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By Tom Stevenson

Old Plantation Flats Light Station 1886-1962

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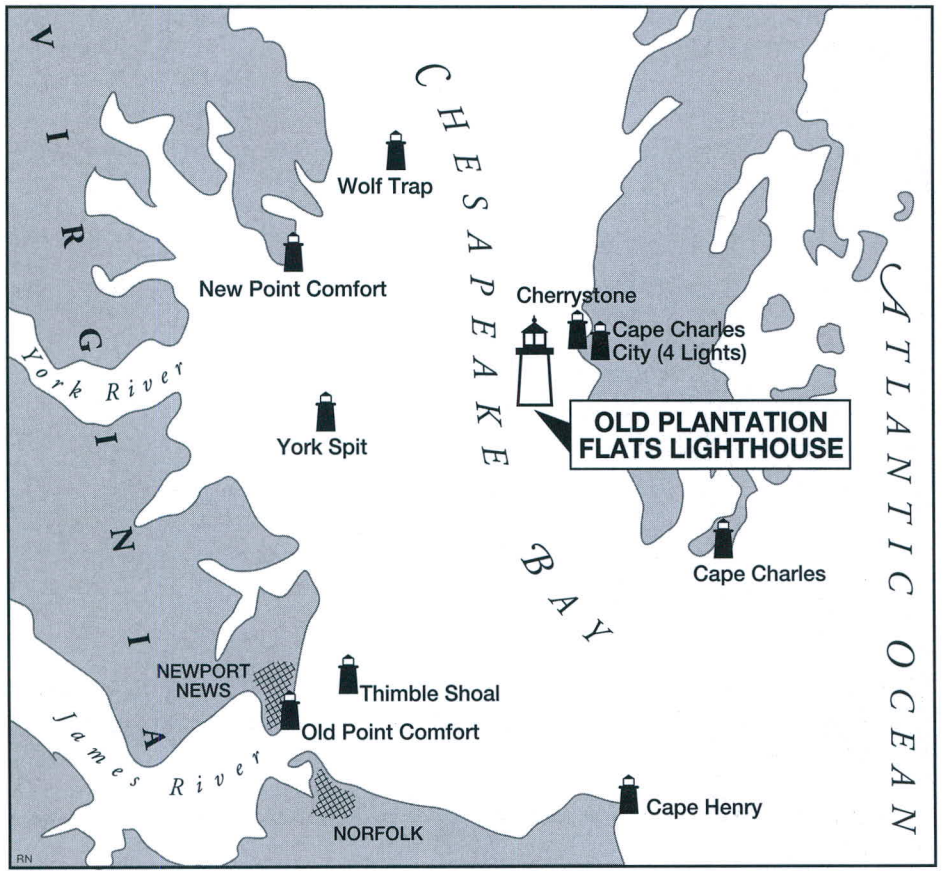
During the 18th Century, the Chesapeake Bay benefited from the highest volume of commercial shipping in the United States. The British Colonial government, however, offered very few reliable navigational aids along the much-traveled maritime routes through the Bay. Buoys marked the major shoals but were often moved by winter ice storms and by opportunistic pirates who planned to profit from an arranged shipwreck.

In August of 1789, the newly formed government of the United States, acutely aware of the economic importance of its international commerce that relied entirely upon shipping, assumed jurisdiction over all existing navigational aids. The First Congress promptly commissioned the first Chesapeake Bay lighthouse (and the first under the new government), Cape Henry Light Station, in 1791. It was completed the following year. At that time the lighthouses, and all other navigational aids, were placed under the direction of the Secretary of the Treasury. For years, supervision of the lighthouses bounced back and forth between the Secretary of the Treasury and the Office of the Commissioner of Revenue until the Fifth Auditor of the Treasury took over in 1820. Under the supervision of Fifth Auditor, Stephen Pleasanton, Chesapeake Bay lighthouse construction began in earnest. After Pleasanton retired in 1852, the Lighthouse Board was established to manage all of the lighthouses in the United States. The lights and other navigational aids on the Chesapeake Bay were assigned to the Fifth District of the Lighthouse Board.

Initially, all of the lighthouses on the Chesapeake Bay were constructed on land. But, other than storms and occasionally heavy winter ice floes, shoals were the biggest obstacle to safe navigation in the Bay. It was necessary to construct lighthouses out near the channels of the bay. For this reason, the Chesapeake Bay became the site of most early screwpile construction (later caissons types were also constructed. Unlike the land-based towers, screwpiles could be situated directly out on the treacherous shoals. The screwpile lighthouse evolved from British structures that were supported by wooden piles. In 1830, a British engineer, Alexander Mitchell, patented his design for a cast-iron screwpile. The broad, auger-like flanges of the screwpile were bored tightly into the sandy bottom of the Bay by hand. It took four men all day to screw one pile six feet deep using only a large lever. Once installed, the piles formed a spindly-looking, but strong, load-bearing structure.

The "flats" at Old Plantation Shoal is a mile-long, sandy shoal running about two miles offshore in Chesapeake Bay near the entrance to Old Plantation Creek. Old Plantation Flats Light Station was first lighted on September 5, 1886 to guide mariners safely to the harbor of Cape Charles, known in the late 1800's as Cape Charles City. At the time the lighthouse was built, the shoal ranged in depth from 23 feet at the south end to 14 feet at the north end. Engineer Major Jared A. Smith from the Lazaretto Lighthouse Depot in Baltimore recommended that the lighthouse be in 10 feet of water centered between a bell buoy at the far south end of the shoal and a striped can buoy at the north end.

Old Plantation Flats Light was a charming and cozy, two-story cottage, a design that has become to many, the signature lighthouse of the Chesapeake Bay. The structure was white, twenty-eight-feet-square on five screwpiles, with green shutters and a red, tin roof. The structure was pre-assembled at the lighthouse depot in Baltimore and then transported by ship to Cape Charles for assembly on the screwpiles. A wooden handrail with intricate spindles surrounded a large porch. The lantern was timber-framed and the lantern deck featured a wooden handrail with spindles identical to those on the first level. The storm panes (windows) of the lantern were framed with cast iron mullions, which supported the metal roof capped with a ventilator ball and a lightning rod. The interior rooms of the lighthouse were finished with tongue and groove beaded board, painted white, and brightly varnished wooden floors. On the first floor were a sitting room, bedroom, storeroom and small kitchen. The outdoor privy was cantilevered off the east side of the main deck to avoid the prevailing winds. Old Plantation Flats was built at a cost of almost $25,000, a comparatively high price for a screwpile lighthouse at the time.



Opposite Page – The Old Plantation Flats Lighthouse during the Coast Guard years, circa 1961. This view is from the east side, note privy at left. U. S. Coast Guard photo.

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Old Plantation Flats Light showed a fixed white light from a 4th order lens, with a red sector to cover Inner Middle Ground and Middle Ground Shoals. The 4th order Fresnel lens consisted of 66 curved glass prisms in a brass frame. Almost all Fresnel lenses used in America, including, most likely, the one used at Old Plantation Flats, were purchased from France and constructed of crown, rather than flint, glass from St. Gobain or Premontre, France. The Old Plantation Flats Light Station stood 38-1/2 feet above the mean high water level and was visible from 11-1/2 miles.

While most other screwpile lighthouses had two-to-six dormer windows, Old Plantation Flats had only one, which was used to house the mechanical fog bell assembly. In the early years of the 19th century fog bells were rung by hand. But by the time Old Plantation Flats Light Station was built, weight driven clockwork bell striking machines had taken over those duties on the Chesapeake Bay. The bell striker was like the mechanism of a grandfather clock. A descending weight powered a set of gears. When a cam came into position a sledge hammer was sprung, delivering a blow to the bell through a small opening in the wall of the lighthouse. The bell machine at Old Plantation Flats was a George M. Stevens model, patented on July 29, 1872. It rang the bell at 15second intervals and could be heard about two miles away.

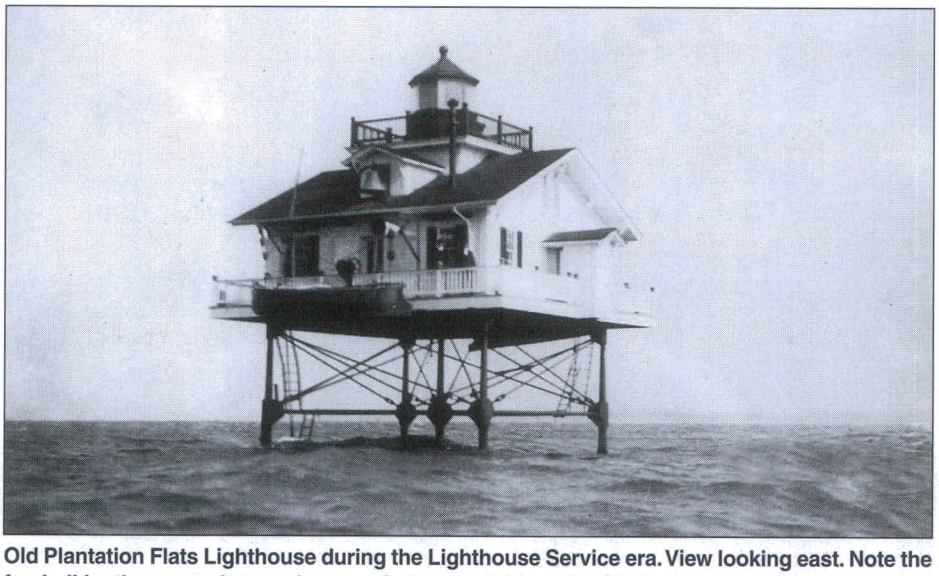
Appointed on August 25, 1886, Leonard F. Godwin was the first keeper at Old Plantation Flats Light Station. Godwin was paid an annual salary of just $540, the equivalent, in 2002 dollars, of $12,182. The assistant keeper was Labian T. Lewis, who was paid $420 per year. Both were required to purchase and wear uniforms as well as regulation work clothes for maintenance chores around the station. "Keepers and assistant keepers of light stations will wear the prescribed uniform at all times," the 106-page Instructions to Light Keepers specified, "except that the coat will be taken off and the regulation apron worn when at work cleaning, and the prescribed brown working suit will be worn when at ordinary out-door work. " In fact, the formal uniform was seldom worn.

Lighthouse keeper's duties were a rigorous daily routine. The lenses and lamps were to be polished, wicks trimmed and clockworks oiled every day. The keepers had to carry heavy cans of lamp oil, tools and cleaning supplies up the steep spiral staircase to the lantern rooms "Utmost neatness of buildings and premises" was demanded and extended to living quarters. "Bedrooms, as well as other parts of the dwelling," the Board warned, "must be neatly kept. Untidiness will be strongly reprehended, and its continuance will subject a keeper to dismissal." Detailed monthly reports, including fog-signal and absence reports, salary vouchers, receipts for supplies, "unusual occurrence" and "shipwreck reports," had to be filed, in duplicate, with the inspector. Keepers also were expected to be "courteous and polite to all visitors" to "show them everything of interest about the station at such times as will not interfere with lighthouse duties." The families of the keepers at Old Plantation Flats were likely permitted only brief visits on the lighthouse and most lived in nearby communities. "At isolated stations," the Instructions read, "when there are two or more keepers, no women or children will be allowed to reside, unless by special permission previously obtained." Lightkeepers were expected to man their station regardless of the climate or weather conditions. If a keeper was sick, he needed to find someone to take his responsibilities and always, he had to combat the loneliness.

Not surprisingly, many keepers stayed only a short time. Between 1896 and 1912, Old Plantation Flats Light Station had 13 different keepers and 34 different assistants. Charles E. Kirwan, age 39 when he was promoted from assistant keeper, served the longest, from September 12, 1895 to August 12, 1907, and never received a raise in his nearly twelve years of service, earning just $575 per year.

By 1893 there were 39 screwpile lighthouses on the Chesapeake Bay. Most were hexagonal in shape. Only about a dozen, including Old Plantation Flats, were square. Unfortunately, none of the original square screwpiles survive today. Winters were particularly tough on the narrow legs of the pile lighthouses and lighthouse authorities were well aware of the dangers of ice. In the previous four decades, seven lighthouses had been knocked over or sheared off their foundations by ice, but the vulnerable structures were unprepared for the severe winter of 1893. That winter, pushed by the wind, moving chunks of ice and snow piled together into huge floes, 25 to 35 feet high. On January 21, 1893, moving ice struck and overturned the lantern at Old Plantation Flats and damaged the expensive Fresnel lens. Lighthouse keeper William Gunter, fearing for his life, sent a hasty telegram to the Fifth-District Inspector: "Last night, twenty minutes after one, the light fell from the stand and broke, the tanks have started off. I fastened them best I could. House near wrecked, what shall I do?" The inspector ordered him to abandon the station. The captain of the tug that picked up the keeper reported that the lighthouse did, indeed, appear ready to fall into the ice, yet it somehow refused to yield. "If it escapes until morning it will have passed the crisis," predicted a newspaper reporter. He was right, Old Plantation Flats survived.

The light was discontinued until the tender Jessamine was able to navigate through the ice with a replacement 5th order lens in February. After the 1893 thaw, Fifth-District Inspector



Old Plantation Flats Lighthouse during the Lighthouse Service era. View looking east. Note the fog bell by the second story dormer window, and privy at right. National Archives photo, date unknown.

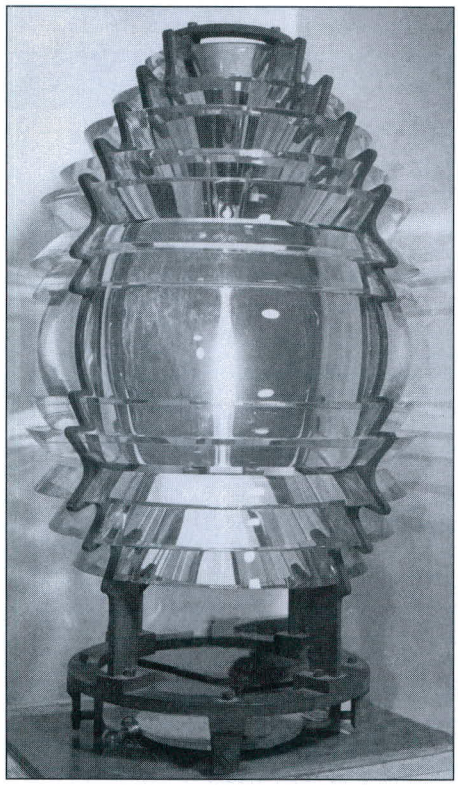
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Yates Stirling asked for the resignation of keeper William Gunter, despite the obviously dangerous conditions on the Bay and despite the fact that he had given the keeper permission to abandon the station. The inspector based his decision, to some extent, on the appearance of the lighthouse after the ice was gone. Quite often, screwpile lighthouses that were leaning when tons of ice were pressed against their narrow legs, were often perfectly plumb once the ice had melted. In a letter to the Lighthouse Board, Stirling wrote: "The present condition of this station shows that the keeper sent to this office an incorrect and misleading dispatch by stating that the house was near wrecked, thus showing that he acted in a panic. There is I think justification for his leaving the light, as he was entirely alone and, his lens being broken, he could not maintain a light. Navigation was also closed by the ice. But instead of remaining at Cape Charles City and returning to his light which he could have done in a few days, he went to his home in Eastville and could not be induced to return to his station until Ensign Maxwell went there and placed him in his house." Gunter was one of the few black men in the lighthouse service at that time. He had previously served well at Cherrystone Inlet Lighthouse from 1891 to 1892 and had a very good record. Stirling conceded as much, but concluded, "His action in this case shows that he is unfit for responsibility and I recommend his discharge." The assistant keeper, William R. Wescott, was so fearful of his dismissal that he produced a doctor's certificate proving that he was ill with pneumonia. Regardless, Wescott was also fired because he had failed to find a substitute during his illness. Keepers and assistant keepers were expected to provide substitutes when they were ill and were also expected to pay the substitutes out of their own meager wages.

In 1897, to increase the power of the light, the 5th order lens at Old Plantation Flats was replaced by the 4th order apparatus from the old Hog Island Light. Hog Island was first lit in 1853 and served until 1896 when it was replaced by a skeleton style lighthouse, which exhibited a light from a 1st order lens. The fixed style 4th order lens from Hog Island remained in service at Old Plantation Flats until 1962.

By 1903, the Lighthouse Board was transferred to the Department of Commerce and in 1910 was replaced by the Bureau of Lighthouses.

In the winter of 1917-1918, ice flows once again damaged Old Plantation Flats Lighthouse, breaking two of the 5 cast iron screwpiles. Severe damage was done to other parts of the building as well. In the summer of 1918 the Lighthouse Board reinforced the piles with concrete supports and deposited 4,650 tons of stone around the base of the lighthouse. The total cost of repairs came to $37,140.30, one-and-a-half times the original construction cost.



A typical 4th order, fixed, Fresnel lens similar to the one used at the Old Plantation Flats Lighthouse. Photo Courtesy of the Shore Village Museum, Maine.

On June 2, 1927, Inspector Vinson completed a written description of the Old Plantation Flats Light Station for the Bureau of Lighthouses. At that time the lighthouse had in its inventory a 16-foot rowing skiff as well as a 22-foot power boat with a 6-horsepower Lathrop motor. The large brass fog bell weighed "about" 1000 pounds and was 30 inches tall and 36 inches in diameter. The Stevens fog bell striker would run for one hour and forty-five minutes with a single winding. In addition to the bell, a Daboll fog trumpet, powered by a 2-cylinder diesel engine, had been added during a December 1923 renovation. Rainwater for drinking and cooking was collected from the roof in a 6-feet-high by 3-feet in diameter wooden tank and 3 slightly smaller iron tanks. A small heating stove and a porcelain sink completed the inventory of equipment.

In the summer of 1939 President Roosevelt transferred the Bureau of Lighthouses to the U.S. Coast Guard including all of the nation's lighthouses, 43 lightships, 65 tenders, 30,000 aids to navigation and over 5,000 employees. The Coast Guard, in minimizing the cost of maintaining lighthouses, removed the shutters from Old Plantation Flats Light and replaced the intricate wood banisters and spindles with simple wooden railings. Finally, in January of 1962, Old Plantation Flats was demolished by the Coast Guard and replaced by an automated beacon on the original lighthouse foundation. The old concrete piles and rocks are still visible from the shore near Cape Charles today. The current light has a 4-second flashing characteristic and stands 39 feet above the mean high water level.

For 76 years vessels entering Chesapeake Bay and heading to Annapolis, Baltimore and other ports north were welcomed by the glowing light of Plantation Flats. During reduced visibility mariners heard the ringing bell off their starboard side, warning them of the shallows of Plantation Flats and . . . it seems like Only Yesterday!

Excerpts from the Old Plantation Flats Light Station Log. Charles Kirwan, Keeper.

Sept 10, 1886

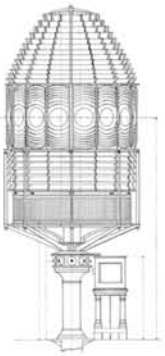
"Sweet Rosie O'Grady my dear little Rose. She is my steady lady most everybody knows, and when we are married how happy we'll be. Ass't. C.Diggs"

Apr. 30, 1890

"I wish I was at New Point [Comfort] L.H. I would have a good time with the girls. Diggs."



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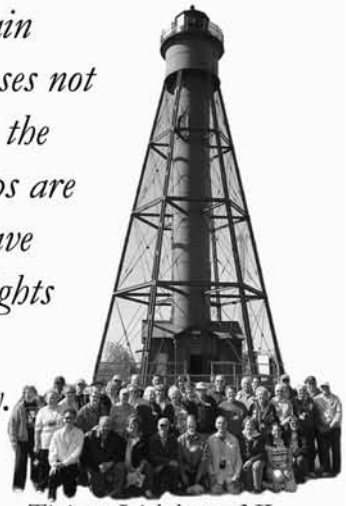
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