BOSTON LIGHT

THE OLDEST AMERICAN LIGHT STATION

The first lighthouse built in North America and probably the first on the American Continents was built on what is now known as Light House Island, Boston Harbor, at the northside of the entrance to the Main Ship Channel. It was on substantially the same site as that occupied by the present Boston Light. In the interesting history of this station one may follow, through the various changes and improvements, much of the lighthouse development taking place from the time of the station's establishment in 1716 to the present efficient stage of lighthouse engineering.

A record of the proceedings of the General Court of the Province of Massachusetts Bay mentions a petition of March 9, 1673 presented by the citizens of Nantasket (now Hull) for reducing their taxes because of material (four hundred boat-loads of stone) and labor which they had supplied over and above their proportion in building a beacon on Point Allerton. Bills were paid at that session of the Court for making and furnishing "fier-bales of pitch and ocre for the beacon at Allerton Point." The bales were burned in an iron grate or basket on top of the beacon.

Although this beacon was evidently in use as a signal at or about this time, it can hardly be considered an aid to navigation in the strict sense, for it was intended primarily as a warning to the vicinity upon the approach of hostile craft rather than as a guide for shipping.

The establishment of a lighthouse in or near Boston Harbor was considered as early as 1701, but the first actual step for the erection of a

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lighthouse was taken in 1713 when the General Court of Massachusetts received a petition from leading Boston merchants, "Proposing the erecting of a Light House and Lanthorn on some Head Land at the Entrance of the Harbour of Boston for the Direction of Ships and Vessels in the Night Time bound into said Harbour."

Shortly afterwards, a committee appointed to investigate the matter submitted a report to the General Court which read in part as follows: "..... the Southernmost Part of the Great Brewster called Beacon Island is the most convenient Place for Erecting a Light House which will be of great Use not only for the Preservation of the Lives and Estates of Persons designing for the Harbour of Boston and Charlestown, but of any other Place within the Massachusetts Bay." The undertaking was promptly approved.

The Town of Boston became suddenly interested in the matter and it was voted "That the consideration of what is proper for the Town to do Abt. a Light-Hous be referred to the Select men." Later the town asked the Court that Boston be given the preference in erecting and maintaining the lighthouse and be "Intituled to the Proffits and Incomes thereof." Boston was to be deprived of this pleasure, however, for the General Court on July 23, 1715 passed an act for building and maintaining it at the expense of the province. The want of such a lighthouse, said the Court, "hath been a great Discouragement to Navigation by the loss of the lives and Estates of several of His Majesty's Subjects."

The Great Brewsters, of which Beacon Island was one, were owned by the town of Hull. On August 1, 1715 the town, by unanimous vote, granted Beacon Island to the Province of Massachusetts Bay "for the use of a light house forever."

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The lighthouse was built under the direction of Mr. William Payne and Captain Zechariah Tuthill, and in a little over a year after the act was passed it was completed at a cost of £2385 17s 8d. On September 14, 1716 the lantern was lighted for the first time and three days later the following item appeared in the "Boston News-Letter:"

"Boston. By virtue of an Act of Assembly made in the First Year of His Majesty's Reign, For Building and Maintaining a Light House upon the Great Brester (called Beacon Island) at the Entrance of the Harbour of Boston, in order to prevent the loss of the Lives and Estates of His Majesty's Subjects; The said Light House has been built; and on Fryday last the 14th Current the Light was kindled, which will be very useful for all Vessels going out and coming in to the Harbour of Boston, or any other Harbours in the Massachusetts Bay, for which all Masters shall pay to the Receiver of Impost, one Penny per Ton Inwards, and another Penny Outwards, except Coasters, who are to pay Two Shillings each at their clearance Out, And all Fishing Vessels, Wood Sloops, etc. Five Shillings each by the Year."

The act for establishing Boston Light provided that the keeper "shall carefully and diligently attend to this Duty at all times in kindling the Lights from Sun-setting to Sun-rising, and placing them so as they may be most seen by vessels coming in or going out."

George Worthylake held the distinction of being the first lighthouse keeper in this country and probably the first on this side of the Atlantic. For his first year's labors at Boston Light he received a salary of fifty pounds,

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but in 1717 his pay was increased on his own petition to seventy pounds a year. Misfortune, however, overtook him and his family for shortly afterwards, on November 3, 1718 he, his wife and his daughter were drowned. Benjamin Franklin, at the time thirteen years old, wrote a ballad regarding this unhappy event, which he called the "Lighthouse Tragedy", and he was prevailed upon by his brother to print it and sell it on the streets of Boston. Since the tragedy was fresh in the people's minds the ballad enjoyed a very ready market, although Franklin later characterized it as "wretched stuff."

Three days after George Worthylake was drowned, Robert Saunders was ordered to care for the light temporarily, but was replaced almost immediately by the permanent keeper, an experienced sea captain and pilot named John Hayes.

During the following year Captain Hayes petitioned the General Court "that a great Gun be placed on Said Island to answer Ships in a Fog." The gun was voted and placed at the island shortly afterwards. There is little doubt that this was the first fog signal on our continent, and it is of interest that the original cannon, bearing the date 1700, is still at Boston Light Station, though of course long since obsolete. It appears to have been the only fog signal here for one hundred and thirty-two years.

The light house suffered from fire in 1720, but it was not greatly damaged. The keeper "supposes the fire was occasioned by the Lamps dropping on the wooden benches and a snuff falling off."

Captain Hayes, who had certain other duties besides attending the light, had two assistants, found necessary for the station's proper maintenance.

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He remained keeper until 1733 when he retired and was replaced by Robert Ball.

In the spring of 1734 the tower was found to need repairing, cracks and seams having appeared in several places. In June a committee was appointed to examine the structure and report whether it could be repaired. In the report, which was dated July 4, it was suggested "that the Seams and Cracks be well filled with mortar or Putty, and the whole outside cased with Good oak Plank of two Inches and a half thick up and down, with twelve Iron hoops, the Hoops to be three Inches and a half wide, 5/8 of an Inch thick, well drove over the Plank and to be at Suitable distances about four feet apart, and boarded between the Hoops and Shingled on the outside." The foundations were found to be in good condition. Repairs were made according to this recommendation, and duty on Boston's shipping was increased for the next four years to defray the cost.

In 1751 Boston Light again suffered from fire, this time with considerable damage. The floors, stairs and other wooden parts were burned, and the wooden casing which had been put around the tower seventeen years before nearly caused its destruction. The stone-work, however, was not impaired and the light house was soon in commission again. But precautions were taken to prevent further fires by placing brick walls and iron plates near the new iron lantern. The roof was made of copper.

Robert Ball was on duty when the fire occurred. He remained keeper until 1773, and probably until October 10, 1774 when he died at the age of seventy-five, after over forty years of faithful service at this one station.

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Boston Light fared very badly at the time of the Revolution. On July 20, 1755, shortly after the occupation of Boston by the British, it was visited by a party of Americans who took the lamps and burned the wooden parts of the building; and an eye-witness "saw the flames of the lighthouse ascending up to heaven like grateful incense."

The British immediately began reconstruction work under the protection of a guard of marines. But eleven days later another contingent consisting of three hundred Americans under command of Major Tupper put out in boats from Dorchester and Squantum, and made a second attack. They overwhelmed the guard, killing ten or twelve and, after destroying the work under construction took many prisoners away with them. They were hotly pursued by the British, but a gun previously placed on Nantasket Head to cover their retreat sank one of the British boats with fatal results, and ended the chase.

These attempts had only temporary effect for the British rebuilt the light and kept it until June 1776 when their fleet sailed from Boston Harbor. Upon leaving they made a trail of gunpowder which, an hour later, demolished the tower. Subsequently the "old top of the lighthouse", probably the metal work of the lantern, was used by the Americans "to supply the cannon with ladles."

After the destruction of the tower by the retreating British, Boston Harbor was unmarked by any lighthouse until 1783 when, after the close of the Revolution, the legislature provided for a new one to be built on the site of the first and of nearly the same dimensions. The new lighthouse was built that year at a cost of about $19,881.44. It was conical in shape, 45 feet in

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circumference at the base, with walls diminishing in thickness from 7½ feet at the bottom to 2½ feet at the top. The lower ten feet were of rubble-stone, and split granite was used above that point. The tower was surmounted by an octagonal iron lantern 25 feet in circumference, and the height of the entire building including the lantern was 75 feet. This tower, with various alterations and improvements is the present Boston Light. Its height was increased to 89 feet seventy-six years later.

In 1789 at the first session of Congress after the organization of the United States Government, an act was passed which provided that all the expenses incidental to the maintenance of navigational aids should be defrayed out of the Treasury of the United States.

On June 10, 1790, one year later, the Massachusetts Legislature ceded Boston Light to the United States and at the same time five other lighthouses and "the beacon on the spit of sand near the lighthouse in the harbor of Boston." In ceding her lighthouses Massachusetts showed caution with respect to the new government, for there was the provision "that if the United States shall at any time hereafter, neglect to keep lighted, and in repair, any one or more of the lighthouses aforesaid, that then the grant of such lighthouse or lighthouses so neglected shall be void and of no effect;.....that if the United States shall at any time hereafter make any compensation to any one of the United States for the cession of any lighthouse....like compensation be made to this Commonwealth by the United States for the cession of the Light Houses aforesaid, in proportion to their respective values."

On July 18, 1793 an order was sent from the office of the President

making the pay of Thomas Knox, then keeper of Boston Light, 266 2/3 dollars per annum, although previously he had received four hundred dollars. The reduction was stated to be because of the favorable living conditions at the station, and it was added "the present incumbents it is presumed will perceive the perfect reasonableness and equity of this reform by the President." Similar reductions were made at six other important light stations. This rate of pay was small enough to be sure, but the early keepers evidently did not devote their entire time to their lights. They did much of the pilotage in Boston Harbor, some of the enforcement of quarantine regulations and often rendered assitance to vessels in distress. They could also fish and sell their catches.

At about this time the lighthouse was several times struck by lightning, and steps were taken to erect conductors; but this measure "was opposed by several of the godly men of those times, who thought it vanity and irreligion for the arm of flesh to presume to avert the stroke of Heaven." After further damage, however, the tower was so protected.

On July 5, 1811 the characteristic of the light was changed from a fixed to a flashing white light, and the apparatus improved. The sixteen oil lamps arranged in groups of four were replaced by Argand lamps with crude reflectors fitted to revolving mechanism.

Apparently during the War of 1812 the light was temporarily extinguished, for the Marine Society of Boston petitioned in January 1814 for "having Boston Light lighted during the Winter months. We presume the Lights are extinguished to prevent the Enemy's availing himself of the security they afford." The Society

argued that coasters, in order to escape being captured must pass the most dangerous capes and ledges during the long nights. Some mark, they said, was required to guide them to safety.

An interesting description of Boston Light appeared in the "American Coast Pilot" at about this time. It read: "Boston Light-House stands on a small island on the north entrance of the channel (Point Alderton and Nantucket (sic, Nantasket) heights being on the south) and is about 65 feet high. It contains a revolving light.....and will appear brilliant for forty seconds, and be obscured twenty seconds, alternately. Two huts are erected here with accommodations for shipwrecked seamen. A cannon is lodged and mounted at the Lighthouse to answeresignals."

In 1838 the light was produced by fourteen Argand lamps of about the size of those in family use at that time. They were fitted with parabolic reflectors and mounted on revolving apparatus. During the next year large twenty-one-inch parabolic reflectors of English make were fitted to the light and in 1851 these were replaced by still better ones.

A report of 1851 mentions a "fog bell lately erected at the outer light" at Boston, weighing 1375 pounds, rung mechanically every forty-seven seconds, and operating for six hours on one winding. This bell was recommended at least ten years before, but it appears that nothing was done about it at the time.

In 1859 the tower was raised from seventy-five feet in height to eighty-nine feet, lined with brick, a new dwelling erected, and the station

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provided with a second-order Fresnel lens with revolving machinery, and so it remains, although shortly after the installation of the new apparatus the Boston pilots petitioned that it be replaced by the old reflectors.

Most of the changes at Boston Light after this time came in fog signal development. The bell was replaced by a first-class Daboll trumpet with duplicate engines in 1872. A brick building twenty-two feet square was built east of the tower four years later to house the fog signal.

In 1884 tests were conducted here to discover the most efficient signal for the station. Two were set up having the same characteristic,--two blasts of five seconds duration with alternate intervals of ten and forty seconds,--one a large Daboll trumpet and the other a 10-inch steam whistle. Neither proved very satisfactory for in 1887 a first-class siren was established in duplicate and the 24-inch caloric engine used previously was removed to Portland Head Light Station, Maine.

In 1890 an auxiliary light, exhibited 34 feet above the water from a white wooden structure 9 feet high, was established near the tower at Boston Light Station to guide vessels into Nantasket Roads. It was lighted for the first time on the night of June 30, and shows a fixed white light of 2,000 candlepower, with two red sectors covering the dangers in the Roads.

Gales of November 1898 carried away the boathouse and about one hundred feet of the south wharf. These were soon rebuilt and protected by a large amount of rip-rap and a heavy sea wall.

This primary seacoast station now shows a 100,000 candlepower

flashing white light of eight seconds duration followed by a dark interval of twenty-two seconds. It is exhibited 102 feet above the sea and is visible for sixteen miles. The fog signal is an air siren giving a group of two three-second blasts every minute.

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