SUMMARY: There was a time when Newfoundlanders reported the highest rates of Tuberculosis (TB) in the Western world, with TB being the leading cause of death in this province until 1947. A significant contributor to this shocking statistic is the fact that Newfoundland’s population was widely scattered over six thousand miles of coastline. Many communities were not accessible by roads, and, consequently, the population’s health suffered. It soon became apparent that some method of travelling to communities around Newfoundland and Labrador in order to screen for what became known as the “white plague” was required as it was not practical for the population of some eighty thousand people to travel to major centers for X-rays. In order to address this issue, the Newfoundland Lung Association purchased a boat from the US government in 1947. The former war vessel was aptly named the \textit{M.V. Christmas Seal}, as it was funded by the sale of \textit{Christmas Seal} stamps. The \textit{Christmas Seal} and her dedicated crew will be forever remembered for its contribution to the health of Newfoundland and Labrador.

KEYWORDS: Tuberculosis, Radiology, Hospital Ship, Newfoundland, Christmas Seal, Peter Troake

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Introduction

Figure 1: *The MV Christmas Seal*, as seen leaving Port de Grave on its last trip as an X-ray clinic, Oct. 1970 (Lung Association of Newfoundland and Labrador).

One of the greatest battles ever to take place in Newfoundland took almost hundred years to resolve. In that time no shots were fired, no blood spilled, no bands headed long lines of marching troops, and no troopships plied the seas. The battle was fought right here against an invisible enemy who attacked young and old alike. A microscopic scrap of life was the enemy, for it was a virus, spread from one person to another that made tuberculosis a dreaded killer.¹

There was a time when Newfoundlanders reported the highest rates of Tuberculosis (TB) in the western world. From 1901 to 1975, over thirty thousand Newfoundlanders died of the disease, and, in 1906 alone, there were over nine hundred deaths.² In order to put this into perspective, one should fathom that during the First World War, close to thirteen hundred members of the Newfoundland Regiment were killed; at the same time approximately three and a half thousand Newfoundlanders died due to TB.

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It is because of these astonishing numbers that TB became known to Newfoundlanders as the “Constant Invader”\(^3\).

Figure 2: Part of the public education and awareness campaign in the Maritimes. Education was also a large part of the \textit{M.V. Christmas Seal’s} mission (Nova Scotia Lung Association).

TB remained the leading cause of death in Newfoundland until 1947\(^4\). Numerous contributing factors have been explored as to why Newfoundlanders reported such a high prevalence of the disease. These factors include poor and crowded living conditions, malnutrition, and bad hygiene\(^5\). In addition, medical services were very expensive and not widely available during this period. This was compounded by the fact that there was widespread unemployment throughout the province, and therefore, many people could not afford medical attention\(^6\). The Newfoundland government responded to these alarming TB rates by increasing the number of beds available at certain hospitals around the

\(^3\) \textit{Ibid}.
\(^4\) \textit{Ibid}.
\(^5\) \textit{Ibid}.
province, and by creating cottage hospitals and TB sanatoriums.\footnote{Ibid.} Newfoundland’s population, however, was widely scattered over nearly six thousand miles of coastline. There were twelve hundred settlements in Newfoundland with between fifty and three hundred people, many of which were not accessible by roads.\footnote{Writers’ Alliance, *Health and Hard Times* (n. 2); retrieved 31 October 2008 (http://www.nald.ca/CLR/social/book5/p59.htm).} It soon became apparent that some method of travelling to communities around Newfoundland and Labrador was required as it was not practical for the population of some eighty thousand people to travel to major centers for X-rays.\footnote{William Strong, *Preface to No one is a stranger [...] Reminiscences on tuberculosis, traditional medicine and other matter*, by Captain Peter Troika (St. John’s, Nfld.: Newfoundland Lung Association, 1989), p. vii.} Newfoundlanders had a problem: TB was running rampant in those communities and the only way to access these patients appeared to be by boat.

### The Christmas Seal

In 1947, the Newfoundland Lung Association purchased a boat from the United States Government for nearly fifteen hundred dollars. The money was raised by the sale of *Christmas Seal* stamps sold by the Newfoundland Tuberculosis Society. The boat, formally known as the “Seawater”, had been used at the Argentia Naval Base in Newfoundland for the purpose of aircraft rescue during wartime.\footnote{Writers’ Alliance, *Health and Hard Times* (n. 2); retrieved on 31 October 2009 (http://www.nald.ca/CLR/social/book5/p59.htm).} The one hundred and four foot long, eighty-four ton boat was aptly renamed the Merchant Vessel (M.V.) *Christmas Seal*. This name was chosen after a competition to name the vessel was held between school children.\footnote{No author credited, “Tuberculosis Christmas Seal Dollars in Action,” *Newfoundland Government Bulletin* (September, 1947).} The *Christmas Seal*, however, soon also became known as “*The Ship of Health*”.\footnote{Captain Peter Troika, *No one is a stranger [...] Reminiscences on Tuberculosis, Traditional Medicine and Other Matter* (St. John’s, Nfld.: Newfoundland Lung Association, 1989), p. 3.} The vessel herself was, by all accounts, a sight to behold.
Her gleaming white wooden hull and superstructure give the impression of a large motor yacht; her lean, low profile has the business-like appearance of a small warship.13

Inside, the boat is described as having a comfortable waiting room, large windows, and as bright and attractive looking with colourful posters.14 By all accounts, the Christmas Seal indeed played the role of a battleship and her enemy was Tuberculosis.15

The Seal, as she later became nicknamed, in essence had two crews; a six man naval crew to keep the vessel sea-worthy, and, of course, her medical crew. The medical team aboard the ship usually consisted of two X-ray technicians, health educationalists, a nursing supervisor, and at certain times, a Doctor. The crew was a dedicated lot, working six days per week, including nights. Work began aboard the vessel in early May when the ice thawed until the following December.16 A typical day for the Christmas Seal crew usually began at 6:30 a.m. with breakfast and a last minute inspection taking place afterwards, to ensure everything was ready for the busy day ahead. News that the Seal was on her way to a given outpost community usually preceded the ship. All those over twenty-one years of age were to receive an X-ray. They would be given a registration card and move to the X-ray room where they received a chest X-ray performed by a technician. “All day long he can be heard “Take a deep breath […] hold it […] thank you […] you may go now.”17

While the X-rays were being performed aboard the ship, its loudspeakers continued to broadcast music and messages about the importance of good health practices, education and rehabilitation.18 When the last X-ray of the day was taken, preparations were made to return to a community visited a few days prior. The purpose for the repeated appearance in a community was due to numerous reasons. Perhaps most common reason was due to the ship’s doctor requiring large X-ray plates to be taken of suspicious cases.

16 Anonymous, Decks Awash (n. 1), p. 53.
18 Ibid.
After all the patients were gone for the day, there was still work to be carried out: The staff aboard the Seal was in charge of panel discussions and talks on sanitation, nutrition, rehabilitation, and, of course, TB. The talks were mainly for teachers within the community; however, the mayor, doctors, nurses, welfare officers, etc. were also encouraged to attend. At the end of this busy day, the crew would usually gather around the radio to hear news from home or other messages from communities along the route. The locals were invited, free of charge, to movies put on by the staff of the Seal shown either ashore in a community hall or transmitted over the loudspeaker. Ingeniously, the movies would usually consist of cartoons or short films about health education. The productivity aboard the boat was immense. The X-ray technicians were very apt at their job; taking up to one hundred X-rays per hour on one thousand foot lengths of seventy millimetre film to be developed later in the ship’s darkroom. In the early years, the technicians took standard size films which were sent to St. John’s for processing and reading. As time went on, the ship became equipped with her very own darkroom, which meant the technicians could develop their own pictures. X-ray plates were usually read aboard the vessel by the doctor or technician, however sometimes plates were sent ashore to a hospital or sanatorium to be read. Soon after each reading, the boat would travel back to a community to re-X-ray on larger plates those who are suspected of having TB. Eventually, there was automatic equipment in which one hundred foot rolls of film were utilized instead of the large plates once used aboard the ship.

The World Class Staff on the Seal

As the primary goal of the Christmas Seal was to X-ray all Newfoundlander whether outwardly sick or not, the X-ray technicians were kept busy with a factory-line of people entering and leaving the ship for this purpose. A particular trip would involve as many as five thousand

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20 Ibid.
X-rays being taken, often more than one X-ray per minute.\textsuperscript{25} Those patients who were called back for a second X-ray were seen by the doctor who would read the film in the boat lounge. When active TB was found, arrangements had to be made immediately for admission to a sanatorium.\textsuperscript{26}  

Figure 3: A Doctor onboard the \textit{MV Christmas Seal}, interprets an X-ray in the summer of 1954 (Lung Association of Newfoundland and Labrador).

In its later years, the \textit{Christmas Seal} staff not only took chest X-rays for TB but also tested for diabetes and administered the polio vaccine, as well as sailing from outpost to outpost with needed health care supplies, equipment and people to fight the dreaded disease that came to be known as “White Plague”.\textsuperscript{27} The Seal also carried at various times a nurse from the provincial dispensary to test children for TB and vaccinate negative reactors, a representative of the Newfoundland Diabetic Society (testing

\textsuperscript{25} John Murphy, “Recalling the M.V. Christmas Seal,” \textit{The Evening Telegram} (June 20, 1994), p. 1.  
\textsuperscript{26} Chafe, \textit{Only a Boat Could do it}, pp.164-167.  
\textsuperscript{27} Anonymous, “Refloating the Christmas Seal,” \textit{The Union Advocate} 3 (1994), p. 36.
for Diabetes Mellitus Type II), a physiotherapist and social worker from the Newfoundland Society for Crippled Children and Adults.  

Figure 4: A man being X-rayed during a community survey. As the surveys progressed, they became more efficient; as seen here, participants were eventually able to remain fully clothed during the X-ray (Nova Scotia Lung Association).

The nurses aboard the Christmas Seal had their hands full. Not only were they in charge of administering the TB “scratch test” to children under twenty-one, but they also administered the BCG vaccine, distributed cod liver oil and concentrated orange juice. Visitors to the boat were also educated about the causes, prevention and treatment of TB. Nurses were responsible for distributing posters, pamphlets and booklets in order to educate the public on TB, both on board and ashore.

A considerable amount of work was indeed done aboard the ship; however, some of the crew’s work was required in homes, schools and in

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28 Troika, No One is a Stranger, p. 10.
town halls. Nurses went to visit all known ex-TB patients in their homes, which meant travelling up to twelve miles on foot. Never idle, the nurses would use this time to coax other people along the journey to board the Seal for an X-ray. In 1963 the Christmas Seal carried out a survey of physically handicapped children on Newfoundland’s south coast. A former nurse aboard the Christmas Seal recalled from a survey on physically handicapped persons that “[...] during the trip I obtained information on 201 handicapped persons, many of whom (or their relatives) were interviewed. Most were already known to the Rehabilitation Division, but 48 were new referrals”.

Public Perception of the Christmas Seal

Numerous accounts about what it was like for the public aboard the M.V. Christmas Seal exist. Generally, the people are described as awaiting the vessel with enthusiasm and excitement; a “hive” of activity surrounding it. There were people everywhere, dressed in no less than their Sunday best to greet the ship. The captain remembers telling the people “not to dress up, but a lot would not come until they had”. As the boat docked, waiting people surged aboard until the green painted deck was nearly invisible due to the “thickly packed visitors”. With its loudspeaker playing music, a carnival-type atmosphere was described by many, explaining how it was

[…] more like a carnival than a hospital waiting room. The children play tag around the deck, swing from the lower rigging, stick their noses into the engine room for the warm smell of the diesels and dodge in and out of the lifeboat.

Furthermore, a sense of curiosity seemed palpable, which was encouraged by publicity prior to the boat’s arrival. Some authors describe the feeling of the Seal’s arrival to particular outposts as having the “ring of the old-time medicine show”, and many saw the boat as a symbol of “new

32 Troika, No One is a Stranger, p. 26.
34 Troika, No One is a Stranger, p. 10.
35 Ibid., p. 28.
36 Ibid., p. 6.
medicine”.37 This was, perhaps, greatly accentuated by the playing of a “lilting, Irish two-step, or some other lively tune” from the boat’s twin loudspeakers.38 In addition to music, the assistant X-ray technician frequently announced through the boat’s loudspeakers upon arrival what became known as a sort of call to the people of each community.

This is the motor vessel Christmas Seal. We are here to offer the BCG [Bacille Calmette Guérin] skin test for tuberculosis to all school age and preschool children, in fact all children up to the age of 21. Adults who didn’t get an X-ray during our visit last November should come and be X-rayed now. Mothers please accompany preschool age children. Let the others come by themselves […].39

Of course, it was not all fun and games aboard the M.V. Christmas Seal. A feeling of fear seeped over the boat and each community it visited like a veil. Fear was present among the people, partially due to the frequent showing of films about tuberculosis, which frightened Newfoundlanders into being X-rayed even though it was not its intention.40 The sense of duty or civic responsibility was pervasive in the Seal’s campaign, almost as if drafting the citizens to war.41 The threat of “Recalls” also instilled fear within the outpost residents. As the ship’s captain reminisces,

If we didn’t get a good X-ray – lots of times we didn’t get a good one on the machine, or perhaps a heavy person, or something like that – you would have to recall them back. The Recall was when they may get bad news. Well certain people when they came back, they were frightened to death.42

Sometimes, and especially for the younger patients, it was not the case of being diagnosed with TB, but the actual X-ray machine that caused such a fright. One Newfoundlander described how he and his fellow schoolmates “[…] bunched around the concrete foundation of our school in anticipation of the torture ahead of us and brought by this dreaded ship”.43

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37 Ibid., p. 7.
38 Jaques, The Evening Telegram, p. 22.
39 Barnard, Newfoundland in Review: Seven Stories of Newfoundland from the Imperial Oil Review, p. 24.
40 Troika, No One is a Stranger, p. 9.
41 Ibid., p. 14.
42 Ibid., p. 40
Unfortunately, not everyone would respond to their “civic duty” without some kind of persuasion. Convincing people to overcome their fears, whatever they may be, to board the ship and receive an X-ray was a constant struggle. The ship’s captain of twenty-three years, Captain Peter Troake (1908-1997), spent much of his time in port encouraging reluctant citizens to be X-rayed.\(^{44}\) Described by some as the “Pied Piper of Newfoundland”,\(^{45}\) Troake explains in his memoirs: “On the *Christmas Seal* we had to persuade [...] talk about fishing and things, and then about TB”.\(^{46}\) His powers of persuasion are illustrated with his own words:

\[\text{Figure 5: The Ship’s Captain, Peter Troika, the “Pied Piper of Newfoundland” entertaining some children in one of the outpost communities (Lung Association of Newfoundland and Labrador).}\]

\(^{44}\) Troika, *No One is a Stranger*, p. 3.


\(^{46}\) Troika, *No One is a Stranger*, p. 35.
We often had a job with the little ones on the Christmas Seal, they didn’t like needles. There’s times I used to tell them white lies. I used to tell them it was only like a pussy cat scratch. I could get along better with the little ones than their mothers could sometimes [...]. I told them I was a friend of Santa, that I knew where Santa lived, that if they were good […]. You know what I’m talking about.47

As well, Troika mentioned having to almost threaten the men of the villages, telling them “we’ve got your names, and if you don’t come we’ll come to get you […].” 48 In one town in particular, no-one greeted the Christmas Seal for an X-ray so the nurses went out into the community. During their journey to land, the nurses encountered windy, sea rough waves spraying over the boat transporting them from ship to shore. After this, the nurses discovered that the villagers did not want to be X-rayed due to religious beliefs, saying it would be “God’s will” if they got TB.49

The Christmas Seal’s Challenges and Triumphs

Other challenges were faced by the people aboard the Christmas Seal on a daily basis included performing maintenance on important equipment, and navigational hazards such as black fog, which were always around the corner. As well, some communities did not have a harbour or the tide was too low to dock, so the inhabitants of the outposts had to paddle out to the Christmas Seal for X-rays with small fishing boats. Emergencies were also a frequent occurrence faced by the Christmas Seal. With Captain Troika at the helm, the Seal and her crew once fought a seventy knot gale and mountainous seas all night to bring a boy with acute appendicitis from an outpost community to hospital. 50 The medical crew themselves faced the challenge of dealing with families who received the devastating news of a family member’s diagnosis of TB, and their subsequent exodus from the community. As one nurse recalls: “It was always sad to think that they had to leave and go to the sanatorium. Some had to leave small babies and that was sad, very sad”.51

Despite all the tough challenges, the Christmas Seal and her crew managed to make their mark on the fight against Tuberculosis in Newfoundland/Labrador. During the fall of 1951, eighty-five percent of

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47 Ibid.
48 Ibid.
50 Troika, No One is a Stranger, p. 9.
51 Murphy, The Evening Telegram, p. 1.
the available population in Newfoundland was X-rayed.\textsuperscript{52} The death incidence of TB showed a significant decline after the advent of the \textit{Christmas Seal}; during its first year afloat, five hundred Newfoundlanders died from the disease and in 1958 only sixty-four.\textsuperscript{53} In 1956, BCG nurses skin-tested and vaccinated over twenty five and eighteen thousand children respectively. The death rate from TB in 1959 was the lowest ever recorded in the province.\textsuperscript{54} Over half a million pieces of educational literature had been distributed after eight years of work.\textsuperscript{55} The sheer number of people reached by the boat was very impressive. In 1948, during a period of four months, nearly eight thousand X-rays were taken, and just over six thousand items of TB educational literature were distributed.\textsuperscript{56} The public’s confidence in medicine was also on the rise because of the many stories of the \textit{Christmas Seal’s} success against TB:\textsuperscript{57}

Patch tests, vaccination and X-rays were far from new, but together with nurses, doctors and the provision of other medical services on the boat, they reflected change in medicine, or at least public health.\textsuperscript{58}

By 1970, the battle against TB in Newfoundland was considered to be won and the services of the \textit{M.V. Christmas Seal} were no longer needed. Less and less cases were found as years went on, and the road network expanded through the outposts. Educational programs, new medicines, vaccinations, X-rays and improved living conditions had just about wiped out the “Silent Menace”.\textsuperscript{59} Alternative ways of transporting the mobile X-ray and providing BCG vaccine were available, and the size of the tuberculosis problem had diminished.\textsuperscript{60} One of the X-ray technicians who worked aboard the Seal recalls that, “in the beginning, you would probably

\begin{itemize}
  \item \textsuperscript{52} Anonymous, “Sea Going Clinic,” \textit{Atlantic Guardian} (December, 1951), p. 18.
  \item \textsuperscript{54} CBC Digital Archives; retrieved on 31 October 2008 (http://archives.cbc.ca/version_print.asp?page=1&IDLan=1&IDClip=5332&IDDossier=883&IDCat=318&IDCatPa=258).
  \item \textsuperscript{55} Anonymous, “By Boat, Bus and Rail Car,” \textit{Atlantic Guardian} 10 (1953), pp.16-20.
  \item \textsuperscript{56} Anonymous, “Motorship with a Mission,” \textit{Atlantic Guardian} 6 (1949), p. 38.
  \item \textsuperscript{57} Troika, \textit{No One is a Stranger}, p. 7.
  \item \textsuperscript{58} Ibid.
  \item \textsuperscript{60} Troika, \textit{No One Is A Stranger}, p. 10.
\end{itemize}
pick up three or four cases in each place [...] as time went on there would be a few places where you wouldn’t find an active case”. 61 The X-ray program continued, however, via mobile X-ray services delivered by road. The Christmas Seal was sold to a Lewisporte man who chartered her in 1970. Unfortunately, she ended her career on a charter to the Bedford Institute of Oceanography by catching fire and sinking to the bottom of the ocean. 62

Truly, then, “The collective efforts of [...] the Captain and crew had a significant impact on the health and welfare of a whole population, at a time when tuberculosis was bringing tragedy and unhappiness to many”. 63

Conclusion

The M.V. Christmas Seal will forever be a significant part of Maritime as well as Canadian history as a whole. Not only is she immortalized through navel models, songs, poems, and in various Canadian history books, but, in 1995, wreckage from the vessel was used to help construct a guitar made of various national treasures. 64 Below is a song/poem written by a former nurse aboard the Christmas Seal:

THE M.V. CHRISTMAS SEAL

Close on five hundred died some years
Of the dreaded scourge TB
When a new association
Was formed by Rotary
But just to reach the harbours
And uncover this disease
Could only be accomplished
By a sturdy boat with ease.
They got her in Argentia at

61 Anonymous, Decks Awash, p. 53.
62 Ibid.
63 Strong, Preface, No One is a Stranger, p. vii.
64 Six String Nation, Six Strings, Thousands of Stories; retrieved on 31 October 2008 (http://sixstringnation.com/en/).
The U.S. Naval Base
She stayed in search and rescue
In a different kind of race
Renamed the M.V. Christmas Seal
Marked by the double-barred cross
For twenty-three years she dogged the foe
Along our rocky coast.

(Chorus)
This is the M.V. Christmas Seal
In Hermitage today
So come on board just as you are
For your free chest X-ray
The nurses are here to give BCG
We’ll test your water too
And if you have a handicap
There’s someone to talk with you.
In nineteen hundred seventy
She took her last X-ray
For now the roads and causeways
Were linking up the bays
And Tuberculosis was vanquished
A death from it was rare
The dollars raised by Christmas Seals
Had more than done their share.
The M.V. Christmas Seal would make
A shrine for all to see
But she was sold to Mullett
And once more put to sea
Near Halifax in seventy-six
She sadly burned and sank
But for her years of saving lives
Newfoundlander's all give thanks.\textsuperscript{65}