

A LENS ON VANCOUVER'S PAST 2

WALTER FROST'S ARCTIC EXPLORERS (1920-1976)

FLORIS VAN WEELDEREN

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Floris van Weelderren, 2023

www.hal-vas.com

First printing 2023

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ISBN: 978-1-7774016-3-4

Any errors and omissions are completely mine - Floris van Weelderren

Other books in this series:

A LENS ON VANCOUVER'S PAST: Walter Frost's Holland America Line (1920-1975)

GATEWAY TO THE PACIFIC: Prominent Piers & Wharves in Vancouver

Homeport – the seaport from which a ship hails or from which she is documented

VAS – Radio callsign of the former Vancouver Harbour Marine Communications and Traffic Services (MCTS) Centre

DEDICATION

This project is dedicated to the members of the Panipakuttuk family, namely:

- Joe and Letia Panipakuttuk;
- Panikpak, Joe's mother;
- Aariak, their fifteen-year-old son;
- Pallug, their nine-year-old daughter;
- Soopi Viguq, their four-year-old daughter;
- Kalluk, their two-year-old son; and
- Mary Panigusiq, their six-year-old niece.¹

This Inuit family, who along with their seventeen dogs embarked on the *R.C.M.P. Schooner St. Roch* at Pond Inlet (Mittimatalik) for her 86-day westbound voyage in 1944 through the Northwest Passage to Herschel Island (Qikirtarjuaq). Hired to hunt, advise on navigation, sew clothing for the crew, and generally assist with the passage, the Panipakuttuks “contributed in no small way to the realization of the dream and the success of the history-making voyage.”²

Then it would take over two years for the Panipakuttuks to return to their home in Mittimatalik, travelling more than 2,500 km from Qikirtarjuaq by schooner and sled.



The Panipakuttuk family (less Joe and Aariak) sitting on the deck of the *St. Roch*. Letia Panipakuttuk is centre with baby Kalluk in her amauti, Panikpak is on the right, the two daughters—Pallug and Soopi—are playing in the background. Mary is in the foreground near Letia.

(Vancouver Maritime Museum, HISG-40-01, 1944)

CONTENTS

DEDICATION.....	iii
ACKNOWLEDGEMENTS.....	iv
INTRODUCTION.....	1
WALTER EDWIN FROST.....	2
THE ARCTIC.....	3
PORT OF VANCOUVER.....	7
THE SELECTED WORKS.....	9
AUX. S. LADY KINDERSLEY.....	10
S.S. BAYCHIMO.....	12
S.S. ANYOX.....	14
M.S. FORT HEARNE.....	16
M.S. BANKSLAND.....	18
R.C.M.P.S. ST. ROCH.....	20
H.M.C.S. LABRADOR.....	22
S.S. KINGSBRIDGE.....	24
C.C.G.S. CAMSELL.....	26
C.C.G.S. JOHN A. MACDONALD.....	28
C.G.S. SIMON FRASER.....	30
M.V. DUHALLOW.....	32
M.V. COTSWOLD.....	34
M.V. BUCCLEUCH.....	36
M.V. DELTADRECHT.....	38
M.V. DUIVENDRECHT.....	40

M.V. DORDRECHT	42
GLOSSARY	44
ABOUT THE AUTHOR	46
BIBLIOGRAPHY	47
ENDNOTES.....	48

ACKNOWLEDGEMENTS

This adventure in researching, documenting, and sharing the life and times of Walter Frost as well as the technical details, interesting facts, and figures of these 17 vessels, which called Vancouver home or visited the port, could not have been possible without expressing gratitude and appreciation to the territories through which they sailed and honouring the Indigenous peoples who have lived and worked on these waters and land from time immemorial.

The areas of the Arctic where these vessels were primarily destined include all four **Inuit** homelands in Canada that make up **Inuit Nunangat**. From west to east, these waters and lands include the *Inuvialuit Settlement Region*, the territory *Nunavut*, *Nunavik* in northern Québec, and *Nunatsiavut* of Newfoundland and Labrador.³ The Inuit face tremendous challenges, often the result of colonization and exploitation of land and energy resources. For instance, for hundreds of years, European and Asian explorers interacted with Inuit communities in Inuit Nunangat, searching for the North Pole and the elusive “Northwest Passage.” Increased contact with Europeans and European Americans often came with conflict. Inuit social structure, schools, and language were replaced with Western traditions. Starting in the late 20th century, regional, national, and international organizations increasingly recognized the political and cultural sovereignty of Arctic peoples. Rights to land and natural resources are an important part of this sovereignty. An agreement between the government of Canada and Inuit bands, for instance, ultimately resulted in the creation of the territory of Nunavut in 1999. More than half the population of Nunavut identifies as Inuit, and Inuktitut is the most-spoken language.⁴

The Port of Vancouver’s terminals, wharves and piers sit on the unceded traditional territories of the **Musqueam, Squamish, and Tsleil-Waututh Nations**, who relied on the waters of the Burrard Inlet and have a saying “When the tide goes out, the table is set” — referring to the abundance of food that came from the inlet.⁵

Lastly, this adventure would not have been possible without the financial, technical, and moral support of the following people and organizations.

- **The van Weelderen family**
- **Duncan MacLeod** – Maritime and Arctic Researcher

And special thanks to **Yvon Lantaigne** of Studio Madillo Creative Services Inc. for the excellent work on the creation of all maps and archival photo enhancements.

INTRODUCTION

WALTER EDWIN FROST

Walter Edwin Frost was born in Vancouver in 1898. A machinist, he was an avid amateur photographer who lived his entire life in the Terminal City documenting city scenes; ships docking at various piers and wharves; and steam and diesel locomotives and other railway equipment. The eldest of five children, Walter grew up with his sister and brothers in Chinatown (263 Keefer) and then in Grandview-Woodland (1519 William). After the family home was incorporated into the Britannia Community Centre's grounds, he moved into a house built by the brothers (1985 East 6th). A decade later, the consummate bachelor moved into a second house built by the brothers (2347 Wall), which overlooks the waterfront. Mechanically inclined, Walter successfully apprenticed as a machinist before moving on to work as a shipper, helper, carpenter and finally as a school engineer.

Shortly after the First World War, Walter Frost bought a Kodak roll film camera and began to photograph his city and the ships and trains that carry its life-blood. Never one to have a driver's license, he traveled around Vancouver by bicycle and streetcar with camera in hand. When Walter stopped taking photographs in 1976, he had amassed a collection of 13,369 negatives; developed at home and many stored in old tobacco tins. Fully 75% of his legacy consists of ship photographs documenting all types of maritime traffic in and out of Vancouver over 56 years. From elegant liners and spit-polished warships to rusted tramp steamers, the thousands of photographs also include 17 photos of vessels which passed by the Aleutian Islands, through the Bering Sea separating Asia and North America, to reach the Beaufort Sea and Arctic Ocean; some of these would never return.

In 1985, Walter Frost entrusted his extensive collection of prints and negatives to the City of Vancouver Archives. The City exhibited "Terminal City Photographs" in 1986 as a sneak preview to give Vancouverites a glimpse of the rich new collection. It was only fitting that the city should see this collection during Expo 86; Walter's donation was an incredibly special birthday present to his city in its 100th year. The following summer, the Maritime Museum of BC exhibited his work in Victoria. Walter died in Vancouver in 1988 at age 90.



THE ARCTIC

Vast.

Beautiful.

Unforgiving.

The Arctic is the northernmost region of Earth. Most scientists define the Arctic as the area within the Arctic Circle, a line of latitude about 66°, 30' north of the Equator. Within this circle are the Arctic Ocean basin and the northern parts of Canada, Greenland, Scandinavia, Russia, and the U.S. state of Alaska.

During the Northern Hemisphere's winter months, the Arctic is one of the coldest and darkest places on Earth. Following sunset on the September equinox, the Earth's tilted axis and its revolution around the sun reduce the light and heat reaching the Arctic until no sunlight penetrates the darkness at all. The sun rises again during the March equinox increasing the light and heat. By the June solstice, the Arctic experiences 24-hour sunshine.

The Arctic is almost entirely covered by water, much of it frozen. Some frozen features, such as glaciers and icebergs, are frozen freshwater. Most of the Arctic, however, is the liquid saltwater of the Arctic Ocean basin. Some parts of the ocean's surface remain frozen all or most of the year. This frozen seawater is called sea ice.

Four Inuit homelands in Canada make up Inuit Nunangat. From west to east, these waters and lands include the Inuvialuit Settlement Region, the territory Nunavut, Nunavik in northern Québec, and Nunatsiavut of Newfoundland and Labrador. These northern waters consist of the Arctic Ocean, the Beaufort Sea, Hudson Bay, and various channels and straits between the islands of the Arctic Archipelago. The Arctic Ocean is connected to the Atlantic Ocean by

numerous channels through the Arctic Archipelago to Baffin Bay and the Labrador Sea, and via the Greenland and Norwegian Seas. These waters are covered with sea ice, either seasonal or multi-year ice, which can be several meters thick. The distribution and thickness of sea ice are extremely variable. Permanent pack ice occurs in the central Arctic Ocean, while open waters develop late each summer off the west coast of Banks Island and in the Beaufort Sea. Hudson Bay freezes by the end of December and begins to clear in July. Nonetheless with the exception of landfast ice within the Archipelago and along coastlines, the sea ice is in constant movement.

The Canadian Arctic provides four main routes for marine shipping: one from the Pacific via the Bering Strait and Chukchi Sea and around Alaska to the Beaufort Sea, a second up the Mackenzie River to the Beaufort; a third from the Atlantic through Davis Strait, Baffin Bay and the Arctic Archipelago via the Northwest Passage to the Beaufort; and a fourth from the Atlantic to the Port of Churchill and other communities in Hudson Bay via Hudson Strait. All four are typically open to shipping during the short open water season.

Winter shipping is tremendously more difficult than summer shipping. Sea ice is stronger and consolidated from shore to shore without the cracks that make it easier for a ship to pass through. Furthermore, near-total darkness and very low temperatures make winter navigation exceedingly hazardous. Finally, multi-year sea ice, although receding due to climate change, is still present all year around. Since sea ice hardly softens in summer, it poses a serious

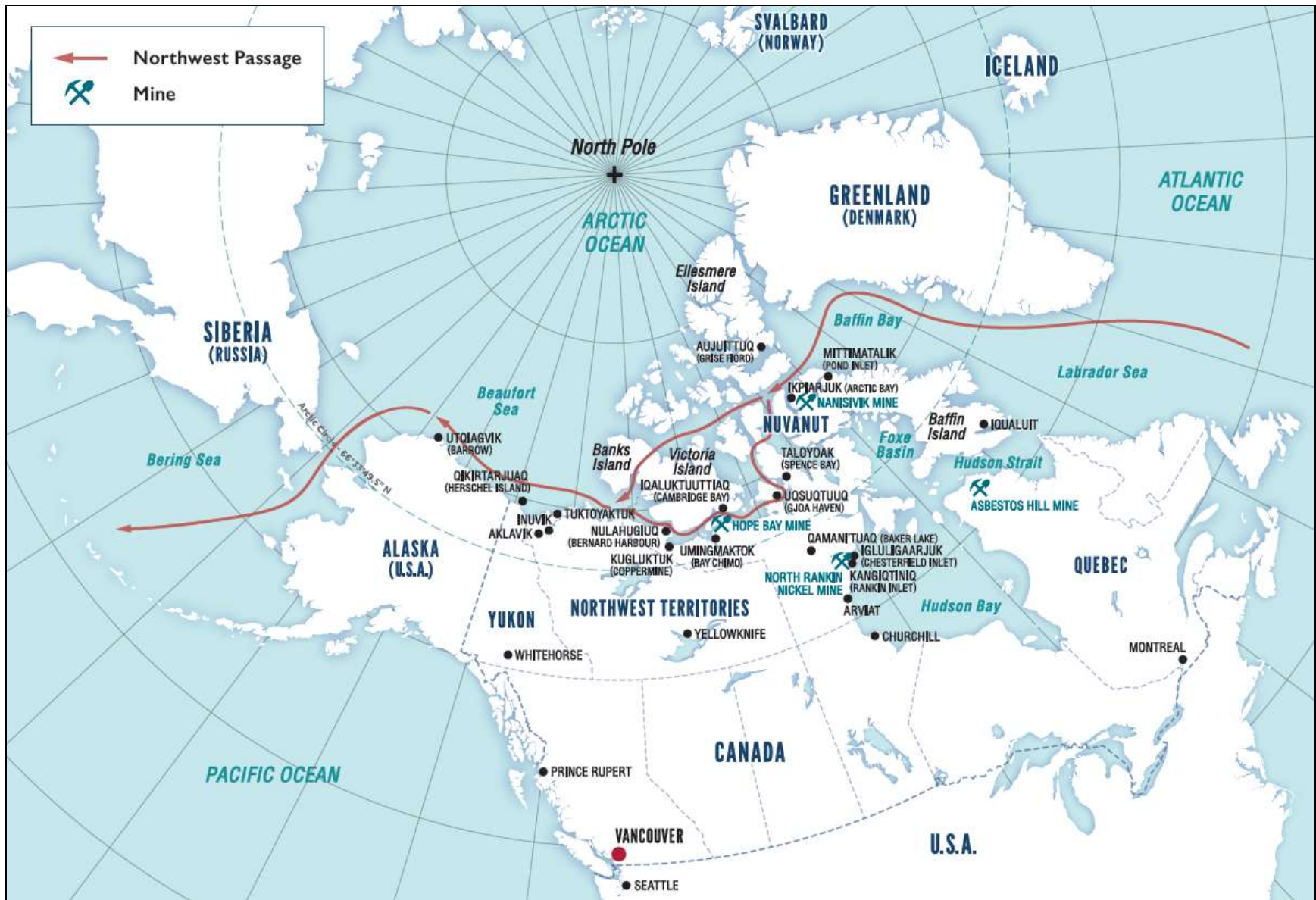
hazard to shipping in both winter and summer.

From the Port of Vancouver, the route to reach Herschel Island (Qikirtarjuaq) in the Western Arctic is a challenging 3,600-mile transit. Vessels departing Vancouver proceed out the Juan de Fuca Strait then follow a great circle route to the Bering Sea via passage through the Aleutian Islands. After transiting the Unimak Pass near Unalaska, ships passed through the Bering Strait to enter the Chukchi Sea and then east to the Beaufort Sea. Alternatively, ships might travel via the Inside Passage waters to the north end of Vancouver Island or northwards to Prince Rupert before crossing the often storm-wracked Gulf of Alaska.

Then, as now, inbound ships traveling around Point Barrow for Herschel Island and beyond have to adjust their sailing to the brief navigation window. It is only during a brief 80-day period between mid-

July and mid-September when “balmy” southerly winds may loosen the polar ice fields from its wintery grip on the shores at Barrow (Utqiagvik) and shove the ice pack out from the land, leaving narrow ice-dotted lanes of open water to the wider relatively ice-free seas of Canada’s Beaufort Sea.

Voyages homeward must commence in the remaining days of mid-September while the southerly winds continue to hold the ice pack off-shore. As the summer wanes in those far north seas, the polar ice pack drifts back to shore, locking itself with thunderous crashes and high-flying fragments of ice and spray. Then for another ten or eleven months, the marine route around Point Barrow is barred completely. More than once, outbound ships from Herschel Island and beyond have slipped through the narrowing channel between shore and ice and seen the ice lock with the shore right under the sterns of fleeing vessels.



Canada's Arctic and the Northwest Passage



Seasonal Extent of Sea Ice in the Bering-Chukchi-Beaufort region (2013)

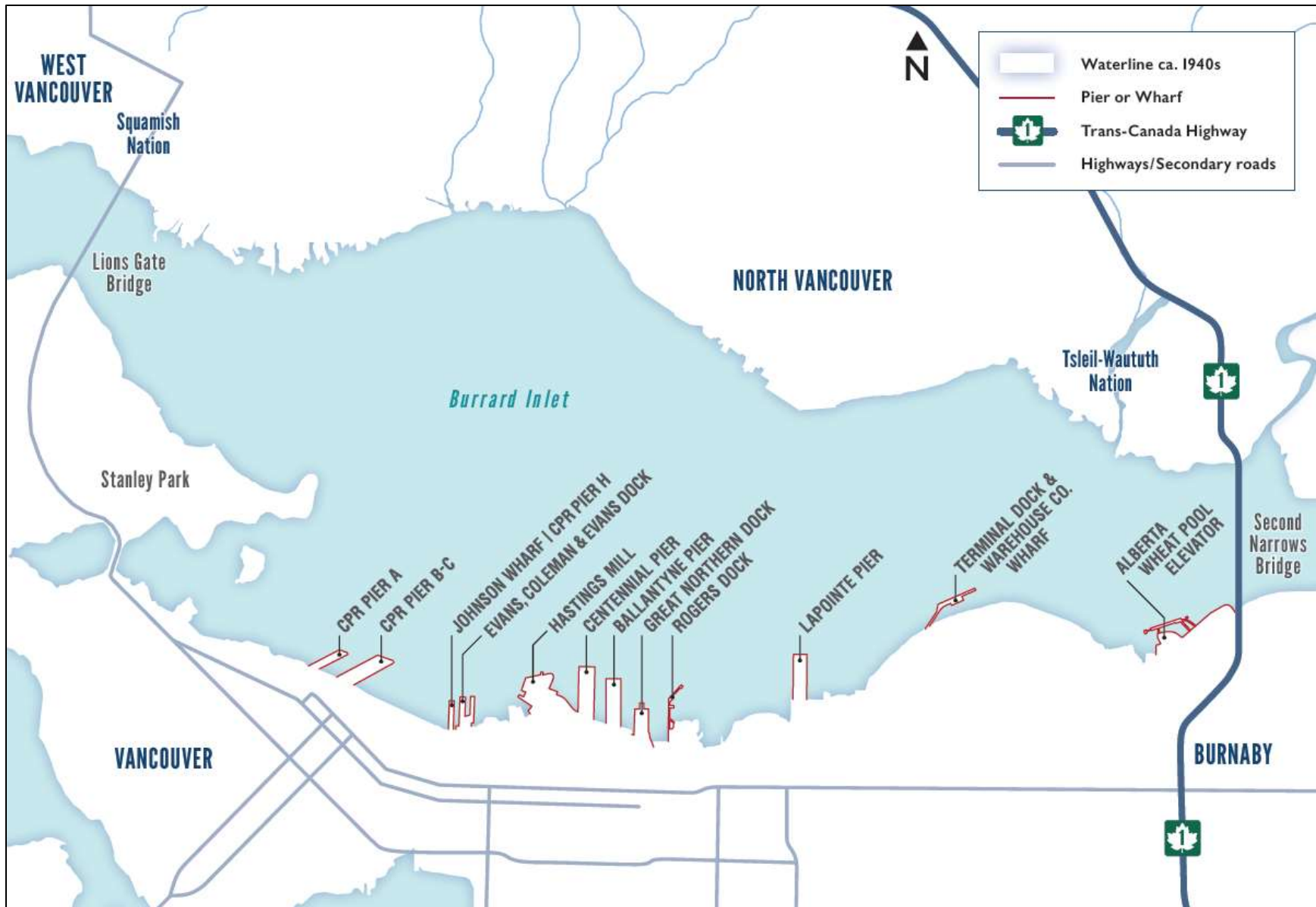
PORT OF VANCOUVER

Canada's largest port extends from Roberts Bank and the Fraser River up to and including Burrard Inlet. Home to 27 major terminals, the Port of Vancouver handles the most diversified range of cargo in North America: bulk, containers, breakbulk, liquid bulk, automobiles, and cruise.

Propelled by the fur trade, the Port of Vancouver played a pivotal role in the establishment of Canada's presence and sovereignty in the Western Arctic that led to the founding of settlements along the Northwest Passage. As the Hudson's Bay Company (HBC) was a late-comer to the fur trade in the Western Arctic, entering the market in 1913 when the company realized it was missing out on the valuable arctic fox trade. At that time, ocean transport around Alaska was cheaper and more effective than the Mackenzie River route.

Consequently, Burrard Inlet's south shore served as homeport for many of the vessels – mostly small and some large – that have and continue to explore the Western Arctic, trade with its indigenous peoples, extract the Arctic's natural resources, transit the Northwest Passage, and project Canada's sovereignty over the North from Herschel Island (Qikirtarjuaq) in the Yukon Territory to the Arctic Archipelago which comprises most of Nunavut.

Vessels calling Vancouver home or visiting the port range in size from small wooden-hulled ships like the *RCMP Schooner St. Roch* to the Hudson's Bay Company's cargo steamer *SS Baychimo*, the heavy icebreaker *CCGS John A. Macdonald*, and huge bulk carriers such as the *MV Dordrecht*.



Prominent Piers and Wharves on the Port of Vancouver's South Shore (ca. 1940's)

THE SELECTED WORKS
17 PHOTOGRAPHS
(IN ORDER OF FIRST ARCTIC VOYAGE BY PURPOSE)

AUX. S. LADY KINDERSLEY

TECHNICAL DATA

- Type: Schooner, three-masted
- Shipbuilder: B.C. Marine Engineering & Shipbuilding Co. Ltd., North Vancouver, B.C., Canada
- Tonnage (GRT): 714
- Length: 61.0 m
- Service Speed: 8
- Propulsion: Single Screw; 2-stroke 4xcylinder semi-diesel engine; 350hp
- Complement: 20
- Passengers: 5
- Cargo Handling: 3 Masts (M,M,M,F)
- Tonnage (NRT): 515
- Year Delivered: 1921
- First Arctic Voyage: 1921
- Final Fate: Lost 1924

INTERESTING FACTS & FIGURES

THE FUR TRADE

- In the Western Arctic, the Hudson's Bay Company (HBC) opened one post prior to the First World War, at Kittigazuit, which was between Aklavik and Tuktoyaktuk. Between 1914 and 1919, only five posts were opened, but as in the East, the vast majority – 21 posts – were opened in the 1920's. Activity slowed down in the 1930's when only eight posts were opened. The market for white fox, which was the primary pelt supporting the Company's Arctic operations, collapsed in 1949; consequently, HBC changed from fur trader to retailer.⁶

THE SHIP

- A wooden three-masted schooner, the *Lady Kindersley* was built for service in the HBC's Western Arctic trade. Designed to withstand the terrific pressure of Arctic ice floes, her solid hull consisted of Douglas fir and cedar with ironbark sheathing. Other features included a 350 hp semi-diesel engine and wireless apparatus.⁷ The ship (named after the wife of the 28th Governor of the HBC, Sir R.M. Kindersley) was built in Vancouver and launched at high tide on March 21, 1921.
- The *Lady Kindersley* (Capt. G. Foelmer, master) made two successful voyages, but on August 3, 1924, the outbound ship was caught off the Alaska coast by the ice pack. Throughout the balance of the month, master and crew fought to break free, but in vain. The ice was fought with ship's power, axes, dynamite, and steam until she was in a little lake, about as wide as herself but a little longer. Finally when the ship was bound fast on August 31st, Capt. Foelmer gave the order to abandon ship and her million-dollar cargo. The survivors started across the badly broken-up ice out for the rim, six miles distant, where the *Boxer*, an American rescue ship lay. A rescue party consisting of the *Lady Kindersley's* Supercargo and First Mate along with six Inupiat hunters set out from the *Boxer* and met the survivors about 1.5 miles from the rescue ship. Both parties returned safely to the *Boxer*.⁸
- The *Lady Kindersley* was never to be seen again; however, it was rumoured that Siberian indigenous people looted the ship somewhere off the mouth of the Kolyma River.⁹



The Auxiliary Schooner *Lady Kindersley* moored at the Evans, Coleman & Evans Dock.
(Vancouver Archives, CVA 447-2391.1, Photographer - Walter E. Frost)

S.S. BAYCHIMO

TECHNICAL DATA

- Type: Freighter
- Shipbuilder: Lindholmen Shipyard, Gothenburg, Sweden
- Hull Number: 420
- Tonnage (GRT): 1,322 tons
- Displacement: 796 tons
- Length: 70.1 m
- Service Speed: 10 kts
- Propulsion: Single Screw; Triple expansion steam engine; 600ihp
- Complement: 37
- Cargo Handling: 3 Derricks (M,M,F)
- Tonnage (NRT): 1,075 tons
- Year Delivered: 1914
- First Arctic Voyage: 1921
- Final Fate: Lost 1931

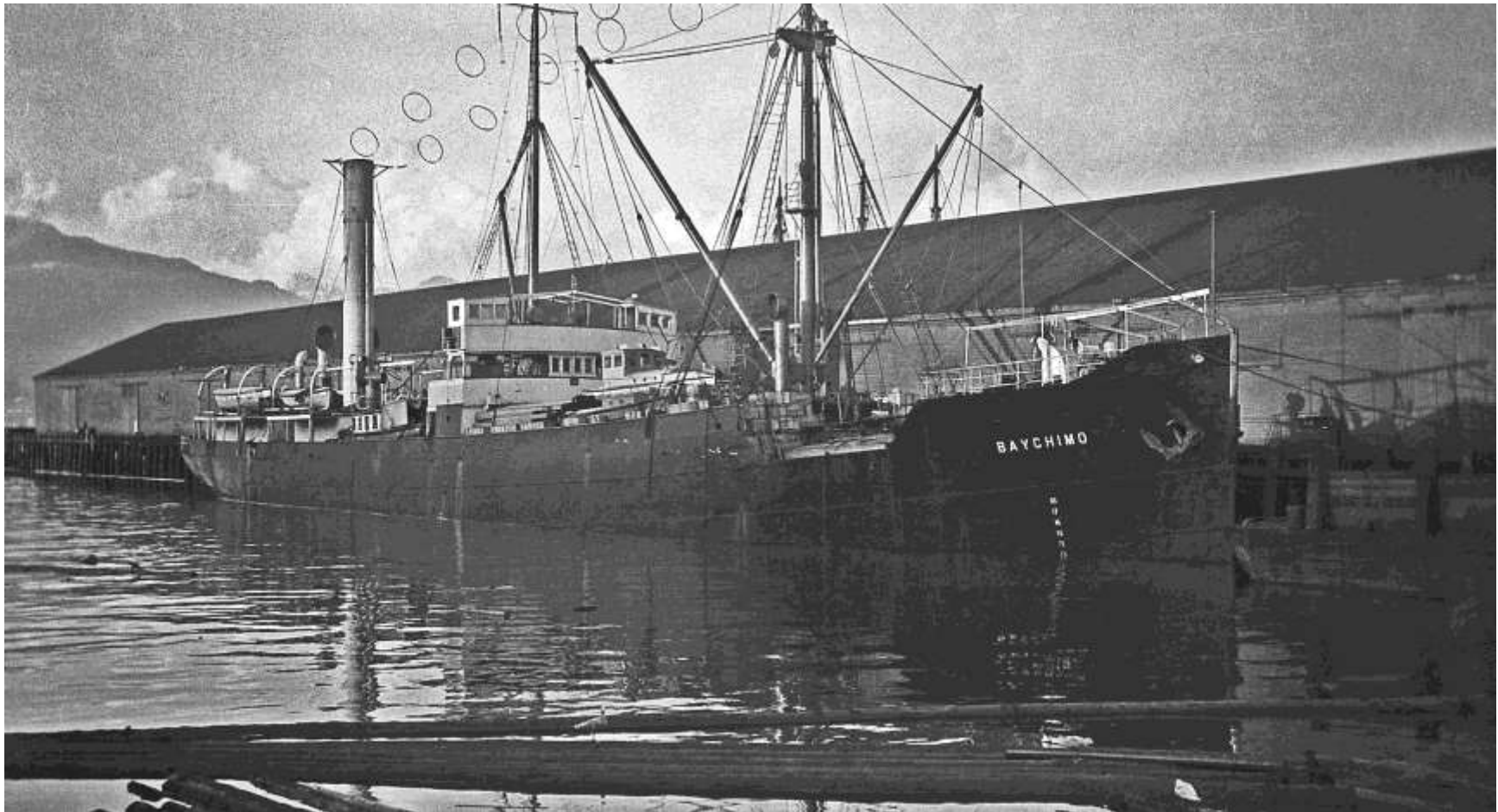
INTERESTING FACTS & FIGURES

THE FUR TRADE

- When the Hudson Bay Company (HBC) entered the Siberian fur trade in 1922, an annual sealift was also needed to supply its overseas stores and posts for the following year and collect pelts from the year prior. Vessels would depart Vancouver for Petropavlovsk on the coast of Kamchatka. From there, they steamed through the Bering Strait around East Cape, the most northerly point in Siberia, into the Arctic Ocean before returning to Vancouver by October.¹⁰

THE SHIP

- Launched in 1914, the 1,300-ton German-flagged steamship *Angermanalfven* spent her early years plying between Baltic ports in northern Germany and Sweden. Seized by the British after the First World War as part of German post-war reparations, she was purchased by the HBC in 1921 and re-christened *Baychimo*.
- The *Baychimo*'s Arctic service commenced in the Eastern Arctic.¹¹ When assigned to Vancouver in May 1922, the *Baychimo* (Capt. B.C. Edmonds - master) returned in October after spending five months in Siberia, visiting settlements and trading posts.¹² In 1925, the *Baychimo* (Capt. S.A. Cornwall - master) was transferred to the Western Arctic service to replace *Lady Kindersley*. That same year, the outbound *Baychimo* found herself stuck fast in the ice. Fortunately, she broke free after a month returning to Vancouver with two years' catch of white fox.¹³
- The *Baychimo* made five more successful voyages until 1931. On her attempt to regain the Bering Sea and North Pacific, all went well with the *Baychimo* until she had a scant hundred miles to go to reach the open ocean. But soon after rounding Point Barrow, impenetrable ice floes were encountered, driven hard against the Alaskan coast by the westerly winds. The *Baychimo* was stuck. The crew made a camp ashore using hatches, tarpaulins, and other materials from the vessel. They also lightered practically all cargo except for a few bales of cheaper furs. After a two-day blizzard broke on November 29, 1931, the *Baychimo* had disappeared. The master concluded that she must have broken up and sunk in the storm. Capt. Cornwall then brought out his crew out by plane and steamer.¹⁴



The SS *Baychimo* moored at the Evans, Coleman & Evans Dock sometime between 1922 and 1931.
Note the wireless antenna strung between funnel and foremast.
(Vancouver Archives, CVA 447-1987, Photographer - Walter E. Frost)

S.S. ANYOX

TECHNICAL DATA

- Type: Freighter
- Shipbuilder: Winslow Marine Railway & Shipbuilding Co., Bainbridge Island, WA, USA
- Hull Number: 142
- Tonnage (GRT): 1,267 tons
- Length: 58.9 m
- Service Speed: 0 kts
- Propulsion: Single Screw; Triple expansion steam engine; 800hp
- Complement: 25
- Passengers: n/a
- Cargo Handling: 3 Derricks (M.F.M)
- Tonnage (NRT): 0 tons
- Year Delivered: 1917
- First Arctic Voyage: 1933
- Final Fate: Lost 1948

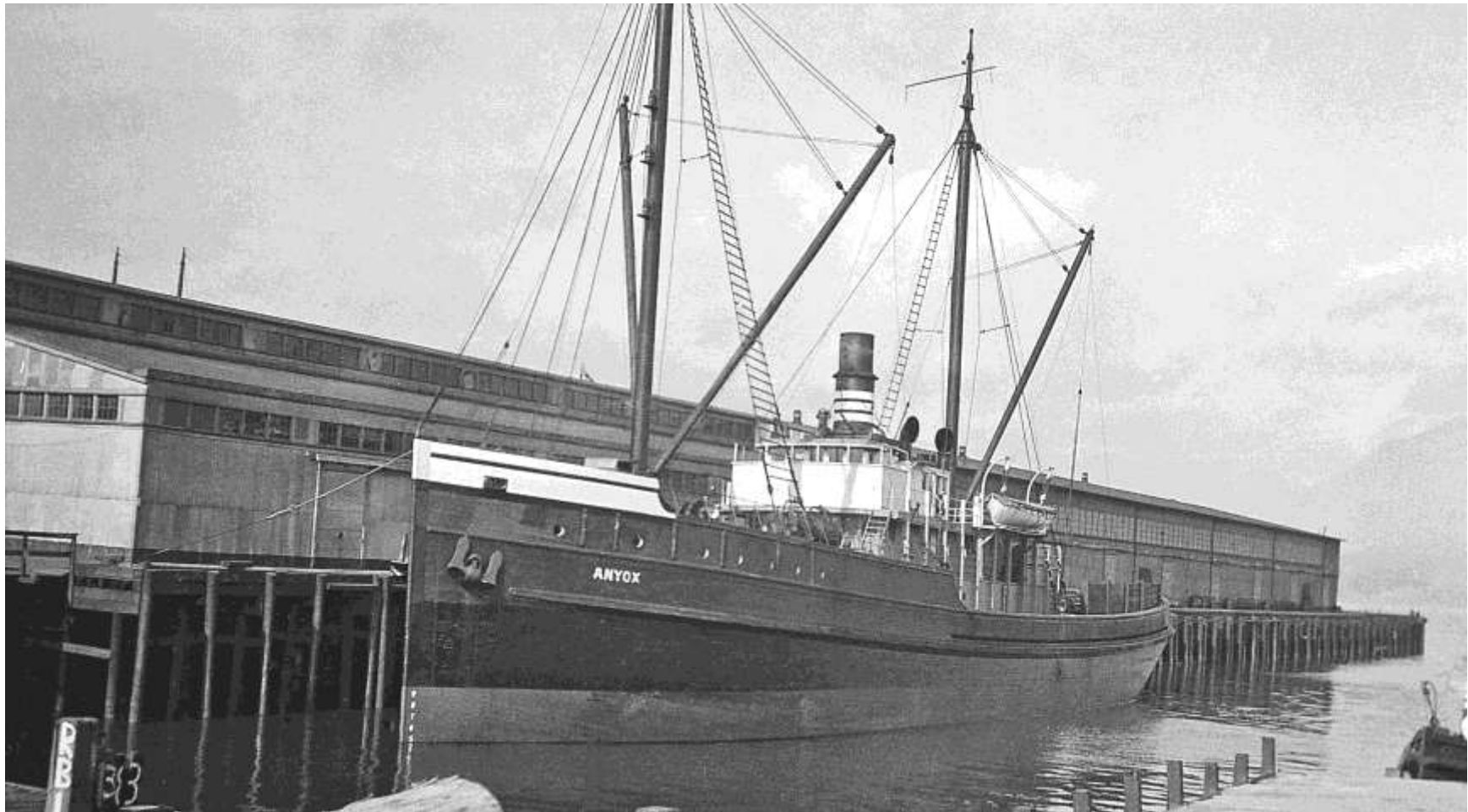
INTERESTING FACTS & FIGURES

THE FUR TRADE

- The Hudson's Bay Company experimented with overland supply from Hudson Bay in 1928. However, ocean shipping continued until improvements were made to the Mackenzie River transportation, and the port of Tuktoyaktuk was established on the arctic coast (near the eastern side of the Mackenzie Delta) in 1934. With this improvement, regular voyages from Vancouver were halted, and most shipments were made via the Mackenzie River system—with goods consigned to Tuktoyaktuk.

THE SHIP

- The SS *Anyox* was named for the small company-owned mining town of Anyox in northern B.C. The town is located in the traditional territories of the Nisga'a, southeast of (but without a land link to) Stewart, the nearest settlement. Anyox means “hidden waters” in the Nisga'a language.¹⁵ The *Anyox* started her service in 1917 carrying copper concentrates along the Pacific Coast.
- On July 15, 1933, cruise ‘twenty-one’ of the HBC’s annual Arctic adventure got underway when the stout wooden-hulled SS *Anyox* (Capt. B.D.L. Johnson - master) under charter from Pacific Salvage Co. Ltd. departed Vancouver for the Western Arctic.¹⁶ Northbound with a heavy cargo destined for HBC and RCMP posts of the Western Arctic, the *Anyox* made good progress until she encountered the ice pack, which was 200 miles further south than it usually was that July. Entering the edge of the ice floe, the steamer was put at dead slow and nosed steadily ahead. On July 27th about fifteen miles off Point Lay, AK, ice breached the hull and water rushed in. After the crew had patched the holes in her hull, the USCGC *Northland* arrived to escort *Anyox* to Teller, AK. The *Anyox* was forced to return to Vancouver with the cargo destined for the various Arctic posts, arriving on August 24th via Dutch Harbour, AK where temporary repairs were affected.¹⁷
- In 1948, the *Anyox* (renamed *Sheng Li* by her latest and final owners in 1946) was destroyed by fire on the Huangpu River in China and declared a total loss.¹⁸



The Coastwise Steamship and Barge Co., Ltd.'s SS *Anyox* moored at the Great Northern Dock sometime before she was purchased by the Pacific Salvage Co. Ltd. in 1930.
(Vancouver Archives, CVA 447-1943, Photographer - Walter E. Frost)

M.S. FORT HEARNE

TECHNICAL DATA

- Type: Freighter
- Shipbuilder: John Etherington Shipbuilding Co. Ltd., Shelburne, NS, Canada
- Hull Number: 0
- Tonnage (GRT): 382 tons
- Length: 44.3 m
- Service Speed: 0 kts
- Propulsion: Single Screw: 2-stroke single-acting 8xcylinder diesel engine; 480hp
- Complement: 12
- Cargo Handling: 2 Derricks (M.F.M)
- Tonnage (NRT): 297 tons
- Year Delivered: 1949
- First Arctic Voyage: 1949
- Final Fate: Lost 1961

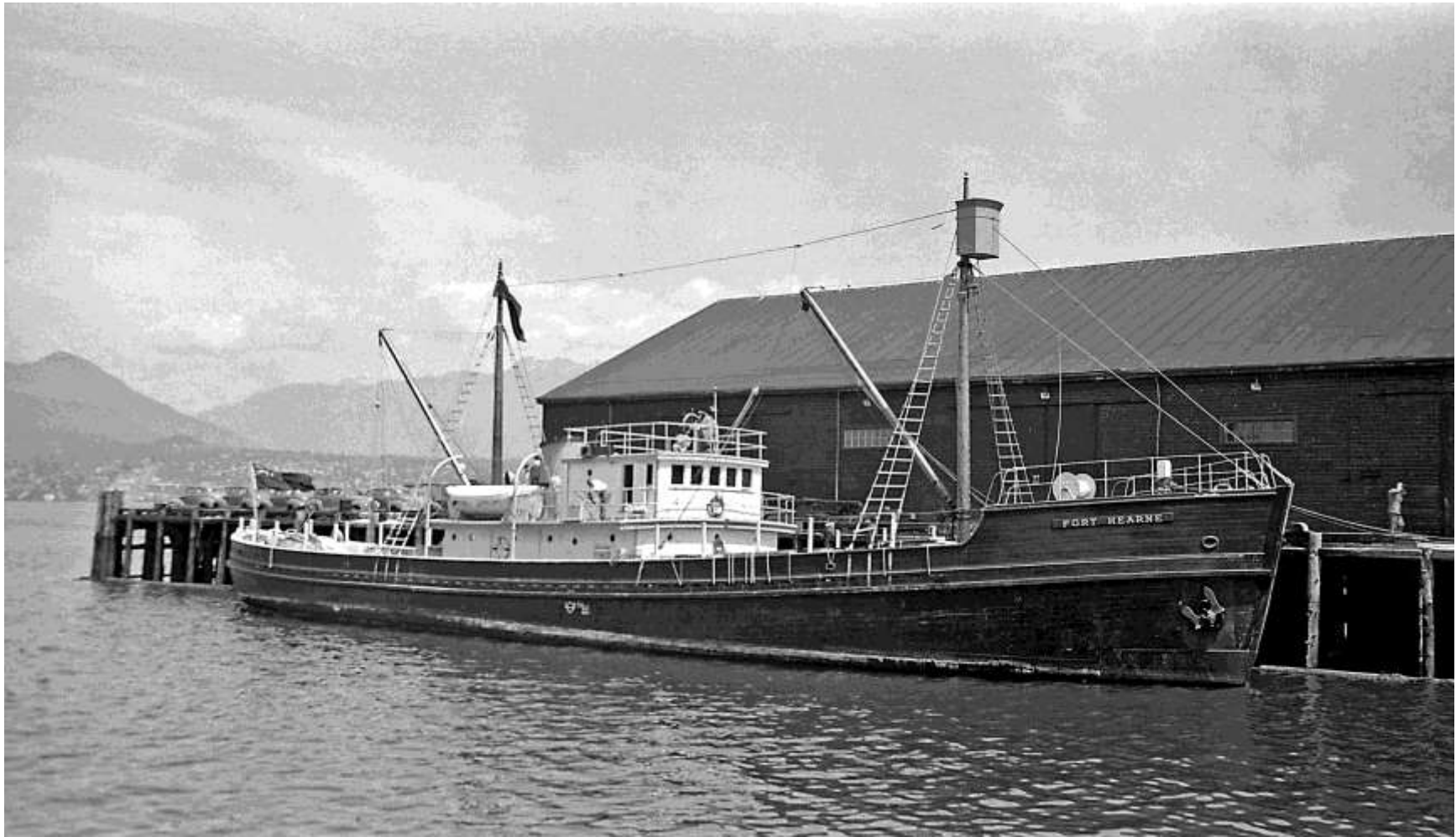
INTERESTING FACTS & FIGURES

THE FUR TRADE

- After the *Anyox* aborted her 1933 inbound voyage, the decision was made by the Hudson's Bay Company to use the Mackenzie River with transshipment at Tuktoyaktuk. Unfortunately, the HBC also had problems with its internal distribution vessels, losing the *Fort McPherson* in 1930 and the *Fort James* in 1937.¹⁹

THE SHIP

- In the summer of 1949, the heavily-built wooden freighter *MS Fort Hearne* - specially strengthened for service in the northern ice - made her maiden voyage from Port Alfred in Quebec to Vancouver via Barbados, the Panama Canal, and San Pedro, CA. In Vancouver, the crew traded in their tropical worsteds for fur-lined winter clothing before steaming around Alaska to Iqaluktuuttiaq (Cambridge Bay), where she replaced the HBC's veteran supply ship *Fort Ross*.²⁰
- Her homeport would be Tuktoyaktuk, located 3,700 miles from Vancouver, at the mouth of the Mackenzie River. The *Fort Hearne* would serve out of 'Tuktuk' as a supply vessel and winter in the north. Every four years (1953, 1956, 1961), the *Fort Hearne* returned to Vancouver to complete her Lloyd's Register of Shipping survey and overhaul, ensuring her seaworthiness.²¹
- On July 18, 1961, the *Fort Hearne* (Capt. L.H. Adey – master) was badly holed by pack ice and her cargo ruined while making the first of three summer runs from Tuktuk to isolated HBC posts and other communities on the rim of the Arctic Ocean. The stricken ship was beached in 20 ft. of water when the CGS *Camsell* arrived to take off the 12-man crew and transport them about 15 miles away to the since de-commissioned HBC trading post of Nulahugiuq (Bernard Harbour).²² The *Fort Hearne* was abandoned in place but is reportedly still visible.²³



The wooden-hulled *MS Fort Hearne* at CPR Pier A on Thursday, July 7, 1949, while on her maiden voyage to the Arctic.
(Vancouver Archives, CVA 447-4639, Photographer - Walter E. Frost)

M.S. BANKSLAND

TECHNICAL DATA

- Type: Freighter
- Shipbuilder: N.V. Scheepswerf 'De Waal', Zaltbommel, Gelderland, NL
- Hull Number: 647
- IMO: 5035816
- Tonnage (GRT): 500 tons
- Length: 50.6 m
- Service Speed: 10 kts
- Propulsion: Single Screw: 4-stroke single-acting 6xcylinder diesel engine; 395bhp
- Complement: 12
- Passengers: n/a
- Cargo Handling: 2 Derricks (M,F)
- Tonnage (NRT): 308 tons
- Year Delivered: 1953
- First Arctic Voyage: 1956
- Final Fate: Still afloat 2023

INTERESTING FACTS & FIGURES

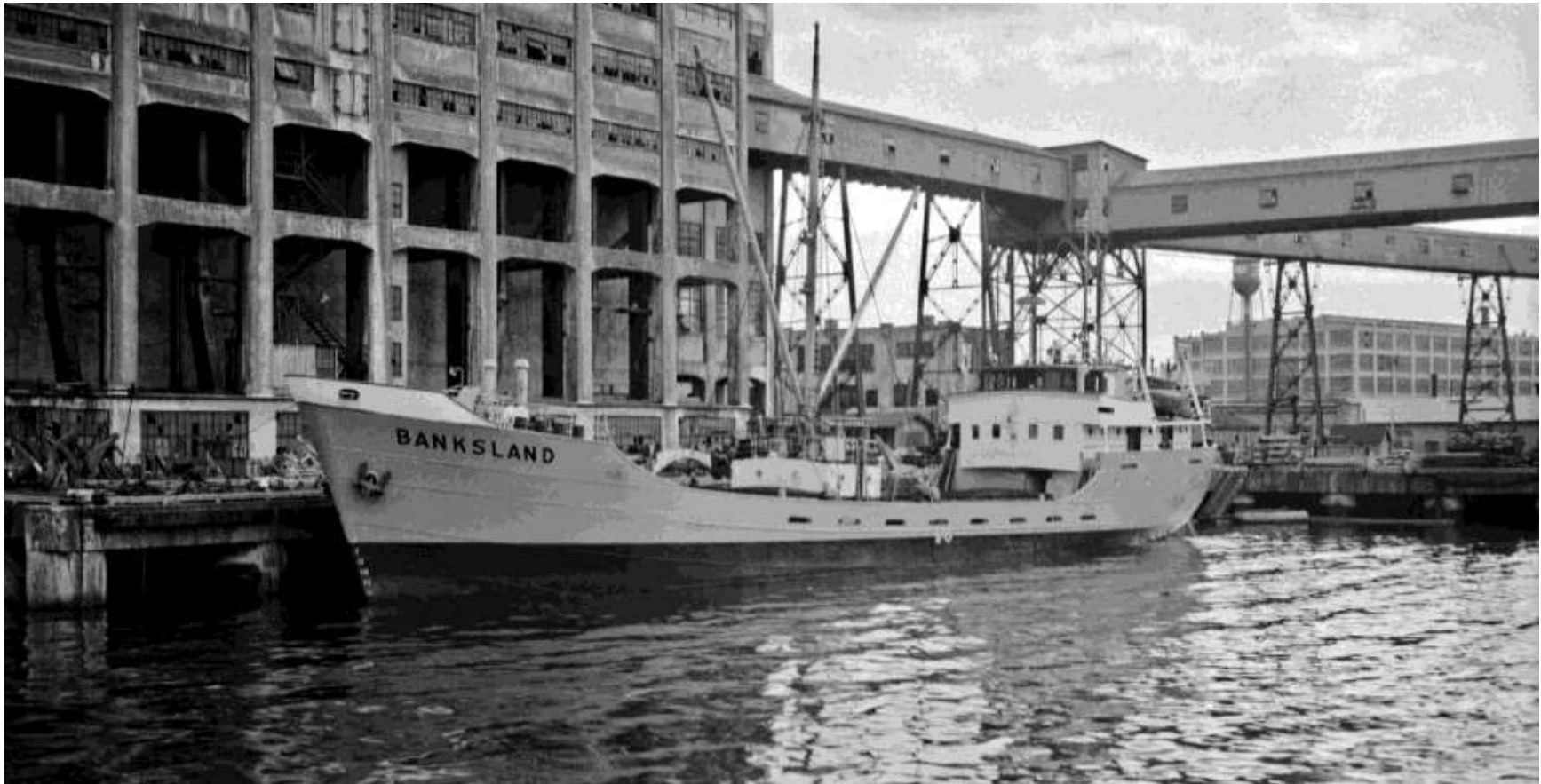
THE FUR TRADE

- The market for white fox, which was the primary pelt supporting Hudson's Bay Company (HBC) Arctic operations, collapsed in 1949, and in 1959 the Company's Fur Trade Department was renamed the Northern Stores Division.²⁴ They then sold the assets of its Mackenzie River transportation services until finally HBC sold its Arctic Ocean transportation services to Northern Transportation Company Limited (NTCL) in 1965. That deal in-

cluded the *Banksland* and allowed HBC to concentrate on its many other commercial interests south of the Arctic Circle.²⁵

THE SHIP

- Originally christened *Auriga* after the constellation "The Charioteer"; this steel coaster was purchased in 1956 by the HBC and re-christened *Banksland* after transiting to Vancouver from the Netherlands via the Panama Canal. Enroute, she called at Vancouver, WA, where she discharged a cargo of 350-tons of fertilizer after taking 47 days to make the voyage, averaging eight knots. She was the first HBC vessel in 109 years to call at what was once Fort Vancouver, the former capital of the HBC's great western empire.²⁶
- The *Banksland* was based in Tuktoyaktuk in the Mackenzie delta and carried supplies to the numerous trading posts ranging from Herschel Island (Qikirtarjuaq) in the west to Spence Bay (Taloyoak) east of Cambridge Bay (Iqaluktuuttiaq). She would pick up her cargo freighted down the Mackenzie River by barge and complete her deliveries in the two-month summer trading season and then winter in the north.²⁷ Like the *Fort Hearne*, the *Banksland* would periodically return to Vancouver to complete a survey and refit.
- After NTCL purchased the *Banksland* in 1965, she continued to work in the Western Arctic for another 15 years. Since 1980, the ship has had a series of new owners and names including *Banksland Surveyor* and *Salmon Seeker* and is currently operating in British Columbia waters as a floating salmon sport fishing camp wintering in Victoria, B.C.²⁸



The Hudson's Bay Company's recently re-christened *MS Banksland* at the wharf adjacent to VHC Grain Terminal No. 2 on Friday, July 6, 1956. (Vancouver Archives, CVA 447-3483, Photographer - Walter E. Frost)

R.C.M.P.S. ST. ROCH

TECHNICAL DATA

- Type: Patrol vessel
- Shipbuilder: Burrard Drydock Co. Ltd., North Vancouver, BC, Canada
- Tonnage (GRT): 197 tons
- Length: 27.4 m
- Service Speed: 0 kts
- Propulsion: Single Screw; 6xcylinder diesel engine; 150hp
- Complement: 8
- Cargo Handling: 2 Masts (M.M.F)
- Tonnage (NRT): 0 tons
- Year Delivered: 1928
- First Arctic Voyage: 1928
- Final Fate: Retired 1948 / Hauled ashore 1958

INTERESTING FACTS & FIGURES

SOVEREIGNTY

- Inuit and First Nations have occupied what is now the Canadian North since time immemorial. It was only in the early in the late 19th / early 20th century that Canada began asserting its sovereignty over the region. In response to the Klondike Gold Rush (1896-99) as well as the whaling and trading activities by U.S. and Scottish whalers in both the Eastern and Western Arctic, the Royal Canadian Mounted Police (RCMP) were tasked with ensuring peace, order, and good governance (POGG) in the North. In addition to its formal “policing” duties, the RCMP performed a wide array of government duties, from postmaster to customs collector.

THE SHIP

- The *RCMP Schooner St. Roch*, named for the Quebec parish “St. Roch”, which fell under the constituency of the Justice Minister at the time. She had schooner rigging and was equipped with a 150-hp diesel engine.
- Specially designed for Arctic service, the *St. Roch* had a saucer-shaped cross-section, which enabled her to rise above the crushing pressure of surrounding ice rather than being squeezed in it. Unfortunately, the rounded hull meant that the ship rocked and heaved heavily in open seas, but what she lacked in comfort she compensated for in strength and dependability. For greater strength, the ship was built of heavy Douglas fir, with an outside sheathing of ironbark.²⁹
- Operating out of Vancouver from 1928 until 1939, *St. Roch* (Sergeant Henry Larson – master) spent twelve summers and four winters patrolling the Western Arctic, supplying RCMP detachments along the Arctic coastlines, and effectively serving as a floating detachment.³⁰
- With the outbreak of the Second World War in August 1939, the *St. Roch* was recalled to Vancouver. In June 1940, she left Vancouver on a 28-month “Top Secret” wartime voyage resulting in the first transit of the Northwest Passage from west to east. Twice, the *St. Roch* was forced to winter in the Arctic. First at Walker Bay on Victoria Island (September 1940 - July 1941) and then at Pasley Bay on the Boothia Peninsula (September 1941 - August 1942).³¹
- In 1944, the *St. Roch* became the first vessel to make a return trip through the Northwest Passage as well as the first vessel to navigate the passage in a single season (86 days).



The *RCMPS St. Roch* moored at the Evans, Coleman & Evans Dock on Sunday, October 14, 1934.
(Vancouver Archives, CVA 447-7905, Photographer - Walter E. Frost)

H.M.C.S. LABRADOR

TECHNICAL DATA

- Type: Icebreaker
- Shipbuilder: Marine Industries Ltd., Sorrel, QC, Canada
- Hull Number: 187
- Displacement: 6,490 tons
- Length: 112 m
- Service Speed: 16 kts
- Propulsion: Twin Screws; Six diesel-electric engines; 10,500shp
- Complement: 225
- Armament: 2 x 40mm guns
- Year Delivered: 1951
- First Arctic Voyage: 1954
- Final Fate: Dismantled 1989

INTERESTING FACTS & FIGURES

SOVEREIGNTY

- For much of Canada's history, the Arctic has not been a region under threat from foreign security interests. Freezing temperatures, ice, and remoteness effectively shielded the North, allowing the Canadian military to largely ignore the country's Arctic approaches through to the mid-20th century. This situation began to change during the Second World War as the U.S. Army opened airbases across the Canadian Arctic to assist in ferrying aircraft to embattled British and Soviet forces. Canada acquired control of most of these bases at the end of the war. However, the Cold War (1947-1991) raised concerns about the security of the northern approaches to North America, which almost immediately prompted renewed U.S. interest.³²

- It was soon clear that the Arctic could no longer be safely ignored by Canada as both U.S. and Soviet military activity would only grow in the years ahead.³³ Faced with continued and growing U.S. presence in Canada's Arctic, Royal Canadian Navy (RCN) operations were planned to show the Canadian flag, demonstrate an official presence, and address practical and political needs in the region.³⁴

THE SHIP

- Built in Canada and based on the U.S. Wind-class icebreaker, *HMCS Labrador* was commissioned by the RCN to provide a more persistent naval presence in the Arctic. Her design included a deep-draft and round-bottom, big screws tucked away well below the plimsoll line out of reach of tumbling surface ice, retractable stabilizing fins, and heeling tanks, allowing her to roll in pack ice. Her flight deck and hangar for three helicopters that allowed for transporting personnel and examining ice conditions while a small launch called *Pogo* permitted the surveying of shallow, poorly charted waters.³⁵
- After being the first warship to negotiate the Northwest Passage in 1954, the helicopter-equipped *HMCS Labrador* (Capt. O.C.S. Robertson – Commanding Officer) made a high-speed dash from the Bering Sea to Victoria to hospitalize a pneumonia victim. Interestingly, 10 days earlier on September 17th, Soviet scientists had exploded an H-Bomb on Wrangel Island in the Chukchi Sea. Scientists and equipment aboard the *Labrador* were reportedly capable of measuring any sudden increases in radiation, hence the urgent need to bring any “Top Secret” data to Ottawa via Esquimalt for further analysis.³⁶



HMCS Labrador at CPR Pier B-C on Wednesday, October 13, 1954, shortly after becoming the first warship to negotiate the Northwest Passage. Note the two Bell 47 helicopters on the flight deck at the *Labrador's* stern. Alongside is the *RCMPS St. Roch*, which is about to be retired and had just arrived from Halifax via the Panama Canal. After the *St. Roch* transited the Northwest Passage, her propulsion was upgraded to a 300hp diesel engine and she was re-rigged as a ketch rather than a schooner as shown.

(Vancouver Archives, CVA 447-5625, Photographer - Walter E. Frost)

S.S. KINGSBRIDGE

TECHNICAL DATA

- Type: Freighter
- Shipbuilder: United Shipyards Ltd., Montreal, QC, Canada
- Hull Number: 32
- IMO: 1175577
- Tonnage (GRT): 7,132 ton
- Length: 129 m
- Service Speed: n/a
- Propulsion: Single Screw; Triple expansion 3xcylinder steam engine; 229 hp
- Complement: 34
- Cargo Handling: 10 Derricks (M,M,K,F,M)
- Tonnage (NRT): 4,211 tons
- Year Delivered: 1944
- First Arctic Voyage: 1956
- Final Fate: Dismantled 1960

INTERESTING FACTS & FIGURES

SOVEREIGNTY

- The Distant Early Warning (DEW) Line was a linked chain of 63 communication and radar systems, spanning 4,800 km – from Alaska’s northwest coast to Baffin Island’s eastern shore opposite Greenland - set up to detect incoming Soviet bombers during the Cold War. It was located entirely within the Arctic Circle, with 42 of 63 sites situated in Canada. Between 1954 and 1957, the DEW Line was constructed, and more than 300 ships plied Arctic waters during the two summer navigation seasons carrying more than 300,000 tonnes of cargo. This initiative al-

lowed access into the Canadian Arctic through three major sealifts: the West Coast, East Coast, and Inland Sea Lifts. The DEW Line served to augment the Canadian position in the Arctic by providing what had always been lacking, a degree of physical presence and control.³⁷

THE SHIP

- The 7,132-ton *Kingsbridge* (former Withrow Park) was a former "Park" ship, owned by the Kingsport Shipping Co. Ltd. of Montreal, an affiliate of Goulandris Brothers of London.
- In January 1951 and August 1953, the *Kingsbridge* called at Vancouver as she steamed via the Panama Canal between West and East Coast ports with loads of lumber.^{38, 39}
- In June 1956, the *Kingsbridge* had undergone repairs at Montreal for damage sustained during an April crossing from Antwerp to Halifax.⁴⁰ In August, the *SS Kingsbridge* (Capt. H. Blackwood - master) was part of an 11-vessel flotilla sent by Canada on a 13,000-mile trek through northern waters. Led by the heavy icebreaker *CGS d'Iberville* and government supply ship *CGS C.D. Howe*, were six chartered freighters including the *SS Kingsbridge*, a chartered tanker, another government service vessel, and the icebreaker *CGS N.B. McLean*. The flotilla steamed through narrow inlets and bays to supporting the installation of the DEW Line as part of the East Coast Sealift.⁴¹ When the *Kingsbridge* was at Chesterfield Inlet (Igluligaarjuk), her Scottish master, an ardent fisher, gathered up his rod and reel and hiked inland to a lake reportedly "full of trout". Capt. Blackwood caught several of "the most beautiful, speckled trout you ever saw", which he gave to the ship's cook with instructions that they be served for breakfast en route back to Montreal.⁴²



A tug coming to assist the Kingsport Shipping Group's *SS Kingsbridge*, which is loaded with lumber while "in the stream" on Burrard Inlet on Wednesday, August 5, 1953. (Vancouver Archives, CVA 447-5477, Photographer - Walter E. Frost)

C.C.G.S. CAMSELL

TECHNICAL DATA

- Type: Navigation aids vessel / light icebreaker
- Shipbuilder: Yarrows Ltd., Esquimalt, BC, Canada
- Hull Number: 305
- Tonnage (GRT): 2,022 tons
- Length: 68.0 m
- Service Speed: 13.5 kts
- Propulsion: Twin Screws; Four 8x cylinder diesel-electric motors; 4,250shp
- Complement: 51
- Cargo Handling: 3 Derricks (M,M,F,K)
- Tonnage (NRT): 724 tons
- Year Delivered: 1959
- First Arctic Voyage: 1959
- Final Fate: Dismantled 1989

INTERESTING FACTS & FIGURES

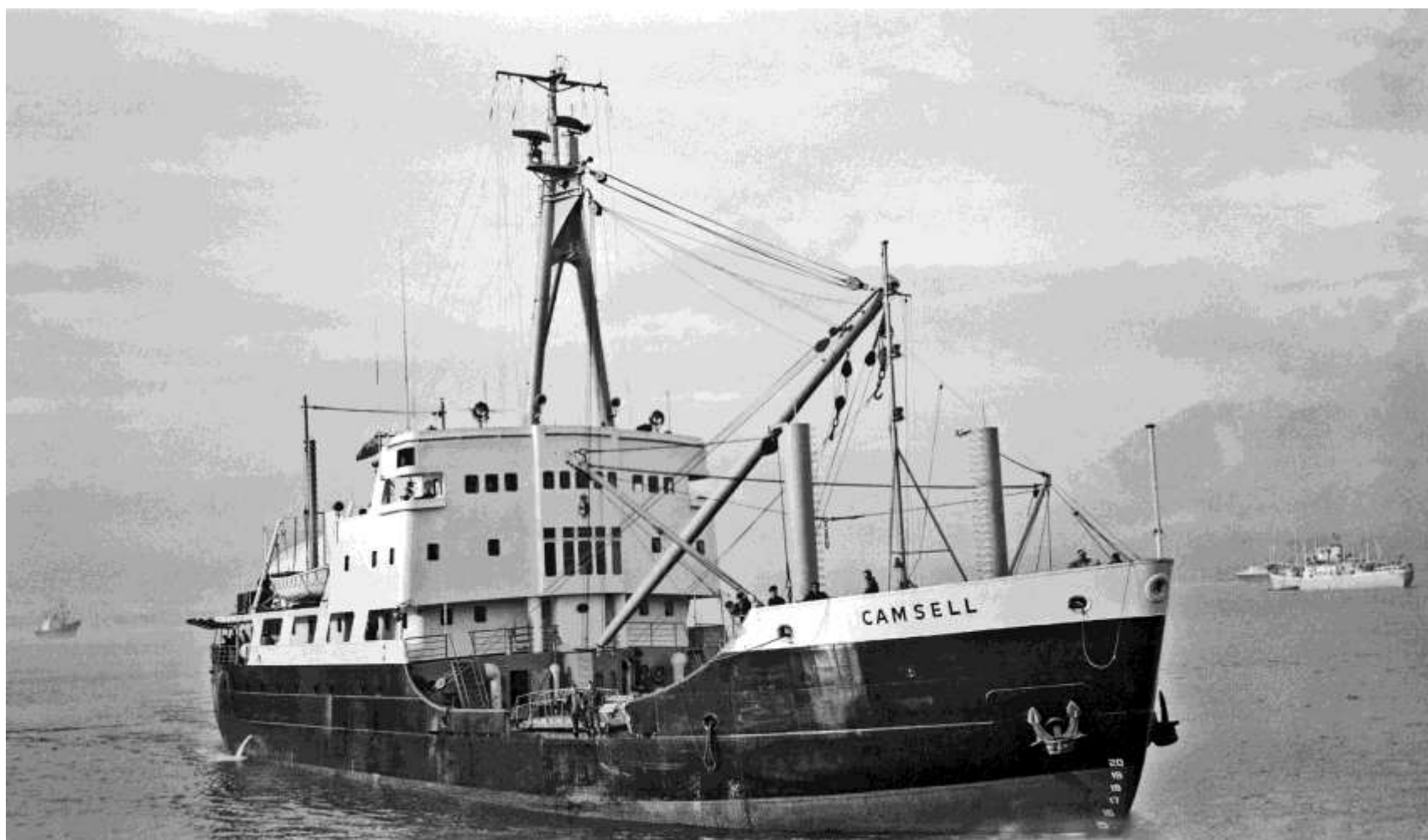
SOVEREIGNTY

- Prior to Confederation (1867), various governments patrolled the East Coast and the Great Lakes with their own vessels. The Government of Canada established the Department of Marine and Fisheries in 1868, which was responsible for government vessels, marine infrastructure, and marine safety and search and rescue under its Marine Service. In 1936, the Department of Transport (Transport Canada) became responsible for marine transportation and the Marine Service. As ocean commerce expanded and the St. Lawrence Seaway opened, the need for a national coast guard grew. In 1962, its Marine Service fleet was merged into the newly formed Canadian Coast Guard and its

vessels' names were changed from the prefix Canadian Government Ship (CGS) to Canadian Coast Guard Ship (CCGS).

THE SHIP

- The rugged little *Camsell* was constructed of 1-3/4 inch heavy-gauge, fine-grain steel, and close ribbing giving her the highest Lloyd's rating certificate for icebreakers. She was also fitted with a flight deck, a telescopic hangar, and a helicopter. Transport Canada's new light icebreaker was named after one of Canada's best known Arctic geologists, Dr. Charles Camsell (1876-1958), who founded the Canadian Geographical Society (1929) and was the federal Deputy Minister of Mines and Resources (1936-1946).⁴³
- When completed in 1959, the *CGS Camsell* had three lives. Her search and rescue work took her from her homeport of Victoria, B.C. to the Western Arctic during the late summer. During the rest the year, she was the lifeline for 32 isolated lighthouses and life-saving stations around Vancouver Island. And *Camsell* had the thankless and endless job of caring for 500 navigation buoys bobbing at anchor from Burrard Inlet up to Cape Scott at the north end of Vancouver Island.⁴⁴
- In February 1968, the *CCGS Camsell* was called upon to clear a channel not in the Arctic but in the ice-choked Fraser River. The icebreaker bulldozed a channel as far up as far as the Port Mann Bridge. The *Camsell* reportedly smashed a massive jam-up between the Pattullo and Port Mann bridges that broke the back of the river ice. Helping to start the floes move downstream was a sudden draft of warm air which brought the thermometer at Vancouver up from -3 to +7 degrees C.⁴⁵



The CCGS *Camsell* transiting through Burrard Inlet on Saturday, February 10, 1962, still in her Transport Canada livery (black hull, white superstructure, and yellow funnel) shortly after having been transferred to the newly formed Canadian Coast Guard.
(Vancouver Archives, CVA 447-3756, Photographer - Walter E. Frost)

C.C.G.S. JOHN A. MACDONALD

TECHNICAL DATA

- Type: Icebreaker
- Shipbuilder: Davie Shipbuilding Co. Ltd., Lauzon, QC, Canada
- Hull Number: 620
- Tonnage (GRT): 6,186 tons
- Displacement: 9,160 tons
- Length: 96.0 m
- Service Speed: 15.5 kts
- Propulsion: Triple Screws; Diesel-electric engines; 15,000shp
- Complement: 90
- Cargo Handling: 2 Derricks and 1 Crane (K,M,F,M,M)
- Year Delivered: 1960
- First Arctic Voyage: 1960
- Final Fate: Dismantled 1995

INTERESTING FACTS & FIGURES

SOVEREIGNTY

- The Canadian Coast Guard was formed in 1962. The new name recognized the tremendous expansion of the fleet, the increased scope of activities, and the standards of operation that had been achieved. A new colour scheme was adopted consisting of a red hull and white superstructure with a stylised red maple leaf on the funnel, instead of the former black, white, and yellow combination. The use of red was of significant practical utility, especially for icebreakers and vessels engaged in Search and Rescue. New types of uniforms were issued but the essential civilian character of the service was unchanged.⁴⁶

THE SHIP

- *CCGS John A. Macdonald* was named after The Right Honourable, Sir John Alexander Macdonald, the first Prime Minister of Canada. The icebreaker had a hangar and flight deck as part of her superstructure and could stow two Bell 47 helicopters.⁴⁷ She could carry sufficient stores and provisions to enable the *Macdonald* to spend a full season in the Arctic without replenishment.⁴⁸
- On July 8, 1967, *CCGS John A. Macdonald* (Capt. P.M. Fournier – Commanding Officer) left Montreal on a routine supply and scientific mission. By September, she had already traversed the Northwest Passage from the Eastern Arctic to help the *CCGS Camsell* in support of supply ships in Mackenzie Bay. On September 23rd, the *USCGC Northwind*, a Wind-class icebreaker similar to the *Labrador*, lost a propeller blade while working in heavy ice some 375 nautical miles north of Point Barrow. In this remote area, the *Northwind* was beset and in grave danger of becoming fast in the ice for the winter. Upon receipt of a call for assistance, the *Macdonald*, proceeded at best speed to the *Northwind*.⁴⁹ She then broke a path through the ice allowing the *Northwind* to limp to Point Barrow for repairs.⁵⁰
- On October 19, 1967, Admiral W.J. Smith, Commandant, USCG presented the *U.S. Coast Guard Unit Commendation* at a ceremony in Seattle for “extremely meritorious service rendered to the U.S. Coast Guard by the *Macdonald* between September 23rd and October 8th in assisting the icebreaker *Northwind*.”⁵¹ The *Macdonald* then returned to Halifax via the Panama Canal, circumnavigating North America in the process, more by chance than design.⁵²



The CCGS *John A. Macdonald* transiting through Burrard Inlet on Tuesday, October 17, 1967. Note the enclosed crow's-nest atop her mast.
(Vancouver Archives, CVA 447-5335, Photographer - Walter E. Frost)

C.G.S. SIMON FRASER

TECHNICAL DATA

- Type: Navigation aids vessel / ice-strengthened
- Shipbuilder: Burrard Drydock Co. Ltd., North Vancouver, BC, Canada
- Hull Number: 306
- Tonnage (GRT): 1,358 tons
- Displacement: 1,876 tons
- Length: 62.4 m
- Service Speed: 14 kts
- Propulsion: Single Screw; Diesel-electric engine; 2,900shp
- Complement: -
- Passengers: -
- Cargo Handling: 2 Derricks (M,F,M)
- Tonnage (NRT): -
- Year Delivered: 1960
- First Arctic Voyage: 1960
- Final Fate: Afloat 2023

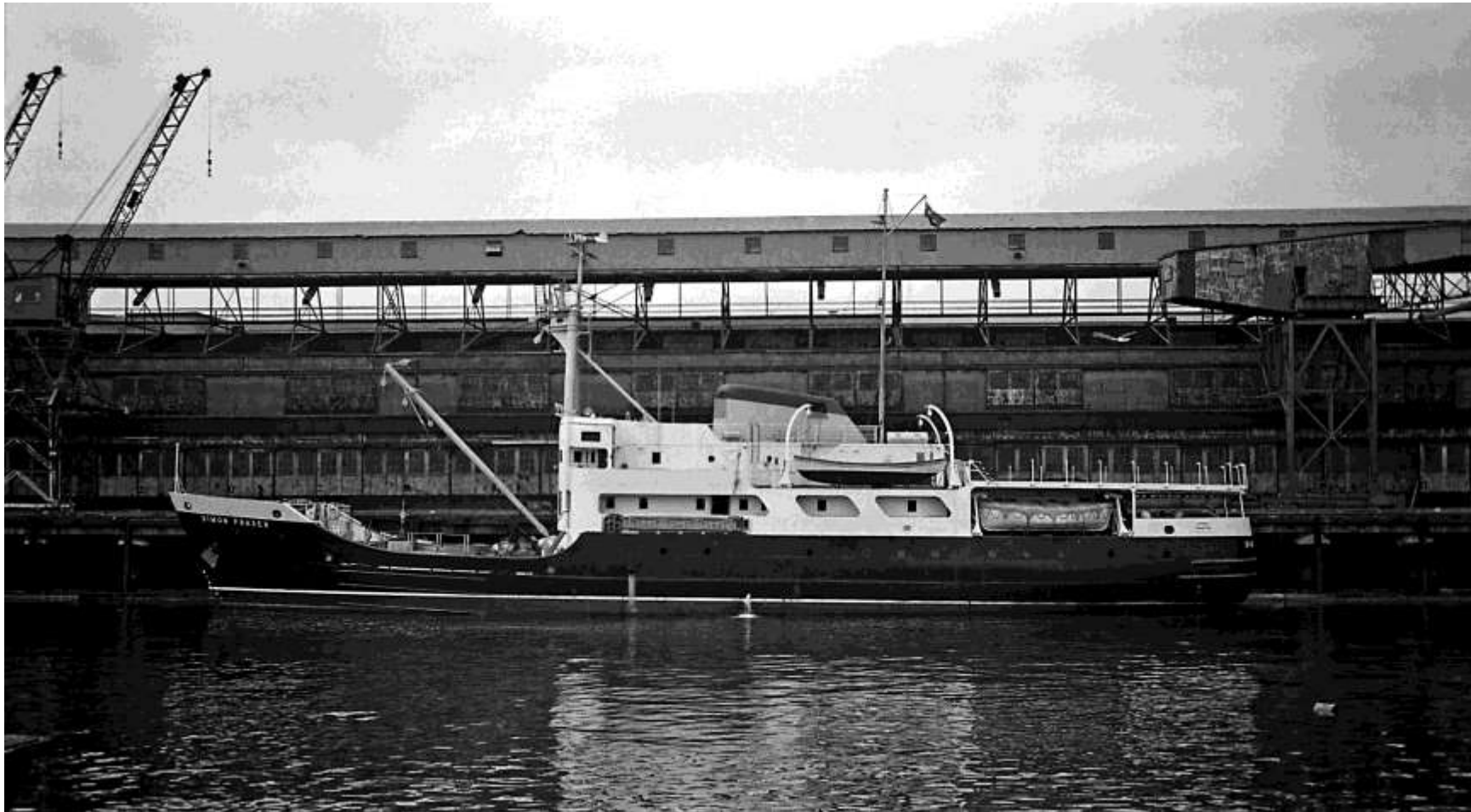
INTERESTING FACTS & FIGURES

SOVEREIGNTY

- Considered to be merely ice-strengthened, the Coast Guard's buoy tenders were generally not as large and had a smaller power to displacement ratio. They included two pairs of sister ships: the *Tapper* and *Simon Fraser* of 1959/60 and the *Bartlett* and *Provo Wallis*, both completed in 1969, all four around 1,300 tons.⁵³

THE SHIP

- The *Simon Fraser* was constructed by Burrard Dry Dock at their yard in North Vancouver, B.C. with the yard number 306. *Simon Fraser* was launched on August 18, 1959, named after the Scottish fur trader and explorer who between 1805 and 1808 explored unknown territory west of the Rocky Mountains, reaching the Pacific coast by the Fraser River (later named after him). The ship, fitted with a flight deck and a telescopic hangar was capable of operating one helicopter, entered service with Transport Canada in February 1960.
- In 1962, the *CCGS Simon Fraser* was transferred into the newly formed Canadian Coast Guard and initially assigned duties in the Western Region, working in the Pacific Ocean. In 1986, the vessel was converted for search and rescue duties and transferred to the Laurentian Region in Eastern Canada. Towards the end of her career, *Simon Fraser* returned to buoy tending duties in the Maritimes Region, based at Dartmouth, NS.
- In May 2000, *Simon Fraser* was loaned to a Royal Canadian Mounted Police (RCMP) support group. Travelling from Halifax to Vancouver, the vessel transited the Panama Canal. From there, the Coast Guard ship escorted the RCMP vessel *Nadon* on a transit of the Northwest Passage, recreating the historic 1940–1942 transit of *RCMPS St. Roch*. In doing so, *Simon Fraser* circumnavigated North America. This would be *Simon Fraser's* last voyage prior to her decommissioning in 2006.



The newly completed Department of Transport's *CGS Simon Fraser* at Ballantyne Pier on Saturday, April 29, 1960.
Note that she is in Transport Canada's livery of black hull, white superstructure, and yellow funnel.
(Vancouver Archives, CVA 447-8169.1, Photographer - Walter E. Frost)

M.V. DUHALLOW

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: Fairfield Shipbuilding & Engineering Co. Ltd., Govan, Glasgow, UK
- Hull Number: 828
- IMO: 6600072
- Tonnage (GRT): 25,368 tons
- Length: 206.7 m
- Service Speed: 15.5 kts
- Propulsion: Single Screw; 2-stroke single-acting 7xcylinder oil motor; 14,500bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Tonnage (NRT): 16,219 tons
- Grain Cube: 1,821,018 cu.ft.
- Year Delivered: 1965
- First Arctic Voyage: 1972
- Final Fate: 1985

INTERESTING FACTS & FIGURES

RESOURCE EXTRACTION

- During the past 70 years, exploration has taken place throughout the Canadian barrenlands as the search for various minerals ebbed and waned. In the 1950's and again in the 1970's, uranium was the glamour mineral and a number of discoveries were made in the Qamani'tuaq (Baker Lake) area of Nunavut. In the late 1960's, there was a staking rush in the Kugluktuk (Coppermine) area as the copper deposits sought by the Hudson's

Bay Company's Samuel Hearne back in 1771 again became of interest. The iron deposits of Baffin Island and the Melville Peninsula were examined during the 1960's and early 1970's and continued to interest the mineral industry as new transportation alternatives became available. The Ungava Peninsula was explored for nickel and platinum since the late 1950's. Finally, gold exploration has been continuous since the early 1970's when the price of gold in Canada (and other countries) was allowed to float.⁵⁴

THE SHIP

- From 1972 to 1975, the Peninsular & Oriental (P&O) Steam Navigation Co. was chartered to transport asbestos concentrate from Deception Bay to Nordenham, Germany. Each year, between two and three of Hain-Nourse Ltd.'s bulk carriers would call at Deception Bay over the short Arctic shipping season as Hain-Nourse was a wholly-owned subsidiary of P&O. The funnels of Hain-Nourse's vessels were painted blue with a conjoined white HN.⁵⁵
- The use of names of British and Irish foxhunts for P&O dry bulk and oil/ore carriers was coined by Sir Donald Anderson, P&O Chairman 1960-1971, who was himself a noted rider to hounds and point-to-point competitor.⁵⁶ The *Duhallow* was named after an Irish foxhunt in County Cork, Ireland. During her time with P&O, the *Duhallow* carried all manner of bulk cargo ranging from asbestos concentrate to coal.
- That first year (1972), the *Duhallow* reportedly made two calls to pick up concentrate destined for Germany.⁵⁷



Hain-Nourse Ltd.'s *MV Duhallow* transiting through Burrard Inlet to Port Moody on Wednesday, June 6, 1974, where she would take on a load of coal destined for Japan.⁵⁸
(Vancouver Archives, CVA 447-4324, Photographer - Walter E. Frost)

M.V. COTSWOLD

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: Furness Shipbuilding Co. Ltd., Haverton Hill, UK
- Hull Number: 522
- IMO: 6607745
- Tonnage (GRT): 25,291 tons
- Length: 205.7 m
- Service Speed: 15.5 kts
- Propulsion: Single Screw; 2-stroke single-acting 7xcylinder oil motor; 16,100bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Tonnage (NRT): 16,249 tons
- Grain Cube: 1,974,285 cu.ft.
- Year Delivered: 1966
- First Arctic Voyage: 1973
- Final Fate: Dismantled 1986

INTERESTING FACTS & FIGURES

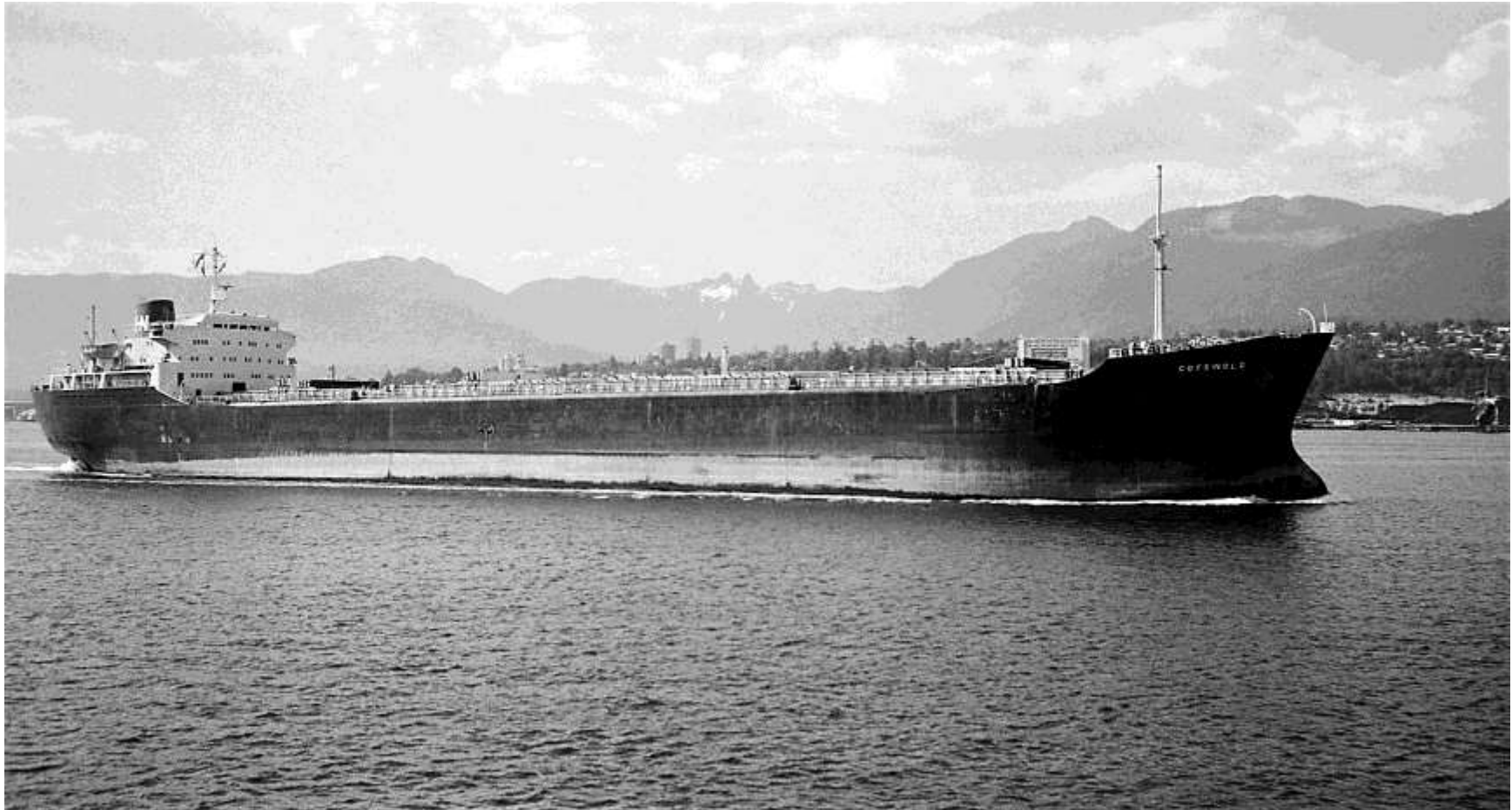
RESOURCE EXTRACTION

- Between 1950 and 1980, four mines operated north of the tree line in the Eastern Arctic when Walter E. Frost photographed ships in distant Vancouver: the North Rankin Nickel Mine, the Hope Bay Mine and the Nanisivik Mine in Nunavut and the Asbestos Hill Mine in Nunavik (northern Quebec). At the time, commercial shipping was forced to approach these mines from the North Atlantic. These vessels ranged from small coastal steamers to 26,700-ton oil carriers and 24,000-ton

bulk carriers. These Type B vessels were not constructed to withstand ice or safely transit the Northwest Passage. Given that the arctic shipping season is relatively short (an 80-day period late each summer), marine insurance (hull and cargo) for Type B vessels could only be obtained during this short open water season unless the owners were willing to pay a substantial premium.⁵⁹ Consequently, given a ship owner's challenge to ensure the full utilisation of tonnage capacity all year round, some of these vessels ended up in Vancouver. Bulk carriers needed to work both the Pacific and Atlantic markets to remain profitable.

THE SHIP

- The Hain-Nourse Ltd.-operated *MV Cotswold's* was named after a fox hunt in Gloucestershire and the southern corner of Worcestershire, England The bulk carrier's funnel was also painted blue with a conjoined white HN.
- The *Cotswold* worked Canada's West Coast and was reported in Vancouver in 1967, 1968, 1969, and 1972 picking up coal destined for Japan or potash destined for the UK. In 1971, she was transferred into the direct ownership of parent company P&O.⁶⁰
- During the second year (1973) of the four-year P&O contract (1972-1975), the *Cotswold* reportedly made one call to Deception Bay, where she loaded concentrate from the Asbestos Hill mine destined for transport to Germany.⁶¹



Hain-Nourse Ltd.'s *MV Cotswold* transiting through Burrard Inlet to Port Moody on Friday, July 20, 1972, where she would take on a load of coal destined for Japan.
(Vancouver Archives, CVA 447-4124, Photographer - Walter E. Frost)

M.V. BUCCLEUCH

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: Furness Shipbuilding Co. Ltd., Haverton Hill, UK
- Hull Number: 521
- IMO: 6519285
- Tonnage (GRT): 25,293 tons
- Length: 205.7 m
- Service Speed: 15.5
- Propulsion: Single Screw; 2-stroke single-acting 7xcylinder oil motor; 16,100bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Grain Cube: 1,822,000 cu. ft.
- Tonnage (NRT): 16,249 tons
- Year Delivered: 1965
- First Arctic Voyage: 1973
- Final Fate: Dismantled 1985

INTERESTING FACTS & FIGURES

RESOURCE EXTRACTION

- Four mines operated north of the tree line in the Eastern Arctic. Described in order of development are the North Rankin Nickel Mine (1957), the Asbestos Hill Mine (1972), the Hope Bay Mine (1973), and the Nanisivik Mine (1976).

NORTH RANKIN NICKEL MINE (1957 – 1962)

- The North Rankin Nickel Mine was the first modern underground mine in the barrenlands. Based on a nickel / copper de-

posit originally discovered in 1928 at Kangiqitiniq (Rankin Inlet), a hamlet located on the northwestern Hudson Bay, between Ig-luligaarjuk (Chesterfield Inlet) and Arviat.⁶² However, it was not until 1955 that a mine and concentrator were built. The Korean War (1950-1953) had helped raise the price of nickel making it economical for concentrated ore to be transported 1,500 miles to Fort Saskatchewan in Alberta for further processing.^{63,64}

- Finally, after being stockpiled over the winter, the shipping of nickel concentrate began in 1957. Every 10 days until the close of navigation in October, small coastal steamers shipped concentrate 300 nautical miles south to the port at Churchill. Here, the ore was transferred to Canadian National Railway gondola cars for rail shipment west to the nickel refinery's smelter.⁶⁵ As the high prices for nickel dropped off, the mine was closed in 1962. After just five years of operation, the mine was deemed no longer economically viable.⁶⁶

THE SHIP

- The Hain-Nourse Ltd.-operated bulk carrier *MV Buccleuch* and was named for a fox hunt in the Scottish Borders area of Scotland. She also worked Canada's West Coast as the *Buccleuch* was reportedly in Vancouver in 1969 and 1971 picking up sulphur or potash, both bulk cargoes destined for Europe.⁶⁷
- During the second year (1973) of the four-year P&O contract (1972-1975), *Buccleuch* reportedly made two calls to Deception Bay where she loaded asbestos concentrate.⁶⁸
- Later that year (1973), she was sold to Knossos Shipping Inc. and renamed *Argo Castor*, her name when photographed by Walter Frost in 1977.



The *MV Argo Castor* (former *Buccleuch*) transiting through Burrard Inlet on Saturday, March 5, 1977, to her anchorage before picking up a load of coal from the Neptune Terminal.⁶⁹
(Vancouver Archives, CVA 447-3720, Photographer - Walter E. Frost)

M.V. DELTADRECHT

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: At. & Ch. de Dunkerque & Bordeaux, Dunkirk, France
- Hull Number: 250
- IMO: 6603799
- Tonnage (GRT): 24,698 tons
- Length: 200.5 m
- Service Speed: 14.5 kts
- Propulsion: Single Screw; 2-stroke single-acting 9xcylinder oil motor; 12,600bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Tonnage (NRT): 16,298 tons
- Grain Cube: 1,923,897 cu.ft.
- Year Delivered: 1965
- First Arctic Voyage: 1976
- Final Fate: Dismantled 1984

INTERESTING FACTS & FIGURES

RESOURCE EXTRACTION

ASBESTOS HILL MINE (1972 – 1983)

Another mine that had a relatively short history was the Asbestos Hill Mine in Nunavik (northern Quebec). Discovered in 1957, the asbestos deposit is located about 1,900 km (as the crow flies) north of Montreal and approximately 30 km south of Deception Bay.⁷⁰

The open-pit mine operated from 1972 to 1983 until the market for asbestos collapsed in the 1980's due to health concerns.⁷¹ The on-site mill processed up to 6,600 tons of ore per day, which was then

transported 65 km north by truck to the port on Deception Bay for stockpiling until the late summer shipping season. Then, the annual production of asbestos fibre was shipped east across the Atlantic to the finishing plant in Germany (Nordenham).⁷² Incoming cargo consisted of up to 25,000 tons of oil and about 8,000 tons of miscellaneous supplies per year. Vessels using the purpose-built deep-sea wharf at Deception Bay ranged from small coastal steamers to 26,700-ton oil carriers with a 33-foot draft and 24,000-ton bulk carriers (e.g., *MV Cotswold*, *MV Dordrecht*) with a 35-foot draft.⁷³

THE SHIP

- The Phs. van Ommeren N.V.'s *MV Deltadrecht* is a sister ship of both the *MV Dordrecht* and *MV Duivendrecht*. She worked both the Atlantic and Pacific markets. In late March / early April 1968, the *MV Deltadrecht* loaded wheat at Vancouver's Lapointe Pier, which was destined for China.⁷⁴
- Phs. van Ommeren N.V. was chartered to ship asbestos concentrate from 1976 through to 1980. Late each summer, between three and five of her bulk carriers would arrive at Deception Bay to load that year's annual production of asbestos fibre.⁷⁵
- While in the Arctic in 1976, the *Deltadrecht* reportedly sustained a hole in one of her fore tanks following a collision with an ice cake. At the time, she was operating in heavy seas with waves reaching 30 ft. (9 m) in height.⁷⁶ Nonetheless for the last three years (1978, 1979, 1980) of the five-year Asbestos Hill contract, the *MV Deltadrecht* called at least once late each summer at Deception Bay to load asbestos concentrate.⁷⁷



Phs. van Ommeren N.V.'s *MV Deltadrecht* transiting westbound through Burrard Inlet on Tuesday, April 2, 1968.
(Vancouver Archives, CVA 447-4210.1, Photographer - Walter E. Frost)

M.V. DUIVENDRECHT

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: At. & Ch. de Dunkerque & Bordeaux, Dunkirk, France
- Hull Number: 249
- IMO: 6523523
- Tonnage (GRT): 24,698 tons
- Length: 200.5m
- Service Speed: 14.5 kts
- Propulsion: Single Screw; 2-stroke single-acting 9xcylinder oil motor; 12,600bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Tonnage (NRT): 16,298 tons
- Grain Cube: 1,923,897 cu.ft.
- Year Delivered: 1965
- First Arctic Voyage: 1976
- Final Fate: Dismantled 1984

INTERESTING FACTS & FIGURES

RESOURCE EXTRACTION

HOPE BAY MINE (1973 - 1975)

A small silver deposit was discovered in 1965 at Hope Bay, located about 685 km northeast of Yellowknife (as the crow flies), 65 km east of Omingmaktok on the east coast of Bathurst Inlet, and 170

km southwest of Iqaluktuuttiaq (Cambridge Bay) on southern Victoria Island.⁷⁸ During the three years (1973 - 1975) that the underground mine operated, some 100,000 ounces of silver were extracted from ore mined and shipped out during the summer months.⁷⁹ As there was no road access to Hope Bay, the primary access route for bulk commodities (e.g., fuel, mining and mill equipment) and sundry supplies was via a marine link through the Arctic Ocean during late summer when ice-free conditions allowed for passage. During the rest of the year, goods were transported by air. Personnel were transported by air year-round, generally from Yellowknife.⁸⁰ Since the silver mine ended production in 1975, three significant gold deposits were discovered in the immediate area (1992 – 1994). However, it would take over 20 years until the first ounce of gold was extracted in 2017 from the underground mine.⁸¹

THE SHIP

- The Phs. van Ommeren N.V.'s *MV Duivendrecht* was named after the village of Duivendrecht, which dates back to 1308 in the present-day province of North Holland. She is a sister ship of the *MV Deltadrecht* and *MV Dordrecht*.
- In March 1968, the *Duivendrecht* loaded Northern wheat at Vancouver's United Grain Grower's terminal destined for China.⁸²
- For four years (1976 - 1977 & 1979 - 1980), the *MV Duivendrecht* would call late each summer at Deception Bay to load asbestos concentrate for transport across the Atlantic.⁸³



*The MV Duivendrecht arriving at Vancouver on Friday, March 7, 1968, being assisted by a Cates tugboat.
(Vancouver Archives, CVA 447-4326, Photographer - Walter E. Frost)*

M.V. DORDRECHT

TECHNICAL DATA

- Type: Bulk carrier
- Shipbuilder: At. & Ch. de Dunkerque & Bordeaux, Dunkirk, France
- Hull Number: 248
- IMO: 6515382
- Tonnage (GRT): 24,599 tons
- Length: 200.5 m
- Service Speed: 15.5 kts
- Propulsion: Single Screw; 2-stroke single-acting 9xcylinder oil motor; 12,600bhp
- Complement: n/a
- Cargo Handling: Nil (M,M,F)
- Tonnage (NRT): 16,262 tons
- Grain Cube: 1,923,897 cu.ft.
- Year Delivered: 1965
- First Arctic Voyage: 1977
- Final Fate: Dismantled 1984

INTERESTING FACTS & FIGURES

RESOURCE EXTRACTION

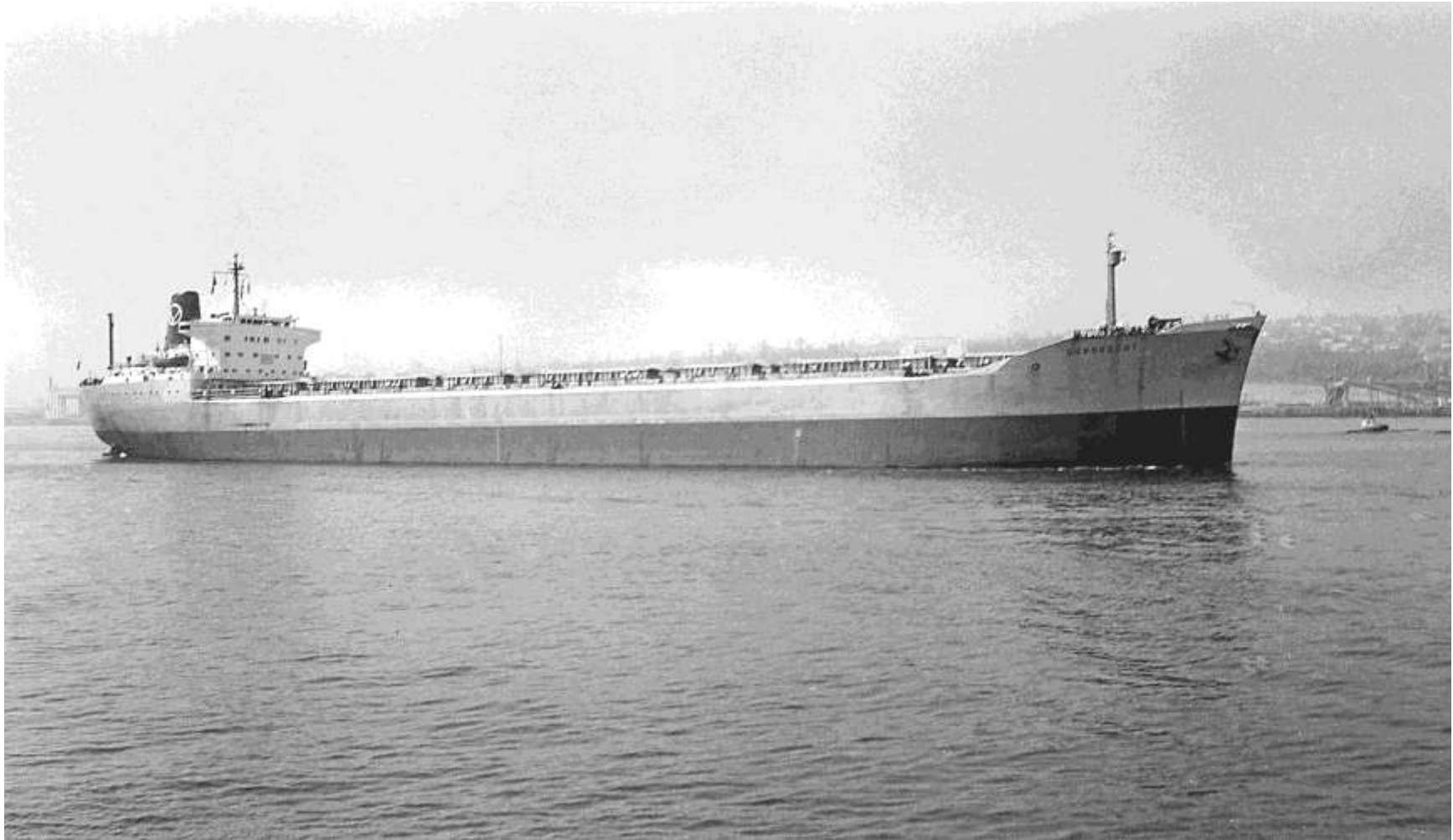
NANISIVIK MINE (1976 - PRESENT)

- Lead and zinc were discovered on the northern tip of North Baffin Island in 1910.⁸⁴ Sixty-five years later, the now-abandoned company town was built in 1975 to support the lead-zinc mining and mineral processing operations for the underground mine. In addition, a purpose-built deep-sea wharf located on Strathcona Sound about 2.7 km north of the mine allows for the shipping of concentrate from the site and receiving supplies. The mine also

had its own airport (Nanisivik Airport) located about 7 km southwest.⁸⁵ The underground Nanisivik Mine started production in 1976 with annual production totalling about 125,000 tons of ore, which was sold to European smelters via Belgium. The open-pit mine operated year-round through accumulating ore during the winter and shipping in late summer. The mine's marine and air facilities are connected by road to the nearby Inuit community of Arctic Bay, allowing earlier (July) and more frequent (three times/season) delivery compared to the annual re-supply sea-lift which existed before the coming of the mine.⁸⁶ The mine was closed permanently in 2002 due to low metal prices and declining resources but the wharf and airport remain open.

THE SHIP

- Phs. van Ommeren N.V.'s *MV Dordrecht* was named after the city of Dordrecht, which is the oldest city (1220) in the present-day province of South Holland.
- The *Dordrecht* worked both the Atlantic and Pacific markets dry bulk markets. In 1969, the bulk carrier was one of the first ships to load Northern wheat at Vancouver's upgraded Cascadia Terminal that was destined for China.⁸⁷ The following year (1970, the *Dordrecht* was back at North Vancouver's Neptune Terminals to take on one of the first loads of coal (30,000 tons) destined for Japanese steel mills.⁸⁸
- In the Atlantic, the *MV Dordrecht* would call at least once late each summer at Deception Bay for the last four years (1977-1980) of the five-year contract to load asbestos concentrate for transport to Germany.⁸⁹



The *MV Dordrecht* transiting through Burrard Inlet to the Cascadia grain terminal on Wednesday, June 18, 1969. Arriving in ballast, she would take on a load of Northern wheat destined for China.⁹⁰
(Vancouver Archives, CVA 447-4292, Photographer - Walter E. Frost)

GLOSSARY

- Bale cube - The space available for cargo in bales or on pallets, etc., where the cargo does not conform to the shape of the ship. Measured in cubic meters or feet.
- Ballast - Weight (e.g. sand, gravel, or water) added to the ship's bottom to provide stability and trim, especially when she is without cargo. Most vessels are fitted with water tanks and pumps specially designed for this purpose.
- Boom - a heavy spar for handling cargo; usually attached to the base of a mast or kingpost.
- Bow - the front portion of the vessel.
- Breakbulk - Breakbulk cargo is commodity cargo that must be loaded individually in a ship's cargo. The goods can be packaged in bags, cases, crates, drums, barrels, or kept together by baling and placed onto pallets. Typical breakbulk commodities include paper, lumber, steel, and machinery.
- Bulk - Bulk cargo is commodity cargo that is transported in large quantities and unpackaged. Typical bulk commodities include coal, chemicals (potash, sulphur), and grain.
- Bunker - a space in which fuel is stowed. The actual fuel itself is usually referred to as bunker fuel. Bunkering is taking fuel on board.
- Cargo Handling – the sequence of cargo handling equipment from bow to stern, e.g. K,M,F,M = kingpost, mast, funnel, mast.
- Complement - the full number of people required to operate a ship. Includes officers and crewmembers; does not include passengers.
- Courtesy flag - national flag of the country which a ship is visiting, flown at the foremast head or on the yard arm as a mark of respect.
- Crow's-nest - a structure in the upper part of the main mast of a ship or a structure that is used as a lookout point.
- Davits - small cranes or apparatus for lifting, swinging out and lowering of ship's lifeboats.
- Derrick - a boom with tackle for handling cargo.
- Displacement - a specific term for military vessels that describes the displacement (in tons of water) of ship complete, fully manned, engine, and equipped ready for sea, including all armament and ammunition, equipment, outfit, provisions and fresh water for crew, miscellaneous stores, and implements of every description that are intended to be carried in war, but without fuel or reserve boiler feed water on board.
- Dressing overall - a sign of celebration, done for special occasions, anniversaries, and events. Consists of stringing signal flags and pennants on a ship from bow to stern.
- Ensign – national flag of the port where the ship is registered; it is flown at the stern of a ship.
- Foremast - the mast closest to the bow of a ship.
- Hold - the space below deck where the cargo is stored.
- Hull - the body of a vessel from the keel to the deck line.
- Kingpost - a short vertical post used to support a derrick boom, typically positioned near hatchways. May also be referred to as short masts. Kingposts might be single, on the centre line of the vessel, kingposts are more commonly in pairs, abreast.
- Knot (kt) - a measurement of speed, one nautical mile per hour.
- Mast - a vertical or raked structure used to support cargo derricks, radio antennas, and to a lesser degree for signaling (see courtesy flag), observation (see crow's-nest) or for carrying lights.

- Motor Ship (MS) - prefix used for seagoing ships propelled by internal combustion engines.
- Motor Vessel (MV) - prefix used for seagoing vessels propelled by internal combustion engines.
- Nautical mile (nm) - measure of length equal to 1,852 m (6,076.6 ft.) or the length of arc of one minute of latitude at the equator.
- Northwest Passage - a sea route connecting the North Pacific and North Atlantic ocean basins.
- Port - the left-hand side of a ship looking towards the bows, shows a red light.
- Speed - service speed (see knot).
- Starboard - the right-hand side of a ship looking towards the bows, shows a green light.
- Steamship (SS) - prefix used for seagoing ship propelled by steam.
- Stern - the rear portion of a vessel.
- Superstructure - a structure or structures built above a vessel's hull. Includes pilothouse, bridge, galley house, deckhouses, etc.
- Tonnage - three tonnage figures are commonly used for mer-

chant ships:

- Deadweight (DWT) - this is the weight in tons of the cargo, stores, fuel, etc. carried by a ship when down to her loading marks. It indicates a ship's cargo-carrying and earning capacity.
- Gross Register (GRT) - the total cubic capacity of all enclosed spaces at 100 cu. ft. to the ton. It is used for general purposes and in national maritime registers.
- Net register (NRT) - measured in the same way as gross tonnage, the net register is the capacity of enclosed space less that of the engine and boiler rooms, crew accommodation, stores, and all spaces necessary for the working of the ship. It is the cubic capacity of all earning space and the tonnage figure most used to calculate harbour dues and other charges.
- VAS - radio callsign of the former Vancouver Harbour Marine Communications and Traffic Services (MCTS) Centre.
- Whaleboat - a round-bottomed, wood-frame, caravel-planked, diesel-powered, 26-foot motorboat used on naval ships to transport personnel and for use as a lifeboat.

ABOUT THE AUTHOR

FLORIS VAN WEELDEREN



Floris Judicus Douwe van Weelderen, P.Eng. (Non-Practicing), CD is a Dutch-Canadian soldier, engineer, husband, father, and writer. After emigrating to Canada from the Netherlands at age seven, Floris went on to graduate from Magee Secondary School (class of 1985). From there, he obtained a Bachelor of Science from the University of Calgary in 1990 and returned to Vancouver with his wife in 1999. For over 30 years, Floris practiced traffic engineering and transportation planning which culminated in his role of Senior Transportation Engineer and member of the Senior Leadership Team at Bunt & Associates Engineering Ltd.'s Vancouver office.

Floris published his first book “CITADELS OF THE WEST: Military architecture in British Columbia” in 2005 which was inspired by 24 years of military service with Vancouver’s British Columbia Regiment (Duke of Connaught’s Own). He is also a member of the Vancouver Historical Society and recently penned an article entitled “SIXTH REGIMENT WILL INVADE UNITED STATES” which details the travels of the 6th Regiment, Duke of Connaught’s Own Rifles to Seattle’s 1909 Alaska-Yukon-Pacific Exposition.

Also a member of the Vancouver Maritime Museum as well as the Steamship Historical Society of America, Floris researched and wrote “A LENS ON VANCOUVER’S PAST: Walter Frost’s Holland-America Line (1920-1975)” while curating a photo micro-exhibition of the same name (Vancouver Maritime Museum: December 2020 – March 2021). The exhibition resulted after Floris stumbled across Walter’s extensive body of work while chronicling his father’s 1960s adventures as a 3e Stuurman (3rd Mate) aboard Holland-America Line freighters and ocean liners. Another book in this series is “GATEWAY TO THE PACIFIC: Prominent Piers & Wharves in Vancouver” which documents the evolution of Vancouver’s waterfront from forested shoreline to bustling seaport.

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