



*Very low tide at West Point beach. The West Point Lighthouse stands watch.  
Photo by Monica Wooton. 2006.*



# ONE FLASH WHITE, ONE FLASH RED: MAGNOLIA'S GUIDING LIGHT



By *Monica Wooton*

Lighthouses, the guiding lights to safety, the symbol of last hope to lost seafarers, the deal breakers in matters of life and death in many a seagoing saga, have captured America's imagination. Magnolia's West Point Lighthouse was built in 1881 off the jutting western point that was once called Sandy Point or Five Mile Point (Henry Yesler's wharf being five miles away, on the downtown Seattle waterfront). It is an often photographed and widely used navigation tool that has played a part in many historical moments and romantic memories of a day now quickly disappearing.<sup>1,2</sup>

Lighthouse expert Jim Gibbs wrote this poetic paragraph about the phenomenon of lighthouses:

*"Today much of the personal touch is missing but the work of safeguarding the mariner continues with technological innovations unknown a century ago. Tending lights and fog signals has for the most part, become automated; faithful keepers—wickies—have passed to their rewards but several of the graceful old towers with prismatic lenses continue to fight for survival in the nuclear age. Behind their flashing rays of light and droning foghorns is a story that longs to be told."*<sup>3</sup>

## The Lighthouse: Early World History

The earliest equivalent of today's lighthouses were probably created in ancient times when mariners made attempts at hunting and gathering, exploration, trade, and colonization from familiar to distant shores. Perhaps they kept a huge bonfire burning on a coastal cliff or a lonely beachhead, or possibly they were guided back again by an odd rock formation or grove of trees passed along the way.

It is known that around 280 BC a 450-foot tower known as the Pharos of Alexandria was designed by an architect named Knidos and built at the estuary of the Nile River.<sup>4</sup> This tower lasted 1,400 years and was used dually as a tower of guiding light for vessels on the Mediterranean and the Nile and as a religious temple ground.

The Pharos stood at the largest port of the Roman Empire, the harbor of Alexandria, where it was built during the reigns of Ptolemy Soter and his son, Ptolemy Philadelphos, by their slaves. A fire was kept on a large platform at the top of the enormous building, and it is said the light could be seen from 40 kilometers away. Destroyed by an earthquake in 1302 AD, the Pharos is considered one of the seven ancient wonders of the world.<sup>5</sup>

Another theory of how this “light” worked, offered in the book *Lighthouses of the World: A History of Where Land Meets Sea*, is interesting: “Egyptians [slaves] brought wood and dung . . . [and] burned it at the base [of the tower]. Convex mirrors then reflected the sun’s rays and created a beam visible as far as 33 miles across The Mediterranean.”<sup>6</sup>

Navigation by the stars could accurately locate a vessel, but conditions around and under the ships were always hard to know until the advent of navigational aids. Sometimes a natural phenomenon, like a long active and visible erupting volcano, became a pre-Roman Empire “land mass navigational marker” for observant sailors. Seamen of the Roman Empire in its maritime period used fire beacons to find their way across waters. The Dark Ages were dark times for vessel travel, with no known navigational system historically recorded. And in the Renaissance the guiding lights of navigation became, first, more prevalent and, second, purposefully designed.<sup>7</sup>

These lights evolved into a “signal fire” held in a basket of iron hanging from a high pole. Europe had more traditional lighthouses by the 1660s, but on American soil the first lighthouse to be built was on Brewster Island in Boston Harbor in 1776. The first West Coast lighthouse was Alcatraz, which began operating in 1854, and the first US lighthouse to use electricity was the Statue of Liberty in 1886.<sup>8</sup>

On August 4, 1790, at the suggestion of Secretary of the Treasury Alexander Hamilton, Congress created the Revenue Marine and “authorized the construction of ten vessels to enforce tariff and trade laws, prevent smuggling and protect the collection of the federal reserve,” according to the US Coast Guard website. This “fleet of cutters” was the very first beginnings of the US Coast Guard.<sup>9,10</sup>

Revenue collection was the Revenue Marine’s primary business until 1915, when the Revenue Cutter Service, as Revenue Marine was then known, and the Life Saving Service were combined to form the start-up organization of the US Coast Guard. Not until 1939 was the Lighthouse Service incorporated into the full US Coast Guard as we have come to know it. At this time, according to the “Historical Chronology” of the US Coast Guard, there were an amazing 29,606 aids to navigation operating in the United States.<sup>11</sup>

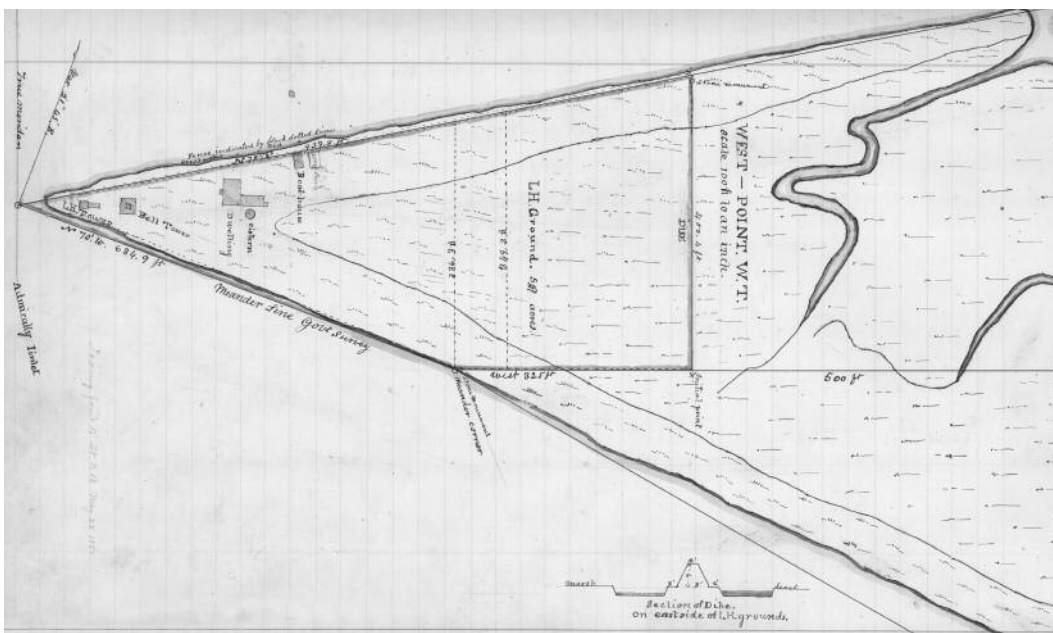
### West Point Lighthouse: Special for Magnolia

The West Point Lighthouse became a vision of the United States Lighthouse Board in 1872, when a light was first proposed. After a delay, in 1879 the Board finally said of the proposal:

*“It is highly essential that this magnificent sheet of water, which has not its equal in the world, should be so marked by fog signals as to render its navigation from Cape Flattery to Olympia possible at all times without danger to life and property.”*<sup>12</sup>

Opposing tide currents, shallow waters, and a very narrow navigable strip of bottomland added to the dangers for ships and boats.<sup>13</sup> It was not until 1881 that Congress saw its way to appropriate \$10,000 (reduced from an original announcement that “an appropriation of \$25,000 is required for a light”) to build the West Point Lighthouse with a 10-inch fog whistle.<sup>14</sup>

On November 15, 1881, the Light Station was built on 5.9 acres of land deeded from a Mr. John Leary. For that \$10,000 the shipping industry, in this case, got a small stucco and brick masonry tower (10 feet by 10 feet) that rises 27 feet above mean high water, or 23 feet from the ground, and a fog bell on one of King County’s most pivotal water junctures.<sup>15</sup>



Among the first recorded hand-drawn maps of West Point. The Lighthouse is shown at the tip of the point. Lighthouse Title Book; Land Title Record, US Lighthouse Service; US Coast Guard, 13th District, Record Group 26; National Archives, Pacific Alaska Region, Seattle. 1881.

Authors Sharlene and Ted Nelson note in their book *Umbrella Guide to Washington Lighthouses* that the directions for placement of the Lighthouse were: “The first prominent sand spit north of the busy town of Seattle.”<sup>16</sup> The Light led ships to and from Elliott Bay and Shilshole Bay, to and from Puget Sound, and to and from the Hiram M. Chittenden Locks when they began operation in 1917.<sup>17, 18</sup>

The West Point Lighthouse stands at the turning point to Shilshole Bay and acts as the greeting light for ocean commerce coming to the Port of Seattle by the “front door” and for the scores of smaller craft entering by the “back door,” according to *West Coast Lighthouses: A Pictorial History of the Guiding Lights of the Sea*, by Jim Gibbs.<sup>19</sup>

Could the planners have ever dreamed of the critical place they had chosen for the Lighthouse as a beacon of safe passage for so many boats in such busy waters? West Point Lighthouse is said to be King County’s first manned lighthouse, implying the keepers were living on the grounds. It is further implied that there were two residences in 1881, as there were two keepers. Research shows, however, that the Lighthouse and only one residence were there in 1881. A barn was added in 1883. And in 1886, the second lighthouse keeper’s dwelling was built.<sup>20, 21, 22</sup>

The “star” in the building is a Fresnel lens, a revolving light with 12 bull’s-eyes that was manufactured in France. Augustine Fresnel perfected this lens in 1822 at 34 years of age. He died in 1827 at age 39, having reset the standard for illumination in a lighthouse. The West Point lens’ statistics include the following: size: fourth-order lens; lamp volts: 120; candlepower: 16,000 white, 7,000 red; watts: 500. A first-order lens is the highest in complexity (best light); the lowest power lens is the sixth order in rank.

Pete Amass, a member of the US Lighthouse Society, calls the Fresnel lens “a marvel . . . a complex array of dazzling glass prisms and bull’s-eye lens mounted in a gleaming brass framework.”<sup>23</sup> Each lens, produced in Paris, cost \$12,000 plus shipping. West Point’s Fresnel lens traveled from France to New York and then was shipped to the West Coast around Cape Horn at the tip of South America.<sup>24</sup> By 1850, the United States had accepted the Fresnel lens as the up-to-date technology. The Fresnel lens is still considered the best light invented for maritime navigational aids.<sup>25</sup>

According to Charles Sablan, former director of special projects for the Seattle Parks and Recreation Department, an automatic remote optic light has been set outside the West Point Lighthouse turret, flashing the white and red West Point “characteristic” code. If one observes the flash, one sees that the light is no longer centered but is in front of the Lighthouse and the Fresnel. (The timing of the characteristic flash is now slightly off.)

Although the original light is not being used, it still works perfectly. The Fresnel will remain at the Lighthouse as a display in Discovery Park’s future Lighthouse educational program.<sup>26</sup>

### What’s Characteristic?

Mariners using lighthouses to navigate safely across water and stay on course had to know the patterns of blinks and color codes used by each lighthouse. Seamen distinguish one light from another by checking its “characteristic” (the color and timing of the beacon light) in a document called the *Light List*. The West Point Light is #16800 on the list. Light numbers are reassigned as new aids to navigation are brought into the system, so it is important to use an updated Light List.<sup>27</sup>

The West Point Light is designed to blink one flash white, then one flash red. (There is a red panel of glass after every clear one in the rotating glass cylinder of the light.) West Point’s characteristic is noted on its National Register of Historic Places application:

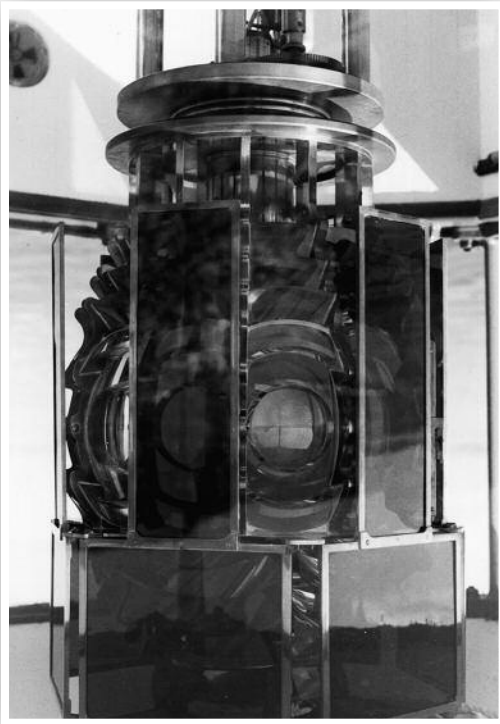
“White, 0.6 second flash . . . Eclipse: 4.4 seconds, white. Red: 0.6

second flash, Eclipse: 4.4 seconds, red.” The light flashes white and then red for the same length of time. The eclipse is the amount of time when no light is shining, and the period is the amount of time a light flashes. West Point’s period would be 0.6 seconds.<sup>28</sup>

West Point was outfitted with a hand-me-down bell. When a less-than-effective bell ringing at the Cape Disappointment Lighthouse failed to warn ships in the fog off the cape, the bell was passed down to West Point.<sup>29</sup> The bell’s timing mechanism, which had to be hand wound by the lighthouse keeper, activated a sort of gong. Every 15 seconds in fog conditions, the bell was struck, its mechanism being worked by gravity in a clockwork system. The secondhand bell simply could not be heard well enough by mariners in a soupy fog off West Point’s shore.<sup>30</sup> From West Point, that bell was sent to Warrior Rock Lighthouse in Oregon in 1889.<sup>31</sup>

In 1902, a Daboll trumpet with two horns was mounted in the back and front of the Lighthouse. New oil trumpet engines replaced West Point’s coal engines and were installed in a new addition on the west side of the Lighthouse.<sup>32</sup> The Daboll was replaced in 1944 with two Leslie SuperTyfon horns that also used a compressed air system. The horns would blow regularly—one blast for three seconds and quiet for 27 seconds.<sup>33</sup>

According to Jim Gibbs in *West Coast Lighthouses: A Pictorial History of the Guiding Lights of the Sea*, a radio beacon was eventually added to the foghorns. Also, a ring at the station telephone triggered operational fog signals at Shilshole Bay “about a mile northeastward and Four Mile Rock 2 miles southeast” (four miles from Seattle’s downtown) as a further warning of fog.<sup>34</sup>



Fourth-order Fresnel lens at West Point Lighthouse. Photo by John Cox. Circa 1980.

## Keepers of the Light

The Lighthouse became operational on November 15, 1881, and A. W. Martin and A. Prusham (assistant keeper) were the first to light the fourth-order Fresnel with a lamp that used kerosene, or some sources say whale oil.<sup>35, 36</sup>

The workings of the lens also ran on a type of “clockwork” that had to be manually cranked, and a system of weights helped power the mechanism. HistoryLink describes the keeper’s work as: “. . . a rigorous daily routine of cleaning and polishing lenses and lamps, trimming wicks, and maintaining machinery . . . and standing watch at night.” Weather never disrupted the work.<sup>37</sup>

Until 1883, there was no trail to the Lighthouse from the top of Magnolia Bluff, which rose above and behind the Light.<sup>38</sup> Realistically, the Lighthouse was cut off on all sides by water, steep bluffs, and uncut first growth timber. Few settlers had selected this hillside of Magnolia to claim.<sup>39</sup> In 1883, a trail was carved from the Bluff to the Lighthouse, and a barn was built.<sup>40</sup>

With the establishment of Fort Lawton above West Point, a rough road was carved to the flat tidal lands near the Lighthouse. Getting up the hill to civilization was still an ongoing challenge. Sometime in the years between 1929 and 1939, HistoryLink author Daryl McClary says, an Emergency Relief Administration work project lengthened and upgraded a road from the Lighthouse to the top of the Bluff.<sup>41</sup>

From the first trail end, it was about a half-mile walk on sandy beach to the actual Lighthouse property.<sup>42</sup> Small boats are mentioned as being used to get to Ballard or the Seattle waterfront, and to unload supplies brought by tenders to the Lighthouse keepers.<sup>43, 44</sup> Prusham and Martin, the first keepers, were moved after two years. George F. Fonda became the second full-time keeper in 1883. Assistants were in short supply. Fonda was a horseman, and he loved to blaze trails through virgin forests from the top of the Bluff to the Lighthouse. He ventured downtown this way, climbing the Bluff on horseback.

It was during this time that the first official uniforms were issued to lighthouse keepers. The Lighthouse Service decreed new uniforms would be worn by everyone that the Service employed. Author Bruce Roberts explains in *Pacific Northwest Lighthouses: Oregon to the Aleutians*:

*“The uniform was intended to raise the esteem of the lighthouse keepers and foster an esprit de corps. . . . But for Fonda, wearing the new uniform was a chore. It is said he wore it only when he knew inspectors or important guests were arriving.”*<sup>45</sup>

*Otto Heins and his wife in proper handmade 1920s attire outside the West Point Lighthouse. Seattle Department of Parks and Recreation, Discovery Park Photographic Archive. Courtesy of Roswell C. Heins. Circa 1920s.*



We hope you enjoyed this excerpt from our recent book, *Magnolia: Making More Memories*. We have another 15+ pages on the West Point Lighthouse in this story.