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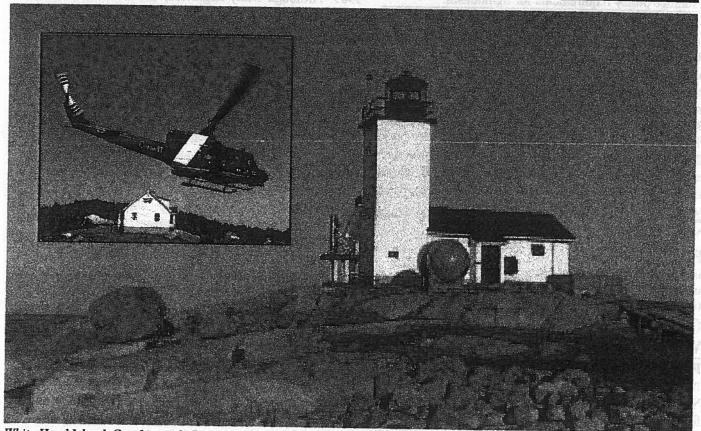
The Nova Scotia Lighthouse Preservation Society

Vol. 7, No. 3, September 2000

. The objectives of the Nova Scotia Lighthouse Preservation Society are: to promote and support preservation and awareness of Nova Scotian lighthouses; to assist community groups in leasing or taking ownership of lighthouse sites; to provide access to written research and photographic documentation and to initiate oral history research; and to classify and monitor the status of historic lighthouse sites. WEBSITE: http://www.ednet.ns.ca/educ/heritage/nslps LIGHTKEEPER EDITOR: CHRIS MILLS

PATRONS: Carl R. Lautenslager, Roderick J. MacLennan, Karen MacLeod, Jeanne Thomas

AFFILIATES: Advocate District Development Association, Beacon Memories, Burntcoat Head Park, Cape Sable Historical Society, Chapel Hill Historical Society, Clyde River Inn, Coastal Communities Network, Five Islands Lighthouse Society, Faith Tabernacle Church, Friends of the Yarmouth Light Society, Greville Bay Shipbuilding Museum Society, Henry Island Lighthouse Preservation Society, Margaretsville Community Hall Society, Maritime Museum of the Atlantic, McNab's Island Ferry, Medway Area Communities Association, Mosher Island Lighthouse Society, Municipality of Queens Tourism & Development, Nova Scotia Lighthouse Interpretive Centre, Sandy Point Recreation Group, Seal Island Tours, South Shore Tourism Association, Terence Bay Lighthouse Committee. Tidal View Drive Association, Town of Lockeport, Walton Area Development Committee, Walton Pub & Eatery



White Head Island, Guysborough County, Nova Scotia in May 1988, just before the station was destaffed. Inset: A Coast Guard Bell 212 helicopter takes off from White Head Island. E.H. Irwin photos

IN THIS ISSUE:

Lighthouse Trips and Programs: p.2 News and Views: p.2

Chebucto Head Lighthouse: p.3

Feature Light: White Head Island, Nova Scotia: p.4 Feature Light: Whitehead Island, Maine: p.7 How the Sambro Island Lens was Saved: p.9

Seal Island Appeal: p.11

Board Governance for NSLPS: p.11

WELCOME ABOARD!

The following new members recently joined NSLPS:
Shelley & Karl Webb, Anne Chapman, Marilyn Smith, Jeremy d'Entremont, Peter Graham, Betty Richardson, Paul Davison, Ami McKay, Katharine Ross, Donald Patton, Alice Vickery, Robert Kimber, Egbert & Uta Koch, Coastal Peoples Learning Network.

NSLPS LIGHTHOUSE TRIPS

*****CANCELLATION NOTICE*****

CHEBUCTO HEAD: The September 23rd NSLPS lighthouse trip to Chebucto Head has been canceled as a result of Coast Guard concerns about "public health and safety." Coast Guard officials have said they can no longer allow public use of lighthouse lands until a lease or license agreement is reached between the Coast Guard and public users of lighthouse sites.

As a result, there will be **NO PUBLIC ACCESS** inside active lighthouse towers until the Coast Guard has sorted out intended public uses, liabilities, and fire insurance policy requirements for lighthouses.

McNAB'S ISLAND/MAUGHER'S BEACH:

Sunday 15 October

Weather Date: Sunday 22 October

Although the Coast Guard will not allow the public inside the Maugher's Beach lighthouse, the Friends of McNab's trip will go ahead as scheduled.

Boat leaves Cable Wharf, Murphys's on the Water, Halifax waterfront 10:00 AM (sharp), returns 4:00 PM. Cost: \$6.50 Registration not required. First come first served! Explore this historic island with guided nature and history walks. Bring your lunch & plenty of drinking water, wear sturdy footwear & warm clothing

NSLPS MEETINGS &

PROGRAMMES
are held monthly except August

at the Maritime Museum of the Atlantic, 1679 Lower Water St., Halifax

GENERAL MEETING:

WEDNESDAY, September 27,7:00 pm

FOG HORN NIGHT!

Wednesday October 25 7:30 pm

Nothing can beat the mournful roar of a steam foghorn for vital warnings in fog and unmistakable marine atmosphere. Join the Nova Scotia Lighthouse Preservation Society for a unique look at, and listen to, foghorns of the past. Veteran Cape Sable lightkeeper Sid Smith will have pictures and stories of maintaining a stream foghorn. Museum curator Dan Conlin will have foghorn artifacts and Ern Dick, a sound and moving picture historian, will have rare recordings of old foghorn sounds.

FAR-FLUNG LAMPLIGHTING

Wednesday, November 22, 7:30 pm

Brian Liekens has travelled the world extensively, modernizing and automating lighthouses. Many of the lights he has worked on are classics; tall masonry towers with Fresnel lenses. Brian will share with us some of his more unusual adventures in foreign lands. Don't miss this exciting presentation!

LIGHTHOUSE NEWS

REPRIEVE FOR PORT MEDWAY LIGHT!

The Municipality of Queens purchased the Port Medway harbour lighthouse at a tax sale on Friday July the 28th. The lighthouse sits on the property of a bankrupt fish plant and wharf.

A source from the South Shore Tourism Association says the property and structures sold for \$25,000. The municipality has budgeted another \$50,000 to demolish the fish plant, restore the light and landscape a small park on the site.

The light was built in 1899 and decommissioned in 1989. Although badly neglected, the tower has survived intact and little altered aside from vinyl siding.

CAPE FORCHU RECEIVES FUNDING FOR MAKEOVER

The Cape Forchu lightstation is set to receive a major facelift.

A funding partnership between the federal government the Municipality of the District of Yarmouth will provide \$200,000 to upgrade the lighthouse property and buildings. The federal contribution includes \$100,000 from a fisheries restructuring program managed by the Atlantic Canada Opportunities Agency.

The Yarmouth Municipality will pay \$68,000 to complete the "environmental clean-up" of the station. This work includes removal and replacement of lead-based paint from station buildings, renovations to the interior of the shop and other buildings on the site, landscaping, and the construction of fences and sidewalks to accommodate tourist traffic.

CAPE FORCHUGETS A NEW OLD FOGHORN

On July 8th, the Cape Forchu lightstation welcomed an old friend. It's an F-type diaphone, the same kind of horn used at the station until the early 1970s.

Rip Irwin and Chris Mills donated a diaphone resonator (a cast-iron horn), timer and a large operating air valve to the Friends of Yarmouth Light Society.

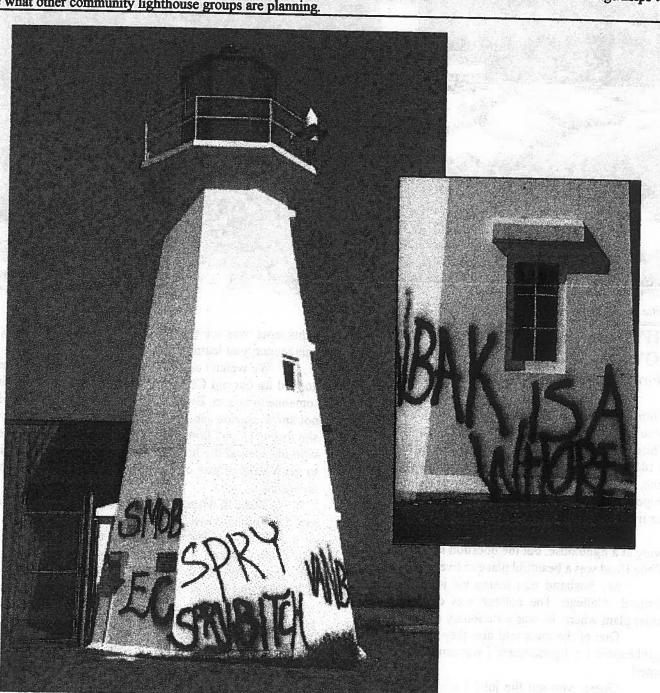
The plan is to work towards the installation of a fully operational diaphone at Cape Forchu.

If anyone has information about the whereabouts of diaphone parts or would like to help with the Cape Forchu diaphone project, please contact the editor, c/o The Lightkeeper. LET'S HEAR THAT BEAUTIFUL "BLAST AND GRUNT" AGAIN!

LIGHTHOUSE DAY

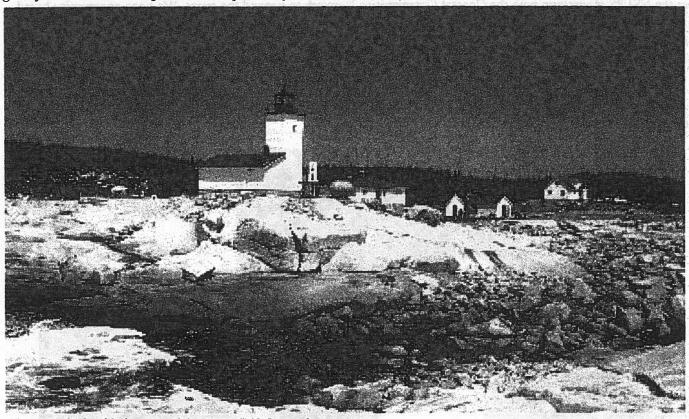
Saturday September 30

Last year the NSLPS created the First Annual Nova Scotia Lighthouse Day on October 2nd, the 241st anniversary of Sambro Light, North America's oldest surviving beacon. Events were held at ten lighthouses across the province. This year the NSLPS is working with the Coastal Communities Network to expand the event. We hope community-based lighthouse groups will plan local events for September 30. It is a great chance to promote your local lighthouse and support lighthouse preservation. Community picnics, open houses, and other events could be held near accessible lighthouses. Teachers might want to get local school children involved through lighthouse-related class projects. Or, perhaps a knowledgeable member of the community could be found to speak about the history of their local lighthouse and its place in the community's past and present. We strongly encourage you to hold a local event on Nova Scotia's Second Annual Lighthouse Day. Keep an eye on the NSLPS website at http://www.ednet.ns.ca/educ/heritage/nslps to see what other community lighthouse groups are planning.



Chebucto Head. September 2000

It's a long way from White Head Island Island in Guysborough County to Whitehead Island in Maine -- about 800 kilometres as the crow flies. But these two lighthouse islands are linked by their purpose, and by the experiences of the men and women who kept their island lights burning. Gloria MacQuarrie lived on Nova Scotia's White Head Island from 1981 to 1988. Dave Gamage spent eight summers in the 1940s at Whitehead light in Maine, where his grandfather was head keeper. In this September feature we look at life on White Head and Whitehead Islands.



White Head Island lightstation, May 1988. E.H. Irwin photo.

LIFE ON WHITE HEAD ISLAND, NOVA SCOTIA

Gloria MacQuarrie

White Head Island, Guysborough County is the closest piece of Nova Scotia to Sable Island, we always said. White Head Lighthouse was first established and manned in 1854. The light was closed as a manned lightstation in June, 1988. This I know for sure, because we were the last keepers to leave the light, on one of the saddest days of our lives.

There are so many stories one could tell about living at a lighthouse, but the question is where to begin? White Head was a beautiful place to live and raise a child.

My husband was losing his job at Mount Saint Bernard College. The college was closing down the boiler plant where he was a stationary engineer.

One of the nuns told him they were looking for lightkeepers. Us, lightkeepers! I was terrified of boats and water!

Guess who got the job? I cried for days, but I wanted to go. I was just scared to death! Becoming a

lightkeeper was an experience of a life time. Being a lightkeeper, you learn to respect the sea.

We weren't out there too long when my husband hooked up our old CB radio. We used it to try and find someone to talk to. But no one ever answered and we did not know anyone ashore. One foggy day -- and boy was she foggy, I don't think I ever seen such fog -- we were working around the house and we heard someone trying to get a hold of one of the other fishermen. But no one answered.

Then, in desperation they said "Can anyone hear me? I am broke down."

John, my husband ran for the radio and called him back. I heard him say "This is the lightkeeper on Whitehead, can I help you? Sure I will go get you. I am new here, and I don't know the area that well, so I will tell you what I will do, when I get aboard the boat, you keep talking to me, and I will find you that way."

I said to myself, how is he going to find him? But John just followed the radio signal. He went were it was the strongest and found the fisherman. His transmission had broken down and he was so happy to see someone! My husband towed him ashore. It was our first rescue and it sure made us feel good.

After a few months, we adopted our son. We took him to the lighthouse when he was five days old. Bringing up a child on a lighthouse is quite different than on shore. We thought that if we made sure he listened to us and we always told one another the truth and trusted one another we would make things much easier living in isolation.

If we ran into trouble, we would have one another to rely on. This proved itself time and time again. When John-Curtis was older he would run down the walk, climb up on a big rock and yell "Daddy catch me!" Before his father would get there he would jump, trusting his father to be there to catch him.

One day the head keeper had to go ashore. There was a storm coming and we had to take the boat up. John-Curtis was just crawling around. It was in the winter,

the slipway was icy, and the north wind was blowing right sideways on it. John took the head keeper ashore. I knew he wouldn't be long, so I got the baby dressed, and watched for the boat to come out around Three Top Island. That would give me time to get to the boat house and pull the cable down to hook the boat on.

It was about half a mile across the island, so I put my son on the sled, and away we went. I

got there just in time. John was sailing around waiting for me. I couldn't leave the baby up there in the boathouse, so I tied him in his sled. I grabbed the cable and went down to wait for the boat to come up the slipway, but I slipped and down I went in between the planks.

John had taken the locks off the motors and took a run for the slipway. I thought to myself, if he gives it the gas, he will go right over me, and kill me. I knew he couldn't see me so I started to pray, still trying to get out. In the meantime John had a feeling something was wrong and he let up a bit, something he never did. He couldn't find me but then he saw my head. It wasn't easy getting out, the water was so cold, and I keep losing my footing.

I tried to get my foot on something to push myself up and out, but it wasn't working. At last I got hold of a plank. After a few tries, I got back on my feet. I thought to myself, now Gloria, stay on your feet, at least until you get that boat hooked on. John had taken the boat

for another turn around, and tried again. This time the boat came up far enough for me to hook her on. I got to the side of the slip, where we had a walkway, and I ran for the boathouse. John was not far behind.

Just as we reached the top, we were met by our son, crawling toward the door. He had a big smile on his face, as much as to say "Me coming mommy!"

We went back to the lighthouse, thanking the Lord for yet another miracle.

Like life anywhere, you have your good and bad days. I remember once we had to go ashore to get supplies. It was April, the best time of the year because the fishermen were back fishing. We caught a ride in shore with one of them. We then went to Canso, got our supplies and headed back for Whitehead. John never liked to be off the island long. When we got there, it started to rain. Boy did it rain!



White Head Island keepers' houses. E.H. Irwin photo.

John called the island on the CB radio, but the head keeper said he wasn't coming ashore in this weather. We decided to go out in the morning with one of our friends, Howie. He woke us up in time to go out with him, but he said "You should wait 'till Morlie goes out, it might be better." Five o'clock came and we were ready to go. We had doublebagged all our groceries. The rain never let up, and

we wanted to get back to the light.

A northeast wind started to blow and the tide was low. The closer we got to the island, the harder it rained. It was like hail and danced off the water. Morlie said he never seen such weather in years. I was the worse luck he had ever seen. He was always teasing me that I was a real Jonas. All this for a few groceries?

Getting groceries is quite an ordeal when you are an island lightkeeper. You go to the store, put them in a cart, put them on the checkout, put them in your cart, then in your car. Then you put them on the wharf, then in the boat, go to the island, put them on the dock, then you put them on the tractor and trailer, or in the wheelbarrow, then go to the house, carry them up to the house, and finally put them away.

We ate a lot of scrambled eggs. The first time we got groceries, we put them in the boat, went up to the road to talk to someone, and the seagulls got in them. Thank

goodness we were close because in a few minutes they made an awful mess.

Now back to my story. Morlie took the boat to the dock and John got out. He couldn't stay at the dock though as it was to rough. John tried to get the water out of the little boat to come out for us. As fast as he poured the water out of her it would fill up. He had to turn the boat up side down.

Finally he got the boat in the water and came for me and the groceries. When we got back to the dock, it was really rough. John had a

great time trying to pass me the bags and keep the boat from turning upside down. The bags were sitting in 3 or 4 inches of water. When we finished, John went out for the baby.

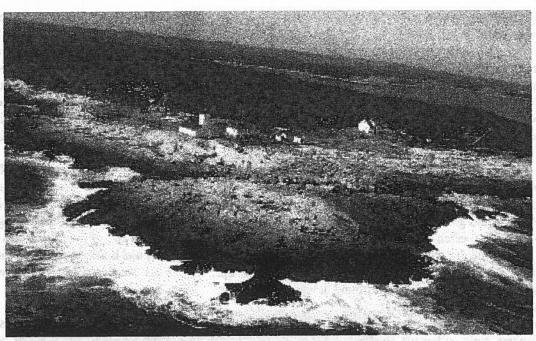
When he came back in, I couldn't reach John-Curtis, so I had to climb down the dock and climb up with him in my arms. If you could see how small I am, you would wonder how I ever carried him around.

Then we had to get the boat up, but because it was so full of water and it was so heavy it was no easy task.

Morlie was watching all this, laughing and blaming me for all the terrible weather. "We were not supposed to get this type of weather," were my famous last words. It lasted for three days. When we got to the house, thanking the good Lord, we poured the water out of our boots and took our oil clothes off. We were soaked to the hide, but a little water never killed anyone. My poor groceries, I poured them out on the floor, the water went right through all the plastic bags. Oh well, we saved most of them. Then, we sat down and had a good laugh. It was just another day on a lighthouse.

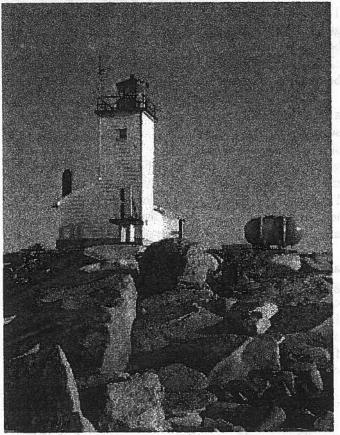
People wouldn't believe the things you get yourself into while being a lightkeeper. You'd be surprised what people think about lighthouse life. The head keeper used to tell everyone ashore "You know the shows you watch on T.V.? They last 1 hour. Well, we watch them in forty five minutes, because we have diesel power and it runs a little faster than Nova Scotia Power does."

My cousin thought we had to go to bed at dark

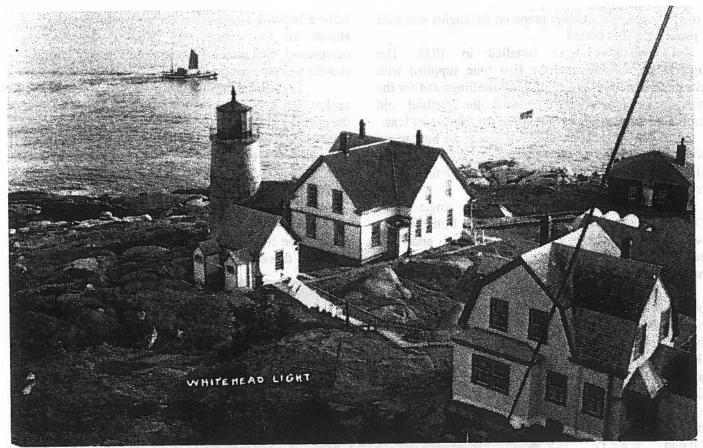


White Head Island from the air, showing the exposed location of the lightstation. E.H. Irwin photo

because we didn't have any lights. My husband just said to him, "What do we live on a lighthouse for but to run the light?!".



White Head light and fog alarm in May, 1988. E.H. Irwin photo



Whitehead Island lightstation, Maine from a postcard, circa 1940. Courtesy Dave Gamage

MAINE'S WHITEHEAD LIGHT

Dave Gamage

My lighthouse life began at an early age when I lived with my grandparents at Whitehead Island in Maine. After serving as an assistant keeper on barren and isolated Matinicus Rock, my grandfather Arthur Beal was appointed head keeper at Whitehead in 1933.

Whitehead is a 70-acre island prominently located at the southern end of Muscle Ridge Channel, an entrance from to Gulf of Maine to the West Penobscot Bay area of the mid-coast region.

Established in 1804, Whitehead Light served both to identify the channel entrance for coastal sailing and steam vessels approaching the bay and to guide vessels leaving the bay area by the narrow channel's eight mile route, bordered by numerous islands and hazardous ledges and reefs.

Moving from Matinicus Rock ended twelve years of isolation for my grandfather. Whitehead Island is within a mile of the mainland and a Coast guard lifeboat on the island meant transportation was almost always available.

This new island home, far larger than the rock, had acres of wooded areas, open fields and places for

growing vegetables and flowers. I often helped my grandmother care for her flower gardens and helped grandfather with his peas, potatoes and other choice plants.

Whitehead was also abundant with raspberries, blackberries and blueberries, and in the fall, succulent red cranberries.

Although the lightstation was my playground, I did help with many of the lighthouse chores. I became adept at polishing brass. In the early morning I would go with my grandfather up the spiral metal stairs to the lantern at the top of the 1852 granite tower.

Here we would dust and clean the prisms of the amazing Fresnel lens glistening in the early morning sunshine. We would carefully cover the lens with a linen shroud and draw the storm pane shades; sixteen in all. It was a treat to go outside on the lantern balcony where I could see for miles. Though only 75 feet above the sea, the tower seemed much taller.

We would soon leave the tower and get the flag from the whistle house. We would meet at the flagpole near the edge of the granite cliff, to "display the colours", as grandfather would say. Then the next chore was to start the generator to recharge the many rectangular glass wet cell batteries mounted in rows along one wall of the whistle house. Grandfather prepared the engine and then I pushed the start button.

Generators were installed in 1933. The lightstation was then for the first time supplied with electricity for lights in the keepers dwellings and for the new electric light that replaced the faithful old incandescent oil vapour lamp inside the third order lens.

The 1891 duplex dwelling beside the light tower was home for the two assistant keepers and their families. Behind this house was a small building; at one time a one-room school for the island children.

The head keeper's house was a single-family Dutch colonial style house built in 1899. In the kitchen was my grandmother's "Atlantic" wood and coal cookstove and sitting on top was a copper container for heating water.

There was a small pantry with a sink and a pitcher pump to draw water from the rainwater cistern in the cellar. The first floor also held a living room and dining room. At the other end of the house was a shed that also served as a laundry room where my grandmother washed and hand-rinsed clothes in metal tubs with a hand-wringer between.

Upstairs there were three bedrooms. Beside one

was a large walk-in closet with one window. This was my room when I was living at the lighthouse. I clearly remember lying in bed in my little room and listening to the sounds of the waves crashing on the rocks below. The clanging of the bell buoy anchored at a ledge near the channel would lull me to sleep. In the morning I would awaken to the aroma of breakfast rising from the kitchen through the floor register openings.

Of the many wonderful childhood sights, sounds and odours interwoven in my cherished memories of this special lighthouse, I had mixed feelings about those sometimes obnoxious and intrusive fog horns.

In 1933 diaphragm air horns and air compressors had replaced the steam fog whistles and coal-fired steam boilers. At first I was deathly afraid of the horns, avoiding them even when they were idle. In the intervals between horn blasts I would run to the long rain shed near the keeper's dwelling and then hurry through to the other end of the shed to wait for the blasts.

Then I would run full-speed past the three large diesel fuel tanks to the whistle house door. Safe inside the

whistle house I would often sit in a rocking chair and absorb all the sounds and vibrations of the big compressor, dark grey with brass accourrements, working steadily to recharge the air tanks.

I remember the big flywheels turning so fast the spokes were a blur, and the idler attachment on the top of the engine spinning like a top. And when the compressor engine increased speed and changed tone I knew the tanks were at pressure.

In a few seconds came the clicking and snapping of the clockwork, a brief hiss of air and finally those three-second blasts of the homs. I lived in Rockland with my parents when not at Whitehead and I can remember times when the wind was right I could hear faintly but distinctly those once-feared horns, ten miles distant.

The lightstation had a small boathouse at a sheltered cove a quarter mile away at the end of a road through the spruce woods. Near the boathouse is a granite wharf built in 1871 by the Lighthouse Service as part of a lighthouse tender coaling station once maintained on the island. Supplies were landed at the dock and hauled to the lighthouse with an ox or donkey in the early days.

The little boat house had special meaning for me

because this is where I experienced the joy of returning to the island, and sadness when leaving my island and my lighthouse.

Whitehead was de-staffed in 1984. The head keeper's house that was our family home is now a rubble-filled granite-lined cellar hole. Gone also are the fuel tanks, the long rain shed and the fabulous Fresnel lens. Modern electric sound devices have replaced the once-feared but now dearly missed foghorns.

Each spring my wife and I are anxious to return to the ocean and to Whitehead Island. We have a small old house at the cove near the boathouse. The house was once owned by island lightkeepers.

When on the island we go to the lighthouse at least once a day to stand near the tower to absorb the spectacular ocean panorama. At night we enjoy the view as the occulting green light flashes above our heads.

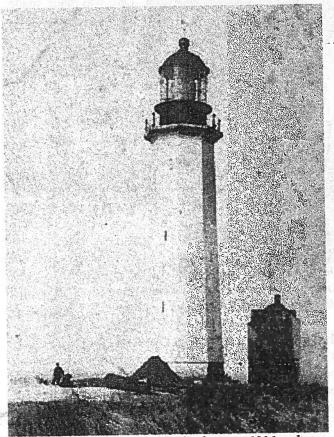
We can often feel the presence of the many keepers and families who lived there. It is a strange and eerie feeling, yet it is somehow a comforting part of this lighthouse in my life.



Whitehead light today. Dave Gamage photo

HOW THE SAMBRO LIGHTHOUSE LENS WAS SAVED

Kathy Brown



Sambro Lighthouse looked like this between 1906 and 1908, before the three red stripes, were added. You can see the first order Fresnel lens inside the iron lantern.

In the 1960s, when the lens in a lighthouse was changed, the Coast Guard would take it apart, smash the glass prisms and sell the bronze through Crown Assets.

After removing the mercury in which the lens floated, workers would take the lantern apart, often discarding it on the ground below the lighthouse.

Sometimes they would take out the bolts from the base of the lantern and wrap it with a strong hawser attached to a powerful Coast Guard vessel. The vessel would make for sea and the lantern would come crashing down.

This process spelled the end for many fine Fresnel lenses and their lanterns. Why didn't this happen to the Sambro Lighthouse lens when a modern airport beacon was installed in 1968?

Captain Ormsby, manager of the Dartmouth Coast Guard base, knew the Sambro lens was up for replacement. Luckily, he was interested in history. He had enjoyed many pleasant lunches aboard ship talking with Niels Jaanasch, Curator of the Marine History Section,

Nova Scotia Museum. (The marine history collection later became the Maritime Museum of the Atlantic.) Indeed, Ormsby had made artifacts available to the collection in the past. So he picked up his phone and called Niels.

Niels told Orsmby the Nova Scotia Museum would like to have the Sambro lens. Ormsby allowed that it might be difficult, "The Department of Transport wants to do it as usual," he said. "They'll take the lens apart, knock the glass out and sell the bronze. But I'll see what I can do."

People other than an historically-minded Coast Guard Captain and a museum curator were also convinced the lens should be saved.

The radio operator on the Sambro Lightship, Andy Hodder, was sailing in to Halifax on leave when he heard of the plan to destroy the old Sambro lens and lantern.

Andy was shocked. As soon as he arrived home, he headed across the street to tell his friend Ed Longard, who worked at the museum. Ed spoke to the museum director when he got to work on Monday. Perhaps, even by then, Ormsby was working to get it safely out of the lighthouse.

At the Dartmouth Coast Gaurd base, Captain Ormsby acted fast. He sent the Coast Guard ship Edward Cornwallis out to Sambro Island with cadets from the Coast Guard College, and instructed them to get the lens out quickly.

The cadets really didn't know what they were in for. They didn't even have the right screw drivers - they needed offset drivers to avoid chipping the prisms. The crew of the *Cornwallis* wanted to get back to Dartmouth as soon as possible. So they came ashore to help with the job.

They rigged tackle and with the bronze sections of the lens unscrewed from each other, they pushed the pieces through the doorway of the lantern out onto the deck and lowered to the bottom of the light. Then they were carried down the hill to a barge moored in the cove and conveyed out to the ship.

Niels received a phone call from Orsmby. "Come and see your lens," Ormsby said. Niels drove over to Dartmouth and there it was, lying in pieces on movers blankets on the wharf. Now, what to do with it?

A Department of Transport truck moved the lens to storage at Uniacke House. The lens stayed in storage for several years and then was assembled in the foyer of the Nova Scotia Museum on Summer Street after the museum moved into the building in 1970.

Ed Longard had expert assistance cleaning and assembling the lens. Roy Gilkie, a carpenter at the museum, helped out. Gilkie's family had kept the Sambro light for more than a century and Roy had cleaned the lens hundreds of times while his father was keeper.

The assembly of the lens in the museum was not

without incident. Late on the Friday when staff gathered to put it back together they discovered that they did not have enough screws. So, Niels took a screw to W. & A. Moir, a Halifax machine shop. Over the weekend "Moirs" made more screws for about 50¢ each.

Finally the lens was assembled and carefully installed in the Summer Street windows, at a spot where its weight would not send it through the floor. It soon became a museum showpiece.

Today, the Sambro lens is one of the most important items in the collection of the Maritime Museum of the Atlantic in Halifax, and certainly the most valuable.

It was the first artifact installed at the museum when it moved to the new building on Water Street. Staff held their breath for a few days. Though careful calculations had been made, they feared the Western sun shining on the lens through the Water Street windows would start a fire. So far, that hasn't happened.

The next time you are in the Maritime Museum of the Atlantic remember the chain of events started by that phone call from a wise Coast Guard captain. And look for the screw driver's chips on the glass of the great lens that dominates the entrance to the first floor galleries.

Think of the great ships it saw pass from HM naval vessels under full sail, to The Queen Elizabeth crowded with war brides. Think of the lives it saved and of the French physicist, Fresnel, who developed this practical and beautiful lens system.

ABOUT FRESNEL LENSES

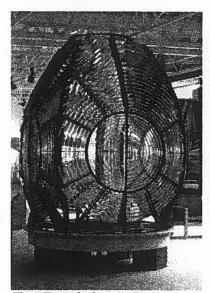
Amplifying the light from a lighthouse was a challenge that occupied inventive minds for centuries. In the 1700s the British developed the catoptric system in which light was reflected outward by bowl-like mirrors. (A contemporary example is the automobile headlight). This worked reasonably well, but still, over 80% of the light was lost by the time it reached a ship.

In 1823, French physicist Augustin Fresnel introduced the dioptric system, which revolutionized lighthouse technology. The carefully designed prisms of this system collected and focused the light rays into a powerful horizontal beam. 83% of the light from a Fresnel lens reached the ship! These lenses came to be used in important lighthouses all over the world.

The Sambro Lighthouse lens is a fine example of one design of Fresnel lens. Lenses were organized in "orders" (from one to seven) by their size. The Sambro lens is a First Order Lens, about 12 feet high. Prisms arranged in concentric rings bend the light rays horizontally from a central light source.

A glass "bulls eye" (much like a magnifying glass) between upper and lower bands of concentric prisms magnifies the light. Through a combination of refraction

and magnification, the lens shoots a horizontal ray of light into the darkness. This appears to the eye as a flash as the whole lens apparatus rotates.



The First-Order lens from the Sambro Lighthouse, now in the Maritime Museum of the Atlantic.

The Sambro Lens was made made in Paris, France, by the firm of Barbier, Bénard and Turenne, one of the premier producers of this complicated mechanism. The prisms and lenses are made of crystal instead of regular glass. The lens table rested in a circular bath of mercury which provided a frictionless bearing on which the light rotated. You could turn the whole thing with just one finger.

The lens was rotated by a clockwork mechanism like that of a grandfather clock. Weights on cables hung down a shaft in the tower. The weights were wound up by the keeper every few hours, and the lens turned as the weights slowly fell down the shaft. The Sambro lens was timed so that it produced a flash of white light every five seconds.

It is wonderful that we still have this fine example of human invention, ingenuity and craftsmanship to admire.

We have an installed Fresnel lens, too. The Seal Island Light Museum in Barrington is crowned by the 1907-08 lantern from the Seal island Lighthouse. Inside, you can climb the original iron stairs, pass the clockwork mechanism and stand beside the second order lens, another made by Barbier, Bénard and Turenne. The action

that saved this lens and the lantern resulted from phone calls by Niels Jaanasch to Evelyn Richards on in Barrington, and two people in Yarmouth.

This DCB 36 (a 36 inch diameter "Directional Code Beacon") is still in use at Sambro Island.

Many DCB 36 lenses have now been replaced by solar- powered lights. Chris Mills photo



SEAL ISLAND LIGHTHOUSE NEEDS HELP

Seal Island is home to the oldest wooden lighthouse in Nova Scotia. Although the tower's wooden sheathing has been renewed over the years, the original 1830 beams, supports and natural-growth knees still form the integrity of the structure.

But the tower has received little maintenance since the last lightkeepers left the island in 1990. Today, the lantern deck is leaking and much of the paint has peeled from the tower, exposing the shingles to rain, wind and mildew.

Despite the tower's architectural and historical significance, The Federal Heritage Buildings Review Office has not given the Seal Island lighthouse the recognition and protection it deserves. The light missed a FHBRO listing by two points.

NSLPS president Kathy Brown wrote the following letter to appeal the FHBRO decision:

Mr. Don Macdonald
Senior Real Estate Advisor, Real Property Services
Public Works and Government Services Canada
Dominion Public Building
1730 Bedford Row
PO Box 2247
Halifax, NS, B3J 2C
18 August 2000

Dear Mr. Macdonald:

I write to support the submission by the Cape Sable Historical Society appealing the outcome of the Federal Heritage Building Review Board review of the Seal Island Lighthouse.

It is surprising that this important building has only received recognized status. The significance of this light is great. This is the second oldest standing lighthouse in Nova Scotia, and the third oldest timber lighthouse in Canada. It is a fine, large, and very early example of the octagonal timber lighthouses for which this country is famous, and an important pre-confederation building. The establishment of the light led directly to settlement of the island which contributed much to the economic development of the Cape Sable Island and Barrington areas.

A paragraph in a previous FHBRO report (87-115) for the FHBRO classified Cape Sable Lighthouse illustrates the inequity of the treatment of the Seal Island Lighthouse: "Rivalling the station's regional importance, however, is the landfall light

farther out to sea on Seal Island. This is the earlier of the two, having been built in 1830, and still standing in near-original condition (with upgraded equipment, of course)." [Historical Associations, Thematic, Para. 2]

That a replacement lighthouse on Cape Sable, erected in 1923 to replace the wooden tower of 1861, should be a classified building, and the original 1830/31 lighthouse on Seal Island should not, brings into question the validity of the FHBRO process.

I trust that this review will be reopened and the information provided by the Cape Sable Historical Society will be carefully considered. I look forward to hearing from you soon about this. Yours truly,

Kathy Brown

President, Nova Scotia Lighthouse Preservation Society



Peeling paint on the Seal Island lighthouse. Kathy Brown photo.

NSLPS GRADUATES TO BOARD GOVERNANCE

The activities of NSLPS have broadened and deepened over the past several years. Issues we address have become sensitive and time consuming. At the same time we have instituted a series of programmes for our members and the public. Several meetings over the past year, at which there was also a presentation, became lengthy and difficult. We have been advised by experts in society matters to "graduate" to a board meeting structure for governance. The board has decided to follow this advice.

Consequently, you will find that programmes are listed in the Lightkeeper or 7:00 PM. with a presentation beginning at 7:30 PM. The board will meet separately to conduct business. At 7 PM., before the program, reports will be made to members about the current status and activities of

the society.

Members wishing to attend a board meeting should contact Kathy Brown, President, 479-3115, or Chris Mills, Vice-President, 868-2313.

LIGHTHOUSE NEEDS LIGHT BULBS!

Kathy Brown

The Seal Island Light Museum in Barrington has the only installed Fresnel lens in Nova Scotia. Along with Seal Island's third order lens it also has the old fourth order lens from the Bon Portage (Outer Island) Lighthouse.

Usually the Bon Portage lens is lit when you visit the museum. On my recent trip it was dark. At Christmas time the big Seal Island lens in the lantern atop the museum is lit, but soon it may be dark, too. The museum is running out of light bulbs!

The lighting apparatus for these lenses is historic, just like the lenses themselves. Coast Guard no longer uses the apparatus, so they don't have bulbs. The museum just has two bulbs left; one of these is in the Bon Portage lens. The bulbs are GE 200 watt bulbs, with a push and turn base, not screw in. They are called "2N lighthouse" by GE.

Anyone know where to get these bulbs? Any one have some?

Contact Brenda Maxwell, Seal Island Light Museum, Cape Sable Historical Society, Barrington, NS, B0W 1E0

SAINT PAUL ISLAND BOOK FOR SALE:

Terry Dwyer has a number of copies of Carle A. Rigby's Saint Paul Island: The Graveyard of the Gulf. It's a delightful account of Rigby's experiences as a radio operator on the island during the 1930s. The author also recounts stories of shipwrecks, lighthouses and the families who lived and worked on the island for a century and a half. \$20.00 per copy. Contact Terry Dwyer at (902) 455-3483 or e-mail <shipwrecked@ns.sympatico.ca>

DONATIONS

The Nova Scotia Lighthouse Preservation Society now has charitable tax status. That means you'll get a receipt for your donation to the NSLPS. We'll gladly accept donations in memory as well.

LIGHTSHOP:

Order from: Jeanne Thomas, 262 Purcell's Cove Road Halifax, N.S., B3P 1C3

Telephone 479-1626

e-mail:<imthomas@navnet.net>

Please make cheques payable to the Nova Scotia Lighthouse Preservation Society.

Peggy's Cove Paper Weight

\$10 + \$3 shipping

NSLPS Membership Pins

\$5 + \$1 shipping

Lighthouse Locator Map

\$13 + \$2 shipping.

Vanishing Lights by Chris Mills

\$13 + \$3 shipping

Art Print

The Work Crew on Sambro Island

7" x 10.5", ready to frame

Special \$12, postage included

COMING IN DECEMBER-CROSS ISLAND LIGHT: A PHOTO ESSAY



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