

United States Department of the Interior
National Park Service

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NATIONAL
REGISTER

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Petit Manan Light Station
other names/site number _____

2. Location

street & number Petit Manan Island not for publication
city, town Milbridge vicinity
state Maine code ME county Washington code 023 zip code 04658

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input checked="" type="checkbox"/> district	<u>5</u>	<u> </u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>1</u>	<u>1</u> sites
<input checked="" type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u> </u>	<u>1</u> structures
	<input type="checkbox"/> object	<u>6</u>	<u>2</u> objects
			<u> </u> Total

Name of related multiple property listing: N/A
Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination 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 meets does not meet the National Register criteria. See continuation sheet.

[Signature] Signature of certifying official 9-17-87 Date
Federal Preservation Officer (acting) - Fish and Wildlife Service
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

[Signature] Signature of commenting or other official 8/20/87 Date
Maine Historic Preservation Commission
State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

entered in the National Register. Patrick Andrus 10/30/87
 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] Signature of the Keeper Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)

Transportation/water related

Current Functions (enter categories from instructions)

Transportation/water related

7. Description

Architectural Classification

(enter categories from instructions)

Mid-19th Century

Late Victorian

Materials (enter categories from instructions)

foundation Granite

walls Granite

Clapboard/Brick

roof Asphalt/Shake

other Iron

Describe present and historic physical appearance.

Petit Manan Light Station is located on Petit Manan Island, a rocky and windblown site 2 miles from the mainland (photo 1). Contributing features include the keeper's dwelling, rain shed, generator building, paint locker, and boat house. The light tower is of unusual height for the period of construction and of impressive appearance. The remaining buildings are vernacular in appearance, typical of their period and function, and constitute an unusually complete complex.

The first light on Petit Manan was commissioned on April 27, 1816, and the island was acquired on June 15, 1816, from the Commonwealth of Massachusetts. The first tower was 25 feet in height and was located several yards south of the present tower. The station at that time consisted of a rubblestone keeper's dwelling, frame privy, and rubblestone light. The tower contained 13 whaleoil lamps (probably Argand cylindrical wicks) each with a 15 inch reflector. The focal plane was 53 feet above sea level and could be seen for 14 miles. It was completed in 1817. The payroll ledgers of the Lighthouse Administration list Jeremiah Leighton as the first keeper. In 1831 an inspection discovered that Leighton had left the island, leaving his wife and son tending the light. She sought a permanent appointment as keeper of the light, but was turned down. However, she was paid for the job and thus became the first woman lightkeeper in the United States.

The tower was extensively rebuilt between 1823 and 1825, with the number of lamps reduced to eight, (having 9-inch reflectors). In 1843 the number of lamps was again increased to 13. In 1852, a 1,200-pound, hand-rung brass fog bell was installed. A photograph (probably dated 1870) shows the old tower still in place; however, an 1889 photograph does not show the old tower. It presumably was torn down to provide stone foundations for the several buildings built during this period. In 1876 and 1899 cellars were dug for the two dwellings and rubblestone foundations constructed, possibly out of the old tower and dwelling.

Contributing Structure

The present light tower, constructed of ashlar masonry was commissioned by the U.S. Lighthouse Board in 1854 and completed in 1855 by the Corps of Engineers (photo 2). It was built of local granite quarried on the mainland. The circular stone tower is 109 feet high, 20 feet in diameter at the base, and 12 feet in diameter at the top. It is topped by a two-story, 12-sided iron and glass lantern and watch room, giving the light itself a focal plane of 123 feet--the second highest in Maine. The cast iron capping was added to the tower in 1882. The original cast iron gargoyles were removed prior to automation; one is on display at the Shore Village Museum in Rockland.

See continuation sheet

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The interior of the tower is lined with brick, with a cast iron spiral staircase containing 147 steps. Eighteen of the steps were damaged in 1869 when a chain holding the weights broke. The repairs to the steps can still be seen.

Following a series of unusually strong storms (1856 and 1886) which loosened the top two courses of the tower, six sets of one and one-half inch tie rods were added to the exterior for stabilization, in the summer of 1887. Similar repairs were performed at the same time at Boon Island Light, the tallest in Maine, which had been built 1852 to similar design.

There were originally 11 windows in the tower. The bottom two have been bricked up to prevent unauthorized entry. The remaining nine contain structural glass block "panes".

The lens was a second order Fresnel lens (having 27.6" between flame and lens), manufactured by Henri Lepante of Paris. Originally, a fixed light fueled by whale oil lamps, it had a 17-mile visibility. In 1857 it was converted to a "fixed light varied by flashes", caused by three panels revolving on belt driven chariot wheels, driven by a system of pulleys and weights that had to be hand-wound every five and one-half hours. The panels made one complete rotation every six minutes; therefore, every 110 seconds there would be a 10-second "pause" as a panel obscured the light.

The whale oil was replaced by colza, then lard oil, and in 1917 by kerosene vapor lamps which increased the visibility to 22 miles. In 1938 electricity came to the station and the oil lamps were replaced by electric bulbs of 330,000 candlepower. At this time it was the second most powerful light in Maine. In 1939 Petit Manan became a "stag" (men only) station.

The old weight and pulley system was replaced by electric motors in 1965. The Fresnel lens itself remained until the station was automated in 1972, when it was replaced by a 2,000 watt rotating aircraft beacon. The lens was dismantled and transported to Rockland where it is on display at the Shore Village Museum.

A "fog bell machine" was installed in 1855. The original bell cracked and was replaced in 1868 by a 1500-pound bell manufactured by the McShane Bell Foundry, Baltimore, MD. This bell is now on display at the Milbridge Elementary School. An 1892 map shows the small bell frame (now removed) south of the generator building.

A steam fog signal was added in 1869, replaced in 1889, rebuilt in 1892, and finally replaced in 1938 by a diaphragm airhorn which still operates today at the base of the tower.

Attached to the tower is a small brick room that was the passageway to the 1855 keeper's house. It now houses the emergency generator and other electronic equipment. The light tower and attached former passageway are enclosed by a chain link fence and are owned and maintained by the U.S. Coast Guard. The remainder of the buildings are within Petit Manan National Wildlife Refuge.

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A 1 1/2 story Greek Revival style frame double house was built at the same time as the present tower. A new cellar was built for the house and it was moved several yards north in 1899. It was torn down in the 1950's. The later cellar hole is still present, partially filled with debris. (Non contributing site).

Contributing Building

A second keeper's dwelling was built in 1876 (Photo 3). It is a single family, two story frame house with asbestos shingles over the original clapboards. It is approximately 24 x 30 feet over a full rubblestone cellar. It contains four rooms on the first floor: a kitchen with storm porch, pantry, living room, front hallway with storm porch; and four rooms on the second floor: three bedrooms and a bath.

The interior consists of lath plaster with plain pine molding and is gradually deteriorating due to lack of heat and the constant dampness. The kitchen and bath have been modernized with plumbing fixtures and metal cabinets. The house has modern plumbing and wiring, both of which have deteriorated and cannot be used. A rusted, unusable furnace and water cistern are in the basement. A drilled well is near the house; however, it is unusable due to saltwater intrusion. A septic tank is located west of the house. A single walled brick chimney is present, but the mortar is rapidly deteriorating and some flashing is missing. The roof is red asphalt shingles, somewhat deteriorated. The wooden gutters were once connected to the cistern system, but have been disconnected.

The dwelling and ancillary structures were turned over to the U.S. Fish and Wildlife Service in 1974 and have been unoccupied since. Unsecured for 10 years, the dwelling was secured with plywood shutters in 1984. It was cleaned out and minor repairs were made in 1984 and 1985 to prevent further deterioration.

Contributing Building

The date of construction of the adjacent 18 x 28-foot rain shed is unknown; it may be part of a larger rain shed built in 1868 and standing complete in 1892. It was undoubtedly built before 1899. (Photo 4). It consists of a brick kneewall and frame roof, finished with deteriorated cedar shakes. The interior is unfinished and has a concrete floor. An addition to the 1868 building, since torn down, was used as a schoolroom when the three keepers' families had enough children to warrant a school and school teacher.

Contributing Building

The paint shed was originally built in 1876 as an engine building to house the spare fog signal (Photo 5). It is a somewhat deteriorated 32 x 14-foot stuccoed brick building, painted white. It has an asphalt roof with a small wooden cupola. The interior consists of two rooms: one has a dry cistern and the other contains shelves. An 1892 map labels it as the oil house. This may have been in addition to the fog signal functions. It was used most recently as a paint/oil storage shed.

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Contributing Building

The 32 X 32-foot generator building dates from 1887 when it was built as a boiler house for the fog signal (photo 6). It's design is similar to that of West Quoddy Head Light Station. The original water storage cisterns are gone. It is a brick building with red asphalt shingle roof. It was used most recently to house the diesel generators. The eaves are badly rotted. The interior consists of one large room with concrete floor.

Contributing Building

The date of construction of the boat house is uncertain; however, it dates to at least 1868, and was enlarged in 1900 (Photo 7). It is a frame structure with little or no foundation. It has a cedar shingle roof with clapboard siding, and has been severely damaged by winter storms. There are large holes in the siding and in the roof. The sills are severely rotted. The steam winch has been stripped by vandals and is unusable. The wooden boat slip is still in place and is maintained somewhat by the Coast Guard.

Coal was used to fuel the fog signal boilers and to heat the houses. A 760-foot tramway was built in 1899 to get the coal from the landing to the light. It was rebuilt in 1904 and was removed and replaced by a boardwalk, presumably after electrification in 1938 (non-contributing structure). An 1892 plan shows several other structures with no surface evidence today: wood house, privy, shop, and pig house.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Maritime History
Engineering
Architecture

Period of Significance

1855-1937
1855-1937
1868-ca. 1899

Significant Dates

1855
1876
1887

Cultural Affiliation

Significant Person

Architect/Builder

U.S. Army Corps. of Engineers

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The original light station on Petit Manan Island was completed in 1817. The importance of this location is demonstrated by that fact that this was the 8th light built in Maine, of 66 eventually constructed, and the 37th in the U.S., out of 1600. This first light was visible at 14 miles, used metal reflectors, and appears to have been typical of many early American lights in its construction and equipment.

Investigations by the newly created Lighthouse Board in the early 1850's revealed the inadequacy of American lighthouses, both in number and design. The Petit Manan Light was found to be both too weak and too low in focal plane (53 feet) considering the ever-increasing use of the Northern shipping lanes during this period. Therefore a new light tower with a Fresnel lens was commissioned in 1854, accompanied by a replacement of the ancilliary buildings comprising the station. This is the present light tower completed in 1855. With a focal plane of 123 feet, the imposing granite tower has been a very important light, serving not only local fishermen and boaters, but also the offshore shipping and fishing industries. Petit Manan has undoubtedly had an impact on safety of ships on the coast. It is the first light seen by ships from Canada or Europe using the northern shipping lanes. As such, it guided substantial numbers of vessels in international traffic. It also guided coastal vessels entering five local bays in an area noted during the period of significance for shipbuilding, timber harvest, and fishing industries; and guided local fishermen in their daily routine.

The need for a light at this location is further demonstrated by the fact that prior to 1935, 27 vessels are recorded as needing assistance within sight of the light, including two captured and burned by the Confederate raider Alabama during the Civil War. Most of these vessels were coastal cargo and fishing schooners, indicative of the volume of this traffic along the Maine coast during this period, but a few more unusual vessels also wrecked nearby (such as the early paddle steamer "New York", which burned and sank in 1826). The relatively early installation of a fog signal (1869) is also indicative of the importance of this light and hazards of the area. (In 1880, over 70% of America's light stations had still not been so equipped). During World Wars I and II, Petit Manan was particularly important to coastal defense as a lookout tower for foreign ships and submarines, due to its location 2 miles off the mainland.

See continuation sheet

9. Major Bibliographical References

Berman, Bruce D.

1972 Encyclopedia of American Shipwrecks, Mariner's Press, Inc., Boston, MA

Putnam, George R.

1933 Lighthouse & Lightships of the U.S., Houghton Mifflin Co., New York, NY

Snow, Edward R.

1945 Famous New England Lighthouses, Yankee Publishing Co., Boston, MA

Sterling, Robert T.

1935 Lighthouses of the Maine Coast and the Men Who Keep Them,
Stephen Daye Press., Brattleboro, VT

See continuation sheet

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:

State historic preservation office

Other State agency

Federal agency

Local government

University

Other

Specify repository:

Shore Village Museum, Rockland, ME

10. Geographical Data

Acreage of property 9 acres

UTM References 67° 51' 53" long.
44° 22' 03" lat.

A
Zone Easting Northing

C

B
Zone Easting Northing

D

Note: UTM ticks not available on Bois Bubert
U.S.G.S. Quads (June, 1987).

See continuation sheet

Verbal Boundary Description

Petit Manan Island to mean low water mark, as shown on inset in accompanying Bois
Bubert U.S.G.S. 7.5' Quad. - Total area encompasses approximately 9 acres.

See continuation sheet

Boundary Justification

Since construction of the first light in 1816-17 the island and light station
have been functionally synonymous, in that no unrelated regular use or structures
have existed. The open setting of the entire island has been an historic feature
of the lightstation, both in views from the sea and from the station itself.

See continuation sheet

11. Form Prepared By

name/title John S. Wilson, Regional Historic Preservation Officer

organization U.S. Fish and Wildlife Service

date August 17, 1987

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city or town Newton Corner

state MA

zip code 02158

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Petit Manan Light Station is today one of the most complete examples of an island light station on the Maine Coast. It includes examples of all the essential ancillary buildings of a late 19th century island station and (with the exception of the demolished 1855 keeper's dwelling) and a few minor outbuildings appears substantially as it did during the period of significance.

The light tower is one of the 4 tallest in New England, and the second highest in Maine. As such, it reflects state of the art design at the time of construction. The tower at Boon Island Light Station is the only one of these similar in date and design, and both exhibited the same construction flaws necessitating repairs in 1887. There have been no notable alterations to the exterior of the tower since that date although the light mechanism has undergone the series of necessary modernizations typical of an active station.

The remaining buildings at this station are typical of vernacular structures built by the Lighthouse Service during the last quarter of the 19th century. Again, while all have undergone modernization and use changes in the 20th century, their exterior have never undergone significant modification. The electrification of the station in 1938 decreased the need for some of the ancillary structures, and all were made obsolete by automation of the light in 1972. Because of these modernizations to the light, the ancillary structures remained essentially as they appeared between 1876 and 1937, with some deterioration due to weather conditions coupled with only limited maintenance since 1972.

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PHOTOS
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Informants

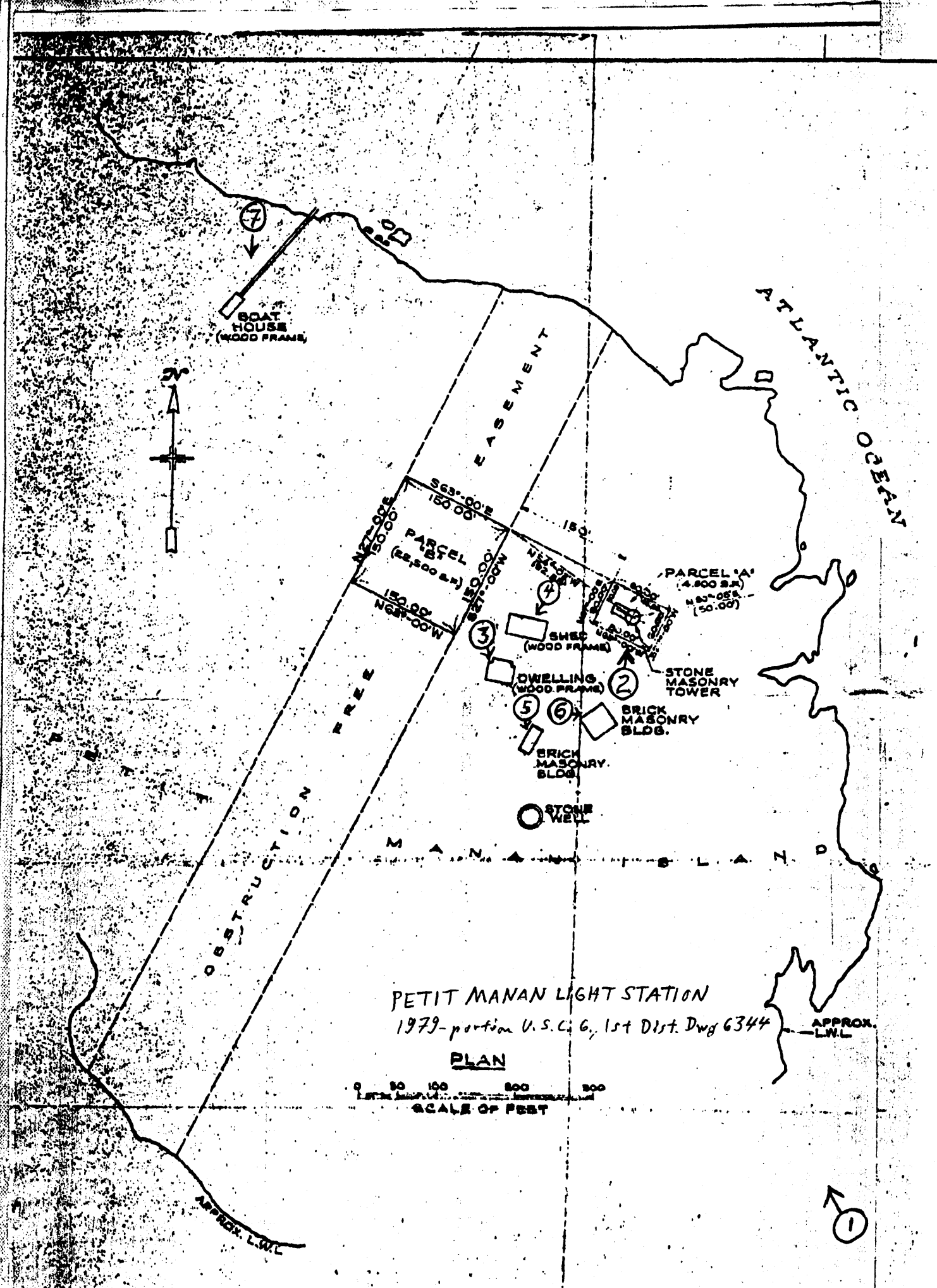
Mr. Ken Black, Shore Village Museum, Rockland, ME 04841 (1 Feb 1985)

Mr. Thomas Goettel, Refuge Manager, Petit Manan NWR, Milbridge, ME 04658

Mr. Clifford Shattuck, Rte. 1, Camden, ME 04848 (1 Feb. 1985)

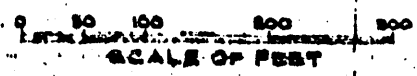
All photographs: Petit Manan Light Station
Milbridge, ME
by Thomas Goettel, August 1, 1986
Negatives retained at Petit Manan National
Wildlife Refuge

<u>Photo No.</u>	<u>Description</u>
1	View of property from S.E.
2	Light Tower from S.
3	Keeper's dwelling from N.N.W.: corner of light tower entry on left, roof of Paint Shed to right rear.
4	Rain Shed from N.N.E.
5	Paint Shed from N.N.W.
6	Generator Building from W.
7	Boathouse from N.



PETIT MANAN LIGHT STATION
 1979-portion U.S.C.G., 1st Dist. Dwg 6344

PLAN



APPROX. L.W.L.

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