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The Lightkeeper

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The objectives of the Nova Scotia Lighthouse Preservation Society are to promote and to support the preservation and awareness of Nova Scotia lighthouses; to assist community groups in leasing or taking ownership of the lighthouse sites; to provide access to written research and photographic documentation; to initiate oral history research; and to classify and monitor the status of historic lighthouse sites.

Welcome New Members Jolanda Raijmakers	
Michael Cunningham	
Cover Photo Barrington Lightship	
Provided by NS Archives	
	Membership News!
	We're excited to announce that community groups
supporting their local lighthouses will now have their affiliate fees waived.	

Contact ask.us@nslps.com for more information.

Halifax, Nova Scotia

B3J 1S3

askus@nslps.com

Lightships of Nova Scotia

By: Denyse Contrasty

Are you familiar with an aid to navigation called a lightship? Lightships, or lightvessels as they are also called, act as lighthouses where it is impossible to build and/or supply a lighthouse given the marine conditions and geology of the area they are serving. While most are now gone given today's technology, there are a few still operating on the seas without a crew and using solar power. There are nine such lightships off the coast of England¹.

The first lightships were retired wooden sailing vessels repurposed to act as a floating lighthouse anchored in place. Later lightships evolved into specially-built vessels that included engines, foghorns, weather monitoring equipment and radio beacon transmitters. Regardless of their construction, assigned crews spoke of boredom and the dangers of being swept off position by violent storms or being struck by other seagoing vessels. Some were requisitioned to become navy vessels during times of war while decommissioned navy vessels became lightships following declarations of peace.

Based on lightship statistics in annual marine reports submitted to Ottawa, it appears that Canada had a maximum of 12 lightship stations in the early 1910s. While most were located in the Great Lakes and St Lawrence River, Nova Scotia had a total of 3 lightship stations: the first in Barrington East Bay, the second off Lurcher Shoal, and the third on Sambro's outer bank at the entrance to Halifax Harbour.

The Barrington lightship was a schooner-rigged vessel with red masts and a red hull with the word, "Barrington" in white letters on both sides. Unlike future lightships, numbers were not painted on each side of the box. It was anchored in the middle of Barrington East Bay in 1876 for the purpose of guiding vessels into the Bay and through Barrington Passage. A fixed white light was displayed from a height of 9 metres (30 feet) above the deck of the lightship.

In spite of its presence, it was decided in 1879 to add a day marker, a red can buoy, at nearby Angle Rock. In 1893, the lightship was equipped with a hand fog trumpet to reply to signals from other boats. By 1900



the one fixed light had been upgraded to two lights, one white and one red, displayed from a height of 10.7 metres (35 feet) and 4.5 metres (15 feet) respectively. There is no mention of whether another ship equipped with these two lights had replaced the schooner or if it was a new lighting arrangement that had been installed on the schooner.

The Barrington lightship stayed in service until 1925 when a new age in navigational aid technology saw the lightship replaced by a steel cylindrical buoy topped by a frame holding a bell and lantern. The bell was activated by wave action while the white occulting² light was powered by acetylene gas.

A lightship was anchored off Lurcher Shoal in 1905 (18 miles) km northwest off Yarmouth. It was a steel steamer with two masts. In what appears to be standard practice worldwide, the word "Lurcher" was painted in white letters on both sides of its red hull and "No. 14" on each side of its bow. There were three electric lanterns at the top of each mast and a diaphone foghorn powered by compressed air. **Continued on page 4.**

Lightships, continued: Anticipating issues with the electrical system reliability on board, one Belcher's Farmer's Almanac entry states that "fixed white oil lights of less intensity will be shown ... [while a] whistle will sound similar blasts" if the power source failed.

The MacLean's magazine (Issue February 1 1947)³ interviewed the crew on duty at the time of their visit to the lightship. It was a stormy day with journalists and crew being knocked off their feet or thrown out of bunks, and seeing their meals fly off mess tables. The captain stated that he was "half-seaman, half lightkeeper" on a "mongrel – half ship, half lighthouse".

The Lurcher lightship was replaced three times by newer vessels until in 1969 it was retired, the last lightship in Nova Scotia and Canada, and replaced by an automatic buoy⁴. The retired lightship was repurposed as a training vessel for the Canadian Coast Guard before being sold to an American company in 1995, another vital piece of Canadian heritage lost.

The Sambro lightship first known as the Halifax lightship was placed on the Sambro outer bank to indicate the entrance to the Halifax harbour on November 15 1872. Exposed to late fall storms, the vessel almost sank 11 days later and it was towed into Halifax. It was decided that "a much larger vessel … with a spar deck and a screw with steam power, to be used in heavy gales, to enable her to keep such an exposed position" was needed.⁵ A more suitable ship was not installed until January 4 1915. Instead, a whistle⁶ buoy was used from 1893 to 1907, and then a combination buoy (whistle and gas-lit) from 1907 to 1915.

The newly installed lightship was a steel steamer with two masts, with the words "Halifax" in white on each side of its red hull and "No.15" on each side of its bow. At the top of each mast, there was a 6th order lens⁷ lantern with a white fixed oil light. Not only was this lightship equipped with a diaphone, whistle and hand bell to sound on foggy days, it was equipped with a submarine bell, a new underwater transmitting device that used the strokes of a bell at specific intervals as an aid to navigation in fog. The only drawback was that ships required a receiver to "hear" the bell.

Surprisingly the Sambro lightship was not removed from its post during World War II and German U-boats used it as a waypoint to attack convoys leaving the Halifax harbour. The lightship was withdrawn from service in 1966 and its absence was blamed on the wreck of the trawler, Cape Bonnie, with a loss of 18 lives on 21 February 1967.

The history of Nova Scotia lightships is not common knowledge and NSLPS has created a new category, "Lightship" on the webpage, Lighthouse Lists, on its website. Over the next year, information on the three lightships, Barrington, Lurcher and Sambro, will be added.

If you want to see a lightship up close, there are preserved vessels that are part of Marine Museums in the US and Europe. Just google "Lightship Museum" to get exact locations and visitors' information.

Endnotes:

¹ URL for Trinity House UK: https://www.trinityhouse.co.uk/lighthouses-and-lightvessels

² An occulting light is similar to a flashing light but has a longer period of light than its period of darkness. For example, three seconds lit and then one second dark.

³ For the Macleans article, see: https://archive.macleans.ca/article/1947/2/1/the-ship-that-never-sails .

⁴ There are many types of automatic buoys: some whistle, some ring, some flash a light and whistle, some flash a light and ring, some just flash a light.

⁵ The Sea Road to Halifax, Pullen H.F. Nova Scotia Museum, 1980.

⁶ For many people, the term whistle tends to be associated with a high-pitched sound. In fact the whistle buoy produces a very low frequency, deep bass sound which carries much farther and is less likely to be mistaken for the shriek of winds through rigging. In the area of the north shore of the Halifax outer harbour the sound is locally referred to as a "groaner".

⁷ A 6th order lens can be seen up to 5 nautical miles away on a clear night while a 1st order lens similar to that once operating in the Sambro Island Lighthouse can be seen up to 20 nautical miles away.

Forgotten Lighthouses—Louisbourg

By: Howard Eaton

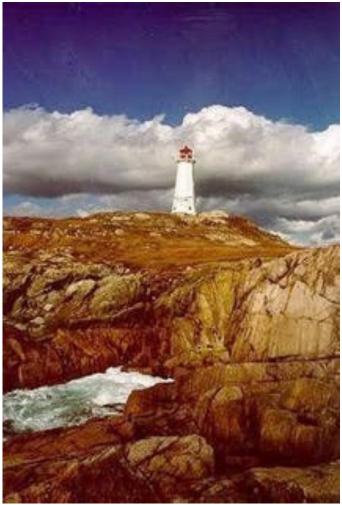
The Lighthouse site is the oldest in Canada and second oldest in North America with the exception of the Little Brewster Island Light in Boston Harbour of 1716.

The French interest in Nova Scotia began in 1604 when a temporary settlement was established on St. Croix Island off the south west tip of Nova Scotia by Samuel de Champlain. The following year he moved the settlement to an area that became known as Port Royal on the north shore of the present day Annapolis River on the mainland of Nova Scotia.

French possession of Nova Scotia was tenuous and the area changed hands a number of times over the next one hundred years. Fast forward to 1713. The signing of the Treaty of Utrecht between France and England ceded all of what was then known as Acadia (Nova Scotia) to England with the exception of what was then known as Prince Edward Island, which the French renamed Ile-Royale (present day Cape Breton Island).

With the Treaty in place the French went about developing their holdings. They established a town on the east coast of the island which was called Harve à l'Anglois and was changed to Louisbourg in honour of the French King Louis XIV.

Walls were built around the town starting in 1720 and construction continued until 1740 which by then the fortification was one of the most extensive and extravagant forts in North America.



With the increase in trade and shipping to and from Louisbourg, it was decided to build a lighthouse to ease navigation into the harbour. The light was built across the harbour from the fort and construction was begun in 1713. The light was constructed of coursed rubble (stone) and a tower of 70 feet (21.3 meters) was completed about 1715. The first lighting of the oil lantern was not made until 1734 due to the significant delay in the arrival of some 400 small glass lantern panes from France.

The actual light was a circle of cod liver oil fed wicks set in a copper ring mounted on cork floats. It was said that the light was visible for 18 nautical miles (33 km or 20.7 statute miles). A small duty was levied on vessels using the harbour to cover the expense of construction and upkeep, including the light keepers salary.

As in all these early lighthouses with open flame lights, a lot of heat was generated and the design proved to be faulty as the wooden frame of the lantern had no protection from the heat. On September 11th 1736 a fire ensued and the lantern portion of the light was destroyed.

The stone tower survived and a light was quickly re-established using wood and coal. A reconstructed lantern was designed using stone pillars to eliminate the fire threat and it started service in July 1738. In 1751 reflectors were installed to focus the light from the 32 lamp wicks. This light functioned for twenty years. Continued on page 6

Forgotten, continued: In 1758 the British laid siege to the Fortress for the second time (the first was 1745) and during the siege the lighthouse was badly damaged. The light was deemed to be beyond repair and left to deteriorate.

In 1842 it was deemed necessary to install a second lighthouse in Louisbourg. This light consisted of a two and 1/2 story wooden building that incorporated both the light and the keepers residence. The building was painted white with black vertical stripes and the building was built on a significant cut stone foundation which was set on the bedrock.

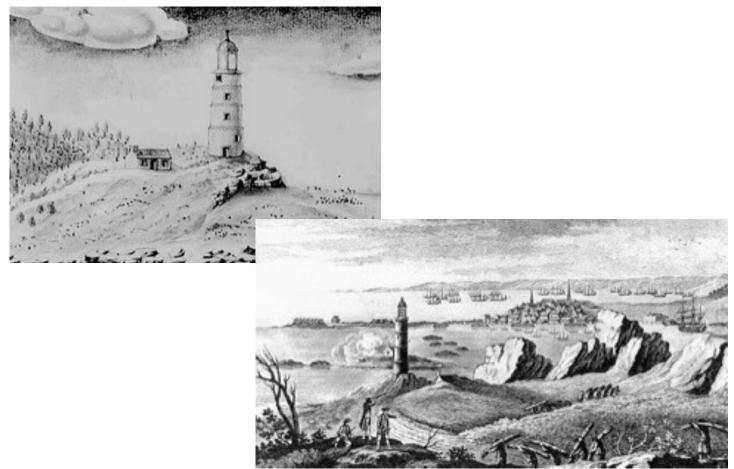
This building also fell victim to fire in 1922 and was completely destroyed.

The third lighthouse was begun in 1923 and began operation in 1924 and is still operating today, though it was de-staffed in 1990.

Louisbourg National Historic Site is one of the gems in Atlantic Canada and a must see excursion for anyone who enjoys the history and culture of Cape Breton and Nova Scotia. It is a time capsule of history that allows visitors to examine a turbulent and very interesting period of history and through the extensive research of records and archaeology, visitors gain a very impressive glimpse into the lives of the people who lived and worked in Louisbourg. The lighthouse is an important part of this history and really shows the progress and ingenuity of the French to cultivate a civilization within their fortress which attempted to mirror French society in France.

Across the harbour from the Fortress, is the lighthouse trail. It is approximately 2 km in length and runs along the coastline offering exceptional vistas. Interpretive panels are located along to trail to point out historical locations and the flora and fauna of the area. At the lighthouse you can see the present light which is similar to another famous light—Peggy's Cove, as well ruins from the original French light and gain a very impressive view of Fortress Louisbourg!

Louisbourg town is very tourist friendly with a number of modern accommodations and eateries where you can sample fresh seafood. There are also a number of other attractions in the area to round out your trip before you head out for the Cabot Trail!



The Sound of Silence

The Last Foghorn in the Halifax Harbour

By: Chris Mills



Chebucto Head's diaphone (shown peeking out of the gable end of the fog-alarm building) with the lightkeeper's children, 1954. Courtesy: Sara Flemming

In the late 1990s, if the winds were right, and if you were lucky, you could hear five foghorns from Ketch Harbour, just south of Halifax. To the sou'sou'west, Sambro Island let loose its warning three times a minute in thick weather, while to the northeast, Chebucto Head's two blasts answered back. Farther north, the guardians of the inner harbour, on Maugher's Beach and Georges Island called back and forth in single toots. And on one very calm, very foggy day, Betty's Island, near Prospect, identified itself with one long, low blast.

By the late 2000s, only the horn at Chebucto Head remained operational. A combination of marine aids reviews and public complaints about the noise level of certain horns led the Coast Guard to silence Georges, Maughers, Sambro and Betty's.

Flash-forward to 2021. As of April, there are no operating land-based foghorns between Lunenburg, and Liscomb Island. That's a distance of about 106 nautical miles; much farther than that if you're a small vessel hugging the coast in a thick fog. In the 1990s this same stretch of coastline had close to a dozen horns. Until February this year, Chebucto Head was still sending its warning into the fog and snow.

Then, silence.

During a blowy, snowy day in late February, Duncan's Cove resident Dominique Gusset heard something strange.

"The fog horn was doing an odd thing," she says. "It was night, windy, snowing with obviously very low visibility and the horn was blowing for one or two long tones – 30 seconds or longer – with short pauses in between." Continued on page 8

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Silence, continued: Normally, the horn lets loose two three-second blasts within a 60 second cycle. But shortly after Gusset noticed the horn's aberrant signal, it stopped making any sound at all.

Gusset got in touch with the Coast Guard. The horn was indeed broken-down. In addition, as a result of a recent review of aids to navigation, the Coast Guard stated the horn was to be shut off.

Permanently.

The first sound signal at Chebucto Head was a second-hand affair. The steam whistle placed in operation on the shoreline below the Head in 1891 had previously



served on nearby Sambro Island. Within a couple of decades the Department of Marine and Fisheries upgraded the signal to a diaphone horn. This Canadian invention became the premier horn system around the world for a good part of the 20th century.

The diaphone provided crucial guidance and reassurance to scores of vessels entering and leaving busy Halifax Harbour. By 1971, the old apparatus, which had by then been moved half a mile north to the site of the current lighthouse, had had its day. Technicians installed a powerful electric horn system on a large metal tower at the edge of the cliff, controlled by a fog detector.

In the mid-2010s, aids to navigation supervisor Tom Roberts led a team that dismantled the horn tower, refurbished it, and re-assembled the emitters on a shorter tower sitting on the base of the old diaphone building. A couple of years later the Coast Guard installed a state-of-the-art fog detector near the lighthouse, and in 2020, workers put a



chain-link fence around the detector to protect it from vandalism.

All of this work appears to have been for naught. Broken, the horn sits silent. The Coast Guard allows a 90 day comment period when they plan to implement changes or discontinuations to navigation aids. Ostensibly, this comment period enables mariners and other interested parties to state why or why not a particular aid should remain in service or why it should be changed in some way.

To date, correspondence from the Coast Guard indicates that Chebucto Head will remain silent. It's actually one of six horns currently on the chopping block around the province. Mosher Island, Boars Head, Peters Island, Grand Passage,

and Brier Island are also slated to be muzzled.

To the west'ard, Westport, Brier Island resident Laura Titus has been lobbying on behalf of islanders for the

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retention of their three local horns. Her husband Sean works on a lobster boat. He says the horns help him to know how far he is from shore when he's hauling gear. However, Laura says each appeal has been quashed, with the explanation that "...there is no justification for sound signals based on directives and procedures. It is internationally recognized that sound signals are not a reliable source of navigational information, as the direction of sound is distorted by wind speed and direction and they have a limited area of coverage."

Indeed, mariners today rely on GPS, radar and other hitech tools to navigate efficiently and safely. A smart phone can run a powerful e-chart app that can pretty well get you wherever you want to go on the water, when used in conjunction with local knowledge, basic navigation skills, and prudence. However, it's when we lose the actual sight and sound of our seamarks that we lose a margin of safety that an electronic device cannot always provide. True, the Coast Guard is not in the business of preserving the soundscape of the coast. But it's difficult, and very sad, and extremely frustrating to imagine a foggy spring day in Nova Scotia without the regular and reassuring blasts of a trusted foghorn.

The horn at Chebucto Head is part of the foundation of safe navigation into and out of Halifax Harbour, and

gosh knows, it can still provide a useful blast of encouragement to a sailor, fisherman or a kayaker caught in swiftmoving pea-souper. There's a very good chance the cost of repairing and returning to service the voice of Chebucto Head might just do that.

Why risk it all for the sound of silence?

Note:

If you are interested in expressing concerns about the discontinuance of the fog horn at Chebucto Head, or any other of the horns slated for decommissioning, you may write to:

Superintendent, Aids to Navigation & Waterways Canadian Coast Guard, Atlantic Region P.O. Box 1236 Charlottetown, PE C1A 7M8 Telephone: (902) 566-7936 Email: claire.maclaren@dfo-mpo.gc.ca

As stated in **Monthly Notices to Mariners**, "Any objections raised must state the facts on which they are based and should include supporting information on safety, commerce and public benefit."

Continue reading on Page 10 to learn how you can help repair the Chebucto Head foghorn

NSLPS strongly encourages its members to contact the above person at DFO to get the Chebucto Head fog horn fixed. To assist you, NSLPS has on its website sample letters that can be printed, signed and mailed. Similarly sample emails can be copied and pasted into your own email to send.

Even if you are not a boater, NSLPS has a sample letter and email for concerned citizens. Please ask your family members and friends to send their own message to DFO, or the Chebucto Head fog horn will be not be fixed in time for the 2021 boating season. Possibly never.

You will find the sample letters and emails by going to <u>www.nslps.com</u> and clicking on the link "Fix the Chebucto Head Fog Horn" under section "News and Events" on the website's home page.

2021 Annual General Meeting

As COVID-19 continues to impact the region, the Nova Scotia Lighthouse Preservation Society has chosen to once again host their annual general meeting virtually.

The AGM will take place on Wednesday, June 16, at 7 p.m.

Details and an email invitation will follow from the board. You can also "Like" us on Facebook to stay up –todate on the latest NSLPS information.

Questions? Reach out to us at askus@nslps.com

Not receiving NSLPS membership emails or tax receipts?

You should have received five emails with the subject, "To NSLPS Members", over the past year if you gave NSLPS a valid email address. Several of our members have reported difficulty finding these or tax receipts sent from <u>member.info@nslps.com</u>.

Please check your JUNK or SPAM folder to see if the email or receipt is there. If it is, how you mark NSLPS mail not Junk or Spam will depend on the Email Client application you use - Outlook, Yahoo or Gmail.

A link to detailed instructions to do this for Outlook, Yahoo and Gmail can be found under the section, News and Events, on the homepage of the NSLPS website (www.nslps.com). Once you have completed the procedure for your specific Email Client application, you should now receive NSLPS mail in your Inbox.