The lightship museum currently docked in Portsmouth, Virginia has a long and eventful history of beacon duty, dating back to its construction in 1915. The vessel was originally given the simple alpha-numeric designation of LV 101- such numbers were assigned to all lightships after 1867. This augmented the tradition of renaming the ships every time they moved to a new station, which made it nearly impossible to track an individual ship and its maintenance history.

Lightships still had their geographical names painted in very large white letters on red hulls, so that Captains could recognize them from a great distance. LV 101, for example, was christened the *Charles* shortly after its January 12, 1916 launch date, as it was then assigned to Cape Charles in North Carolina. Other names for LV 101 include *Overfalls*, for her 1926 duty at Cape Henlopen, Delaware, and *Stonehorse*, for her last assignment to Stonehorse Shoal in Massachusetts in 1951.

LV-101 was built by Pusey and Jones out of Wilmington, Delaware for $108,507. The vessel is 102 feet in length and displaces 360 tons of water. Its hull is of a steel whaleback design, which helps to keep it on an even keel in stormy seas. It was one of only two such rounded-hull lightships ever constructed. LV 101 was originally powered by a 200 HP Meitz and Weiss 4 cylinder, 2 cycle, direct reversing kerosene engine. Her top speed was eight knots, which she achieved with her four-

bladed propeller.

The ship’s illuminating apparatus first consisted of a 500 mm lens with six flash panels set in a rotating motion by weight-driven clockwork. The light itself was derived from a kerosene lamp of 24,000 candlepower set inside a cylindrical lantern. LV 101 was equipped with a number of fog signals as well: a 6 inch air siren was on deck, complimented by a submarine bell and a thousand pound bell which was operated by hand. The lightship had a sister ship, known simply as LV 102, and together they sported the novel feature of a hollow mast. This allowed the sailors protection from the elements as they ascended to service the lantern. Both ships also possessed a steel pilot house on the bridge, at the foot of the mast.

Like most beacons, Lightship Portsmouth has undergone a number of technological improvements over the course of its service. In 1917 the lamp illuminant was changed from kerosene to acetylene, and two years later the ship was equipped with a radio. In 1931, she was given a radio beacon and a new ten inch air whistle to serve as fog signal, and in that same year the lamp was converted to electricity. Gone was the cylindrical lantern housing, replaced with two 375 mm electric lamps at 13,000 candlepower each. In 1944 it was the engine’s turn for refurbishment, and LV 101 was upgraded to a 315 HP Cooper-

Bessemer diesel engine with a maximum speed of 8.2 knots.

LV 101 was decommissioned in 1964, after serving at three posts during her 48 year lifespan. At this time Large Navigational Buoys, complete with lights and radio transmitters, were taking the place of the venerable lightships. Other competition for the lightship's niche came from sturdy permanent structures like Texas Towers, which were used at hazardous coastal spots. The very purpose of lightships was to mark very dangerous areas which were too turbulent to sustain a vulnerable lighthouse. They were, however, very expensive to crew and maintain, and were usually replaced with more sturdy buoys as these became available.

It was not long after her decommissioning that LV 101 was assigned to a new station. In 1964 the Portsmouth Chamber of Commerce sought ways to reawaken interest in their declining waterfront areas. LV 101 had been docked in Portland, Maine after her last stint in Nantucket, and this came to the attention of Portsmouth. The city sought the aid of Anthony Pinello, a native of Portsmouth working as a fisherman in New England. He agreed to tow the lightship south to Virginia using his fishing vessel. Two days into the voyage Mr. Pinello encountered stormy seas resulting from Hurricane Dora, which necessitated a hasty jaunt into the dangerous Nantucket Shoals. This shortcut saved the two ships ten hours and allowed them to

beat the hurricane. They pulled into Portsmouth on September 7, 1964.

The lightship had not deteriorated much, having been on active duty as late as 1962. Nevertheless, it took volunteers nearly three years to repair and repaint the lightship and otherwise transform it into a museum piece. It was opened to the public as a museum in 1967, and was dry berthed close to the Portsmouth Naval Shipyard Museum. The volunteer staff is extremely dedicated to the museum's exhibition and upkeep, and they regularly collect information from the numerous visitors who seek out LV 101. These visitors include engineers, sailors and sometimes former lightship personnel, who are able to provide true to life accounts of life aboard such a vessel. Recently the staff has been working with the Tidewater Maritime Heritage Living Association to stage re-enactments of daily life on a lightship. The routine could get somewhat monotonous, as it was broken only by the 'tender,' the weekly supply and mail ship. Still, ship's watches were only four hours long, and allowed for leisure activities like reading, fishing, swimming and climbing the mast to build muscles. The only other break from monotony was storms, which could be quite dangerous for lightships. Vessels like LV 101 were moored only at the bow, and not at both the bow and the stern, so that they would be able to rotate during a storm. Sometimes the single anchor

chain would break in really rough seas, and the ship's engines were often not strong enough to keep it under control. One such ship, the LV 73, was lost with all its crew during a 1944 hurricane off the coast of Massachusetts.

A visitor to the lightship museum today would first be struck by several lighthouses lenses on display on the main deck, such as the original 3 ½ order Fresnel lens from Smith Point lighthouse. The main deck also contains the crew and officer's quarters, the ship's galley and the mess hall. The captain's cabin contains a bed, porcelain sink, closet and a desk with a nautical map spread upon it. Above the main deck there is the Pilot house, radio room and the storm helm, which is a traditional brass ship's wheel. The ship was primarily piloted from the Flying Bridge on the very top deck, which contains yet another brass wheel from which to survey the seas. The top deck also has two lifeboats, a fog horn and two air scoops to provide the crew with fresh air. On the starboard side of the bow there hangs the ship's 5,000 pound mushroom anchor. The mast sports a brass bell inscribed with USLHS 1915, standing for the United States Lighthouse Service and the 1915 casting of the bell.

In 1989, lightship Portsmouth was granted the status of National Historic Landmark. Indeed, the city of Portsmouth is uniquely suited for the honor, as it is often cited as the

birthplace of American lightships. In 1820 James Poole built the first U.S. lightship in nearby Hampton, Virginia. His vessel was assigned to service Wiloughby Spit, but was soon moved to Portsmouth's Elizabeth River due to perilous conditions at the Spit. These first wooden lightships were a far cry from LV 101 and similar ships of its class. Simple boats with large lights on their masts, they were plagued by poorly trained and undisciplined crews, and were completely unassisted by any relief ships. This meant that if an early lightship was damaged, then its post went unmanned, regardless of navigational importance.

In 1852 the Lightship Service itself was refurbished and placed under the command of maritime professionals, and the situation began to improve. As previously mentioned, the numbering system was developed in 1867 which allowed individual ships to be tracked across their various assignments. Crew conditions and training were upgraded as well, and the ships themselves were constructed of metal instead of wood. By the nature of their duty lightships were subject to numerous collisions with wayward vessels, so they needed to be as sturdy as possible. In 1934, for instance, the ill-fated *Titanic's* sister ship *Olympia* collided with a lightship and sheared the vessel in two. LV 101 herself was rammed a total of 24 times, with eight of those hits coming during her tenure at Cape

Charles. Most of these accidents were glancing, minor blows, although an examination of the hull will still reveal their effects.

Because lightships cost as much as they did, they were increasingly replaced during the mid 1800's with lighthouses wherever possible. New lighthouse designs such as the screwpile and the caisson foundation allowed fixed beacons to be located on spits and sandbars, thus precluding the need for lightships. Vessels like LV 101 and her sister ship were reserved for open water and hazardous coastlines where it was impossible to build lighthouses.

Resources

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“Technical Specifications for LV 101.” Naval Shipyard Museum and Lightship Portsmouth Museum.

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