

LOG

THE KEEPER'S

VOLUME XXIV

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- Block Island Southeast Light Station, RI
- Lindesnes Lighthouse, Norway

- Bell Rock 200th Anniversary II
- Benjamin Latrobe's Lighthouse Designs

BLOCK ISLAND SOUTHEAST LIGHTHOUSE

RHODE ISLAND

By Wayne Wheeler



In 1524, explorer Giovanni da Verrazzano sighted Block Island and named it Luisa after Louise of Savoy, the Queen Mother of France. In 1614, the island was charted by the Dutch explorer Adriaen Block and for many years named for him. A Dutch chart of 1685 clearly shows Block Island, indicated as Adrian Block Island. The island became part of the Massachusetts Bay Colony, then it was given to Governor John Endicott in 1658 and shortly after sold to a group of freemen of the colony. Three years later, a group of sixteen families settled the island. In 1672, Block Island became part of the Colony of Rhode Island and was named New Shoreham, its official title, although known as Block Island.

Block Island, Rhode Island is situated twelve miles south of the mainland (Rhode Island) and about fifteen miles northeast of the southern tip of Long Island. The ten square mile island contains a large pond in the center (fully 15% of the island's area) which was connected to the ocean in 1680 by a channel. This provided the only harbor on the island. Today it is known as the Great Salt Pond. Block Island is roughly pear shaped on a north-south axis, with the "stem of the pear" consisting of a sandy spit (Sandy Point) and a submerged sand bar which extends over 1-1/2 miles to the north. It is this sand bar and low spit that has been the cause of numerous ship wrecks over the years. Some 500 vessels have come to grief on this obstruction over the years.

Vessels traveling from Portland, Maine,

Boston and Providence, enroute Long Island Sound, must first pass through Block Island Sound. Strong ebb currents from Long Island Sound coupled with nor'easters tended to set sailing vessels on to Block Island's sand bar.

To warn mariners of the obstruction, a lighthouse was constructed at the north tip of Block Island (Sandy Point) in 1829. Eight years later the lighthouse was washed into the sea. A replacement lighthouse was constructed in 1837. Heavy seas breaking over the low lying spit also claimed this structure. The 1857 replacement

was destroyed by fire. In 1867, the present granite lighthouse was constructed (see *The Keeper's Log* Vol. XXIII, No. 3).

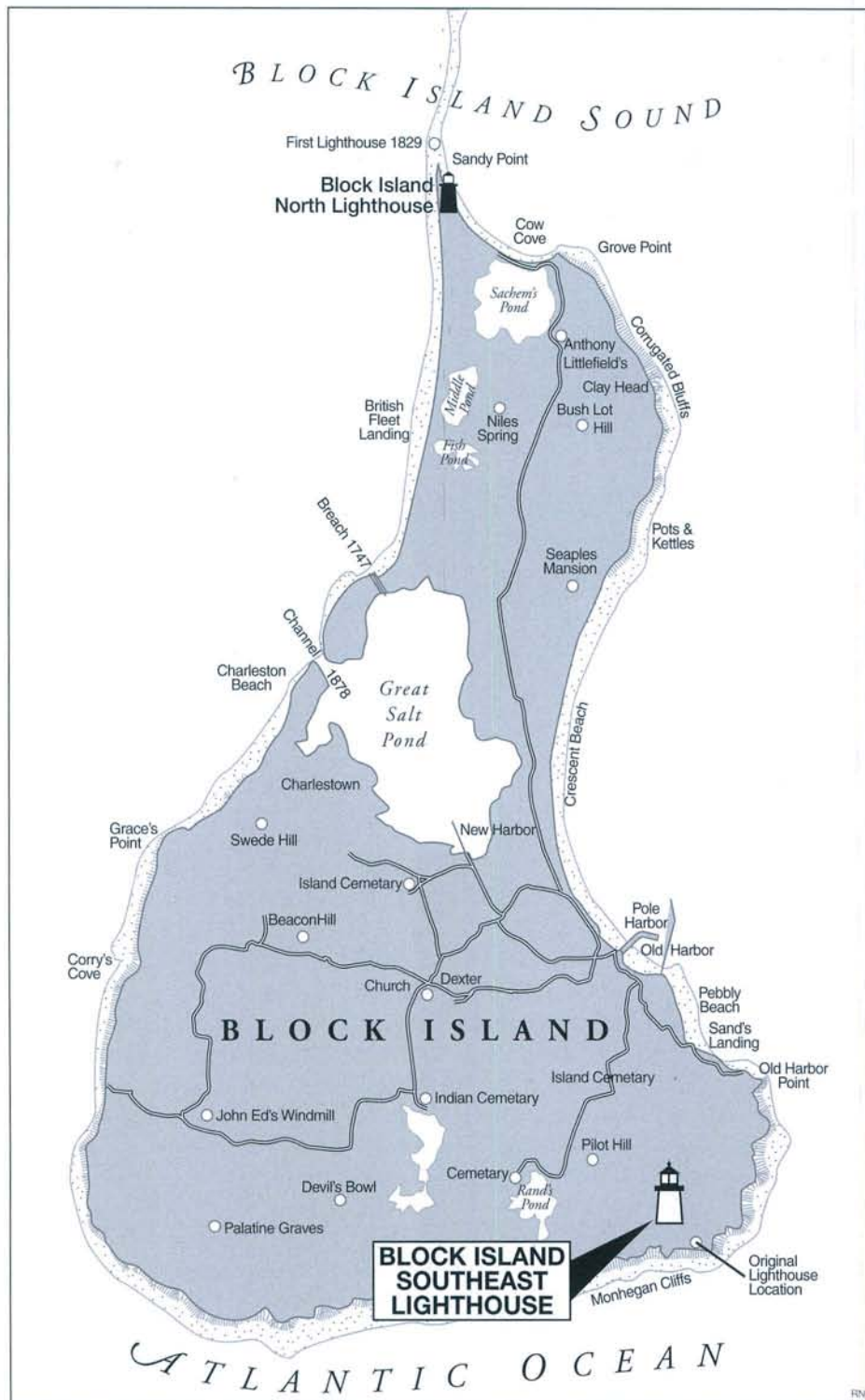
The south side of Block Island consists of steep cliffs, over 200 feet above the water in some places. Although not as dangerous as the north side of Block Island, the Monhegan Cliffs, as they are known, have also been the site of numerous shipwrecks. Vessels bound to New York City from Europe and New England ports pass close to the south shore of Block island before sighting Long Island's Montauk Point Lighthouse.



Block Island SE Lighthouse and dwelling circa 1948. Fog signal building roof in background. The two towers supported the radio beacon antenna. Note how tall the duplex dwelling chimneys are. They were reduced in later years. U. S. Lighthouse Society photo.

In 1872, Congress authorized the Lighthouse Board's request for \$75,000 (\$1.5 million in today's dollars) to construct a lighthouse and fog signal on Block Island's Monhegan Cliffs. The Annual report states, "An appropriation of \$75,000 was made by the last Congress for a lighthouse and fog-signal at this locality, under a petition of persons interested in the navigation of this

part of the coast. A preliminary survey of the southeast end of the island has been made, and a site favorable for the service of a steam fog signal - a syren; a pond of fresh water upon the site being recommended, has been selected. Plans for the light-house and fog-signal are in progress." The Pilot Hill Road was created to haul necessary supplies to the construction site.



Map redrawn for original in *Block Island Lore and Legends* by Ethel Colt Ritchie.

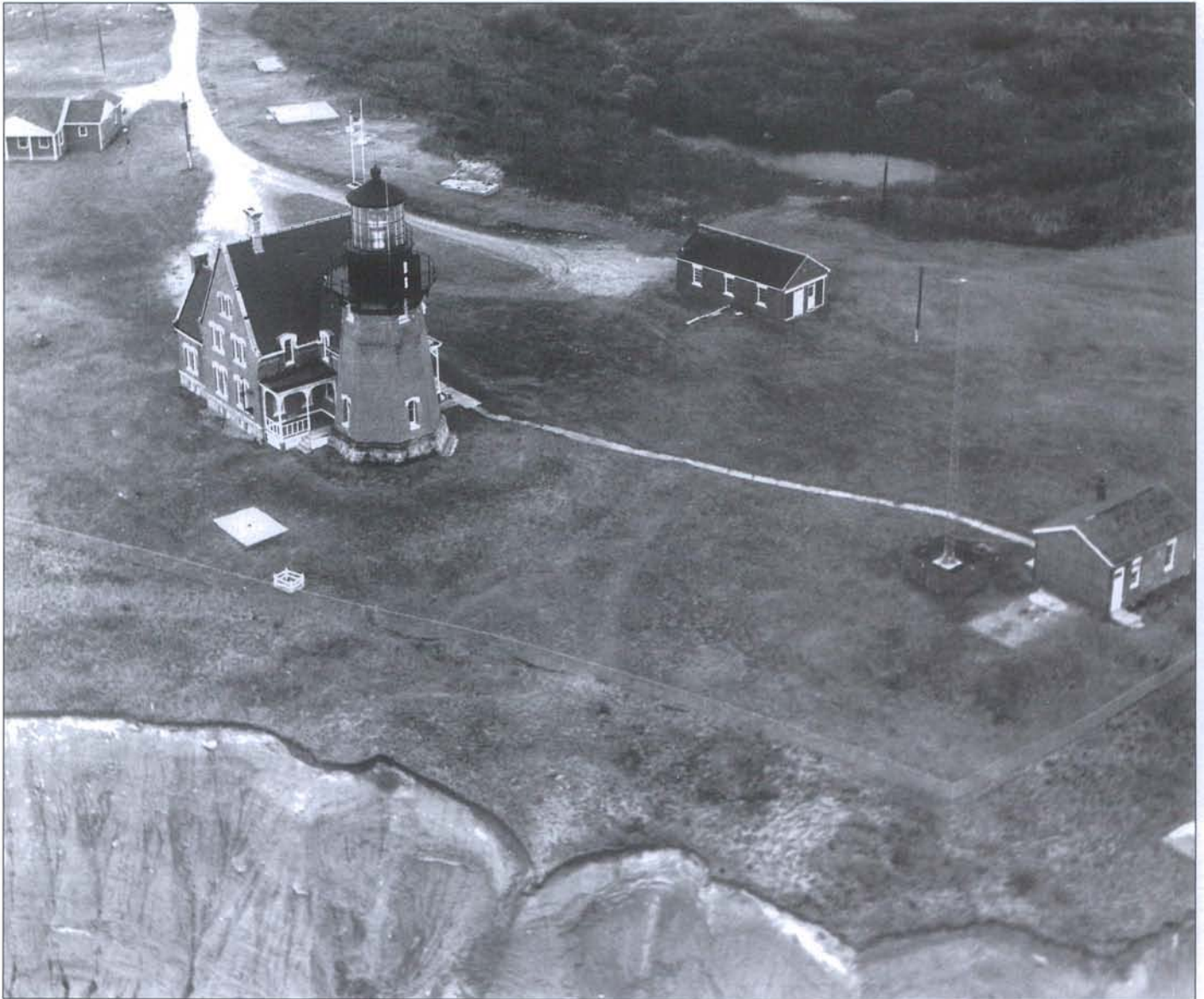


Overall view of the light station showing original location in 1992 relative to the Mohegan Cliffs. Photographer unknown.

In 1874, the Board reported, "The purchase for the site for this light-house was finally concluded, and a steam fog-signal (syren) in duplicate, except the boiler, erected under proper housing: a keeper and assistant were appointed to take charge and operate the same. The signal is in operation [prior to the completion of the lighthouse]. A cistern was built for furnishing water for the signals, and pipes laid for water supply from an adjacent pond on the land of the government. The pond, it is found by experience of the past year, must be revetted by a wall in order that it may collect and reserve a larger supply of water in anticipation of a season of drought. Contracts have been made for the dwelling and tower, and already the work has advanced to part of the first stories of these structures. The metal work of the buildings and stairs has also been placed under contract, and the portion of the first story delivered on the island. The lantern, made under contract, has been completed, and is now in store ready to be delivered to the station when needed."

[The 1st order fixed Fresnel Lens cost \$10,000, or \$200,000 in today's money].

"The expenses attending the purchase of the land at this site, district attorney's fees, and the connections of the water supply, were somewhat greater than was



Block Island SE Light Station circa 1960. Building at top left is an additional dwelling for Coast Guard personnel. Top middle is the garage, with the fog signal building at right. Radio beacon antenna next to the fog signal building. U. S. Coast Guard photo.

anticipated. This and the exorbitant cost of hauling machinery of fog signal, lumber, labor, etc., have drawn heavily on the appropriation of this station. The metal work and lantern have to be delivered to the contractors for the dwelling and tower at the site, and the appropriation being all covered by the contracts, no funds remain available for the completion of the reservoir. The sum of \$4,500 is asked to meet expenses attending the same."

Block Island's Southeast Lighthouse first displayed a light on February 1, 1875. The characteristic was a steady green light, situated 201 feet above the water, with a range of 21 miles. President U. S. Grant attended the commissioning of the station and posed for photos in the tower with Henry W. Clark, the first keeper.

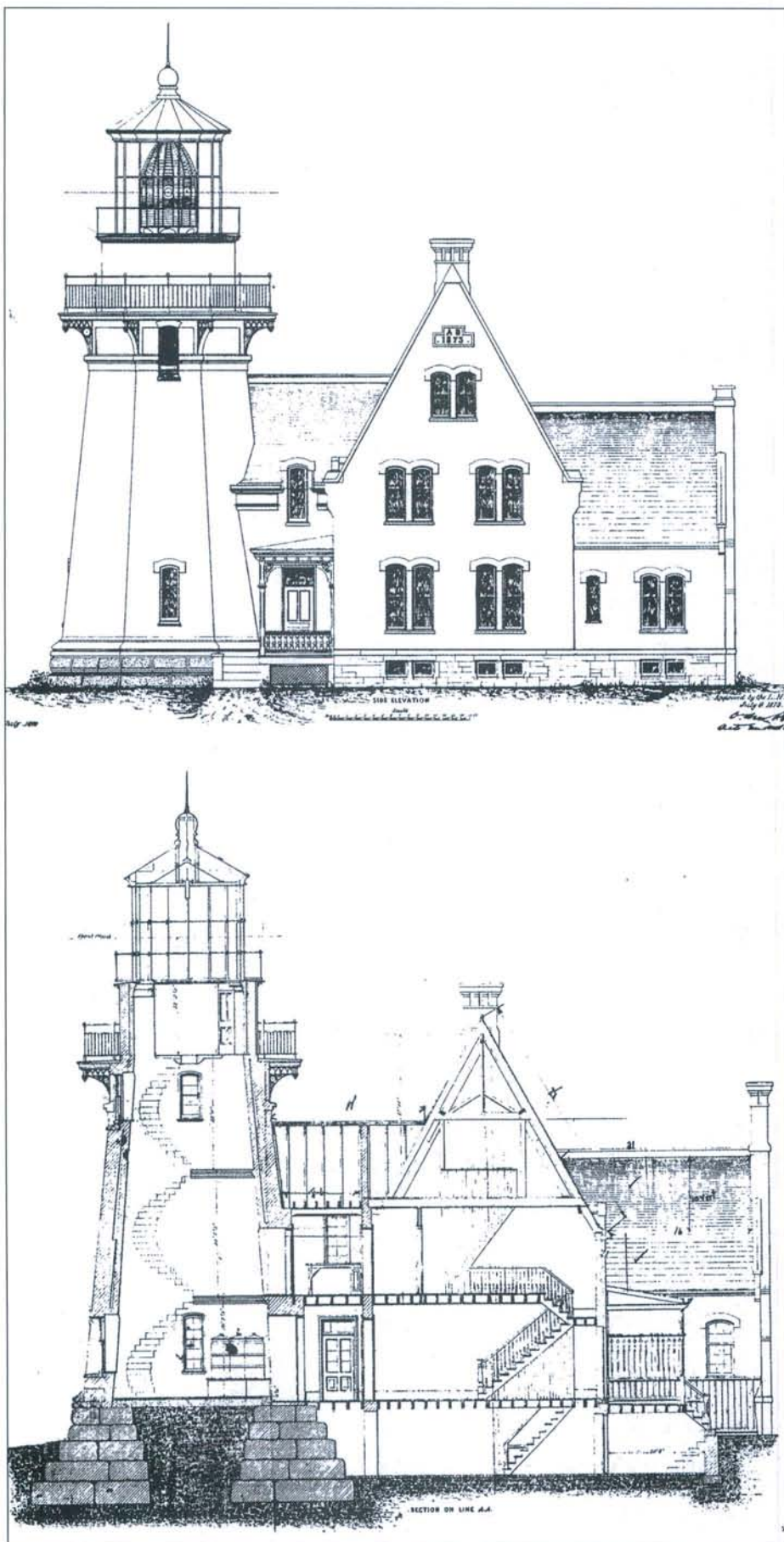
A journalist of the era wrote about the light station, "Passing through the hallway into the tower one enters first the oil room, where is stored in large tanks from 900 to 1,000 gallons of refined lard oil, the quantity consumed annually by the powerful lamp. The ascent from the oil room to the lantern room is made by a spiral staircase of iron. Immediately below the [lantern] is the keeper's room, where a constant watch is kept during the night to keep the flame at the proper height, replace broken chimneys and to see that nothing interrupts the proper working of the light, on which depends the safety of many thousands of vessels that pass this point annually."

"A few steps up higher is the lantern [room] consisting of a magnificent Fresnel Lens of the First Order."

After completion of the station the Board reported to Congress that some work was still needed to protect the reservoir to ensure ample supply for the steam fog signal, some fencing required and an additional steam boiler needed. The fog signal sounded for 800 hours that year. Over the next several years, fog signal boilers continued to plague the station, the duplicate boilers wore out from use, as the signal sounding between 800 and 1,000 hours of operation a year.

In 1890, the *Annual Report* stated that duplicate coal houses and an oil house were constructed. Probably signaling a change from lard oil to a kerosene fueled lamp.

The *Annual Report of the Lighthouse Board* of 1899 reported that a local telephone line was installed that connected the South-



Plans for the new lighthouse on Block Island by The Lighthouse Service.

east Lighthouse with the North Lighthouse, Weather Bureau Station, and the two U. S. Life Saving Stations on the island. Prior to this the lighthouse would sound several consecutive blasts on the fog signal if a wreck was observed in the vicinity. In 1907, the oil lamp was changed to an Incandescent Oil Vapor (IOV) lamp greatly increasing the candlepower of the optic.

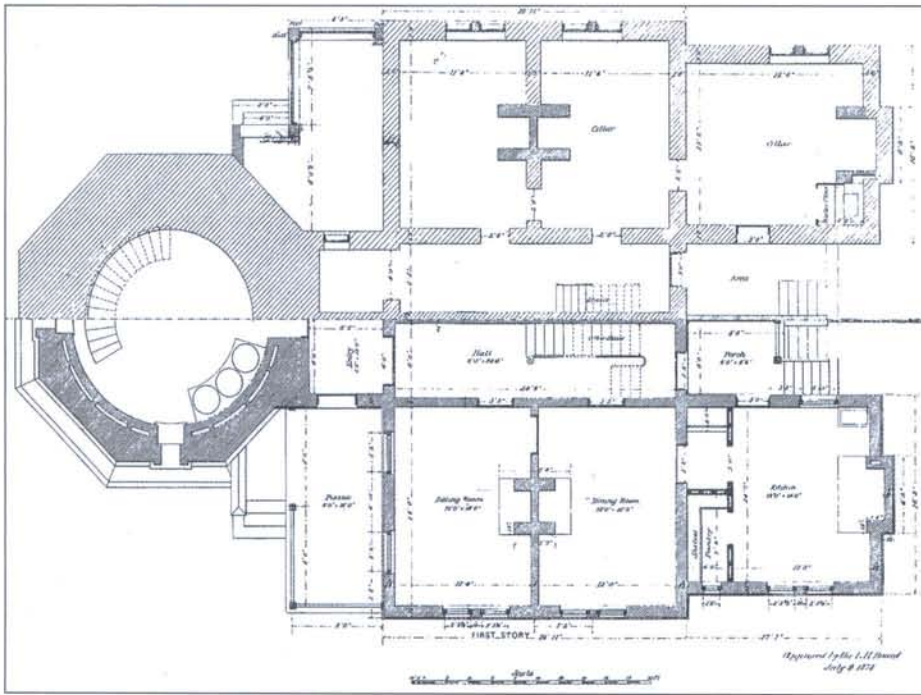
As a small child, Jean Napier visited the station which she termed Grandpa's Light. Her grandfather, Willett Clark, started his Lighthouse Service career under his father as Second Assistant when he was 16. He later became the principal keeper and eventually retired from that position.

Marie Carr remarked when she was interviewed in 1994, that she had lived at the station from 1927 to 1943 when her husband, Earl, was assistant keeper. He became head keeper when Willett Clark retired. In Sarah Gleason's book *Kindly Lights*, Marie Carr told about weathering the 1938 hurricane while in the dwelling: "My windows were broken in the living room. The tower windows were breaking. Everything was going. Somebody says, 'Look at the garage! The garage is gone, the shack is gone' it was scary! The stones came up the bank, up that cliff there, right into my living room, and they went up and hit the tower and put the light out. So the men put the dishpans over their heads, and they went up the tower and they had to turn the light [apparatus] by hand all night long."

She did mention that the hurricane resulted in one improvement to the station, the installation of an indoor bathroom.

"We got this beautiful big bathroom, all white tile trimmed in black. And, the reason we got the bathroom was because the hurricane blew everything away, it blew away the paint shed, the garage. And it left the outhouse! That was the only [out building] left standing. So the men went out the next morning and pushed it over. We got the bathroom after that."

Society member, Barbara Gaspar, remembers that she spent her honeymoon at the lighthouse. Her husband, Arthur, a young Coast Guardsman, was assigned to the station when they were married (The Coast Guard took over from the Lighthouse Service in 1939). "I wouldn't say that it was romantic." Barbara stated. "We had no other choice - there was no time or money." They lived at the lighthouse in 1946 and '47. It was all old hat to her. "My



Plan of the light tower and duplex dwellings. Note the three barrels for lard oil in the tower.

father was Howard Beebe, a lighthouse serviceman who stayed on with the Coast Guard. We had lived at the Sandy Point Light before I was married." Coincidentally, her father succeeded her husband as keeper of the Southeast Light Station. "there were always people knocking at the door," says Gaspar, "if someone was available. We'd show them around. Most of

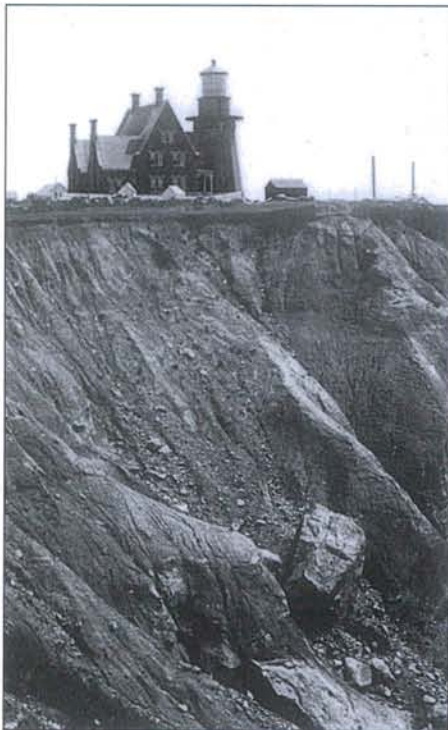
the time they just wanted to go up in the tower to see the view."

Over the years the clay Monhegan Cliffs eroded. As the edge crept toward the lighthouse the fog signal building eventually collapsed, along with other structures. The Coast Guard realized that it wouldn't be too long before the lighthouse itself was pitched over the cliff. In

1990, with the cliff edge only 55 feet away, the Coast Guard discontinued the light. The service didn't think moving the structure was possible, and even if possible, it wasn't cost effective. If a lighted aid to navigation was still necessary at the location, an automated beacon on a small structure would serve the purpose as well as being far less costly than the millions of dollars required to relocate the 2,000 ton tower and attached dwellings.

Miracle on Block Island

In 1983, advised that the Southeast Lighthouse was doomed, Block Island summer resident, Dr. Jerry Abbott began action to save the historic structure. He, and retired sea captain John Lewis, started the Block Island Lighthouse Foundation. Their slogan was, "Nothing Moves the Imagination Like a Lighthouse, and Nothing Moves a Lighthouse Like Imagination." It was an uphill battle from the beginning, but perseverance won out and with the help of a variety of fund raising efforts and three Congressional Acts the foundation raised the \$2.3 million necessary for the move. The principals of the actual move included the Army Corps of Engineers, International Chimney Company (Buffalo, NY) and several sub contractors.



Distant view of the light station showing the eroding cliffs in the foreground. Note the undercutting at the top of the cliff. U. S. Lighthouse Society photo.

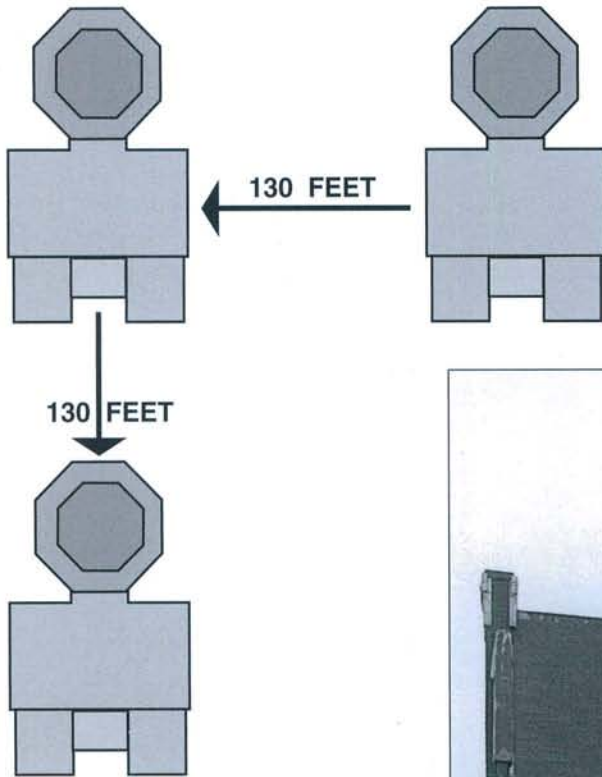


Almost ready to move. Note the extensive bracing around the chimneys, windows and below the upper gallery. An I-beam protrudes out of the lower tower and a steel cable is in place around the entire structure for stability. 1993 photo courtesy of David Richards.



Prior to the move, the final site was prepared and a new foundation poured. The path was bulldozed flat and heavy boards were placed to distribute weight evenly.

The zig-zag move was necessary because a shorter diagonal path was less stable.



The contract required the lighthouse to be moved by the end of August, prior to the hurricane season. This required the crew to work ten hour days, six days a week.

The first phase consisted of cutting holes through the foundation and inserting 13 steel I beams. A huge I beam was passed through the lowest windows of the tower to lower the center of gravity. Under the 13 I beams the contractor inserted four pairs of 90-foot long I beams and under those, 38 100-ton hydraulic jacks.

Eventually fluid was pumped into the jacks and they raised the structure two feet. Three sets of rollers were installed creating a three point platform under the lighthouse and attached dwelling. Prior to the move, windows were taped and strengthened, bracing was applied to chimneys and other areas of the structure and a huge cable wrapped around the entire building.

Finally the lighthouse and dwelling was ready to be slowly pushed along four huge rails (lubricated by Proctor & Gamble liquid soap) by four horizontal hydraulic jacks. It went very slowly, as one engineer stated, "Like watching grass grow or paint dry."

The first phase of the move was 100 feet back from the cliff. Then the rails were moved 90 degrees and the structure moved sideways 130 feet. Finally the rails were realigned another 90 degrees and the lighthouse moved back 130 feet (a total of 230 feet from the original location) to a new prepared foundation.

The operation was a complete success and came in on time and on budget. The Foundation's next goal was to raise \$600,000 to refurbish the structure inside and out.

This was the first lighthouse move for the International Chimney Company, but not the last. Their next project involved moving the Cape Cod (Highland) Lighthouse, then the Nauset Beach Lighthouse and dwelling and finally the Cape Hatteras Lighthouse, at 196 feet America's tallest lighthouse. Along the way International Chimney took on several lighthouse restoration projects: Cape May, Tybee Island, Point Sur and Cape May. But the most difficult and complicated project was the relocation of the Block Island Southeast Lighthouse and dwelling.



The lighthouse and dwellings ready to move. Note the huge I-beam protruding from the lower window in the tower. The dwelling windows have all been heavily braced with wood frames and cross pieces and the lantern room glass panes are taped. Photo taken August 13, 1993 by Joe Lebherz.