam's Beach Light was constructed in 1885 in Sea Isle City, New Jersey, on Ludlam Island, close to the site of Life Saving Station Number 33. The site was surrounded with a timber bulkhead, which was filled in with sand and gravel and graded to prevent the wash from high tides. A lightning conductor was also put up. It was activated on November 3 of that year, with Joshua H. Reeves as its first keeper. The lighthouse was an "L-shaped", two-story, structure with a square light tower on top. The light would utilize a revolving fourth order Fresnel lens lit by an oil lamp and would first be shown on the night of November 3, 1885, which flashed white every fifteen seconds, was at an elevation of 36 ft., and could be seen approximately 11.5 miles (18.5 km) in clear weather. A glass panel was later installed on a segment of the lantern making it appear to flash red to ships that had strayed too close to the Townsend's Inlet sandbar. Also built on site was an oil shed and outhouse.
- The lighthouse's foundations and the seawall in front of it were damaged by a severe storm in September 1889. The storm threatened the light enough that the illumination apparatus was removed, and the lighthouse was temporary abandoned.
- In 1899, a kitchen addition was added to the structure, and the next year, a concrete seawall was constructed. The last major improvement was the replacement of the oil wick lamp in the illuminating apparatus by an incandescent oil vapor lamp. Other additions to the site would be a telephone and a flag pole.

A year later, a new concrete sea wall was constructed. The wall, extending around the rear of the lighthouse was 156 feet long. 1907 would bring city water to the lighthouse and 1913 would bring an upgrade in the illuminating apparatus. The oil wick lamp would be removed in favor of an incandescent oil vapor lamp.

- Like its neighbor to the south, the Hereford Inlet Lighthouse, Ludlam Beach Lighthouse has also had an ongoing battle with erosion. A tropical storm in September of 1889 would bring extensive damage to the lighthouse. As a precaution, Keeper Reeves would remove the illuminating apparatus from the tower to ensure its protection, and seek cover elsewhere. When Reeves returned he found several sections of the sea wall disrupted, with much of the gravel filling having been washed away. He would also find parts of the front and rear foundation undermined. Repairs would be made to the foundation, and a new sea wall was built to afford further protection.
- On November 21, 1923, a fire was started when the keeper's dog knocked over a kerosene lantern, destroying part of the roof and the kitchen. The kitchen would suffer extensive damage as well as a third of the roof. Luckily the lantern room and lens were mostly intact. Temporary repairs were made, which included covering the damaged roof with canvas to allow the lighthouse to continue.
- A temporary roof patch was torn off in a storm in March 1924, and the structure was decommissioned. The structure was moved to 31st Street and Landis Avenue later that year, refurbished, and sold as a private residence. It was later moved to 3414 Landis. The original lighthouse was replaced by a 45 ft (14 m). steel skeleton tower on the beach, which flashed red every six seconds, and was visible approximately 12 miles (19 km).
- The automated tower was damaged in the Ash Wednesday Storm of 1962, and later dismantled and never replaced as most ships were using radio navigation at the time. The original site of the light station is on the present 31st Street beach. Though usually buried under sand, parts of the lighthouse's foundations are occasionally uncovered after a large storm. After the current owners of the lighthouse building offered it for donation on the stipulation that it be moved to a new property, the Friends of Ludlam Beach Lighthouse organization began working with the City of Sea Isle to find a location to move the original structure.
- As of April 2009, a renovated Excursion Park or the planned Passive Park was the two most popular locations. If the structure had been moved, it was planned to restore it to its condition in 1900, and open it as a museum.
- By the summer of 2010, the Friends of Ludlam Beach Lighthouse had not reached their fund-raising goals, and the building was demolished on September 21, 2010 to make way for three private homes.

Researched and written by Andy Gray, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

MIAH MAULL SHOAL LIGHT

ON NORTH END OF SHOAL/DELAWARE BAY
Station Established: 1913
Year Current Tower(s) First Lit: 1913
Operational? YES
Automated? YES 1974
Deactivated: n/a
Foundation Materials: CONCRETE/CAST IRON CAISSON
Construction Materials: CAST IRON W/BRICK LINING
Tower Height: 45 feet; focal plane 59 feet
Tower Shape: CONICAL
Markings/Pattern: RED TOWER W/RED WATCHROOM/BLACK LANTERN
Relationship to Other Structure: INTEGRAL
Original Lens: Fourth Order Fresnel; today 500 mm optic

Chronology:

- 1909: A temporary light near the site of a late 18th century shipwreck where Nehemiah Maull drowned was established.
- 1913: The permanent light, painted brown, was first lit.
- By 1941: The lighthouse was listed as having a red tower, a black lantern and a gray base.
- By 1973: The lighthouse was fully automated.
- 1980s: The US Coast Guard removed the metal canopy from above the walkway during renovation.
- Today: The lighthouse is still an active aid to navigation using a 500 mm optic. The lighthouse is on the National Register of Historic Places.

Researched and written by Diane Hackney.

NAVESINK TWIN LIGHTS

LOWER NEW YORK BAY
Station Established: 1828
Year Current Tower(s) First Lit: 1862
Operational? YES; North Tower: NO
Automated? YES 1949

Deactivated: 1898-1962; North Tower: 1949
Foundation Materials: STONE
Construction Materials: BROWNSTONE W/BRICK LINING
Tower Height: 46 feet; 73 feet; focal plane of 246 feet
Tower Shape: OCTAGONAL; North Tower: SQUARE
Markings/Pattern: TWO TOWERS ON FORTRESS STYLE STRUCTURE
Relationship to Other Structure: ATTACHED
Original Lens: Second Order Fresnel, 1841; North Tower: First Order Fresnel, 1841

General Information:

Navesink Light, New Jersey, on Navesink Highlands, south of the entrance to New York, was established in 1828. It consisted originally of two rubble towers. In 1862 two brownstone towers replaced these, the north tower being octagonal and the south tower square. They are 73 feet high and connected by a dwelling. The present light is exhibited from the south tower only and shows a flashing white light every *5* seconds, 246 feet above water and visible 19 miles. The light in the north tower was discontinued in 1898.

In 1841 the first Fresnel lens to be used in this country was imported from France and installed in the south tower. In 1898 an electric arc lamp replaced oil lamps in the south tower, this being the first primary lighthouse in the United States to use electric light. The electric arc lamp was equipped with a bivalve lens of the new lighting type. This lens, weighing over 7 tons, revolved in 10 seconds, and gave a flash every *5* seconds, lasting 0.3 seconds. The Navesink Light was the only shore station having a plant for generating electricity. Its estimated candlepower was 25,000,000 making it the most powerful coast light in the United States. Although on account of the curvature of the earth, the light itself could not be seen more than 22 miles, its beam was reported to have been observed in the sky at a distance of 70 nautical miles.

After the establishment of this electric flashing light many complaints were made by residents of the neighborhood of the great discomfort and annoyance caused by the brilliancy of the flash. This was remedied by darkening several of the lantern panels on the landside. The light was later changed to an electric incandescent light of 9,000,000 candlepower. With the improvement in floating aids, however, this lighthouse lost some of its early importance, and the candlepower was reduced to 5,000 candlepower. It was changed to unwatched in 1949. The light was discontinued in 1952 and used as a daybeacon until 1963.

Chronology:

- 1828: The original twin towers at Navesink were built. They stood 100 yards apart. The north tower displayed a fixed white light while the south tower had a rotating white light.
- 1841: The first Fresnel lens in the United States was installed in the south tower.
- By 1851: It was decided that new towers were needed to replace the originals.
- 1862: The new and current towers were first lit. The north octagonal tower and the south square tower were connected by the keeper's quarters. The north tower was equipped with a 2nd order Fresnel lens and the south displayed its 1st order Fresnel lens.
- 1898: A generator was installed. This made Navesink the site of the first lighthouse with electricity.
- 1949: The US Coast Guard automated the lights.
- 1953: The light station was decommissioned and turned over to the state of New Jersey.
- 1962: A sixth order Fresnel lens was placed in the north tower.
- 2002: The north tower is open for climbing. A museum and gift shop now occupies the keeper's quarters.

Chronology researched and written by Diane Hackney.

ROMER SHOAL LIGHT

SWASH CHANNEL/NEW YORK LOWER BAY
Station Established: 1838
Year Current Tower(s) First Lit: 1898
Operational? YES
Automated? YES 1966
Deactivated: n/a
Foundation Materials: CONCRETE/CAST IRON CAISSON
Construction Materials: CAST IRON
Tower Shape: CONICAL
Markings/Pattern: WHITE W/RED BAND MIDWAY
Relationship to Other Structure: INTEGRAL
Original Lens: FOURTH ORDER, FRESNEL 1898

SANDY HOOK LIGHT

NEW YORK LOWER BAY, SANDY HOOK, GATEWAY NATIONAL RECREATION AREA
Station Established: 1764
Year Current Tower(s) First Lit: 1764
Operational? YES
Automated? YES 1965
Deactivated: n/a
Foundation Materials: STONE
Construction Materials: RUBBLESTONE W/BRICK INTERIOR
Tower Shape: OCTAGONAL
Tower Height: 103-feet to the top of the lightning rod
Characteristics: Fixed-white light
Markings/Pattern: WHITE WITH RED LANTERN
Relationship to Other Structure: SEPARATE
Original Lens: 18 LAMPS, 21" REFLECTORS 1842
Foghorn: None

General Information:

The Sandy Hook Light tower is the oldest original tower still standing and in use in the United States. The light in this tower was lighted for the first time on June 11, 1764. Originally called the "New York Lighthouse," it was built by Mr. Isaac Conro of New York City with money collected by a group of New York merchants and maintained by tonnage dues of 22 pence per ton paid to the port of New York "By order of an Act of the Colony." The location of the lighthouse on New Jersey land eventually caused dissension between the two States. It was one of the 12 lighthouses built by the colonies which, by the act of August 7, 1789, were ceded to the United States. The new Federal Government agreed to maintain them thereafter.

The lighthouse was described in 1764 as follows: "This House is of an Octagon Figure, having eight equal sides; the Diameter of the Base 29 feet; and at the Top of the Wall 15 Feet. The Lanthorn is 7 feet high; the Circumference 15 Feet. The whole Construction of the Lanthorn is Iron; the top covered with Copper. There are 48 Oil Blazes. The Building from the Surfaces is Nine Stories; the whole from Bottom to Top 103 Feet.

A lot of about 4 acres "at the point of Sandy Hook, in Monmouth County," was ceded to the United States by the State of New Jersey on November 16, 1790, and on March 1, 1804, the State of New Jersey "consented to the purchase of a lot on the north point of Sandy Hook, for the purpose of erecting a beacon." Appropriations for a beacon "to be erected on the north point of Sandy Hook" were made in 1804 ($2,000), 1805 ($6,000), 1807 ($1,200) and 1817 ($1,200). In 1832 there were two beacons on the Hook, "one

on the north point, ranging with the light and buoy of the upper middle; and the westernmost one and light ranging with the buoy on the SW. spit, in both of which are lamps.

In 1852 the Lighthouse Board reported "The tower of Sandy Hook main light was constructed in 1764, under royal charter, of rubblestone, and is now in a good state of preservation. Neither leaks nor cracks were observed in it. The mortar appeared to be good, and it was stated that the annual repairs upon this tower amount to a smaller sum than in the towers of any of the minor lights in the New York district. The illuminating apparatus is composed of 18 21 inch reflectors, and Argand lamps which were fitted new, according to the best information on the subject, in 1842.

The light is a 60,000-candlepower, third-order electric light, fixed white, in a white stone tower, 85 feet above ground and 88 feet above water, visible for 15 miles.

Chronology:

- 1761: 43 New York merchants petition the Colonial Assembly of New York to erect a lighthouse at Sandy Hook to aid sailors in navigating the narrow curved channel at the tip of Sandy Hook so there would be a safer passage way into New York Harbor.
- 1762, May 10: 4 acres of land at Sandy Hook was purchased from Robert Hartshorne with money raised in a lottery authorized by the Colonial Assembly of New York.
- 1763, June 14: A second lottery was held in order to raise funds to build the lighthouse.
- 1764, June 11: The rubble stone lighthouse built by Isaac Contro of New York City, and originally known as the "New York Lighthouse", was first lit. This made the light the 5th to be built in the colonies.
- 1776, March: The lighting apparatus and oil lamps were removed in order to prevent the light aiding British troops.
- 1776, Spring: The British were able to relight the tower using makeshift lamps and reflectors.
- 1776, June 1: Americans fire upon the light with cannons in an effort to take out the light now under British control. After damaging the tower, they were chased off by an armed ship.
- 1817: Two additional beacons, the Sandy Hook East and the Sandy Hook West, were constructed at Sandy Hook.
- 1856: A 3rd order Fresnel lens manufactured by the P. Sautter & Co. of Paris, France was installed in the lantern. This lens is still in use today.
- 1857: Three assistants were assigned to aid the head keeper who was in charge of all 3 lights at Sandy Hook.

- By 1863: Extensive repairs including a new edifice, a brick lining inside the tower and new iron steps to replace the old wooden stairs were completed.
- 1883: A new keepers quarters was built. The double frame dwelling, which housed the head keeper, his family, and the assistants, still stands today.
- 1889: Sandy Hook Lighthouse became the first lighthouse in the U.S. to be lit by incandescent lamps.
- 1964, June 11: The lighthouse is dedicated as a National Historic Landmark on its 200th anniversary.
- 1996: Ownership of the lighthouse was transferred from the Coast Guard to the National Park Service.2
- 2002: The lighthouse is a part of the Gateway National Recreational Area. Equipped with a 1000-watt bulb, the light is visible up to 19 miles on a clear day. The New Jersey Lighthouse Society in conjunction with the National Park Service conducts tours of the tower.

Chronology was researched and written by Diane Hackney.

SEA GIRT LIGHT

RELOCATED FROM SEA GIRT INLET
Station Established: 1896
Year Current Tower(s) First Lit: 1896
Operational? NO
Automated? YES 1945
Deactivated: 1977
Foundation Materials: BRICK
Construction Materials: BRICK
Tower Height: 44 feet; focal plane 60 feet
Tower Shape: SQUARE
Markings/Pattern: RED BRICK W/BLACK & WHITE LANTERN
Relationship to Other Structure: INTEGRAL
Characteristics: Flashing red light for 2 seconds out of every 6 seconds (1896); white light with 1 flash per second (1912)
Original Lens: FOURTH ORDER, FRESNEL 1896

Chronology:

- 1889: Congress appropriated $20,000 for a lighthouse near Squan Inlet. Before the sale of land picked out for the lighthouse was completed, the site was determined to be unfit for a lighthouse.

- 1894-1895: A new site was selected and the title to the land was transferred.
- 1896: Construction of the lighthouse was completed.
- 1896, 10 December: The lighthouse was first lit.
- 1900: A 240 foot sand fence was installed to protect the lighthouse from erosion.
- 1912, May: The kerosene wick lamp was replaced with an incandescent oil vapor lamp. The light characteristic was changed to a white light with 1 flash per second.
- By the 1920s: The ocean lapped at the lighthouse foundation. Interlocking steel pilings were installed around the seaward side of the light.
- 1921: Sea Girt became the first shore light station with a radio fog signal.
- 1924, November: The light was electrified and changed to a 300-watt lamp.
- 1941: The light was shut down and the Fresnel lens was removed. At the end of World War II a new light was instated on top of the lantern room. It was similar to an airport beacon.
- 1955: The lighthouse discontinued. The property was offered to the state but it was declined. The light from the top of the lantern room was moved to a tower on the lighthouse property.
- 1956: The lighthouse was sold to the Borough of Sea Girt for $11,000. The building was used as a meeting place for town activities.
- 1980: The Sea Girt Lighthouse Citizens Committee was formed to restore the lighthouse. They leased the property from the town for 25 years at a rate of $1 per year. The lease was later extended to the year 2056.
- 1982: The light from the tower was removed and placed in the lantern room.
- 2002: Tours are available of the lighthouse.

Chronology was researched and written by Diane Hackney.

STATUE OF LIBERTY LIGHT

Location: Bedloe's Island, New York Harbor
Station Established: 1886
Year Current Tower(s) First Lit: 1886
Operational: No
Automated: N/A
Deactivated: 1902
Foundation Materials: Stone
Construction Materials: Copper/Iron
Tower: Copper
Markings/Pattern: Bronze
Characteristic:

Relationship to Other Structure: Integral
Original Lens: N/A

Historical Information:

- 1834; While Bedloe's Island, with an area of approximately 12 acres, is located in the Upper Bay of New York Harbor, it is geographically in the territorial waters of New Jersey. The island itself above the mean low-water mark is in New York State, pursuant to an interstate compact entered into by New Jersey and New York this year. The State of New Jersey retains the riparian rights to all the submerged land surrounding the statue and extending eastward to the normal interstate boundary line at the middle of the Hudson River Channel.
- 1886: The Statue of Liberty was dedicated and unveiled. President Cleveland appointed the U.S. Light-House Board to be its caretaker. Engineers set up a steam dynamo plant on Bedloe's Island and fourteen arc lamps, nine in the torch and five others positioned strategically below at the angles of Fort Wood. Even so, the dimness of the lighting was little help to vessels entering the harbor and efforts were made to increase the illumination.
- 1897: An oil-generating engine was installed to power the lights,
- 1901: President Theodore Roosevelt, once a member of the New York committee, ordered the statue's transfer to the War Department, as it had proved useless as a lighthouse.
- 1902: Due to the inadequacy of the lights the Liberty Lighthouse closed.

Researched and written by Andy Gray, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

TINICUM ISLAND FRONT RANGE LIGHT

Historical Front Range

Location: South of Billingsport, New Jersey along the Delaware River near Lincoln Park in front of the Mobil Oil Refinery at Paulsboro, 5/8 mile from the rear range light.
Station established: December 1880.
Tower first lit: December 31, 1880.
Operational? No
Automated? Yes, 1938.
Deactiveated? Yes
Foundation material: concrete.
Construction material: 1880 wood frame two-story house. 1887 and 1908 wooden

tower, approximately three stories high, in two slightly different locations on site.
Tower height: approximately 30 feet
Original lens: Fifth Order Fresnel range light.
Relationship to other structures: 1880 integral on Keepers quarters. 1887 and 1908 separate from Keepers quarters.

Active Front Range

Location: same location as the 1908 Front Range light.
Operational? Yes
Automated? Yes
Deactivated? No
Foundation: concrete
Construction material: Vertical steel framework of two parallel sections of different heights
Tower height: Light heights 21 feet night and 24 feet day.
Characteristic: Lighted 24 hours.
Relationship to other structures: N/A

Historical Information:

- The Tinicum Front Range light was co-located with the Front Range light of the Fort Mifflin Front Range light. These two sets of range lights both marked the reach passing Tinicum Island and the channel dredged across Fort Mifflin Bar, but faced in opposite directions.
- In 1880 the lighthouse was on a six-room dwelling with a tower attached to its front, built on the slope of the riverbank to serve as the front ranges.
- In 1887, to improve function and to deal with shifting river channels a detached frame light tower was located 50 feet east of the Keeper's quarters.
- In 1908 the lights were realigned and a tower was placed on a cement pier just offshore and connected by an elevated walkway. This may have been a relocation of the original tower as they appear identical in historical photographs.
- At fog signal bell was suspended from the front of the 1908 tower.
- Keepers quarters (original lighthouse) was demolished in the 1970s.
- Existing Front Range lights are on two parallel steel towers located on the base of the 1908 Front Range light.
- The lights on the steel towers continue to serve the two ranges (Mifflin Front Range and Tinicum Front Range).

Keepers:

- Joseph H. Preston (first keeper)

- Clyde Harrison (1940s-1965)

Researched and written by Ed Shaw, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.

TINICUM ISLAND REAR RANGE LIGHT

Location: Delaware River, Billingsport, New Jersey
Station Established: 1880
Year Current Tower(s) First Lit: 1880
Operational? YES
Automated? YES, 1967
Deactivated: N/A
Foundation Materials: STONE MASONRY
Construction Materials: IRON
Tower Shape: SKELETAL WITH CENTER CYLINDER
Markings/Pattern: BLACK
Relationship to Other Structure: SEPERATE
Original Lens: PARABOLIC REFLECTOR 1880

Historical Information:

- In 1880 the Tinicum Range Lights were built. They were unique because the front range light set in conjunction of the Fort Mifflin Bar range lights. The Tinicum lights directed traffic up river while the Fort Mifflin Bar lights directed traffic down river.
- First lit on December 31, 1880, the rear range light was an 85 foot skeletal tower with a cylindrical center that housed a spiral staircase of 112 steps.
- A seven room keeper's dwelling was built at the site.
- In 1890 the light was listed as " a fixed red light". It was later changed to a white light with a red sector to mark the turning point between the Tinicum Range and the Schooner Ledge Range. Today the light shows an all red beacon with the strength of 500,000 candlepower. There is only one window in the lantern, as the light shines in only one direction.
- The keeper's dwelling was destroyed sometime in the 1950's. The structure was placed on the National Register of Historic Places in 2008. The site of the lighthouse is now surrounded by athletic fields. While the Coast Guard still maintains the light, the grounds and structure have been turned over to the Tinicum Rear Range Lighthouse Society who offer public tours of the lighthouse between April and October. It remains an active aid to navigation.

Researched and written by Melissa Buckler, a volunteer through the Chesapeake Chapter of the U.S. Lighthouse Society.
