Solomons Lump Light Station's National Register of Historic Places Nomination

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1. Name of Property

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historic name: Solomons Lump Light Station

other names/site number: S-425

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2. Location

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street & number: N/A not for publication: N/A

city or town: near Crisfield. vicinity X

state: Maryland code: MD county: Somerset code: 039

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 request for determination of eligibility 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 does not meet the National Register Criteria. (___ See continuation sheet for additional comments.)

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/lighthouse

Current Functions (Enter categories from instructions)

Cat: transportation Sub: water-related/lighthouse

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7. Description

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Architectural Classification (Enter categories from instructions): No Style

Materials (Enter categories from instructions):

foundation: caisson

roof: metal

walls: cylinder: cast iron

other: lantern: metal

tower: brick

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

Description Summary1

The Solomons Lump Light Station consists of a steel caisson supporting a round 25-foot-diameter cement-filled cast-iron cylinder surmounted by a brick 2-story 25-foot-tall, octagonal- shaped wooden keeper's quarters. The quarters were built around a square brick tower, which supports a one-story black iron lantern. This is an integral station, i.e., the keeper's quarters, fuel storage areas, and lantern room are part of the same individual structure. The keeper's quarters is surrounded by a lower gallery. An upper gallery surrounds the top of the brick tower. A second smaller upper gallery surrounds the lantern. The station is located on a shoal in Kedges Strait, between Tangier Sound and Chesapeake Bay, north of Smith Island, middle Chesapeake Bay, Somerset County, Maryland. Owned and managed by U.S. Coast Guard District 5, access to the station is via boat.

General Description

The caisson at Solomons was sunk using the pneumatic process. The base of the cast-iron cylinder was fitted with a steel caisson containing an airtight compartment and air lock. The caisson assemblage was towed to the required location and sunk. Water was then pumped out of the work chamber. Workers in this chamber would shovel material away from the cutting edge of the caisson while weight, in the form of concrete and stone, was added above. When the final depth was achieved, the air lock and compartment were also filled with concrete. As of 1917, there were only 11 light structures in the United States supported by foundations installed by this pneumatic process.2 On top of this foundation, inside of the cast-iron plates, a lower level lined with brick masonry was constructed. These masonry walls supported the keeper's quarters and the 25-foot-tall brick tower and lantern.

Foundation

The 25-foot-diameter cast-iron cylinder bolted unto the caisson is approximately 37 feet tall, but only approximately 18 feet of it is visible above the high waterline. On the upper tier of plates, ornate cast-iron brackets support a cantilevered gallery deck on top. Access to the gallery is provided through a hatchway where the cantilevered deck is discontinued. Boat davits were located on the north and south sides of the gallery deck.

The cast-iron cylinder plates above the waterline have been lined with brick masonry on the interior, which support the superstructure of the tower. Two 2,000-gallon cement cisterns, coal room, and other storage facilities were located here.

Tower

A 25-foot-tall octagonal shaped, 2-story wooden dwelling was built around three sides of the brick tower. It served as the keeper's quarters, storage area, and watchroom for the station. The first floor consisted of a living area, pantry, kitchen, and entrance to the lantern tower stairwell. The second-level consisted of two bedrooms. At some point after 1950, probably 1971, the wooden keepers portion of the structure was demolished leaving only the present brick square tower.

The remaining structure consists of a 7-foot-wide square-shaped brick tower offset from the center of the cylinder foundation on the northwest side. The walls are 13 inches thick at the base and 4 inches at the parapet. It is painted white. Windows were once located in the walls of the tower to provide light to the tower stairwell, but these have been bricked up. A square iron handrail surrounds the top of tower consisting of three rails, supported by posts capped by finial balls.

Lantern

An octagonal-shaped fifth-order cast-iron lantern with square panes in each face, is mounted by a tapering pyramidal iron roof, surmounted by a ventilator ball, all painted black. A square gallery surrounds the lantern.

Conclusion

Solomons Lump Light Station's integrity was compromised when the integral keeper's quarters was demolished, and, therefore, it is not eligible for listing in the National Register of Historic Places.

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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: 1895-19503

Significant Dates: 1895, 1950

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

Cultural Affiliation: N/A

Known Design Source: none

Architect/Builder: unknown

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

The Solomons Lump 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. This pneumatic caisson lighthouse embodies a distinctive design and method of construction that typified lighthouse construction on the Chesapeake Bay during the late half of the nineteenth and early twentieth century. Of the eleven pneumatic caisson lighthouses built in the United States, seven were built in the Chesapeake Bay: three were built in the Virginia portion of Chesapeake Bay (Wolf Trap Lighthouse, 1894, Smith Point Lighthouse, 1897, and Thimble Shoal Lighthouse, 1914); and four in the Maryland portion of Chesapeake Bay (Solomons Lump Lighthouse, 1895, Hooper Island Lighthouse, 1902, Point No Point Lighthouse, 1905, and Baltimore Lighthouse, 1908).4

History

The Lighthouse Board Annual Report for 1872 stated:

Solomon's Lump is a point of land on the north end of Evans Island. There is a shoal that extends out a considerable distance from this point in a northerly direction, and is a source of danger to vessels navigating Kedges Strait at night, Near its extreme point is the regular channel. The shoal itself has not more than about 5 feet of water in it to a point near the red buoy, which marks its extreme northerly end. At night this buoy cannot be seen a sufficient distance to be of any use. The only light in this vicinity is that on Fog Point, about one and one-fourth miles in a west,southeast direction, but, on account of its distance and location, it affords no security to vessels from going ashore on the reef off Solomon's Lump.5

In 1872 and 1873 the Lighthouse Board requested $15,000, which was appropriated on June 23, 1874. The Board further noted that when the Solomons Lump Light Station was operational, the Fog Point Light Station could be discontinued. Five acres of submarine land were conveyed to the federal government for purposes of building a lighthouse on June 23, 1874. Construction began on June 21, 1875. The lighthouse was a square structure built on five "wrought-iron piles," actually screwpiles, in nine feet of water. The screwpile structure was completed and a fifth-order Fresnel lens lit on September 10, 1875, and the light at Fog Point discontinued. The fog bell at the station

was a 1200-pound bell struck by a Gamewell striking machine. One winding would run the striking machinery for about 12 hours. In 1892, the station was described as having a fixed, white light and a square keeper's quarters built of wood and painted white with a brown roof and a black lantern surmounted from the roof.6

In January of 1893, the lighthouse was "wrecked by the impact of moving masses of ice." The keeper safely escaped to Smith Island, only about 1000 yards away. Though not carried far from its site, the keeper's dwelling was pushed over and partially submerged. All movable property was removed and a "lens-lantern" established on the wreck in June. Congress appropriated $30,000 on March 3, 1893, to replace the light. The Lighthouse Board after reconsideration decided to build a caisson lighthouse, a more expensive but ice-resistant structure. The Board requested and received permission from Congress, on December 21, 1893, to use any unexpended appropriations from the construction of the Wolf Trap Lighthouse. The plans for the new caisson lighthouse were completed in August 1894, and bids were received for the metal work and erection of the lighthouse. The lowest bids were awarded. Work began on April 1, 1895. The caisson was launched on April 26, and the first course of cast-iron plates for the cylinder was attached to the caisson. The cylinder was filled with 22 inches of concrete to give the caisson/cylinder assemblage proper trim for towing by tugs from Baltimore to the site. The assemblage was sunk on May 20, and by May 31, it had reached the desired depth but was slightly out of level. This was not corrected until the assemblage had sunk an additional 2-feet, 6-inches. Therefore, an extra course of cylinder plates was added. The cylinder was filled with concrete to about 6 feet above waterline, and work on the cisterns and the cellar was started. This work was completed on June 30, 1895, and work on the superstructure was begun and completed on July 26. The light station, with fifth-order Fresnel lens, was put into operation on September 30, 1895.7

In 1899, new fifth-order lamps were installed. In 1919, the fifth-order Fresnel lens was upgraded to a fourth-order Fresnel lens. The Solomons Lump Light Station inventory, dated March 1944, consisted of an Aladdin lamp costing $60 which replaced an IOV lamp; the station, valued at $100,000; housing, such as furniture valued at $408.04; messing (cooking pots, plates, etc.) valued at $228.99; general items (fog bell, lamps, lens) valued at $2,459.17; plant appliances (dinghies, fire extinguishers) valued at $4,727.28; and hand tools valued at $65.56, for a total inventory value of $107,888.98. The station was automated on April 17, 1950, and the Fresnel lens replaced with a 200mm acrylic lens. Total automation cost was $2,488.79.8

Henry Columbus "Lum B" Sterling was lighthouse keeper at Solomons Lump from June 1, 1900 until March 4, 1937 when he retired at age 65. He also worked a few intermittent stints as keeper at Craighill, Sharkfin Shoal, and Janes Island light stations. Luther E. Bozman was his assistant keeper for part of this time, and he took over as

head keeper when Sterling retired in 1937. During a severe winter in 1936, Sterling was ordered to abandon the lighthouse because of ice floe danger. He was notified of this by a message dropped from a plane. The keepers, during his day, worked one week on and one week off.9

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9. Major Bibliographical References

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Bradner, Lawrence H. The Plum Beach Light: The Birth, Life, and Death of a Lighthouse, 1988.

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: An Illustrated History. Maryland Historical Trust, Crownsville, Maryland, in press.

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

U.S. Lighthouse Board. Annual Reports, 1872-1896. Department of Commerce and Labor, Washington, D.C., 1872-1896.

U.S. Lighthouse Service 1915, Washington D.C., Government Printing Office, 1916.

Previous documentation on file (NPS)

___ preliminary determination of individual listing (36 CFR 67) has been requested.

___ previously listed in the National Register

___ 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; Library of Congress; National Maritime Initiative, National Park Service; U.S. Coast Guard Headquarter, 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: Kedges Straits, MD

UTM References: Zone Easting Northing

18 410905 4211420

Boundary Description:

The boundary is coterminous with the foundation of the lighthouse.

Boundary Justification:

The boundary completely encompasses the lighthouse.

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11. Form Prepared By

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name/title: Ralph E. Eshelman, Maritime Historian

(Originally prepared for the Maryland Historical Trust as part of a multiple property nomination for Maryland Lighthouses; reformatted in May 1998 by Candace Clifford, NCSHPO consultant to the National Maritime Initiative, as part of a multiple property documentation form for U.S. Coast Guard-owned light stations; edited in August 2002 by Jennifer Perunko, NCSHPO Consultant, National Maritime Initiative, National Park Service)

organization: Eshelman & Associates

date: February 7, 1996

street & number: 12178 Preston Dr.

city or town: Lusby state: MD zip code: 20657

telephone: 410-326-4877

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Property Owner

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name: U.S. Coast Guard, Fifth District

street & number: 431 Crawford Street

telephone: (757) 398-6351

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

Notes:

1 No physical inspection of this light station was made.

2 Ralph Eshelman, "American Lighthouse Construction Types," A Part of the Maritime Heritage of the United States National Historic Landmark Theme Context Study on Lighthouses, 1993, unpublished manuscript, National Maritime Initiative, National Park Service, Washington, D.C., p. 36.

3 The period of significance is based on the period during which the light station was "manned," i.e., from date of commissioning until automation, 1895-1950.

4 U.S. Lighthouse Service 1915 (Washington D.C., Government Printing Office 1916), p. 28; Lawrence H. Bradner, The Plum Beach Light: The Birth, Life, and Death of a lighthouse (1988), p. 169; Clifford p. 165 and 173 indicates Alpena Lighthouse and Fourteen Foot Shoal Lighthouse are also pneumatic, but this is apparently incorrect. Bradner gives a date of 1902 for Point No Point Lighthouse while de Gast p. 63 and Clifford p. 130 give a date of 1905.

5 Lighthouse Board, Annual Report, 1872.

6 Lighthouse Board, Annual Reports, 1873, 1874, 1875, 1876; and List of Lights and Fog-signals, etc., 1892.

7 Lighthouse Board, Annual Reports, 1893, p. 93; 1894, p. 95; 1895, p. 100; and 1896, p. 86; and Robert de Gast, The Lighthouses of the Chesapeake, Johns Hopkins University Press, Baltimore, 1973, p. 139.

8 Solomons Lump Light Station Site File, U.S. Coast Guard Records Group 26, National Archives, Washington, D.C.; Linda Turbyville, Bay Beacons: Lighthouses of the Chesapeake Bay (Eastwind Publishing: Annapolis, 1995), p. 74; and Candace Clifford, 1994 Inventory of Historic Light Stations, Department of Interior, National Park Service, History Division, Washington, D.C., 1994, p. 132.

9 Woodrow T. Wilson, "H. Columbus (Lum B) Sterling: Keeper of Solomon's Lump Light," Crisfield Times (December 20), 1974.

NPS Form 10-900 USDI/NPS NRHP Registration Form (Rev. 8-86) OMB No. 1024-0018

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United States Department of the Interior, National Park Service National Register of Historic Places Registration Form