

Cape Charles sits opposite Cape Henry on the northern entrance to the Chesapeake Bay. An important juncture both for Norfolk-bound sea cargo and railroad passengers ferrying between their trains, Cape Charles has seen the construction of no less than three distinct lighthouses. The foundations for the first two lie beneath the sea, victims of the unstable shoreline of Smith Island just off the Cape. The third is a fully automated exoskeleton tower that is still in use today.

It was on May 18, 1826 that Congress first began to appreciate the benefits of an aid to navigation at Cape Charles. Two years later, and at a cost of \$7,398 the rubble stone tower was completed. All accounts agree that this first light was completely inadequate for its intended purpose. The Lighthouse Board's inspection team noted:

"this very important light has at present only ten lamps with twenty one inch reflectors...this light should be increased to a first order one. The tower has an elevation of only 55 feet, placed on a very low coast, giving the light...a range of not more than twelve nautical miles, which it can seldom reach in consequence of the very inferior illuminating apparatus."

The puny light received no respect, even failing to appear in the American Coast Pilot's navigation charts for the region.

In 1858 the Lighthouse Board upgraded Cape Charles to a first order lens, but in 1860 it was decided to build an entirely new tower and \$35,000 was appropriated for that purpose. Construction teams succeeded in building up the new tower to 83 of its intended 150 feet, but in 1862 a party of Confederate guerillas descended on the light station. They inflicted grievous injury to the light, stealing illuminating apparatus and subjecting construction materials to "indiscriminate pilfering and spoilation." Progress was halted until 1864, when the North had enough military initiative to ensure the project could be successfully completed. Much of the stolen materials were recovered and Congress provided another \$20,000 to finish the light. It was first lit on May 7, 1864.

This impressive second tower was conical in shape, its bricks painted white and topped with a dark brown lantern room. In 1892 a 25 foot red band was painted around its mid-section about 60 feet up from the base; this served to distinguish it from other lighthouses in the daytime. It was located a little more than a mile SW of the old rubble tower and 600 feet from the water. It is likely that this tall, banded lighthouse was more cherished than its predecessor, if one can read anything into the expensive and shortsighted attempts to save it from ruin. Six hundred feet does sound like a significant distance (it is about the length of two football fields), but one must

keep in mind that the Chesapeake region suffers from extremities of weather and the shoreline erosion that accompanies them. The second Cape Charles tower was essentially doomed the moment its site was selected.

Mother nature gobbled up the beachfront at a rate of about 30 feet a year, so that in 1883 the Lighthouse Board was forced to sound the alarm in its annual report. At that time the tower's distance to shore had been cut in half, to three hundred feet, and the keeper's house was closer still. The Board asked for \$15,000 for the construction of protective jetties. Congress granted \$10,000 of this, and in 1885 the Board explained that "the only practicable method of making the protection is by means of piers or jetties of stone resting upon heavy timber mattresses to prevent too rapid sinking (of the stone) into the sand." The situation was further complicated in that the lighthouse was surrounded by privately owned lands on Smith island. The lighthouse grounds at this point reached to the rapidly encroaching water, but only a small and ill-suited portion was available to build a jetty. The Board asked Congress to purchase some of the neighboring lands in order to build three jetties, but they also said that "the site was difficult to reach, the project would be expensive (and) that the amount of funds on hand was not sufficient," so they asked for another \$30,000.

Not even these large funds were enough to induce any contractors to take on the project, so the Board downgraded its goal to the construction of a protective concrete wall with a pile foundation. Again, the bids received were too extravagant for the funds on hand. Finally in 1886 the Board "decided to invite offers for constructing a jetty and protection wall of brush and stone, to be built of such dimensions as the amount available would warrant" (in other words, doing the best they could on the cheap).

In 1888 the Board reported that the new jetty "had been breeched, but that the shoreline had stopped eroding." It asked that the breakwater be extended another 500 feet, but in 1892 it was obvious that no amount of walls, jetties or piles could hold off the relentless ocean tides. It was therefore decided to abandon the first Cape Charles light station and construct another 3/4 of a mile back from it. It was originally proposed that the new tower be a conical structure of iron plates, similar in design to the distinctively painted New Cape Henry lighthouse. In the end, though, a bid of \$78,200 was accepted to construct exoskeleton towers at both Cape Charles and Hog Island 20 miles to the north. This design had several advantages: it was much less expensive than the Cape Henry model, less susceptible to the punishing winds and distinct enough from Cape Henry that the two could not be mistaken for

one another.

Because the new tower was to be situated in a low and inaccessible marshy region, a long wharf of 1,345 feet had to be connected to a pier in water deep enough to allow boat access. A temporary tramway was also built from the pier head to the lighthouse grounds to move construction materials. The Board's 1894 report notes that the sections of the iron tower were completed between the summers of '93 and '94 at the contractors' shops. Six of these sections, comprising 133 feet of the 191 foot tower, were built at the foundries and shipped. Four more were erected onto the foundation on-site. The workers continued to construct the outbuildings and keeper's dwellings, and by June 30, 1894 had finished two of the three houses. At this point the workers were compelled to leave the site as the mosquitoes from the swampy grounds made it too irksome to continue. They returned in November to finish the station, and also graded the grounds and filled in the marshes in an attempt to get rid of the bugs. Bermuda grass roots were planted to form an attractive lawn and hold the sand in place, and a modern telephone was also installed. The board noted that "the scourge of the mosquitoes, sand flies, fleas, etc...render existence almost unbearable for nearly half the year," and promised that "effort has...been made in the design of the station to mitigate the undesirable conditions..."

The station's lens was installed and tested in June of 1885. Its full time service was delayed until mid August owing to the need for mariners to be informed of its unusual light characteristic. The light was the first time the Mahan system had been used in a first order lens, making a complete revolution every thirty seconds and flashing nine times. The light flashed quickly four time, with a dark interval of three seconds, then five times, with sixteen seconds of dark. A Captain in the Army Corps of Engineers noted that these flashes indicated the number "45," and likened the system to a fire alarm bell stroking out the exact numerical identity of a beleaguered building. "By this method," the Captain maintained, "the light is identified absolutely..."

The third and final Cape Charles tower is the second tallest lighthouse in the United States. It is painted white with black lantern and observations rooms. A central iron tube is surrounded by eight massive iron legs. The tube is slender, only 12 feet in diameter, and contains two hundred sixteen stairs that lead to the generator room. Ascending seventeen more steps from there one arrives at the watch room, where the lower gallery may be accessed.

In 1963 the Fresnel lens was removed and the light was automated. The new lantern is powered by six solar panels, and is of a new type called a Vega Rotating Beacon. It emits a

white flash every five seconds, and is capable of shedding its light up to twenty miles out to sea. At one time an Automated Monitoring Control System linked this tower with Cape Henry's, allowing them to be controlled remotely by a Coast Guard station in Portsmouth. It is broken now and is scheduled to be dismantled. The old Fresnel lens was donated to the Mariner's Museum in Newport News, where it revolves ceaselessly, emitting its distinctive 4-5 characteristic for the amusement of visitors.

Visiting this lighthouse is an undertaking for truly adventurous and seafaring souls:

"One must be knowledgeable of the comings and goings of the tides in order to make this trip successfully...in order to land on the island, one must navigate the shallow waters and locate a sand barge on which to travel by foot for about a half-mile using hip waders to approach the island. Even for the Coast Guard, the approach to the island is a trial and error mission."

Resources

Wheeler, Wayne. "Cape Charles Light Station." The Keeper's Log.

Summer, 2005.

Zaccharia, Anthony and Jessie. "Cape Charles Lighthouse."