

## Portland Head Light: Portland Harbor's Everlasting Beacon of Safety

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Portland Head Light is one of the most important landmarks in the state of Maine. It is the oldest lighthouse in the state and was the first lighthouse completed under the federal government. Today, it is a popular tourist destination for many, but most just admire the lighthouse's beautiful architecture and do not consider its fascinating history. The lighthouse is the oldest in the country that has never been rebuilt, but that doesn't mean it hasn't undergone its fair share of renovations. In fact, the lighthouse has changed height on four separate occasions as the needs of the ships coming into Portland harbor changed, ending at its current state of 80 feet tall, 101 feet above the waterline (United States Coast Guard). The lighthouse was the main lighthouse for Portland Harbor for decades and still serves that function in some capacity along with its attraction as a popular Maine destination for tourists. The lighthouse has gone through many trials and tribulations, from its construction over two and a half centuries ago, to its controversial lowering and then better-received raising after a tragic accident, and into the modern era, becoming a major landmark for the state and for the town of Cape Elizabeth.

The construction of Portland Head Light was ordered in 1787 by George Washington himself, who instructed two masons from Portland, then part of Massachusetts, to construct a lighthouse on Portland Head (United States Coast Guard). There was a brief period of jeopardy, where it looked like the lighthouse wouldn't be completed for monetary reasons, but Congress gave an extra \$1,500 for the lighthouse's construction in 1790. The lighthouse, built of rubblestone, was completed shortly, and it was up and running by January of 1791 (United States Coast Guard), with an extra 20 feet on top of it after locals realized they needed extra height to effectively display its light. At that point, the lighthouse stood an impressive 72 feet tall, and it

had to be manually lit by the keepers using whale oil. As a result, there are no railings on the inside of the tower, since the keeper had to heat the whale oil in the basement and then hurry up the narrow stairway with a large bucket of hot oil (Interview). This feature makes it distinct from many other lighthouses in the area, and while it served the keepers well, today it has become somewhat of a hindrance for tourism, as it can be dangerous to let tourists in lest they fall (Interview).

By the 1810s, there were some major issues that had become apparent with the lighthouse. The top 20 feet had been rushed in comparison to the rest of the lighthouse, and it, along with the lantern, was poorly constructed. A contractor, Winslow Lewis, offered the option of lowering the lighthouse 20 feet and replacing the lantern, which he did for about \$2,000 in 1813 (Landrigan). A couple years later, the keeper's quarters were renovated as well by a local contractor and the house was attached to the tower, making it easier for the keeper to light the lantern. Around this period was the time of famous Portland poet and Harvard professor Henry Wadsworth Longfellow, who greatly enjoyed the lighthouse. He often visited the lighthouse both as a child and an adult, and he wrote a poem specifically about it, titled, rather obviously, "The Lighthouse" (Portland Head Light).

However, soon disaster would end this tranquil period in one of the greatest tragedies in Casco Bay's history. The British ship *Bohemian* capsized in 1864, and the ship, mostly carrying immigrants, sank, with 40 lives lost (Portland Head Light). As a result, there were quick improvements to the lighthouse, raising it up twenty feet to increase safety, and improving the lens in the lighthouse, going from a fourth order to a second order lens, which was both larger and more powerful (Hudspith). This also helped with one of the growing issues that the

lighthouse had had previously, that of the visibility of the lighthouse among the growing amount of gas lighting in Portland and the surrounding areas (Interview).

The lighthouse continued to function as normal for the next few decades, but the 1880s once again saw turmoil and controversy over the height of the lighthouse. In 1883, the Lighthouse Board decided that the recently built Halfway Rock Light would serve better as navigation into Portland Harbor and downgraded Portland Head Light, lowering it 20 feet yet again, and replacing the bright second order lens with another fourth order one (Portland Head Light). However, this saw public outcry, both from the general population who still remembered the wreck of the *Bohemian*, and from mariners who complained that they could no longer distinguish the lighthouse from the shore lights (Interview). These complaints were vindicated when the fishing schooner *G&B Morse* was lost when its captain mistook a shore light for Portland Head Light, and this wreck was used by local newspapers to argue for the raising of the lighthouse again (Portland Head Light). This series of events convinced the Lighthouse Board to reverse their decision, and the lighthouse was restored to its former glory in 1885, including a brand-new second order lens (Portland Head Light).

Even with the raising of the lighthouse, there was still a shipwreck just one year later, in 1886. The ship *Annie C. Maguire* was wrecked just below the lighthouse, in a puzzling case considering that members of the crew reported that they saw the light before the crash clearly. Luckily, the lighthouse's keeper and his family were able to use a ladder to bring all the members on board to safety. There are currently letters engraved on the rocks below the lighthouse for all to see, although *Maguire* is misspelled (Portland Head Light). The lighthouse was further renovated a couple years later, and a new keeper's house was constructed in 1891 (Hudspith), and lasted as the keepers' residences for almost a century, until 1989.

Around the time of all of these renovations, the lighthouse was also becoming a more and more popular tourist destination. Cape Elizabeth was becoming more popular as a resort destination for people summering in Maine, and Portland Head Light served as one of its main attractions to tourists (Portland Head Light). This time also saw Portland Head Light selected as a site of a fort to defend Portland Harbor, named Fort Williams, which was constructed throughout the 1880s and 1890s. This fort came with good timing, since the US went to war against Spain in 1898, and Portland Head Light was blacked out for the first time since it was constructed, intending to make it harder for enemy troops to enter the harbor (Portland Head Light). After the war, the lighthouse continued operation as normal for decades with no major renovations or events happening. In 1939, the US Coast Guard assumed control over the lighthouse and many others, giving the keepers the options of joining the Coast Guard or returning to civilian life (Portland Head Light). The next important event was in 1958, when the second order Fresnel Lens, which had been used since the 1850s, was finally replaced with a more modern lens, a rotating airport beacon that projected two beams of light and was visible 22 miles at sea (Portland Head Light). The lens required significantly less attention than the previous Fresnel Lens and was the first step towards Portland Head Light becoming fully automated. This happened in 1989, when Davis Simpson, the last keeper, oversaw the full automation of the light. By 1990, every lighthouse in the country was automated. Portland Head Light still functions today, and mariners still rely on it for confirmation of their position even with modern GPS technology (Portland Head Light).

The light in the lighthouse has undergone significant changes as technology has developed over the past two centuries, going from a fully manual lantern to the fully automatic state that it is in today. Originally, the lighthouse used a spider lamp, a common lamp at the time.

The spider lamp relied on whale oil to run several simultaneous lamps. This caused issues with the keeper, as the lamps produced irritating fumes, as well as issues clouding the glass in the lantern, dimming the light. Portland Head Light originally housed sixteen spider lamps in its lantern (Portland Head Light). This made it hard for the keeper to be at attention as much as he should have, especially since one of his responsibilities at the time was to raise flags of incoming ships so that they could be relayed to the Portland Observatory on Munjoy Hill so that the harbor could be notified of incoming ships sooner. The first change to the lamp came from the contractor, Winslow Lewis, who wanted the lighthouse to be lowered in 1813. He managed to convince the US government that the Argand lamp, a cleaner oil-burning lamp, was his invention. The US government paid him \$60,000 for his patent to refit all US lighthouses, including Portland Head Light, with “his” lamp, and this gave Lewis almost a monopoly on lighthouse lights (Portland Head Light). This coincided with the new Superintendent of Lighthouses, Stephen Pleasonton, being extremely fiscally conservative and basically neglecting the lighthouse as well as being heavily influenced by Lewis. Pleasonton kept the Argand lamps instead of changing to a new, better technology, the Fresnel Lens (Portland Head Light). Change would come about only in the 1840s, with Lewis’ own nephew calling for reform, winning Congress’ attention and a fourth order Fresnel Lens was established. The fourth order lens served the lighthouse well until the *Bohemian* disaster, and when the lighthouse was raised after the incident, a more powerful second-order lens was established. The fourth order lens was reinstated for a short amount of time during the controversy in the 1880s, but the second order lens was used until 1958, when it was replaced with the airport light. Then, the modern light it uses today was installed in 1989 (Portland Head Light).

Portland Head Light is one of the most significant landmarks in the Portland area, and it is also one of the oldest, having stood the test of time, withstanding multiple different renovations over the years, new lenses as technology improved, and various stages of government and military control. The lighthouse today draws in a significant amount of money for Cape Elizabeth through tourism, especially with the increased tourism in the town recently after the Bar Harbor cruise ship ban. Fort Williams park serves as an amazing experience on its own, but the fascinating history of the Portland Head Light, along with an accessible museum, makes it a truly special destination. Overall, Portland Head Light is a bulwark of the Portland area's rich history, and it is lighting the way not just to ships but to history enjoyers, hopefully for decades to come.

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