The B.I. North Light Beacon

Volume 2, Issue 1 | Summer | *August , 2004*

TEN GREAT REASONS FOR VISITING THE NORTH LIGHT INTERPRETIVE CENTER IN 2004

1. TO LOOK FOR YOUR BRICK

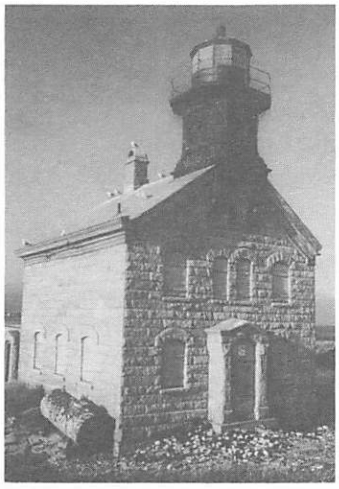
2. TO LEARN ABOUT THE COAST WATCHERS AND HEROIC LIFE-SAVING EFFORTS OF BLOCK ISLANDERS

3. TO SEE "CUTTING EDGE" 19THCENTURY TECHNOLOGY INVENTED BY AUGUST FRESNEL

4. TO STEP BACK INTO THE NAUTICAL PAST AND UNDERSTAND THE IMPORTANCE OF THE SYSTEM OF 2500

Saving the North Light

If time could be recorded , then events played back at fast speed , Block Island's Sandy Point during four decades in the mid-1800's would look like a game of lighthouses playing hide and seek . ***(excerpt from Robert Downey's Block Island and the Sea)***



The Block Island North Light 1980

The Northern end of Block Island is a mile-long peninsula of sand dunes, beach grass and seagulls. Stretching underwater another half-mile is a sturdy spit of sand. Thirty eight years and three failed attempts were needed to find the "proper site" for a permanent North Light, which was erected in 1867.

The first lighthouse, planned in 1829 in response to 22 wrecks in the precious 10 years, was not exactly a success. Despite the existence of this light, 38 wrecks occurred in the next decade. After just eight years of operation, the first lighthouse had become unhabitable and was sold at auction for its materials and demolished.

A second lighthouse was constructed in 1837, well back into the sand dunes. Two towers with fixed lights were installed in the towers backed by reflectors.

continued on page 2

Troubling Erosion at North Light

When the North Light opened to the public this week (July 6) the primary caretaker Rob Gilpin said that he's very concerned about the erosion that's taking place as a result of dune grass trespassers. His biggest worry is the exposed west dune, which is to the left of the Lighthouse. He estimates that about 20 feet of sand dune has disappeared in the last 3 to 4 years. Walkers and their dogs should stay on the main paths and avoid the roped-off areas.

Visitors may not realize it, he explained, but when they walk on the dune grass they're treading on U.S. Fish and Wildlife Service property. They're also intruding on the nesting area of

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Erosion (continued)

endangered species, piping plovers, oyster catchers and gulls who nest there.

The Dune grass is what protects the land and the North Light from the force of the wind, which in the Winter regularly reaches 75 mph. Fencing helps, he explained, but its really the grass and its root system that hold sand in place. Once the grass is trampled on, it can take as long as a year for it to grow back again.

The beauty of American beach grass, explained Janet Freedman, a coastal geologist with the CRMC (Coastal Resources Management Council) is that its very well adapted to moving sand and the roots are long. If you're in an area where the sand is shifting all around, the grass slows down the velocity of the wind. That's why dune grass is especially effective at capturing sand and preventing erosion of the dunes.

Chris Littlefield of the nature Conservancy added, "If it weren't for the grass, we wouldn't have stable dunes. The sand comes back from a storm because of the grass." He mentioned that he and his wife Sue did a study of Sandy Point in the early 80's and speculated that the east side erodes at a rate of about a foot a year and that the west side erodes at about 2/3 of a foot a year.

"American Dune grass is very well adapted to moving sand. Its roots are very long and it slows down the velocity

On a busy summer day, as many as 3000 people a day come to see the North light. We get more people each year and we want to keep the erosion from getting any worse, he explained. To offset the effects of erosion, the North Light Commission has erected some 300 to 400 feet of fencing and will double that in the next few weeks. Plans have been made to secure beach grass seedlings and transplant them to critical areas.

The North Light opened July 6th and is now open for visitor every day from 10 AM to 4 PM unless the weather is inclement. In addition to the interpretive display the building houses a gift display of unique lighthouse memorabilia. Proceeds go toward the continued restoration of the North Light.

REASONS (CONTINUED)

5. TO WONDER AT THE ARCHITETURAL METHODS OF THE 1800'S AND THE MANPOWER REQUIRED TO BUILD A LIGHTHOUSE THAT HAS LASTED FOR ALMOST 140 YEARS.

6. TO APPRECIATE THE EFORTS OF THE NORTH LIGHT COMMISSION AND THEIR DEDICATION TO THE RESTORATION PROJECT.

7. TO BUY A NORTH LIGHT T SHIRT.

8. FOR THE EXERCISE.

9. TO SAY "I DID IT"

10. TO JOIN THE NORTH LIGHT ASSOCIATION.

Saving the North Light (continued)

The second light had been built too far inland and caused so many vessels to ground on the point that another lighthouse was needed. Erected in 1857 at the cost of $9000 the third North Light lasted only one decade, sucumbing to the sea and the elements as the first lighthouse had. So, with a record of having lost three lighthouses at the North end of Block Island in 36 years, the Lighthouse Bureau set out to build a fourth, of pink granite blocks, quaried near the Lette Islands in Branford Conn. and ferried to Sandy Point, then dragged across the beach by oxen to the construction site.

At a cost of $15000, this light was a duplicate of five nearly identicle lighthouses built in Long Island Sound stringing Westward from Block Island to New York City: The Morgan Light in Noank Conn. erected in 1868, The Plum Island Light in 1870, the Old Field Point Light in 1869, The Shefield Island Light in 1868 and the Captain's Island Light in Grenwich built in 1868.

continued on page 3

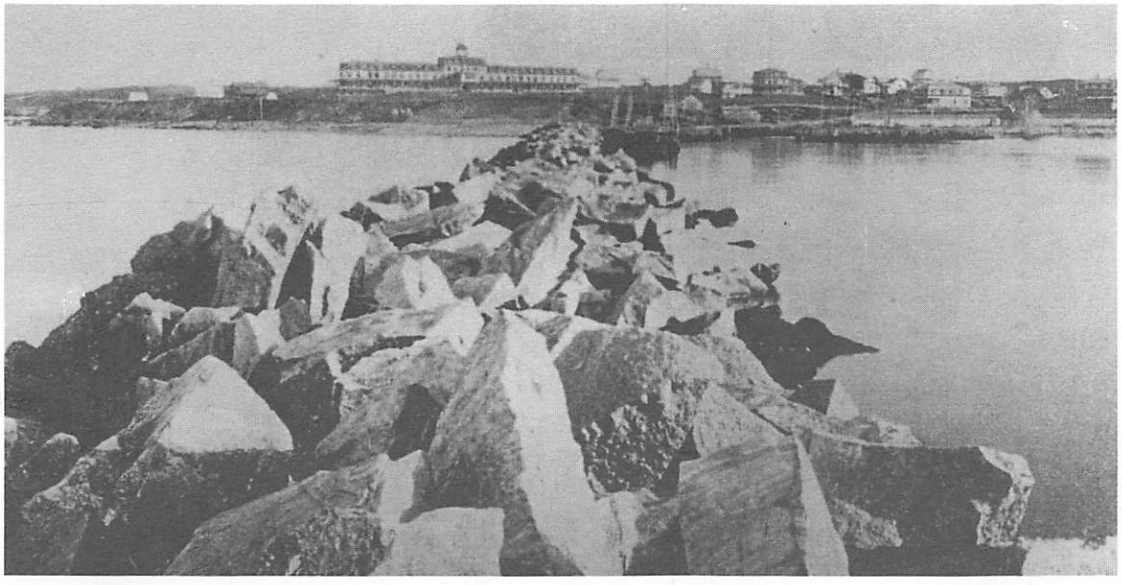
Old Harbor Breakwater

The scope and challenge of projects undertaken by Beattie's Quarries are readily evident in Old Harbor Breakwater (1870-1876) on Block Island, in Rhode Island. Funds for construction were appropriated by the United States Congress in recognition of the potential of the island's township, New Shoreham, as a summer resort. Beattie's Quarries' first granite shipment on the schooner *D.H. Baldwin* was put overboard at Block Island in October 27, 1870. Hundreds of oak pilings were driven to an average depth of 7 feet (2.1 m) in order to stabilize the jetties cribwork. Upon completion, the quarry had supplied approximately 90,000 tons (81,000 t) of riprap at a cost of $155,000. *The New York Times* called the result "one of the most extensive engineering works undertaken of late" in the Northeast.

The Old Harbor Breakwater consists of two jetties: One, extending approximately 1,500 feet (457 m) from shore in a northeast direction, provides protection for the east side of Old Harbor; the other a 1,000 foot (305 m), L-shaped arm extending east, forms the inner harbor itself. Beacons placed at the outer end of each jetty mark the harbor's 300 foot (91.4 m) wide entrance. At the request of the island's residents, the temporary basin constructed within the harbor for the breakwater's building equipment was left intact. Improvements over the years and the addition of a new ferry landing have only minimally affected the visual integrity of the breakwater that forms Old Harbor and the inner basin.

The New York Times called the result "one of the most extensive engineering works undertaken of late" in the Northeast

The following 2 pages consist of charts of Great Salt Pond Harbor and Block Island Harbor. They show the positioning of the breakwaters.



GREAT SALT POND HARBOR

WEST SIDE OF

BLOCK ISLAND

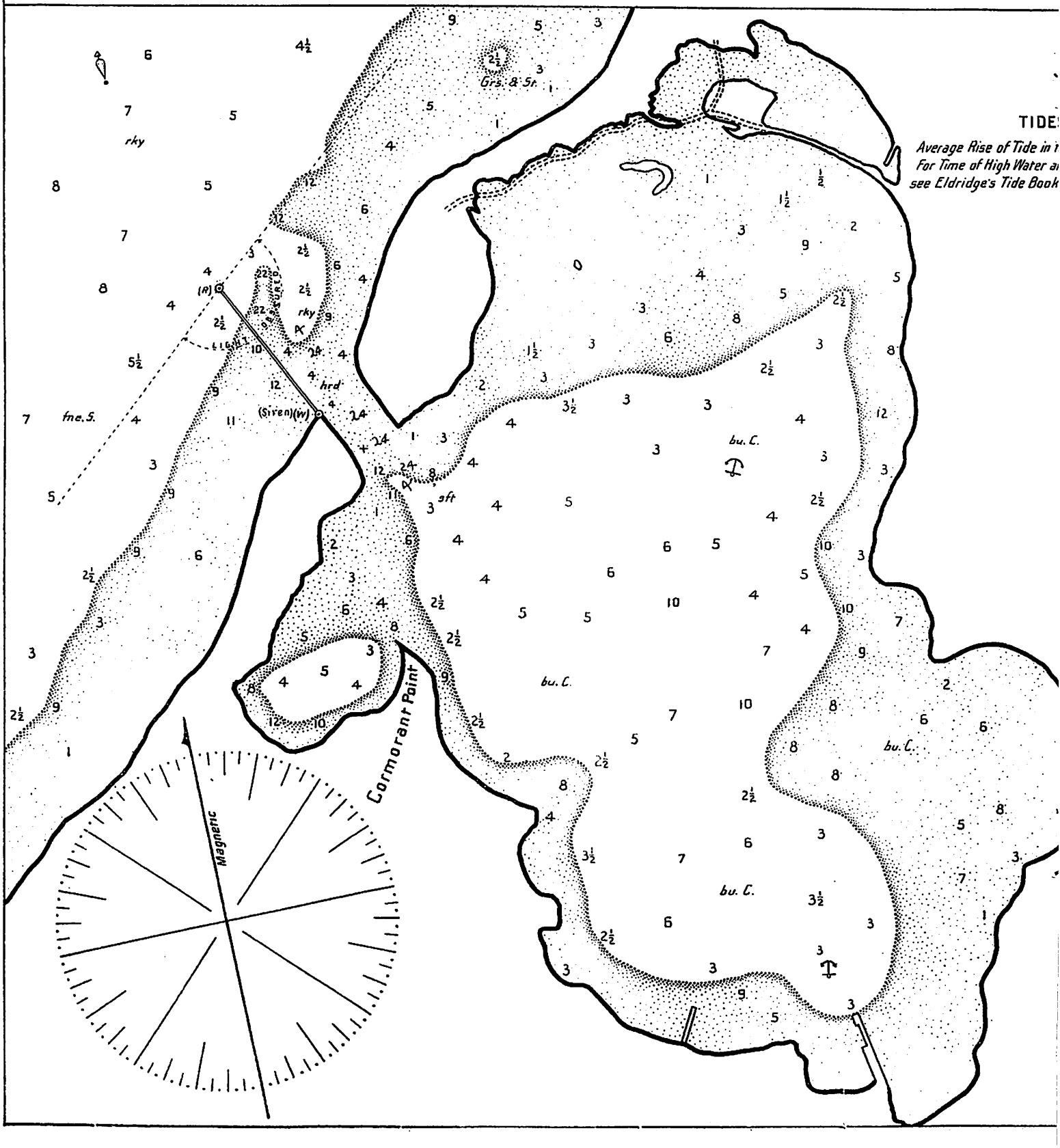
R.I.

NAUTICAL MILES

0 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1

STATUTE MILES

0 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1



NOTICE TO MARINERS.

(No. 65.)

UNITED STATES OF AMERICA-RHODE ISLAND.

ALTERATION IN POSITION OF THE LIGHT AT BLOCK ISLAND.

Information in hereby given that, on and after September 15th, 1868, the light on Block Island, off eastern entrance to Long Island sound, will be shewn from the new dwelling of the keeper, built of grey granite, and situated 400 yards south of the present light station.

The altitute of the light will be increased ten feet.

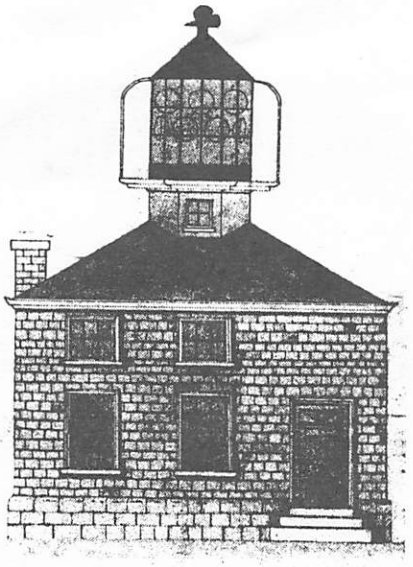
The illuminating apparatus is by a lense of the 4th order, showing a *fixed* white light, which can be seen in clear weather at a distance of 12 nautical miles.

By order:

W. B. SHUBRICK,
Chairman.

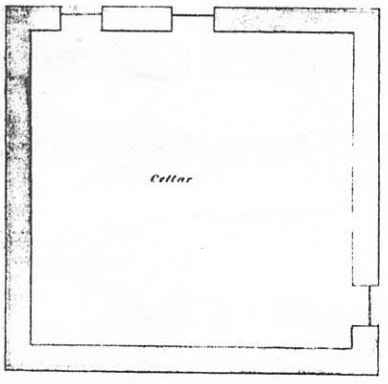
Treasury Department,
Office of the Light-house Board,
Washington, D. C., September 7, 1868.

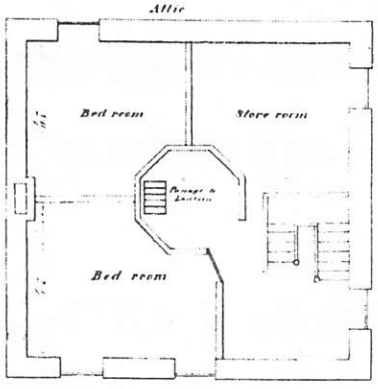
GROUND PLANS
and
Front Elevation of
Light House

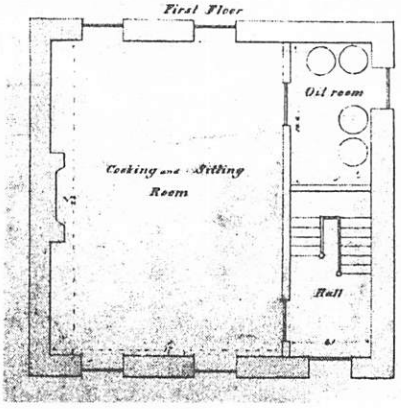


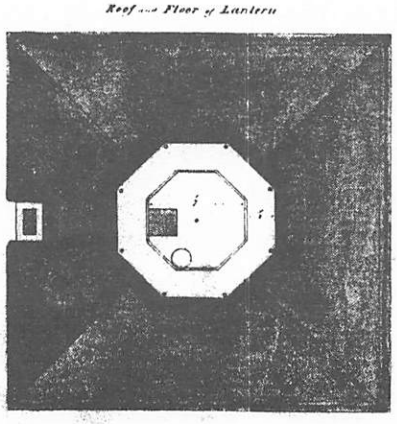
Front Elevation.

This Ground Plan is the third lighthouse built in Sandy Point and succumbed to the sea in 10 years. The present North Light is the replacement and put in service on September 15, 1868









BLOCK ISLAND HARBOR, OR BASIN

EAST SIDE OF

BLOCK ISLAND

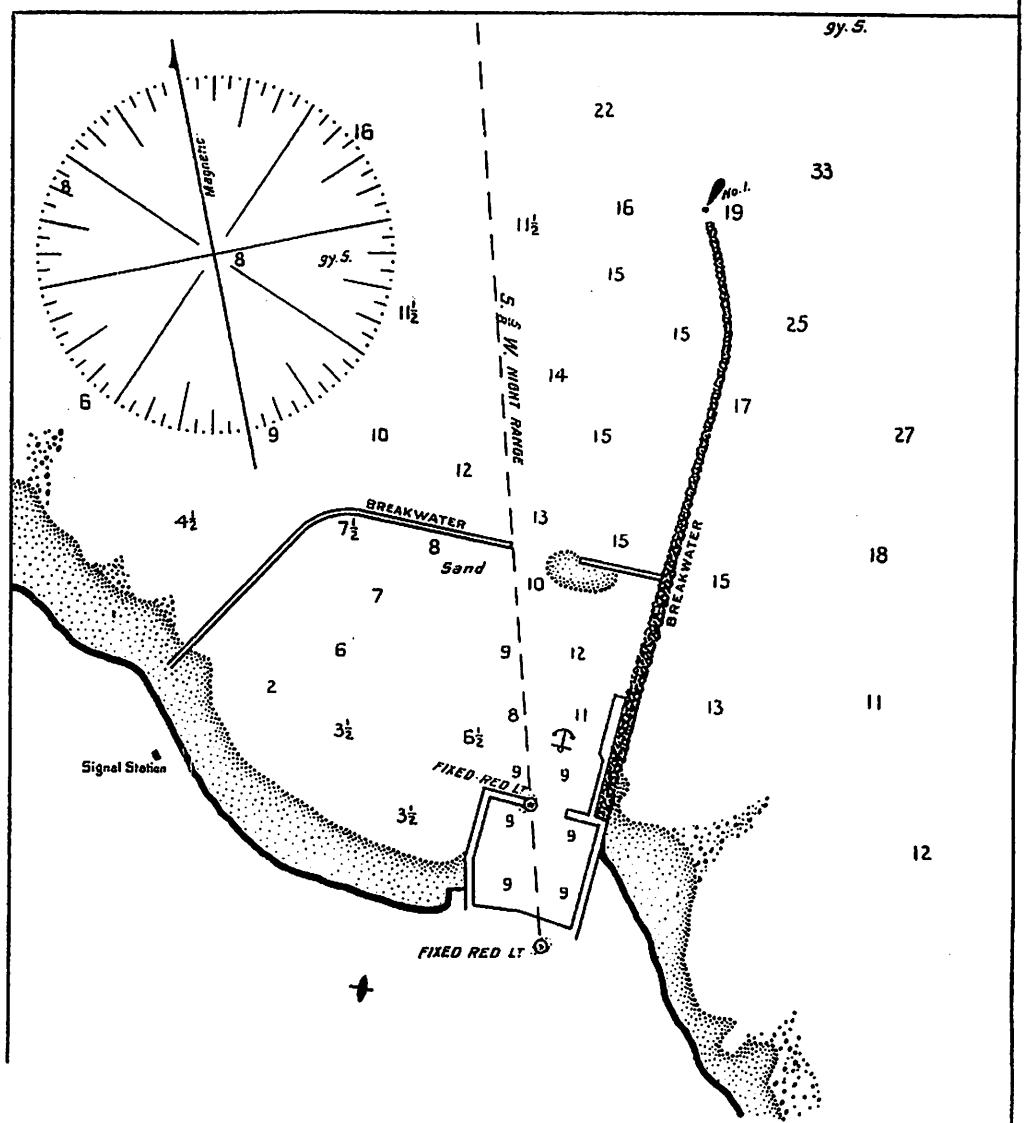
R. I.

NAUTICAL MILES

0 1/8 1/4

STATUTE MILES

0 1/8 1/4



REFERENCES

Life Saving Stations U.S.
Rock above water
Sunken Rock
Sailing Lines
Best Anchorage
All dotted surfaces represent shoal water
Figures within dotted surfaces express feet
Figures without fathoms
All soundings are calculated for Mean Low Water
The small end of a buoy marks its location
The Compasses and Courses on this Chart are Magnetic

BUOYS &c

Spindle
Black Spar
Red
Nun
Can
Bell
Whistling
Perpendicular Stripes
Horizontal
Gas
Beacon

ABBREVIATIONS OF BOTTOMS

Materials	Qualities
M. Mud	hrd. hard
S. Sand	sft. soft
G. Gravel	rky. rocky
R. Rock	stk. sticky

Soundings are in Feet on this chart.

TIDES.

Average Rise of Tide in this Basin is 3 feet.
For Time of High Water any day in this Basin see Eldridge's Tide Book.

AUTHORIZED AND PUBLISHED

BY Geo. W. Eldridge

VINEYARD HAVEN MASS
AND
152 STATE ST. BOSTON

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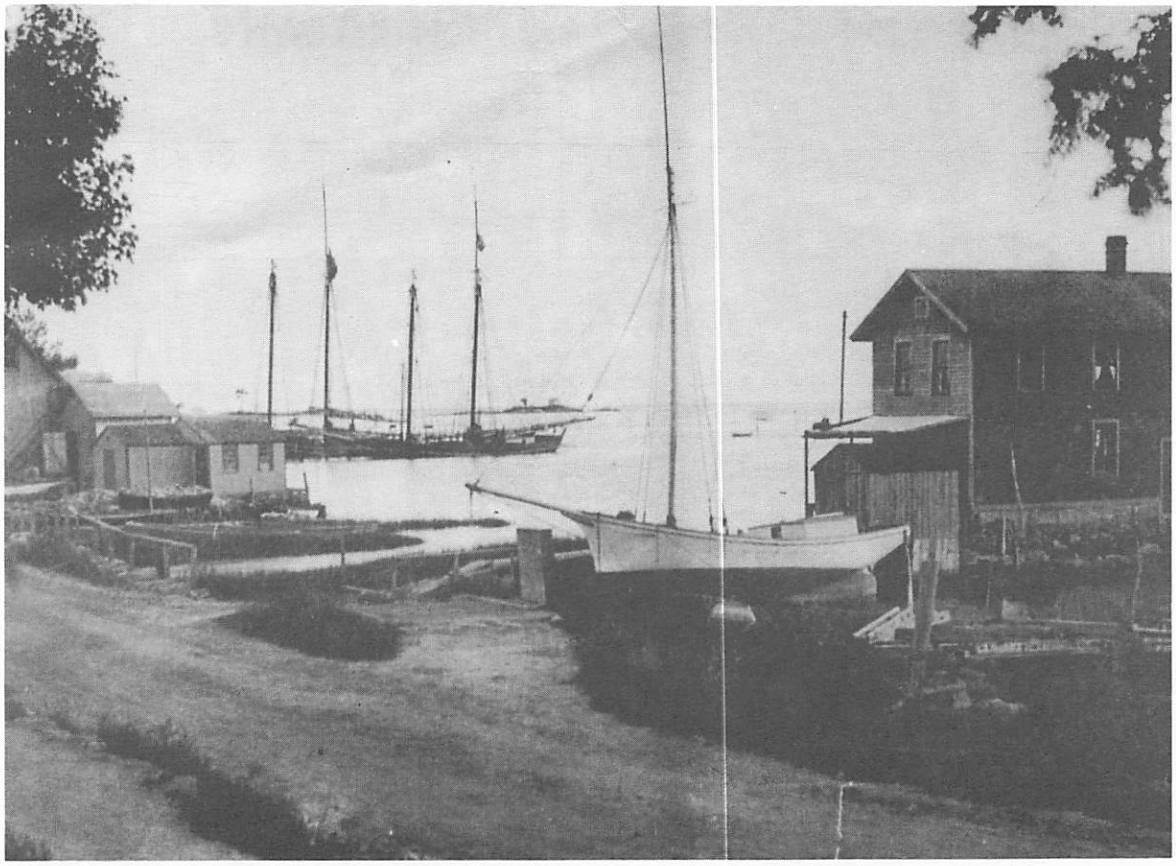
No. 33



Loaded quarry schooners prior to sailing at Stony Creek Leets Island, Branford Connecticut. Note furled top sails and low freeboard.

The North Light Association has available 51 charts 16 x 20 similar to the one in our centerfold, 1901 suitable for framing (see index below). Your cost is $20.00 plus $5.00 s & h. All proceeds go to ongoing restoration. We will report more on that in our fall and winter newsletters.

Chart Index:

1. New York, from Governor's Island to Throg's Neck.
2. Hempstead, Manhasset, & Little Neck Bays, L.I., N.Y.
3. Huntington and Oyster Bays, L.I., New York.
4. Larchmont and New Rochelle, N.Y.
5. Marmoraneck, N.Y.
6. Greenwich Har., Capt's Id. Har., Conn., & Pt. Chester, N.Y.
8. Port Jefferson, L.I., N.Y., and Southport, Conn.
9. Coscob and Greenwich Cove, Conn.
10. Stamford, Conn.
11. Darien, Conn.
12. South Norwalk and Cockenoe's Id. Har., Conn.
14. Bridgeport, Conn.
15. Stratford, Conn.
16. Milford, Conn.
17. New Haven, Conn.
18. Branford, Conn.
19. Thimble Ids. and Stony Creek, Conn.
20. Guilford, Conn.
21. Clinton, Conn.
22. Westbrook and Duck Id. Roads, Conn.
23. Connecticut Riv. Ent. And Black Rock, Conn.
24. New London, Conn.
25. Greenport, Orient, and Sag Harbor, L.I., N.Y.
27. Fisher's Id. Sound, Conn.
28. Greenwich, Apponog, and Wickford, R.I.
29. Providence River, R.I.
30. Warren, R.I.
31. Fall River, Mass.
32. Bristol, R.I.
33. Great Salt Pond and Block Id. Basin, Block Id., R.I.
34. Newport, R.I.
35. Westport, Mass., Saconnet Riv., & N'rrag'nsett Pier, R.I.
36. New Bedford, Fairhaven, & Dartmouth, Mass.
37. Mattapoisett, Mass.
38. Marion, Mass.
39. Wareham River, Mass.
40. Wenaumet, Cataumet, Mon'nt B'ch, & Onset Bay, Mass.
41. Quissett Har., West Falmouth, and Nonquit, Mass.
42. Cuttyhunk and Robinson's Hole, Mass.

42 ½.Quick's Hole and Tarpaulin Cove, Mass.

43. Woods Hole, Mass.
44. Vineyard Haven, Mass.
45. Edgartown, Mass.
46. Nantucket, Mass.
47. Chatham, Osterville, Cotuit, & Cottage City, New Har., Mass.
48. Hyannis and Centerville, Mass.

48 ½.Welfleet, Mass.

49. Provincetown, Mass.
50. Plymouth, Kingston, and Duxbury, Mass.
51. Boston, Mass.

Saving the North Light (continued)

Just five years after the construction of the existing North Light, shifting sands threatened the light, the result of so much trial and error in construction, so much so that a Congressional appropriation of $1800 was required to grade and face the surface of the site with rounded paving stones which had the effect of eliminating the buildup of waste sand around the structure.

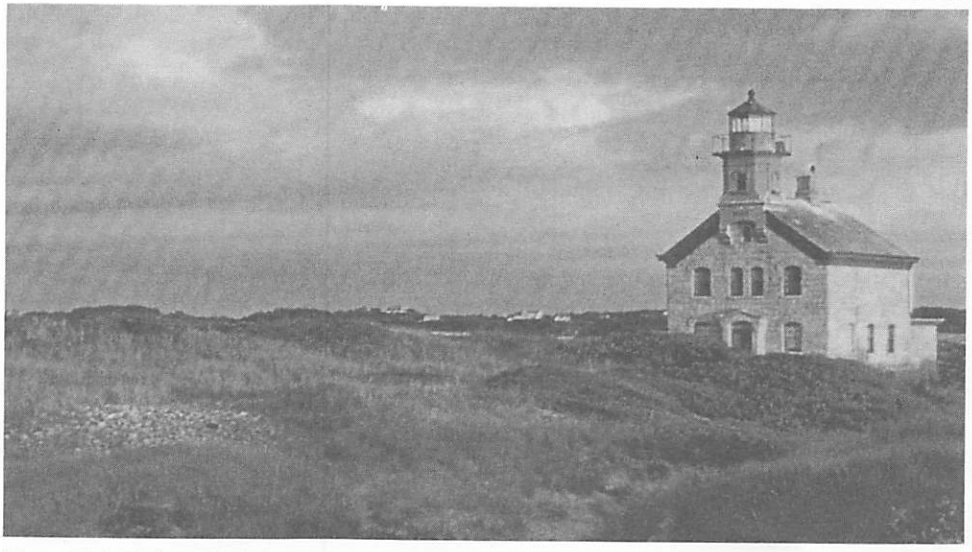
The dunes now still waltz around the North Light. (see page 1 article) but the North Light stands today, proudly restored by the North Light Commission and is open daily in the Summer season to all who will brave the quarter mile trek across the beach from Cow Cove (where the first Islanders floated their cows to shore). It houses an interpretive center which depicts the efforts of the early Lifesaving Coast Watchers who evolved into the present day Coast Guard . A Fourth Order Fresnel lens is on display and there is a room devoted to the Birds of the Island. (Sandy Point is a large rookery for seagulls and the endangered Piping Plover). Attendants are present to answer questions and to lecture on the exhibits to all who are interested in this bit of 19th century nautical history.

"The dunes today still waltz around the North Light"

Radar, Loran and GPS have made the North Light obsolete, for commercial navigators, but the thousands of boaters who visit the Island each year still rely on its beacon in finding their way to the Great Salt Pond, Old Harbor and Newport.

The granite building was abandoned by the Coast Guard in 1973. Within months, Islanders formed the North Light Commision, whose members have overseen the careful reconstruction. The 28 acre parcel of land is managed by the Fish and Wildlife Commission.

The restoration work continues. The environment is harsh and unforgiving, but the sight of this beautiful building, a testimony to mans' struggle to overcome nature, its pleasing lines against the surounding sea touches the heart of all who view it from land or water.



Note: Cobble installed shortly after the lighthouse was built in 1867 to control erosion.

Flotsam and Jetsom

The letter reprinted to the right is believed to have been retrieved from the archives of the Treasury Department, parent organization for the U.S. Coast Guard by Wayne Wheeler with license.

Treasury Department,

OFFICE OF THE SECRETARY,

Washington, D. C., April 1, 1903

Dear Deputy Commissioners, Engineers and Inspectors:

As we go forward into our spring and summer inspection trips I want to bring to your attention a matter of serious consequence to our service.

If you remember, last year there was an attempt by some unsavory characters to unionize the Service's sailors. Fortunately for the economy and well being of the Service we manage to thwart that ill advised attempt. Having union sailors on our tenders and lightships could cause interruption to the smooth operations of our responsibilities.

It has now come to my attention that certain lighthouse keepers have taken it upon themselves to attempt to unionize our keepers and depot workers. As with the case of the vessels, this is an unacceptable idea and one which would blemish the good order of the Service. Fortunately, we have in place informants throughout the Service to monitor this situation, but those keepers involved are trying to go underground until they have garnered enough members to provide a serious impact. When discovered participants should be removed. You may ask just how you are to discern who is a member of this disruptive and ill advised group. Well, apparently in a means to solicit solidarity they have devised a small pin which they wear to show support and that the bearer is a member of this so called Society. I have enclosed a sample for you to take on your rounds. Should a service member be seen wearing this pin he is to be summarily dismissed!

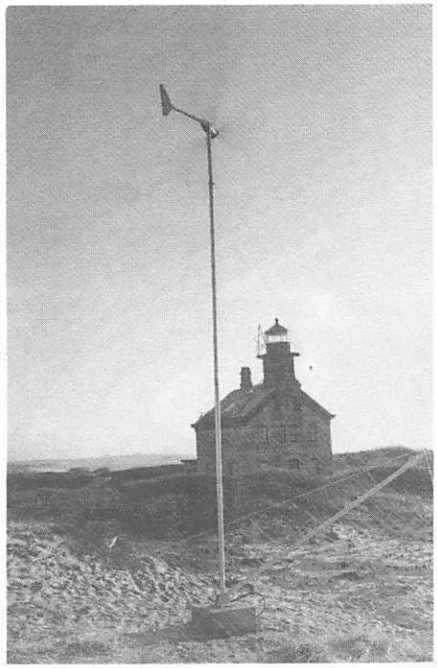
When I was in Washington at the latest Inspectors conference word was circulating that two brothers from Dayton, Ohio were attempting to make bicycles fly! Their "flight of fancy", if you will, is being held on the Outer Banks of North Carolina. Please ensure that this folly doesn't interfere with lighthouse operations in that area.

God speed! as you make your rounds this spring…and be on the lookout for keepers wearing the enclosed pin.

Wayne Wheeler

North Light Powered Up

Courtesy of the Block Island Times



The North Light energetically improved this winter with a new windmill and solar panels that now power and heat the remote North Light and its museum. The granite lighthouse is not connected to the town's electricity grid and formerly relied upon electricity produced by a diesel-powered generator.

The North Light Commission's tireless vice chair, Robert Gilpin, spent five years planning the upgrades and rolled up his sleeves to do the work when it was at last time to install the equipment. The 1,500-watt windmill now whirls atop a 30-foot pole one hundred yards north of the lighthouse, and fifty square feet of solar panels stand to the east of the lighthouse. Some BI residents worried that the windmill would diminish the Sandy Point views, but the installation, with its narrow profile, is not readily visible and most agree that the impact has been minimal.

The electricity generated also produces hot water and heats the building in colder months. Gilpin expects the installation to reduce demand for generator-produced power by 80 %, and reduce fuel-oil consumption for heating by 10 to 15 %.

The beacon - which now shines from a 25-foot steel tall tower north of the lighthouse - is also powered by the sun, with a small solar panel and a battery pack. When major repairs are eventually made to the corroding lighthouse tower, the light will be reinstalled in the North Light, Gilpin said. This summer, a monitoring system will be featured in the North Light museum; it will display wind speed and the number of kilowatts the windmill is producing.

Ancient Lighthouse Getting New Life

It has become our custom in the North Light Beacon to include articles written about the restoration over the past 30 years. The following article was written in 1978 by Jeanne Spallone of Deep River Conn. In looking back in time, we can only thank the many contributors who have helped us reach the present state of our restoration.

Block Island's North light - a century old abandoned lighthouse - stands silhouetted against these, a lonely, silent sentimental facing seaward towards Sandy Point, the extreme northern tip of the Island where the waters of Block Island sound merge with the waters of the Atlantic Ocean. Its windows are boarded up- the board scrawled with graffiti "Tis a sad sight and enough to bring tears to the eyes of lovers of old lighthouses or marine history buffs." But help is on the way, in the form of the North Light Commission, charged with the restoration of the lighthouse, and the future looks promising .

"tis a sad sight and enough to bring tears to the eyes of lovers of ligthouses or marine history buffs"

On a recent visit, we found three young men busily working to install a new slate roof and one of them, Jim Chambers lay down his tools for a few minutes to conduct us on a whirlwind tour. Jim showed us the Keeper's quarters on the first two floors of the granite structure, then after climbing a short flight of very steep steps we found ourselves on the parapet, surrounding the 52 foot black cast iron light tower, now pock-marked with rust.

The view from here was unsurpassed from every direction of the compass. West to Long Island Sound, north the Conn. _R.I. shoreline, east the Atlantic, dark blue under a cloudless sky, south the rolling green hill and enough to bring tears of Block Island. Directly below we were surrounded by 28 acres of sand dunes and beach roses, the rookery for thousands of gulls. Back on the ground Jim pointed up to the buildings recently replace cornices. The light is about a third of a mile from the nearest paved road and access must be gained by foot or by driving a 4-wheel drive vehicle.

Several days later we made a second visit in the company of Block Island's First Warden Herb Whitman, who also serves as chairman of the North Light Commission, and two staffers from the U.S. Fish and Wildlife Service who had come along to inspect the work in progress and to approve it for partial federal funding.

As we bumped along in a jeep, we had to stop to help some workmen whose vehicle had become bogged down in the sand. Whitman told us that like Gaul, the project is divided into 3 parts: 1) to secure the building against further deterioration, 2) restore the rest of the exterior and the interior, 3) use and maintenance of the building. It will be open to the public and several museums and foundations have been contacted regarding the loan of marine exhibitions.

Did you know the granite used in building the North Light came from the same Leetes Island Quarry that supplied the granite for the east breakwater at Old Harbor transported by the Beatties Quarries Schooners

Research was started on the history of the light and an architect and a contractor were hired. A search began for the original Fresnel lens (many were scrapped by the Coast Guard) When the light is returned to the turret of the old North light it will be a happy day for the North Light Commission, U.S. Fish and Wildlife and all the Islanders and Off-Islanders who are working hard to to give new life to this old light.
(editors note: the soffits that were replaced when this article was written 30 years ago are in need of replacement...the material used, white pine, even though painted regularly was not up to the task of resisting the harsh environment and the bird life. The turret is badly rusted and must be removed from the building to be repaired. The fourth order Fresnel lens is on display in th lobby and can be used to show viewers how the lights were made to give a distinctive flash.)

The North Light Association

P.O. Box 1621
Block Island
Rhode Island 02807
401-466-3200

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PORTSMOUTH NH 03801-2001

If you are interested in supporting the continued restoration efforts of the North Light Association please return your tax exempt donation with the attached form or pass this newsletter on to potential supporters

The B.I. North Light Beacon

Please sign me on as a member of

Block Island North Light Association

P.O. Box 1662, Block Island, RI 02807

NAME _____

ADDRESS _____

CITY _____ *STATE* _____ *ZIP* _____ *PHONE* _____

Commissioner: $500.00 Headkeeper: $100.00 Keeper: $50.00 Member: $20.00 Friend: $10.00

For any new or repeat members who come aboard as Headkeepers, we will send a Scaasis Original North Light model as displayed at our North Light gift shop. A $25.00 value.

Signature _____