LIGHTHOUSE AND FOG SIGNAL STATIONS

ighthouse/Station Name:
[Portsmouth Harbor Light Station
wner/Manager/State Or Federal Agency With Jurisdiction:
[U.S. Coast Guard, Department of Transportation
ocation: northeastern point of land,
[Fort Constitution, New Castle, New Hampshire
ddress [ ] City [New Castle]
tate [NH] Zip Code [03854 -] Telephone [( ) -]

tatus: Manned [ ] Automated [X] Daymarker [ ] Inactive [ ]
Date [1967] Date [ ]

te Date [1771] Current Tower Date [1878]

wer:

Foundation:

Natural/Emplaced	[ ]
Dressed Stone/Timber	[ ]
Screw Piling	[ ]
Piling	[ ]
Caisson	[ ]
Crib	[ ]
Other (stone)	[X]

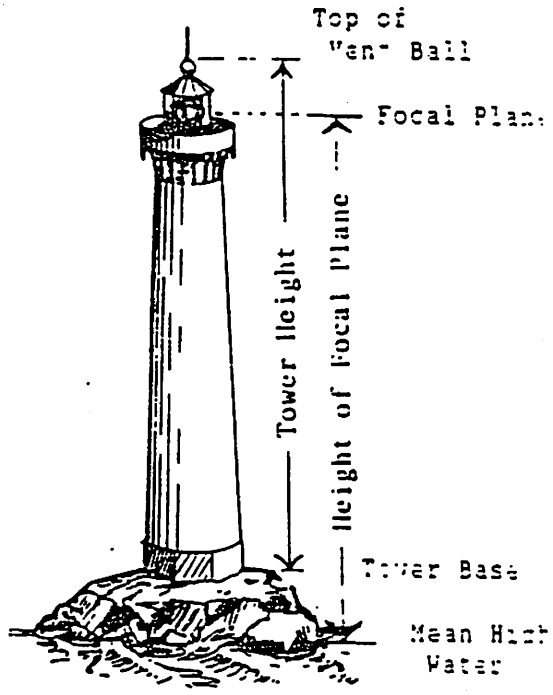
Construction Material:

Rubble Stone	[ ]
Dressed Stone	[ ]
Brick	[ ]
Wood	[ ]
Cast Iron	[X]
Reinforced Concrete	[ ]
Steel	[ ]
Aluminum	[ ]
Other ( )	[ ]

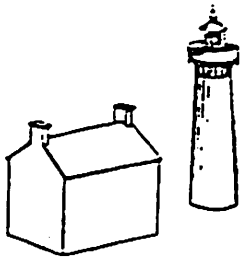
Markings/Patterns [painted white]

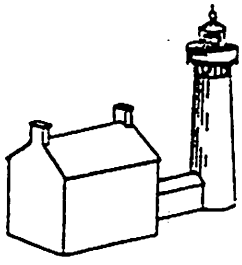
Shape (Check One):

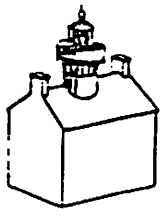
Square	[ ]	Cylindrical	[ ]
Pyramidal	[ ]	Conical	[X]
Hexagonal	[ ]	Skeletal	[ ]
Octagonal	[ ]		



Choose One Tower Type:


Separate [X]


Attached [ ]


Integral [ ]

Tower Height [57] Ft [ ] In
Height of Focal Plane [52] Ft [ ] In

ns: 1771
Original Optic [fish oil lamps] Date Installed [1812]
Present Optic [reflector lamps] Date Installed [1854 ?]
4th order Fresnel lens
Optic Characteristics:
Signal [Fixed] Color [Green]

Sound Signal Building Extant Yes [_] No [x]

Construction Material (Choose One):

Rubble Stone	[_]
Dressed Stone	[_]
Brick	[_]
Wood	[_]
Cast Iron	[_]
Reinforced Concrete	[_]
Steel	[_]
Aluminum	[_]
Other (_____)	[_]

Style [_____]
(Example: Cape Cod, Victorian)

Signal Type [_____]

Construction Date [_____]

Number of Stories [1½]

Construction Material (Choose One):

Rubble Stone	[_]
Dressed Stone	[_]
Brick	[_]
Wood	[X]
Cast Iron	[_]
Reinforced Concrete	[_]
Steel	[_]
Aluminum	[_]
Other (_____)	[_]

Style [Cottage, 1871]
(Example: Cape Cod, Victorian)

Associated Structures:	Number:		Number:
Oil House	[1]	Bridges/Tunnels/Catwalk	[1]
Storage Buildings	[___]	Sound Signal Buildings	[___]
-- Garages	[___]	Dock/Crane/Marine RR	[___]
Cisterns	[___]	Barn	[___]

-- foll

Open to the Public? Yes [x] No [_] with CG permission

Access (ex. foot, boat): [by foot]

On a State List? Yes [x] No [_] Date [1989]

National Register Status [x] Date [1973] Reference Number [73 000 169]
Level of Significance [x] National (amended 1989)

Designated a NHL? Yes [_] No [x] Date [_____]

HABS Recorded Yes [_] No [x] Date [_____]
HABS Inventoried Yes [_] No [x] Date [_____]
HABS Code Number [_____]

HAER Recorded Yes [_] No [x] Date [_____
HAER Inventoried Yes [_] No [x] Date [_____
HAER Code Number [_____]

Owned by NPS? Yes [_] No [x]
If Yes: Park Code [_____] Park Number [_____] On NPS LCS? Yes [_] No [_]

Name/Title/Telephone of Contact Person/Person Reviewing This Form:
[Gregory Clancey, Consultant, Adams & Roy Consultants, Inc. (603) 436-6427]

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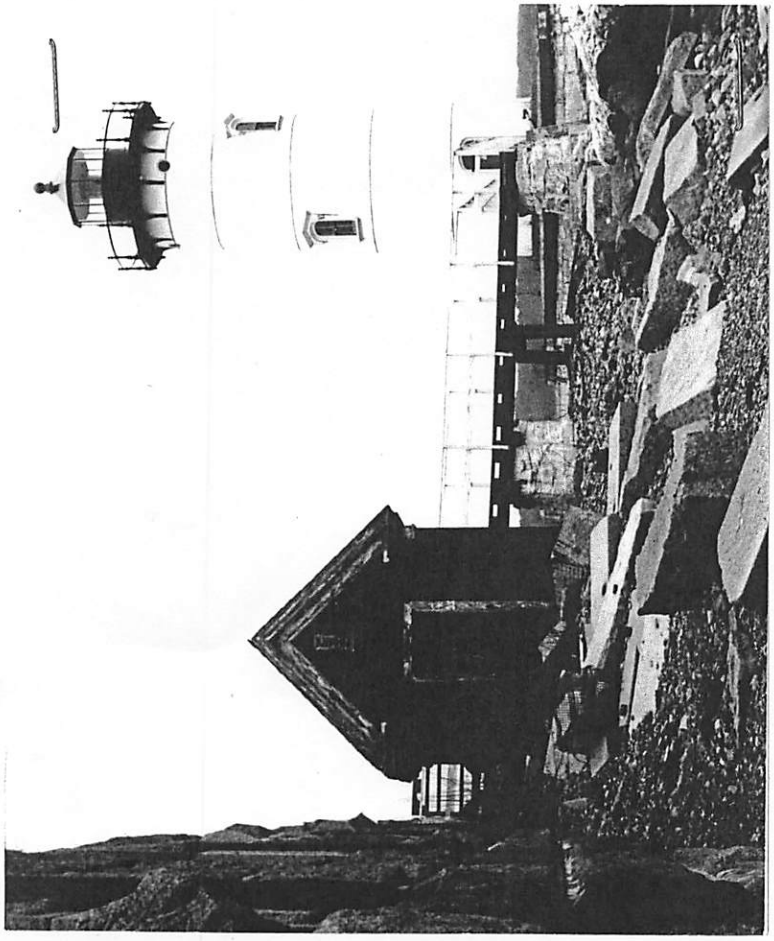
NHSHRS INTENSIVE SURVEY FORM - 08/87

date 23 August 1989

IDENTIFICATION

community New Castle, NH
address Ft. Constitution, off NE point
county Rockingham
property name Portsmouth Harbor Lightstation

survey no.
owner name/address US Coast Guard, Dept. of Transportation, 408 Atlantic Ave., Boston, MA 02210
tax map/parcel no. New Castle 19/2
USGS quad Kittery, ME-NH
UTM zone 19 E 360840 N 4769910



photographer facing: east date: 4/89
description of view: lighthouse, walkway, and oil house

PROGRAM STATUS

NRHP status (code)/date
NHL date HABS no. HAER no.
tax case no.
compliance case no.
CLG no.
archeological site no.
A & D grant ___yes ___no date
ownership (code) Public-Federal
lead agency (code) Coast Guard

SURVEY

photo codes map code
survey map
survey name
survey evaluation (code)
surveyor name Jane M. Porter
name of potential district/grouping n/a

prior survey representation ___yes x no
level of prior survey/date
local historic designation none

DESCRIPTION

date of construction (source) 1878 (Portsmouth (NH) Chronicle 14 May 1878)
dates of alterations/additions (source) None
designer type (code) Engineer
designer name (source) James C. Duane (Probable-Light House Board Journal 1875-8,p.482)
style or form (code) Italianate
building, structure, object, site type (code) lighthouse

structural system (code) Cast iron plates, brick lined
plan configuration (code) round
entry location (code) Other - on WNW side
dimensions ± 57' high x 47' circumference at base
building materials (code)
wall Iron, cast foundation Stone
wall n/a roof Cast iron
wall n/a chimney n/a
other
no. of stories
roof shape (code) dome

chimney placement (code) n/a

window type(s) (code)/Pane configuration 2/2 segmental; 4 occulus windows in tower below lantern platform

appendages (code) n/a

ornamentation (code) beltcourses; brackets; hoodmolds (pedimented)

notable interior cast iron spiral stair; fourth order fixed Fresnel lens in lantern, manufactured by Henry LePaute of France

condition (code) excellent

building integrity unaltered except for paint color formerly red, now white

site integrity unaltered

moved ___yes _x_no ___unknown ___date

context (code) waterfront (fortification)

related buildings/landscape features (code) wooden bridge (walkway); keeper's house; brick oil storage structure (see continuation sheet)

see continuation sheet

sketch map (indicate north)

property name: Portsmouth Harbor Lightstation

HISTORY

historic name(s) (source) Commonly used historic and current names: Ft. Constitution Light, Fort Point Light.

original functional type (code) Transportation, water-related

subsequent fuctional type (code) Same

associated individual(s) (dates) (source)

n/a

associated event(s) (dates) (source)

n/a

historical background (source) 17th century exploitation of offshore fisheries and Piscataqua River Basin timber resources and the building of merchant and war vessels propelled the development of the NH and southern ME coastal and river region Portsmouth Harbor, NH's only deep water port, has been marked by a lighthouse at the fort since 1771 Ithas served extensive maritime transport and in the later 19th c., pleasure craft. (numerous)

BIBLIOGRAPHY

NH lighthouse contract and clipping files, RG 26, National ARchives; Lighthouse letters, Box 17e, RG26,NA; Letters to Lighthouse engineers 1894-7, pp 362,370, Light House Board Journal 1875-8,p 482 RG26,NA; Treasury papers, Box 9, NH Div. Records & Archives, Concord; NH State Papers,3:821,4:31,55, 97,357,446;7:9,10,279,288;18:812,817-22;22:127,131 145,170;Portsmouth Journal 18 Aug, 8 Sep 1838 (p.3 Portsmouth Chronicle 14 May 1878,p 3, 27 Feb 1896, p.5; Portsmouth Herald 4 Feb 1911, p 5; 22 Jan 191 p.7; 2 June 1915,p 5; 16,20 May & 15 July 1933; 20 Oct 1941, p.8; William G. Saltonstall, Ports of Piscataqua, Cambridge: Harvard U. Press, 1941; Ray Brighton, Clippers of the Port of Portsmouth and Port of Portsmouth Ships and the Cotton Trade, both Portsmouth: Portsmouth Marine Society, 1985 and 1986, respectively; Francis Holland, Jr. America's Lighthouses, NY: Dover Pub.,1988, pp. 26-30; Arnold Johnson,The Modern Lighthouse Service, 189C

study units (code)

address: Fort Constitution, Off Northeast point
property name: Portsmouth Harbor Lightstation

PROPERTY DESCRIPTION

Positioned about a mile from the mouth of the Piscataqua River, the white-painted cast iron Portsmouth Harbor lighthouse marks the entrance and anchorage of the Port of Portsmouth. Located n the northeastern point of New Castle, the slightly conical light tower rises against the backdrop f never-completed Civil War era granite casemates of Fort Constitution. Its site is a rocky protru- ion almost surrounded by water at high tide. Distinctive ornamental features not found on pre- 370s northern New England lighthouses are the pedimented Italianate hoodmolds projecting above the rched openings of the three windows in the structure, and brackets supporting the iron-balustraded latform encircling the lantern housing a fourth order French Fresnel lens. Related structures ty- ical of lightstations are the wooden walkway/bridge leading from the stone foundation to an opening n the fort walls; a gable-roofed brick oil storage structure located several yards south of the alkway on the sea side of the fort walls; and a clapboarded, 1½ story keeper's house located inside he fort walls. (see continuation sheet, related buildings) The lighthouse displays a fixed green light.

STATEMENT OF ARCHITECTURAL/ENGINEERING/LANDSCAPE SIGNIFICANCE

The lighthouse and its ancillary resources are significant as the products of the administra- tion of the U. S. Light House Board created in 1852 to improve the quality of U. S. aids to navi- gation after a long period of conservative and often inept management. The resources of the station embody the distinctive characteristics of structure and building types developed by the enginners of the Board for lightstations and the keepers who served them. The lighthouse is significant as a cast iron structure type developed by these engineers after the early 1850s to create durable low-maintenance lighthouses, with the cast building material permitting architectural embellishment. The 1871 keeper's house, with its projecting eaves and jerkinhead gables, is descended from the cottage architecture promoted by such taste-makers as A. J. Downing, and is a modest example of the Board's use of stylistic features reflecting architectural fashion for these coastal buildings, which were seen and visited by increasing numbers of summer visitors in the late 19th century. The 1892 oil house is a structure type developed by the Board for the safe storage of the flammable kerosene lamp fuel used for lighthouse lamps in the last decades of the 19th century until electri- fication in the 20th century; this occurred in 1926 at Portsmouth Harbor lightstation. The designer of both the lighthouse and the keeper's house was evidently James C. Duane, an Army Engineer Corps officers who served as engineer for the first (NH and ME) and second (MA) districts from 1868-79 - a period of extensive rebuilding of lighthouse resources after the Civil War interrupted the Board's improvements. Duane was thus responsible for many structures and buildingswhich are an important visual aspect of the coastal scene. Locally he designed the 1871 granite replacement Whale's Back Light at the mouth of the Piscataqua and the cast iron lighthouses and frame houses at Cape Neddick and Cape Elizabeth, Maine and the double dwelling at the Isles of Shoals (demolishe

STATEMENT OF HISTORICAL SIGNIFICANCE

Castle William & Mary (later renamed Fort Constitutuion) was the site of the first lighthouse built in New Hampshire in 1771 and the tenth of the Colonial era. It was replaced by another structure in 1804 on the site of the present structure. Provincial and federal documents - correspondence, bills, specifications and reports - reveal much about the building of the earlier light- houses, the lighting apparatus used, the keepers employed, the management stystems and the rela- tionship with the establishment at the fort from the late Colonial era through the early decades of Federal management. The extant resources of the station reflect the continued importance of light- houses to the maritime affairs of the Piscataqua River and seacost regions of New Hampshire and southern Maine; they also represent the administration of the U. S. Light House Board and its mission to improve the nation's aids to navigation following highly critical reports in 1838, 1842 and 1851. Finally they have assumed associative significance as symbols of the crucial role played by maritime commerce in the development and sustenance of the region's economy, of the dangers of the seafaring life and of the human dedication once essential to maintaining the light.

CONTINUATION SHEET (note heading of each section to be continued)

elated buildings

The wooden walkway/bridge leading from the lighthouse to the fort walls is simply constructed ? planking laid across stringers and has a balustrade of square wooden post with two rails. It is levated above the tide-washed rocks on three masonry piers averaging five feet in height. It xtends 50' west-northwestof the foundations of the lighthouse and at at angle another 46.5' north-est to an opening in the fort walls a few yards from the keeper's house. A similar structure was uilt to the 1804 lighthouse. The extant bridge postdates the 1906 moving of the keeper's house o its present site.

The keeper's house, built in 1871 from plans provided by first district lighthouse engineer ames C. Duane, was first built over 100 yards distant, on the seaward slope of a hill on which ill stands the remains of a War of 1812 period brick martello tower; it was moved in 1897 because he site was needed for an artillery battery and again in 1906 for the same reason. The house s painted white with lead-colored trim, with a roof covered with red asphalt shingles, both tra-itional for lightstations. Built on cut granite foundations extending nearly 7' above grade, it s of five bays on the south-southeast-facing front elevation and of two bays on the sides. It is 5' long and 28' wide. Of picturesque cottage design, it displays an upper story cross gable on the ront facade, projecting eaves, and jerkinhead gable ends. Windows contain 6/6 sash. A brick ove chimney emerges from the roof ridge near the eastern gable end. (one at the western end has een removed.) In 1890, an open, balustraded balcony at the upper story cross gable was removed nd a roofed entry porch constructed.

The 1892 brick oil house is approximately ten feet wide at the gable ends and eleven feet long. he red brick walls are laid in Flemish stretcher bond; soldier courses form the flat arches for he west-southwest-facing door opening and the square, louvered ventillation openings in each able peak. Wooden raking and horizontal cornices with returns at the gable ends show traces of hite paint. The brick walls display flaking yellow paint, with remnants of earlier red paint howing in many places. The roof is covered with grey slates. The door is missing. The floor s of brick. Racks for holding five gallon cans of kerosene have been removed.