At the entrance to the vital waterways of Hampton Roads, there are two parallel sandbars named Wiloughby's Spit and Horseshoe Bar. For many years vessels navigating this highly trafficked area was warned of the bars by lightships, but by 1859 the Light House Board had become enamored with screwpile designs, which are screwed directly into the sand. Wherever possible, they replaced the floating light vessels with these new permanent lighthouses, which were much less costly to maintain and staff.

The "thimble" of horseshoe bar was chosen as the site of the new structure. It was perceived early on that this position was endangered by strong easterly winds. The Board therefore took measures to ensure its stability, calling for a screwpile foundation of extraordinary strength, and adding to the bulk of the foundation with loose stones. Construction began in the spring of 1872, and the fine, compact sand of the bars proved troublesome to the process of screwing in the piles. Work was delayed when a cast-iron column used for a "follower" on a pile broke; one of the screws also snapped because of defective casting.

On October 15, 1872, the light was shown for the first time, and officially replaced the last remaining light ship

to man to the district. The lighthouse was a mere three and half miles away from the Old Point Comfort, and it exhibited a fixed white light varied by red and white flashes. The screwpile foundation was built in eleven feet of water, and was topped by a hexagonal cottage with the lantern protruding from its roof.

This very ornamental lighthouse was destroyed in a fire of unknown cause on October 30, 1880, thus beginning a long and surprisingly regular succession of disasters at Thimble Shoal. Given the importance of navigating the dangerous sandbars, this lighthouse took priority over other projects. A new lighthouse had just been completed for Bell's Rock in Virginia, and it was decided to take this from its depot and use it to re-illuminate Thimble Shoal. Aiding the rebuilding effort were divers, who recovered various pieces of the old structure, including the water tanks, boat davits and portions of the lantern and lens. On December 6, the lighthouse tender ship *Tulip* braved severe, icy storms to re-establish the light. Owing to the quick work of everyone involved, the light was re-shown on December 24 and was out of commission a mere fifty five days. This new light possessed a fourth order Fresnel lens, with a focal plane of forty two feet and a visibility threshold of twelve miles. Two fog bells were

simultaneously sounded every five seconds.

The path between sandbars indicated by Thimble Shoal lighthouse is a difficult one to navigate, especially in adverse weather conditions. This was evidenced by a series of collisions beginning in 1891, when the lighthouse was struck by a steamer. Just seven years later, an errant coal barge hit it too, resulting in considerable damage: “The entire lower gallery on the southeast side was carried away...all the joists...were broken and thrust out of position...other parts of the ironworks suffered, and the house was lifted about one half inch off the radial beams.”

In December of 1909 the lighthouse was rammed one final time, and this disaster proved to be its undoing. The schooner *Malcolm Baxter, Jr.* had just entered the bay from a storm in the Atlantic, in tow behind the *John Twohy*. Passage through the Thimble Shoal was treacherous, as snow flurries and strong gales challenged the two ships to maintain a straight course. While the *Baxter* strained against the tow line it suddenly lost its steering capacity, causing to veer away from the tugboat. The schooner struck the lighthouse, causing the floor of the structure to give way and the stove to overturn- this last spilled burning coals and ensured another calamitous fire. The keepers escaped in an emergency boat, and the *Baxter*

was tossed about in the rough seas and continued to ram into the lighthouse, and was itself in danger of catching fire. Finally the crew of the *John Twohy* managed to get the schooner clear of danger, and rescued the adrift keepers.

This latest act of God clearly gave the Light-House Board pause, for it was only five years later in 1914 that a replacement structure was completed. This time a sturdy cast-iron tower with caisson foundation was used. The enormous caisson was towed to the new site, which was located only a few feet from the twisted iron ruins of the screwpile lighthouse, still visible when the tide was out. This was a very careful undertaking, with derricks frequently used to keep the caisson from tilting. While such a heavy foundation would sink into muddy bottoms on its own, the hard sandbars required dredging equipment and a rock and concrete filling to properly ground the caisson.

The new iron lighthouse stands 55 feet above sea level, and originally contained a fourth order lens of Parisian manufacture. The light from this lens was occulting, oscillating between one second of dark and one second of light, with the “eclipses” provided by an opaque panel. A five foot long diaphone horn was used as a fog signal, but the bronze bell cast in 1900 in Baltimore was

kept for emergencies. The tower possesses unusual porthole windows and is topped by a circular lantern fitted with curved panes in a diamond pattern. The lantern is seven feet in diameter, and along with the roof is made of cast iron. The roof has a sheet zinc lining and a cast iron ventilator ball at its top, along with a bronze lightning rod with a platinum tip. Concrete cisterns in the caisson foundation provided a fresh supply of water for the keepers until 1964, when the light was fully automated.

For the next 20 years the lighthouse was powered by 80 pound lead acid batteries, which were dangerous to land at the station. In 1986 four 35-watt solar panels were added. In 1988 the tender *Red Cedar* landed with a 100-foot barge and a forty man crew, and set about refurbishing the lighthouse. Thimble Shoal was one of seven structures scheduled for repairs that year- and owing its exposed and wind swept location, was the one that most badly needed them. The walls inside and out were chipped and repainted a brownish-red, but still much remains to be done. A 1993 inspection found that part of the main concrete deck was missing, and that other parts contained small cracks. The inspectors recommended that the lighthouse be painted bright red in order to aid “mariner discernment” of the structure as a daymark. They also suggested that the glass

of the lantern panes be replaced with ultraviolet-stabilized acrylic panes, in order to combat the effects of sun damage. Finally they recommended removing the twisted remains of the old screwpile light, but this is unlikely due to financial constraints.

A visitor to the lighthouse today would find landing at the site a very difficult undertaking. Since there are no side bumpers for boats to rest against, the captain must exercise great care in steadying the boat as visitors jump from the deck and grasp the ladder. The ladder ascends upwards through a two foot square trapdoor in the lower deck, which is six feet wide. A column of steel supports the central staircase, which ascends from the basement at the top of the caisson up to the third floor. Each of the three floors contains two metal, semicircular rooms with two porthole windows. Standing in the structure one gets the impression of being inside a metal tub, which is confirmed by the loud rumbling elicited by banging on the walls. There are bulges in the metal walls, caused by the strong easterly gales the lighthouse must endure.

Resources

"Thimble Shoal." Bay Beacons. Pp. 104-09.

"Thimble Shoal Facelift." Notice to Keepers. Winter,

1997. Pp. 32.

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