57-65
NRHP - 12/02/02

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1. Name of Property

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historic name: Wolf Trap Light Station

other names/site number:

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2. Location

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street & number: N/A not for publication: N/A

city or town: Mathews County vicinity X

state: Virginia code: VA county: Mathews code: 115

zip code: N/A

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3. State/Federal Agency Certification

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As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this nomination meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets the National Register Criteria. I recommend that this property be considered significant locally. (___See continuation sheet for additional comments.)

Acting

Captain, U. S. Coast Guard,
Chief, Office of Civil Engineering 2/22/02
Signature of certifying official Date

Department of Transportation, U.S. Coast Guard
State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria. (___See continuation sheet for additional comments.)

_____ _____
Signature of commenting or other official Date

_____
State or Federal agency and bureau

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4. National Park Service Certification

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I, hereby certify that this property is:

____ entered in the National Register _____
___ See continuation sheet.
____ determined eligible for the _____
National Register
___ See continuation sheet.
____ determined not eligible for the _____
National Register
____ removed from the National Register _____

____ other (explain): _____

_____ _____
Signature of Keeper Date of Action

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5. Classification

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Ownership of Property (Check as many boxes as apply)

___ private
___ public-local
___ public-State
_X_ public-Federal

Category of Property (Check only one box)

___ building(s)
___ district
___ site
_X_ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
__1__	_____	structures
_____	_____	objects
__1__	__0__	Total

Number of contributing resources previously listed in the National Register __0__

Name of related multiple property listing: Light Stations of the United States

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6. Function or Use

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Historic Functions (Enter categories from instructions)
Cat: Transportation Sub: Water-related

Current Functions (Enter categories from instructions)
Cat: Transportation Sub: Water-related

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7. Description

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Architectural Classification (Enter categories from instructions): No Style

Materials (Enter categories from instructions):
foundation: wood caisson with cast iron cylinder
roof: metal
walls: brick
other:

Narrative Description (Describe the historic and current condition of the property.)

The Wolf Trap Light Station consists of a wooden caisson which supports a cast-iron foundation cylinder and an octagonal two-story brick dwelling with a one-story square tower supporting a cast-iron lantern. The cylinder is painted brown and the brick quarters and tower painted red, with the lantern painted black. It is an integral station, i.e., the keeper's quarters, fuel storage areas, and lantern room are part of the same individual structure. The same plans were used in building both the Smith Point and Wolf Trap Lighthouses. The Wolf Trap Lighthouse lies in about 16 feet of water, on the east end of Wolf Trap Spit, on the west side of the Chesapeake Bay between the York and Rappahannock Rivers, in Mathews County, Virginia. Owned and managed by U.S. Coast Guard District 5, access to the station is via boat.

General Description[1]

Foundation

The cast iron cylinder, 30-feet in diameter, 44-feet, 9-inches high, is attached to a 32-foot square wooden caisson sunk 12 feet into the bottom. The plates forming the cylinder are 6 feet, 3 inches tall, and bolted together into seven horizontal bands or courses with the flanges of the plates turned inward to give the exterior a uniform smooth surface. The upper or top band flares outward like a trumpet providing support and additional deck space for the lower gallery deck. The cylinder is filled with concrete except where the cellar is formed. There

[1] Based on a 1997 site visit by author.

are four porthole-type openings in the upper plate tier to provide light into the cellar area. The cylinder is painted a dark red/brown

Cellar

The cellar is located in the upper portion of the foundation cylinder, accessed by a wooden stairwell located off the foyer. Below this level the cylinder is solid except for a cistern. There are four portholes located in the upper cast-iron-plate course of the foundation cylinder. These provide light into the cellar areas except the oil and coal room. Acrylic sheets with drilled holes for ventilation have been placed over the porthole openings and caulked in place.

Vaulted masonry, which spring from rolled iron beams which span the outer walls, support the floor of the first level. The cellar has been partitioned with masonry walls. Off the main room a coal storage room has a wooden door. Next to it is a another room with a iron door which probably served as the oil room. A third smaller room probably served as storage and has a wooden door. All the doors have arched tops to fit the door aperture and all appear to be original. The door frames for these rooms are made of cast iron. Below the cellar level is at least one water cistern built into the concrete pour. The floor of the cellar is cement. Along one side of the main cellar room is a wooden bench made of 8-inch-square wooden timbers which from paint ghosts appear to have been used to store three 55-gallon-sized oil tanks. On the exterior of the foundation cylinder is a large funnel-like opening just to the north side of the east ladder which may have been a coal chute to the coal room.

Dwelling

The two-story brick dwelling is octagonal in shape, 10 feet, 6 inches to 10 feet, 10 inches wide on each exterior side. The brick portion of the structure is painted red, the tower is painted red, and the lantern painted black. A kitchen, pantry and sitting room were located on the first level and two bedrooms on the second level.

The gallery deck is brick and overlays the cylinder fill. The gallery balustrade surrounds the perimeter of the slab. It is made of solid curved cast-iron sections, 45 inches long and 23½ inches high, which conform to the shape of the diameter of the foundation cylinder parameter. This balustrade wall is surmounted with a 2-inch-diameter pipe rail supported by 2-inch-diameter pipe balusters. The privy, located on the southwest side of the lower gallery deck overhangs the deck and is supported by cast-iron brackets attached to the foundation cylinder. The privy is iron, semi-octagonal in shape (that is only five of the eight sides make up the structure, the door makes up the sixth truncated side of the structure), with a pyramid roof surmounted by a ventilation spike. A small porthole window is located on each face of the privy to the right and left of the privy door opening; the door is missing. A small metal overhang protects the door entrance. The two pairs of davits and the landing ladder on the west side have been removed; both davit windlass wheels and the east landing ladder remain.

The dwelling has a decorative lower single and upper double molded brick masonry belt course between the first and second level. At the top of the second level there is a decorative molded brick cornice consisting of a lower five course corbeled band and upper three course

corbeled band. The top of the watch room tower has a triple corbeled decorative course. The roof of the dwelling is a very shallow pyramid standing seam sheet metal roof with two decorative brick chimneys protruding above it.

Fenestration on the first level consists of an entrance door on the south side. The southwest, northwest, and northeast faces have no fenestration. The southeast, and east faces have one window, and the west and north face has two windows. On the second level there is a single window on the north, east, south, and west face. Each window has a stone sill and lintel, and the door a stone lintel. All the windows were four-over-four double hung wood sash. Only the upper sash remains on the second level while both upper and lower sashes have been removed from the first level. A four-pane single-sash window at the watch room level has been removed and the opening bricked up. Only the upper two-pane sash of the east window is present.

The original wooden door has been replaced with a non-paneled wood door. All of the window openings are covered with acrylic sheets fitted with white aluminum louvered vents. The stairway and banister is original except for the banister from the second level to the watch room which has been crudely and inappropriately replaced with treated boards. Some of original banister balusters are missing. The walls and ceilings are covered with variable width tongue-and-grove vertical wooden paneling. This paneling is original except in the northeast room where the walls and ceilings are covered with plywood and battens. All the molding around the doors and windows appears to be original. The window and door corners are decorated with bullseye molding. On the second level just off the stairwell the two wall corners projecting into the stairwell room are decorated with ornate corner molding. Most of the original doors have been removed though three four-paneled doors on the second level are original; the hardware has been replaced.

Tower

The square tower is one-story tall, the lower two stories are incorporated into the dwelling structure. The tower contains the watch room which has two windows. The window over the door or south face is a two-over-two double-hung wooden sash vertical in length while the other was a four pane horizontal single sash. These windows have stone sills and lintels. The cornice of the tower is made from a single lower corbeled brick course followed by an upper band of corbeled brick three courses high. A nine-step ladder provides access to the lantern. The tower supports the lantern.

Lantern

The lantern is a hexagonal cast-iron lantern with a pyramidal roof surmounted by a ventilation ball. There are four ventilators located in every other parapet wall. The lantern deck is cast iron. The lantern is surrounded by a lantern gallery deck, square in shape, and a gallery rail. Part of the top rail is missing. Two radio signaling and receiving wires were attached to booms on the lantern gallery deck during the 1960s. The lantern and gallery rail is painted black. Three solar panels are located off the south side of the lantern gallery rail.

Lens

The original lens was a 1897 fourth-order Fresnel lens. A photograph from the Coat Guard Historian's Office, said to be that of Wolf Trap, shows a bulls eye lens which would produce three flashes with every rotation. This lens was replaced with a 300mm acrylic lens [when?] and finally replaced in June 1996 with a solar-powered Vega Model Marine Rotating Beacon VRB-25. There are seven plywood blinds painted black radiating out from seven of the eight pane astragals to the pedestal. These serve to keep reflection from the storm panes giving false flashes. A cast-iron pedestal, probably the original, is still in use.

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8. Statement of Significance

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Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

_X_ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

____ B Property is associated with the lives of persons significant in our past.

_X_ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

____ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

____ A owned by a religious institution or used for religious purposes.

____ B removed from its original location.

____ C a birthplace or a grave.

____ D a cemetery.

____ E a reconstructed building, object, or structure.

____ F a commemorative property.

____ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions):

Maritime History
Transportation
Architecture

Period of Significance: 1894-1971

Significant Dates: 1894, 1971

Significant Person (Complete if Criterion B is marked above): N/A

Cultural Affiliation: N/A Known Design Source: none

Architect/Builder: U.S. Lighthouse Board

Narrative Statement of Significance (Explain the significance of the property.)

The Wolf Trap Light Station is significant for its association with federal governmental efforts to provide an integrated system of navigational aids and to provide for safe maritime transportation in the Chesapeake Bay, a major transportation corridor for commercial traffic from the early 19th through 20th centuries. The lighthouse embodies a distinctive design and method of caisson construction that typified lighthouse construction on the Chesapeake Bay during the second half of the nineteenth century. Only eleven pneumatic caisson lighthouses were built in the United States, including Wolf Trap. The property has previously been determined eligible by the Virginia State Historic Preservation Officer.[2]

History

The need for an aid to navigation at Wolf Trap Spit or Shoal was noted by Congress as early as 1819. In 1821 a lightship was stationed just off the spit and it served this station until 1861 when "insurgents" destroyed it during the Civil War. A second lightship was placed on Wolf Trap Shoal from 1864 until 1870 when a screwpile lighthouse was built to mark the shoal. This structure served until 1893 when ice flows on the Bay destroyed it. The screwpile structure was replaced by the current pneumatic caisson lighthouse in 1894. Another lightship temporarily marked the shoal until the new lighthouse could be completed.

The screwpile lighthouse was built at Wolf Trap in 1870 from general appropriations used for repairs of light vessels which had been taken out of service. A contract for the metal work had been awarded in October 1869. The piles were wooden covered with cast iron screw sleeves. The "superstructure" or wooden cottage portion of the lighthouse was fabricated at the Lazaretto Lighthouse Depot during the winter of 1869 and spring of 1870. A temporary working trestle was erected at the site but it was carried away in a "gale." The light was announced in a "Notice to Mariners" as being first exhibited the evening of October 1, 1870. The light was described as "a fixed white light of the fourth order, varied by a white flash every 30 seconds, illuminating the entire horizon..." The 500 pound fog bell was struck by a Stevens' apparatus at intervals of 15 seconds. The superstructure was painted lead color to conform to the color of the light vessel which it replaced.[3]

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[2]Letter dated Sept. 24, 1993 from James Christian Hill, Commonwealth of Virginia Department of Historic Resources in National Maritime Initiative inventory file for Wolf Trap Light.

[3] Lighthouse Board *Annual Report 1869* and *1870* (U.S. Government Printing Office: Washington, D.C., 1869 and 1870.

In 1893 was reported that the

> *Wolf Trap Light-House which was carried away by ice, was discovered by the Revenue Cutter Murrill about one mile northwest of the Thimble Light drifting out toward the capes. The light-house was afloat, although nothing but the top of the house and the lantern could be seen. It was a dangerous obstacle to navigation, and it was drifting down onto the channel, where it would be likely to be run into at night. A hawser was got out from the cutter and made fast around the lantern, that being the only part of the light-house where it could be secured. It was a heavy tow, as the light-house was full of water up to the roof, and there was considerable ice on the bay...*

The keeper, John William Thomas, was able to escape shortly before the lighthouse torn lose by making his way over the ice to a nearby tugboat locked in the frozen bay. The illuminating apparatus and most of the portable parts were later recovered from the floating wreck. A temporary "gas-lighted buoy" was placed at the site which was subsequently replaced by a light-house tender *Holly* which moored temporarily as a light vessel. Congress appropriated $70,000 for a new caisson lighthouse. The lowest bid of $6,950 was awarded for the cylinder cast iron plates and $31,150 for the construction and sinking of the caisson.[4]

The caisson was sunk at the site in March 1894. The lighthouse tender *Holly* was replaced at the site by light vessel 16. The light was first exhibited on September 20 and the lighthouse completed two weeks later. The light vessel was relieved of its duty. About 300 tons of riprap stone was deposited around the lighthouse cylinder to prevent scour.[5] In 1895, responding to a complaint about the light being indistinct, "the lens machinery was so adjusted as to produce flashes at intervals of 25 seconds." A second-class Daboll trumpet was installed as the primary fog signal; the bell used as a backup. New model fourth order lamps were installed in 1899. A new reed was supplied for the Daboll trumpet, the engine and air pump were overhauled and a test made of the audibility of the fog signal.

The Wolf Trap Lighthouse was automated in 1971.[6] In 1991, the lighthouse received a major overhaul including repainting of the exterior, window panes replaced with acrylic sheets fitted with metal ventilators and the roof retarred. The lighthouse received another major overhaul in June 1996.

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[4] Eldridge, p. 8; Lighthouse Board *Annual Report, 1894*, "a Lighthouse in Tow," Washington Post (February 1, 1893); and Mary Wade Smith, "Wolf Trap Light Has Stood Through The Years As Mariners Guide in Chesapeake," *Gloucester Gazette Journal* (August 6, 1964), p. 1.

[5] Lighthouse Board *Annual Report, 1895.*

[6] "Automation Arrives for Light Aids," *Virginia Pilot* (November 8, 1971).

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9. Major Bibliographical References

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"Automation Arrives for Light Aids," *Virginia Pilot* (November 8, 1971).

Clifford, Candace. *1994 Inventory of Historic Light Stations*. Department of Interior, National Park Service, History Division, Washington, D.C., 1994.

de Gast, Robert. *The Lighthouses of the Chesapeake*. The Johns Hopkins University Press, Baltimore and London, 1973.

Holland, F. Ross, Jr. *Maryland Lighthouses of the Chesapeake Bay*. Maryland Historical Trust Press and Friends of St. Clement's Island Museum, Inc., 1997.

"A Lighthouse in Tow," Washington Post (February 1, 1893).

Smith, Mary Wade, "Wolf Trap Light Has Stood Through The Years As Mariners Guide in Chesapeake," *Gloucester Gazette Journal*, August 6, 1964.

Turbyville, Linda. *Bay Beacons: Lighthouses of the Chesapeake Bay*. Eastwind Publishing: Annapolis, Maryland, 1995.

U.S. Lighthouse Board. *Annual Reports*, 1867-1902. Department of Commerce and Labor, 1867-1902.

Previous documentation on file (NPS)
___ preliminary determination of individual listing (36 CFR 67) has been requested.
___ previously listed in the National Register
_X_ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record #

Primary Location of Additional Data
_X_ State Historic Preservation Office
___ Other State agency
_X_ Federal agency
___ Local government
___ University
___ Other
Name of repository: National Archives; National Maritime Initiative, National Park Service; U.S. Coast Guard Headquarters, Historian's Office, Washington, D.C.

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10. Geographical Data

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Acreage of Property: Less than one acre

USGS Quadrangle: East of Poquoson East, VA

UTM References:

Zone	Easting	Northing
18	394433	4120865

Verbal Boundary Description:

The boundary is coterminous with the outer circumference of the structure at its widest diameter.

Boundary Justification:

The boundary completely encompasses the light structure.

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11. Form Prepared By

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name/title: Ralph E. Eshelman, Maritime Historian

organization: U.S. Lighthouse Society (under a cooperative partnership with the National Park Service National Maritime Initiative)

date: September 8, 1997

street & number: National Park Service (2280), NRHE - Suite 400, 1849 C St., NW

city or town: Washington state: DC zip code: 20240

telephone: 410-326-4877 or 202-343-9508

==========

Property Owner

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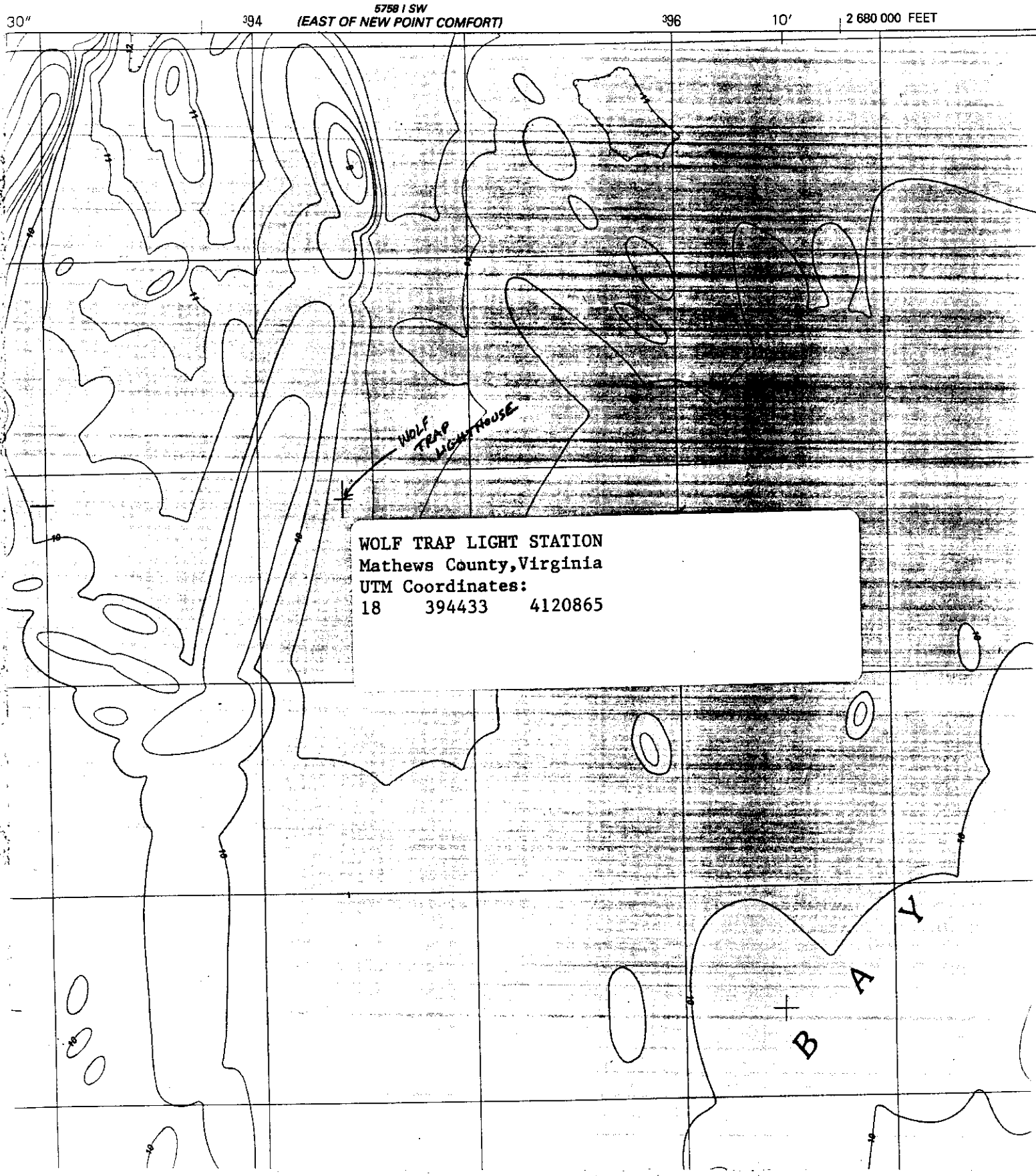
name: U.S. Coast Guard, Fifth District

street & number: 431 Crawford Street

city or town: Portsmouth state: VA zip code: 23705-5004

telephone: (757) 398-6351



WOLF TRAP LIGHT STATION
Mathews County, Virginia
UTM Coordinates:
18 394433 4120865

NPS Form 10-900-b
(March 1992)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places
Multiple Property Documentation Form

This form is used for documenting multiple property groups relating to one or several historic contexts. See instructions in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items.

_X_ New Submission ____ Amended Submission

A. Name of Multiple Property Listing

Light Stations of the United States

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Federal Administration of Lighthouses, U.S. Lighthouse Service, 1789-1952
Architecture & Engineering, U.S. Lighthouse Construction Types, Station Components, Regional Adaptations and Variations, 1789 -1949
Evolution of Lighthouse Optics, 1789 -1949
Significant Persons, U.S. Lighthouse Service, 1789 -1952

C. Form Prepared by

name/title Edited and formatted by Candace Clifford, NCSHPO Consultant to the NPS National Maritime Initiative, National Register, History and Education Program
Based on submissions by Ralph Eshelman under cooperative agreement with U.S. Lighthouse Society, and Ross Holland under cooperative agreement with National Trust for Historic Preservation

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date February 23, 1999