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Eric Fernberg  
*Canadian War Museum*

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# A Tough Little Boat

## The *Pogo* – HMCS *Labrador*'s Hydrographic Survey Launch

**Eric M. Fernberg**

In the summer of 1995 the Canadian War Museum accepted delivery of the *Pogo*, the 36-foot aluminum sounding boat which had accompanied the voyages of HMCS *Labrador*, Canada's first and last Arctic Patrol vessel. One of the considerations that led to its acquisition lies in the CWM's mission statement, to document "Canada's commitment to peacekeeping and the maintenance of international security." We have a tendency to speak of international security as a concept symptomatic of the Nuclear Age because, prior to the Second World War, countries could afford to take an isolationist stance and dismiss the tension between belligerents as "none of their business." However, the long-range nuclear bomber and the subsequent introduction of the intercontinental ballistic missile made tensions everybody's business. The early 1950s were the beginning of an era where Canada began to define its postwar image and the addition of this artifact to the National Collection is a physical reminder of Canada's role in the achievement of Arctic sovereignty and the development of international security.

Long considered an area of both danger and fascination, Canada's Arctic became a focus of strategic interest after the Second World War. The introduction of the atomic bomb in 1945 brought the world into the nuclear age and Canada became a global player in the strategic posturing between East and West. When the Soviet Union developed its long-range nuclear bomber fleet in the early 1950s, Canada quickly became a buffer zone between the Cold War adversaries. Realizing the threat posed by nuclear attack over the North, the Canadian government started to take a more active role in its defence. Until this time, Arctic



naval operations had been the sole domain of the United States Navy (USN) and it was not until Harold Grant, Chief of the Canadian Naval Staff, sent warships into the Chukchi Sea and both Hudson and Frobisher Bay, that Canada started to become a factor in Northern strategies.<sup>1</sup> Prior to this the Federal Government had relied on a few small

ships steaming on seasonal patrols to assert Canada's sovereignty in the North. This changed in 1942 when the *St. Roch*, an RCMP schooner, made the first Northwest Passage from east to west. Though the voyage took two years, it proved that Canada could, though tenuously, patrol her Arctic waters. The *St. Roch* repeated the passage in 1944 but it would be a full ten years before a government vessel attempted the voyage again.

In 1947 design studies were undertaken to build an Arctic patrol vessel which could maintain a Canadian presence in the North. In order to build an Arctic patrol vessel Canada turned to the experience and knowledge of the USN. The *Labrador*, approved by the government in 1949, was based on the USNs "Wind" class icebreaker, and her designated captain, Owen Robertson, was sent to train with the USN and Coast Guard to learn Arctic operations. Captain Robertson's experience with the Americans paid off and his knowledge was reflected in the construction of the *Labrador*. Because of his recommendations, many of the original Wind Class features were modified to accommodate the needs of the Royal Canadian Navy and her scientific teams.<sup>2</sup>

The task of building Canada's first Arctic patrol vessel was assigned to Marine Industries Ltd. of Sorel, Quebec which had been extremely active in the construction of corvettes and



*The Labrador, resplendent in her coat of Arctic white, undergoing final fitting at Marine Industries Ltd., June 1954. (Photo courtesy of H. Fernberg)*

Restricted in size because it had to be slung on davits on *Labrador's* starboard side, she had to be able to carry all of the equipment necessary for charting the Arctic waters – radar, echo sounder, a radio-transmitter, a large gyro-compass, an auxiliary compass, a 7 kilowatt generator, and a 70,000 BTU heater to keep the crew and equipment from freezing. The boat had to sleep six and have a galley with enough room to produce three meals a day. The problem of installing all of this equipment and making a comfortable working space for the crew was further compounded by the Navy's request for a full-size regulation chart table. According to the hull designer, it was one of the more trying challenges of building the *Pogo*.<sup>3</sup>

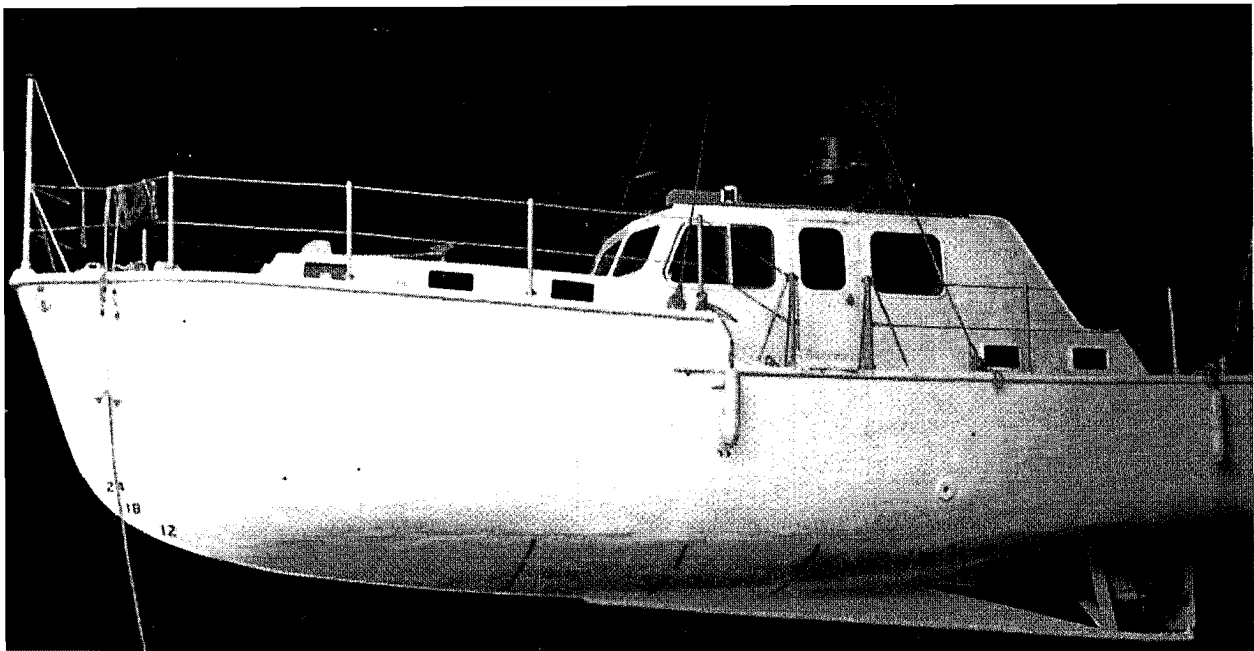
One of the important factors which has made the *Pogo* a special addition to Canadian naval history was the free hand Design & Engineering had with experimentation. Though they had to fulfil the requirements of the Navy, there was a certain amount of latitude as to how they could do it. The main feature of the *Pogo* was its all-aluminum construction, a weight-saving measure. Granted, aluminum had been applied to military applications before the *Pogo*, primarily in the aviation industry, but an all-aluminum hull with welded seams was a departure from traditional steel hull construction for naval vessels. This departure was not without its challenges. Metal plate was welded at this time using an Argon-arc system, but as Design & Engineering soon found out, there was incomplete fusion of the plates when applied to aluminum. As a result, every weld on the *Pogo* was x-rayed for flaws and redone if any were apparent. When a flawed seam was discovered it had to be chipped off with an air hammer, welded again and undergo a second x-ray.

Apart from an aluminum hull, the D&E section also constructed the deck and deckhouse from aluminum. Weight was saved by avoiding wooden deck coverings, and constructing lightweight, non-skid, covers of honeycombed cardboard sandwiched between aluminum sheets. Some of the larger components of the hull, such as the rudder skeg, were also of aluminum. As the *Pogo* took shape on the shop floor all of its

merchant ships during the Second World War. Their knowledge of shipbuilding combined with the recommendations of Captain Robertson produced a 6,400-ton ship with a length of 269 feet and a draft of 30 feet. She was constructed with a hull made of high tensile steel and had heeling tanks which could pump 40,000 gallons a minute and roll her free in case she got wedged in the ice. To maneuver in Arctic conditions her six diesel engines could be operated from four different stations within the ship and deliver a combined thrust of 10,000 hp.

To assist her work in the Arctic, HMCS *Labrador* was provided with a 36-foot auxiliary craft known as the *Pogo*. Named after the popular comic strip character, the *Pogo's* role was to travel independently from the *Labrador* and, with the assistance of her hydrographic survey equipment, chart the Arctic waters. In the case of HMCS *Labrador*, the role of *Pogo* was vital to her own voyage through the Northwest Passage.

*Pogo* was also built by Marine Industries. Working under a tight schedule, the Design & Engineering section had to design and build the sounding boat within certain parameters.



The completed hydrographic survey launch *Pogo* leaving the Design & Engineering shop floor for trials in the St. Lawrence River, June 1954. Note that she carries the Labrador's crest on her bow.

(Photo courtesy of H. Fernberg)

design features and naval requirements were verified daily until a finished product was ready for trials in the spring of 1954.

When completed, the *Pogo* was a craft 36 feet long with a draught of just over three and a half feet. Outfitted with a Red Wing Model D00D 66 hp inboard diesel engine, the *Pogo* could reach a top speed of 8.5 knots. The cruising range of the *Pogo* was 430 nautical miles which gave her a substantial independent reach from the mother ship, and her total displacement of 15,900 pounds meant she could be easily loaded and unloaded from her berth on the *Labrador*.

The *Pogo* had lines which would not look out of place on today's modern cabin cruisers. The forecabin was raised slightly from the rest of the deck and inside were four berths, a galley and the head. The centre area of the deckhouse contained the operations cabin of *Pogo's* research activities. The ship's wheel was on the port side and the chart table was on the starboard. The aft section of *Pogo's* hull contained two more berths and an open bridge on the deck above. Her mast head could fold down when carried in her davits and the fo'c'sle storage was separated from the forward crew compartment by a bulkhead and was only accessible by a hatch on the forward starboard deck. A bright yellow ice skiff was lashed to the centre of the deck behind the open bridge.

Once HMCS *Labrador* had been commissioned on 8 July 1954, Captain Robertson and his ship's company of 228 went to Halifax to prepare for her maiden voyage through the Arctic. She sailed north at the end of July, in the optimistic words of a contemporary account, to "unfold to colonization and science the last of the world's great domains of natural wealth."<sup>4</sup> Apart from the ship's company, HMCS *Labrador* also carried a complement of scientists to conduct Arctic research which, it was believed, would help Canada and the United States respond to any type of Soviet threat launched from the North.

Sailing up the Labrador coast and through the Lancaster Sound, HMCS *Labrador* anchored at Resolute Bay, Cornwallis Island before making the traverse through the Passage. Her maiden voyage in the North began by gathering data which opened up Resolute Bay to deep-draught ships. During her first voyage to the Arctic in 1954 the *Labrador's* naval hydrographer, Lieutenant T.A. Irvine, was assigned the responsibility of further charting the Arctic waters.<sup>5</sup> To assist him in his endeavors he was given command of *Pogo* and with his small crew of five sailors proceeded to gather information first hand. This duty was not without its dangers. On one occasion the *Pogo* ran aground and was stranded for four hours while waiting for the next tide.<sup>6</sup> Running aground and waiting to be refloated may seem minor, but when one considers that the aluminum hull was



An ice-battered Pogo in Halifax after her first voyage through the Northwest Passage. Her newly attached wing keels are visible just below the waterline, May 1955.

(Photo courtesy of H. Fernberg)

only an eighth of an inch thick, any type of contact put the crew at risk. Faced with the dangers of unexpected rocks, ice flows and occasional gales, the crew of the *Pogo* took depth soundings, reconnoitred shorelines, investigated possible harbour sites and gathered other vital information for Arctic navigation. She collected information throughout the summer Arctic season on the Prince of Wales Strait, Amundsen Gulf and the Beaufort Sea. The compilation of hydrographic and oceanographic data was important to the navigation of the Arctic because the existing charts lacked adequate depth soundings, which made navigation of channels dangerous and difficult especially when half of the year saw the Arctic waters covered in ice. With the traversal of the Northwest Passage complete by September 1954, the *Labrador* returned to Halifax via the Panama Canal.

The *Pogo* was the first RCN vessel to enter the uncharted waters of the Canadian Arctic. Many of her survey trips were specifically launched to provide a safe route for the *Labrador* to follow, so that giving her the title of "trailblazer" would be appropriate. The charts produced from her sorties also opened the Arctic to the large merchant ships needed to supply the building of the Distant Early Warning (DEW) line. After HMCS *Labrador's* first voyage to the Arctic the Navy informed Marine Industries that the *Pogo* was quite "lively" when faced with rough conditions on open waters. Her all-aluminum hull saved weight but something was needed to steady her roll and make her a more stable working platform. The solution was to weld a wing keel to each side of the hull below the waterline. Marine Industries sent a team down to Halifax to undertake the necessary modifications and test them in Bedford Basin. The crew from Marine

Industries understood that the conditions they would encounter in the Basin would be different from the Arctic, but their tests proved that it reduced her rolling considerably.<sup>7</sup>

HMCS *Labrador* made only three more voyages as a commissioned ship of the Royal Canadian Navy. On her second voyage in 1955, she transported personnel and equipment for the construction of the eastern portion of the DEW Line. In 1956 and 1957 she conducted extensive hydrographic surveys. During her last two voyages, under Captain Thomas Charles Pullen, the *Labrador's* Executive Officer was the well-known naval artist Charles Anthony Law who had joined the ship in 1955 and recorded events in oil when not engaged in shipboard duties.<sup>8</sup>

Following her voyage in 1957 HMCS *Labrador* would no longer sail as an Arctic patrol vessel of the Royal Canadian Navy. A general election that same year saw a Conservative government headed by Prime Minister John Diefenbaker come into power. One of the first actions of the new government was a review of the existing defence structure by the Minister of Defence George R. Pearkes. The result was a scaled down RCN, including the transfer of the *Labrador* to the Department of Transport (DOT). Pearkes indicated that it would find a more general employment with the Coast Guard and be run more cheaply than with the Navy.<sup>9</sup> In 1958 the *Labrador* was welcomed into the fleet of DOT icebreakers. However, because of her arrangement of deck and bulkheads to naval standards of watertight subdivisions, her Arctic supply role would be limited.<sup>10</sup> Known from 1963 onwards as CCGS *Labrador*, she still continued to make Arctic voyages, becoming the first Canadian ship to reach the most northerly point up the Kennedy

Channel between Greenland and Ellesmere Island. However, her primary function eventually became an ice-breaker on the lower St. Lawrence River.

The *Pogo's* subsequent history after her Arctic adventures illustrates the varied and sometimes mundane uses to which a significant historical artifact can be put before that significance is finally recognized. When HMCS *Labrador* was paid off and transferred to the DOT, the RCN kept the little hydrographic survey vessel, as the DOT had indicated that they had their own barges available for service. Instead, she was sent back to Halifax, the former HMCS *Labrador's* home port, and put into service as a harbour launch. Designated QMC-104 (Queen's Motor Launch), the *Pogo* served from the late 1950s and into the 1960s as the launch for the Queen's Harbour Master. Eventually she was redesignated as YFL-104 (Yard Ferry Light) and still carries that number on her hull today.

In the 1960s the *Pogo* was transferred from Halifax to HMCS *York*, the Naval Reserve's establishment in Toronto, to become the unit's tender. In the mid-1970s, while in service with HMCS *York*, one of her pipes below the waterline burst and she sank at her moorings. Immediately salvaged by the *York's* divers, the *Pogo* was raised and refitted. Shortly thereafter she was transferred to HMCS *Carleton* at Dows Lake, Ottawa.

By the 1980s the *Pogo* was serving with HMCS *Carleton* as their principal large size training vessel for naval reservists. She was used as a diving tender for HMCS *Carleton's* diving team, even though her high freeboard did not lend itself to diving operations because it made it difficult for a fully rigged diver to climb aboard.<sup>11</sup> Proposals had been put forward to make modifications for diving operations, but the only result was a rope ladder. Other duties of the *Pogo* involved use as a safety boat during the summers in conjunction with the government's Summer Youth Employment Program.

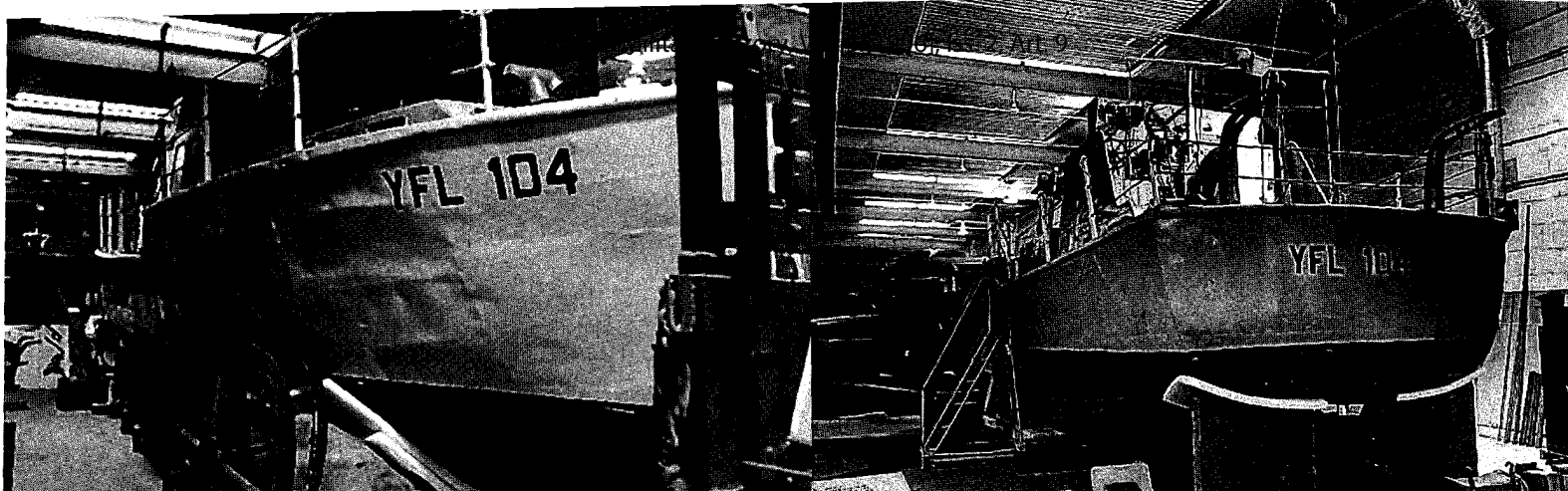
Her service with HMCS *Carleton* was not without its humorous events. On one occasion, the commanding officer of HMCS *Carleton* had been maneuvering *Pogo* through Dows Lake. When he put the engine in reverse the propeller spun off and sank to the bottom of the lake.

Apparently the cotter pin, which held the propeller in place, had either broken off or had never been put on prior to the summer season's training. The diving team was called out to locate the propeller but it remained missing until Dows Lake was drained in the Fall. The navy diver who found it did so by tripping over it and breaking his toe!<sup>12</sup> A replacement propeller was provided by the marina where she had been stored and when the original propeller was recovered it was mounted and awarded as a trophy to the CO.

Unfortunately, not all of the *Pogo's* experiences were humorous or memorable. While in service with HMCS *Carleton* she began to show her age. By 1990 she was already over 35 years old and in the old "use or lose it" mentality which has been applied to Canada's reserve forces equipment the *Pogo* was suffering from over use. One of the main problems which affected the *Pogo* while in naval reserve service was the lack of proper maintenance. The transient nature of reserve unit personnel translated into the lack of a regularly assigned crew or maintenance staff to serve her. The sailors at HMCS *Carleton* did what they could to maintain the *Pogo*. Several individuals had volunteered their time to keep her shipshape. Work on her engine was undertaken by truck mechanics from CFB Uplands, Ottawa.<sup>13</sup> She was even berthed in local Ottawa-area marinas to make her yearly transition from storage to water a less painful experience.

*Pogo's* lack of maintenance meant that she eventually started to become mechanically unreliable. This was evident in the summer of 1985 when the *Pogo* was to undertake a 10-day voyage down the Ottawa River to Montreal then up to Kingston via the St. Lawrence and back to Ottawa through the Rideau Canal system. Considering that Dows Lake is somewhat confining for the *Pogo* to operate freely, this voyage was a test of her capabilities. Unfortunately she broke down and did not make the trip until the following year.

In the end it took a war and an accident to end the service life of *Pogo*. During the Persian Gulf War of 1990 the Canadian Navy discovered the durability and reliability of rigid hull inflatable boats or RHIBs. Their findings led to a proposal to equip all of the Naval Reserve establishment with these boats to ensure a uniformity of craft.



**Left:** Pogo's starboard side as seen from the objects and conservation workshop. The Naval designation "Yard Ferry Light - 104" is clearly marked on her well used hull. **Right:** Stern view of Pogo on her temporary cradle at Vimy House, the Canadian War Museum's storage facility. (Photos by Bill Kent, CWM Collection)

This would create a better support system for maintenance and operations. By 1993 HMCS *Carleton* was being offered the largest model of these craft if the *Pogo* was taken out of service. The final factor which beached *Pogo* was an accident at the Gatineau Marina which cracked her rudder skeg and split several of her deck welds. At this time the *Pogo* was operating out of the Rockcliffe Marina on the Ottawa River and was taken downriver to the Gatineau to put her into storage for the winter. While she was slung in the travel lift, one of her lifting lugs broke off and she fell stern first on to the pavement. Faced with either a repair bill or a new 21-foot RHIB, the decision on *Pogo's* future was soon settled.

When staff at the Canadian War Museum heard that *Pogo* was going to be taken out of service, they expressed a deep interest in obtaining her for the collection. The Museum indicated to the Navy that they would be pleased to accept *Pogo* due to her significant career working off the *Labrador*. She was transferred from the Department of National Defence to the Canadian War Museum in the summer of 1995. After many years of service with the Canadian Coast Guard, the *Labrador* was decommissioned on 28 May 1987, and sold to an American firm as a possible Antarctic cruise ship. On the other hand the little *Pogo* will undergo a period of restoration and refit to restore her as she appeared in 1954 as the *Labrador's* hydrographic survey launch. In the future she will continue to serve Canada as an interpretive reminder of our contributions to Arctic exploration and our commitment to international security.

## Notes

1. Tony Germain, *The Sea is at our Gates: The History of the Canadian Navy* (Toronto: McClelland & Stewart) p.250.
2. *Ibid.*
3. Interview with Harold Fernberg, 2 August 1996. Mr. Fernberg spent two and a half years with Marine Industries Ltd. and was the hull designer for HMCS *Labrador's* auxiliary boats which included the *Pogo* and two landing craft. Mr. Fernberg is the author's father and was a major source of information for this article.
4. *Montreal Gazette*, 12 June 1954.
5. T.A. Irvine, *The Ice Was All Between* (Toronto: Longmans, Green and Company, 1959), p.68.
6. *Ibid.*, p.90.
7. Interview with Harold Fernberg.
8. *Quebec Chronicle-Telegraph*, 27 September 1957.
9. Sharon Hobson, *The Composition of Canada's Naval Fleet 1946-85* (Halifax, NS: Centre for Foreign Policy Studies, Dalhousie University, 1986), p.29.
10. Thomas E. Appleton, *Usque Ad Mare: A History of the Canadian Coast Guard and Marine Services* (Ottawa: Department of Transport, 1968), p.182.
11. Interview with Patrick Warner, 7 August 1996. Mr. Warner is an employee of the Canadian Coast Guard and a former naval reserve Lieutenant. For several years he was the Boats Officer in charge of *Pogo* and all the small boats of HMCS *Carleton*.
12. *Ibid.*
13. The original Red Wing engine was replaced by a Perkins T6-345 marine diesel. The Perkins engine was also built as a Chrysler truck engine and, because the parts were interchangeable, an army truck mechanic could be tasked to make repairs.

Eric M. Fernberg is a history graduate from Concordia University, Montreal, and is employed as a cataloguer at the Canadian War Museum.