

HMCS *Harry DeWolf* Transits the Arctic

Commander Corey Gleason



Credit: Lt(N) Steven Gallant

HMCS Harry DeWolf sails in Larsen Sound during *Operation Nanook* in 2021.

On 6 September 1958, Vice-Admiral Harry DeWolf, CBE, DSO, DSC, CD, RCN wrote a letter that ordered HMCS *Labrador*, the Royal Canadian Navy's (RCN) 'first' Arctic Patrol Vessel, to be paid off and transferred to the Department of Transport. In his order, he noted that the ship did not deliver on the operational role of an escort in war and the paying off of the ship would permit the crewing of additional escorts.

Well, the *Harry DeWolf*-class is no escort. The year 2021 is the year that ended the RCN's limited capacity to operate in the Arctic. When once the RCN could operate for weeks in the North, it can now be there for months, or any time there is a necessity to operate in Canada's northern waterways.

This article will share from the Captain's chair some highlights of HMCS *Harry DeWolf*'s first major journey with a focus on the North. The journey begins in Halifax, NS, and ends in Esquimalt, BC, via the Northwest Passage by way of the route of the Franklin Expedition and Roald Amundsen on *Gjoa*.

HMCS *Harry DeWolf* (HDW) deployed under the banner of *Operation Nanook* (*Op Nanook*) from 3 August to 15 September 2021. *Op Nanook* is the signature Arctic operation of the Canadian Armed Forces. The name derives from a military operation nomenclature which dates back to 1946, formally referred to as "US Naval Exercise

Nanook," a proposed US/Canada joint Arctic exercise in which Canada's senior naval leadership refused to participate at the time despite the significant international interest. Today *Op Nanook* is delivering Arctic training, developing partnerships and improving readiness of its air-land-sea participants. The introduction of the Arctic and Offshore Patrol Ships, the *Harry DeWolf*-class, is signaling the RCN's readiness to operate in the North and improve interoperability with domestic and international partners.



Credit: Cdr Simon Arcand

Lieutenant (N) Daniel Fletcher, ship's Operations Officer, speaks with RCMP members.



Commander of Canadian Joint Operations Command speaks with members of Joint Task Force North, the Canadian Rangers, and HMCS *Harry DeWolf* on the ship's flight deck.

The days leading up to the departure were no different than those of HMCS *Labrador* when it set off on a similar voyage in the North, or any RCN ship for that matter. Last minute storing, training, personnel changes, equipment repairs and, of course, a global pandemic, complicated our departure. Everyone who was scheduled to sail with the ship, including the Captain, had to chip in to get everything onboard and secured for sea.

On the day of the departure there was a warm send off by Fleet Commander, Commodore Rich Feltham, Commander Maritime Forces Atlantic Rear-Admiral Brian Santarpia, Member of Parliament Andy Fillmore, Lieutenant-Governor of Nova Scotia Honourable Arthur J. Leblanc and local media. The ship moved away from the jetty, then turned at rest to pipe the side and salute the Lieutenant-Governor on our departure.

The transit north between Halifax and Iqaluit consisted of radar trials, typical training with sea trainers and some task group-related activities with HMCS *Goose Bay*, USCGC *Richard Snyder* and USCGC *Escabana*. The weather was challenging and visibility quite poor. Upon arrival in Iqaluit, Nunavut, HDW proceeded to anchor, disembarked all sea training staff and embarked four members of the Royal Canadian Mounted Police (RCMP) and three members of Defence Research and Development Canada (DRDC). The RCMP detachment embarked for the purpose of identifying and establishing future interoperability needs to meet their own Arctic mandates. The DRDC team embarked for the purpose of operating the Towed Releable Active Passive Sonar (TRAPS) system which was installed in a sea container that was embarked and secured to the quarterdeck to be employed during *Op Nanook*.

HDW jumped quickly from *Op Nanook* to *Operation Ta-tigiit (NA-TA)*. This was a scenario-based operation that kicked off in dense fog on 12 August 2021 in the vicinity of Clyde River, Nunavut, and concluded in the same area

and visibility on 13 August. *NA-TA* entailed a maritime response to a mass rescue operation involving units from the US Coast Guard (USCG), Canadian Coast Guard (CCG) and HDW. As part of this, a vessel, MV *Northern Ranger*, was employed to act as the stricken vessel. The USCG and CCG concentrated on a search in restricted visibility for eight personnel in the frigid waters whereas HDW focused on the stricken vessel. HDW sent casualty clearing teams, damage assessment teams and a command component to organize an emergency response and stabilize the vessel. RCMP members embarked the stricken vessel to investigate and collect evidence in order to understand how the event happened. These personnel transfers were made possible by HDW's small boats, which are fitted with a full communications, radar and navigation suite that includes Automatic Identification System (AIS) which makes operating in restricted visibility a challenge but with much fewer risks.

The exercise wrapped up quickly with many lessons learned. With the exercise came the realization of how much work we collectively have ahead to be an effective force enabler which can work seamlessly in a real-world situation. HDW then transited the Davis Strait for Nuuk, Greenland. The ship made a one-day stop for fuel and light provisioning before the next exercise began.

Before discussing our next exercise – *Operation Nunak-put (NA-NU)* – I want to mention a special event that occurred. HDW crossed the Arctic Circle for the first time on 18 August 2021 at 0725:55 Greenwich Mean Time. In the tradition of acknowledging the milestone, HDW held a Crossing the Line ceremony. HDW kicked the day off with a Crossing of the Line breakfast, which consisted of some harmless food colouring added to eggs, bacon, sausage and oatmeal. Sailors were invited to the flight deck where they were addressed by Queen Neptune, 'shaved' with cake icing so they would be cleanly shaven before Queen Neptune, given a 'pill' (cookie) to cure the tadpoles



Credit: Cpl Simon Arcand

Left to right: HDW Coxn CPO1 Jamie Haas, P.J. Akeeagok then President of the Qikiqtaani Inuit Association, HDW CO Commander Corey Gleason, and then Premier of Nunavut Joe Savikataaq.

of disease, and kissed the head of a fish. They were then escorted across the flight deck under the salt water spray from the ship's foam cannons on the gun deck and dipped into a kiddie pool. It culminated in sailors being acknowledged to be clean by Queen Neptune. HDW had 100% turnout for the ceremony and the ship's company enjoyed seeing their Captain go through all that they did. The air temperature was approximately 1 degree but sunny, and the whole event lasted approximately 60 minutes.

And now back to *Op NA-NU*. This commenced 16 August as HDW departed Nuuk, and it was a pretty full dance card in the hamlets where the ship operated with Canadian Army Rangers and the Canadian Army Land Task Forces (LTF). We conducted training on the ship and illustrated our joint capabilities with boats, landing craft loaded with all-terrain vehicles. Our briefings with the Canadian Armed Forces (CAF) elements were important, as we learned to exploit our joint capabilities with an Arctic and Offshore Patrol Vessel (AOPV). HDW embarked 20 LTF soldiers from Grise Fjord and transferred them to Arctic Bay, demonstrating how their annual patrols can be expanded and enhanced with an AOPV as part of their patrol plans. HDW demonstrated throughout this operation that with its capabilities, personnel can now patrol extreme reaches of bays, the foot of glaciers and beaches accessible only by boat. This force-enabling function will enhance Canada's reach in these austere regions.

In working with the government of Nunavut and through face-to-face meetings to establish an affiliation program¹ with the different regions, it was decided HDW would be affiliated with the largest of the six Inuit regions; Qikiqtaaluk. The Qikiqtaani region has 13 hamlets that are spread as far north as Resolute Bay and Grise Fjord, and as far south as Hudson Bay, spanning all of Baffin Island and parts of Melville Peninsula, Somerset Island and Prince of Wales Island. To commemorate this affiliation, a ceremony was conducted in Iqaluit in 2018, where then President P.J. Akeeagok of the Qikiqtaani Inuit Association (QIA) (now Premier of Nunavut) and HDW were officially affiliated. Since the ceremony in 2018, the Commanding Officer had been collaborating by mail, email and through teleconferences but this was the first time that the ship

and company were available in person to begin to develop friendships that I hope will last for many years.

Activities with the communities commenced upon arrival in Pond Inlet, Nunavut, 20 August and carried on with subsequent visits to Grise Fjord (23 August), Arctic Bay (25 August), Cambridge Bay (2 September) and Kugluktuk (6 September). These activities allowed HDW to engage with over 600 residents through formal visits with senior town administrators, breaking bread together (through community BBQs), town hall discussions and providing tours of HDW. Between Pond Inlet and Arctic Bay, HDW embarked Peter Mansbridge and a film crew. This provided an opportunity to showcase the AOPV capabilities and the positive impact the RCN will have in affiliated communities. I hope some of our efforts may be captured in the Arctic documentary still in production.²

The first deployment of the Towed Releable Active Passive Sonar system from HDW began on our departure from Grise Fjord. The tests were to determine the efficacy of this system to be deployed from this class of ship. I was pleased to inform DRDC staff that we made history with this sovereignty patrol between Ellesmere Island and Devon Island – this was the farthest north an RCN towed-array had been employed in northern waters.³

The visits to the hamlets and historic sites provided opportunities to showcase new capabilities, such as beach landings, that could be used in humanitarian and disaster relief operations anywhere in the world. For example, once at anchor the crew conducted beach landing operations that included beach reconnaissance with swimmers to identify an appropriate beach operation point. The ship disembarked its 17-tonne landing craft with all-terrain vehicle to the shore position. The ship's crew went ashore to support activities which included the movement of equipment, stores and food for an outdoor cook-out, thus illustrating that rations for a large group of personnel could be



Credit: Cpl Simon Arcand

The crew of *Harry DeWolf* hosts a community event in Pond Inlet.



Petty Officer Second Class Kendall Samuelson, Sub-Lieutenant Karen Winzoski and Sailor Second Class Mohamed Kaseem aboard HMCS *Harry DeWolf*, guide a Towed Releable Active Passive Sonar into Baffin Bay, Nunavut, during *Operation Nanook-Nunakput*, 23 August 2021.

transported to shore. The ship's company moved groups over land-sea-land for ship tours, thus proving the ability to move elderly and children safely to the ship via landing craft and fitted ladders if ever needed.

While we were in Grise Fjord a story was shared with the ship's company by a gentleman named Larry Audlaluk. Larry is now in his 70s and told the story of how as a young boy he was moved in the 1950s with some of his family from the northern part of Quebec to the shores off Grise Fjord on the side of a grainy barren hill by the water. Other members of his family were moved to Resolute Bay, and left on a barren land in a similar manner. His story is complicated and painful to hear, but is one that must be told and heard by every Canadian. I cannot do it justice in this short article and his own book would be better suited to tell it.⁴ His family's story has been illustrated. In Grise Fjord you will see a carved statue sitting in the hills above the hamlet. It is a young woman with her daughter facing west towards Resolute Bay. In Resolute Bay you will find a similar statue facing east, it is a man and his dog. The two statues tell a story of families torn apart by people who believed they knew what was best for other peoples' lives. It is a tragic story, and one that I share with everyone who will listen. When I tell the story in person it is so gut wrenching for me I end up in tears. This is a small price to pay to remind Canadians of the mistakes we have made.

HDW visited the Nanisivik Naval Fueling Facility (NNF) located on the banks of the Strathcona Sound in Baffin Island, in Nunavut. NNF has the ability to store 7500m³ of diesel fuel oil in two 22-metre diameter double-walled tanks. On site one, there is a storage facility and a site office that can accommodate up to six personnel. The berth is not a traditional jetty – it has a unique jetty structure unlike any traditional ship-shore connector. (It is made up of three large cylinders partially secured to the shore by recessing them into the shoreline.) Having made a series of approaches on the jetty with the ship, I found it to be an easy approach.

The closest hamlet to NNF is Arctic Bay, located approximately 40 kilometres southwest over a mountainous region via a dirt road. The road once served as a service road for an iron ore mining company, but was also used for the annual Arctic Marathon, which one day I hope the RCN will rebrand as the RCN Arctic Marathon. Participants could fly to Arctic Bay via commercial air during an AOPV's summer patrol, which could support the event. During our visit to Arctic Bay we experienced a very warm welcome, a great deal of interest to visit the ship



This statue in Grise Fjord, part of two Arctic Exile Monuments, was carved by local artist Looty Pijimani in 2010 to commemorate the government's relocation of Inuit families from Pond Inlet and Inukjuak to form the communities of Grise Fjord and Resolute Bay in the 1950s.

and tremendous interaction on the shore with community members, in particular the youth of the community who received school supplies and back packs collected and delivered by the HDW crew on their first week of school.

With the eastern patrol complete, HDW proceeded to the central Arctic. I was excited about this leg of the journey because the crew was about to explore parts of the world which are rarely visited. During our passage from Arctic Bay via Admiralty Inlet and Lancaster Sound, HDW encountered stiff winds and following seas. We encountered light 3/10th ice (meaning that 3/10th of the surface was covered with ice) with no significant floes right up until Beechey Island. We entered Devon Island Bay, an area which provided suitable anchorage and shelter to the Franklin Expedition and other ships that would follow in search for HMS *Terror* and *Erebus*, including HDW.

On arrival, we flew our drone over land in search of wildlife and found polar bears far away from our intended beach landing area. We prepared to place boats in the water for our reconnaissance and follow-on personnel and conducted our routine mission briefs. We proceeded to Gascoyne Inlet with our landing craft and a work party to conduct a site survey, run up generators and get a sense of what maintenance will be required once DRDC can return to continue its work in the North. My mission while at anchor was twofold: conduct an over-the-horizon operation with my landing craft from Beechey Island to Gascoyne Inlet via Lancaster Sound; and take advantage of a professional development opportunity like no other on the shores of Beechey Island.

Before proceeding ashore, I gathered the crew in HDW's hangar and discussed the Franklin Expedition and the significance of Beechey Island. Three of Franklin's crew are interred on the island. Their graves were discovered in 1851 by the crew of British and American search vessels who were looking for any sign of Franklin's 'lost' expedition. I talked about the importance of their work and how sailors like ourselves took risks and sometimes made the ultimate sacrifice, not in a traditional war, but in doing all they could to see their mission through to fruition. I asked the crew, once they were on the beach and amongst the grave markers, to pause and reflect on the hardship those crews must have faced, as I did many years ago when I first visited this site. I asked them to take some time while on the beach to pay their respects. My imagination of life on Beechey is in stark contrast to Roald Amundsen's depiction, described in Pierre Berton's novel *The Arctic Grail*, as "splendidly equipped ships, with the British colours flying, officers in dazzling uniforms or boatswains with their pipes and blue-clad sailors hurrying ashore." For me while standing on the beach in a bitter cold wind, I imagined determined sailors from HMS *Erebus* and *Terror*,



Credit: Cpl Simon Arcand

An Initial Staging Committee arrives at an unspecified hamlet via the ship's landing craft.

some despairing, hungry, cold, and perhaps little appetite for fanfare, for tradition or uniforms, simply wanting to stay fed and warm.

At the end of both missions, we regrouped in the hangar for a BBQ. The discussions differed – some were somber, some excited due to polar bear sightings – and the Away Team who had departed the ship for Gascoyne via Lancaster shared their own observations. Each sailor had a unique story or observation, and I am sure these will be shared in years to come. It was a special day for all of us.

Once all boats were onboard and the ship was ready to re-deploy, HDW got underway for Peel Sound. We didn't know it but we were bound for ice encounters. The ice was reported to be light with a decent lead (a lead is a crack in the ice or path between ice floes that is the path of least resistance) to the northwest of Somerset Island. During our transit southeast through Barrow Strait and under a colourful sunset, I saw no evidence of a lead and HDW found itself quickly in 4/10th ice regimes that would gradually increase day after day to 10/10th ice as we proceeded south in Larsen Sound for Victoria Strait.

As you can imagine, ice is a concern in the North. The AOPVs have been designed and appraised by Lloyd's Registry based on the new International Association of Classification Societies (IACS) Polar Class (PC) Rules. The categories are as follows:

- A. Ships that are designed to operate in at least medium first year ice which may include old inclusions. This corresponds to vessels built to the IACS Polar ice classes PC 1 to 5, icebreaking ships.
- B. Ships that are designed to operate in at least thin first-year ice which may include old inclusions. PC 6 and 7 or equivalent, ice-strengthened ships.
- C. Ships that are designed to operate in open water or in ice conditions less severe than those in categories A and B. This corresponds to ships of any Baltic ice class or with no ice strengthening at all.

The AOPVs have been classified as PC 4. They have icebreaking capabilities such as icebreaker stem, ice-strengthened propellers, ice knives and the hull itself is an icebreaking form. These features, together with the propulsion plant, are what enable the ship to conduct icebreaking.

Ice in the Canadian Arctic is a mixture of first-year and multi-year ice. Multi-year ice is extremely dense, dangerous even for icebreaking ships proceeding too fast. During the summer thaw multi-year ice breaks away and mixes in with first-year ice. When the winter begins, that multi-year freezes in with first-year ice resulting in old inclusions which present challenges in the next navigable season. Depending on the summer melt, much of the Canadian Arctic can remain inaccessible for that navigable season.

The *Harry DeWolf*-class is able to operate during the whole of the navigable season, which means that 2021 marked the first time this has been possible since HMCS *Labrador* operated in Canada's northern waterways. I am often asked "in what thickness of ice can an AOPV operate?" Thickness is of course a concern, however temperature and wind build up ice ridges and ice pressure is created between floes which contributes to the risk index assessments equally.⁵ Without focusing on the science of sea-ice composition, ice ridging and pressure regions, a ship can be hampered in an ice regime and extremely cold temperatures and inconsistent density, pressure and thickness.

To get back to HDW's travels, the ship took Franklin's route west of King William Island, where ice tends to be extensive. The RCN could not operate in ice before the AOPVs – their introduction has made it possible to operate in 10/10th ice (100% ice). We proved this ability during cold weather Arctic trials in February/March 2021. Ship-handling in 10/10th ice is a force-enabling function. Now this passage will be a matter of routine operation during *Op Nanook*. The ship encountered old ice from McClure Strait and M'Clintock Channel clogging Larsen Sound



The crew of HMCS Harry DeWolf explores Beechey Island.

and Victoria Strait. Civilian shipping required escort by CCG ships and HDW routinely encountered and communicated with the CCG in the central and western Arctic.

Once out of Victoria Strait, it was clear sailing through Queen Maud Gulf to Cambridge Bay, where the ship was to conduct its first major Arctic provisioning operation, and a planned fuel stop in Kugluktuk. Cambridge Bay is a beautiful open bay in which to anchor, protected by the environments and home to the Canadian High Arctic Research Station (CHARS). CHARS lies almost due south of Resolute Bay and shares similar infrastructure such as a long runway, warehousing, federal facilities and accommodations that can support crew changes, land task forces and government departments with an Arctic mandate. This visit was hampered by the fact that COVID paperwork had not been received by the hamlet officials so the ship crew was not allowed to engage with the community in the same way we had elsewhere. As an interesting aside, two beluga whales followed the ship into the bay and the people of the hamlet were pleased and thanked us over the radio for the whales.

When we think about the Arctic, we think of rough terrain, sparse vegetation and harsh weather conditions. Few would believe that coral could be found just feet off the



The camp site at Gascoyne Inlet has been used for DRDC's experiments with underwater sensors.

Credit: Cpl. Simon Arcand

Credit: Harry DeWolf crew via
Cdr. Corey Gleason



Credit: DRDC Lead Engineer Jeff Scutton

HMCS *Harry DeWolf* in front of Cunningham Glacier.

shore in some places. CHARS illustrated this with submersible remote-controlled devices equipped with cameras, so we could see the fragile floral beauty under the water. It was extraordinary to discover and also concerning given what little we know about the biodiversity beneath the sea and another domain we must work to protect while we travel in northern waterways.

We spent four days at anchor off the coast of Kugluktuk sharing our anchorage with CCGS *Sir Wilfrid Laurier* and a few commercial vessels awaiting escort. Kugluktuk has a wonderful cultural centre which provides a snapshot of years of culture and tradition. The crew took the opportunity to purchase souvenirs to share with their family and friends. The Kitikmeot (western Arctic) region is a special area and I am confident the AOPV selected to be affiliated with this region will be well received by the residents of each community.

HDW carried on its journey passing Point Barrow, Alaska, and proceeded south to Dutch Harbor for its first fuel stop since Nuuk and first port visit in 51 days at sea. Dutch Harbor was an excellent port to visit after such an amazing journey through Canada's Arctic Archipelago. It represents the frontier into the US Arctic and the first fuel stop when leaving (or entering) the Arctic. The transit in and out was interrupted by pods of whales of different species – the ship stopped regularly for whales during its southbound transit. Through poor weather the ship made good time arriving in Prince Rupert to embark Commander MARPAC Rear Admiral Angus Topshee. We signalled our salutations to the town with ship's whistles, as we were greeted by people with cameras, flying unmanned aerial vehicles and small boats coming in for a closer look.

We carried on to Vancouver. The ship proceeded alongside Burrard Pier in the north end of Vancouver where RCMP motor vessel *St. Roch* was built and launched. It was a fitting tribute to Vancouver, and its contribution to building the first Canadian vessel to traverse the Northwest Passage. HMCS *Labrador* was the first RCN vessel and HDW the second. The interest in the ship was impressive and the crew felt like celebrities.

The ship conducted a Canadian Leaders at Sea engagement, led by Commander Fleet Pacific Commodore Dave

Mazur, that involved a transit from Vancouver to Victoria's Ogden Point where local dignitaries and guests visited the ship. The next morning HDW moved to Esquimalt Harbour for fuel, ammunition and a short work period. This leg of HDW's journey ended with a brief rest, relaxation and maintenance period in Esquimalt designed to introduce the ship to the West Coast fleet of sailors, trainers, logisticians, maintenance personnel and industry.⁶

I began this article with the paying off of HMCS *Labrador*, the first Arctic Patrol Vessel. Times have changed since 1958, but some things remain the same. Specifically, global and domestic affairs demand, as they did in 1958, that Canada and its allies invest in ships that respond with the right capability to support the mission they are being asked to do. The work done by HDW in the North illustrated that its capabilities are applicable anywhere in the world. This very Canadian ship fits into a scalable RCN and will operate on the lower spectrum of warfare filling the operational space of maritime security and disaster relief operations while the frigates and Canadian Surface Combatants are free to operate exclusively in the higher spectrum of warfare. ⚓

Notes

1. Ships are affiliated with regions of the country or cities. Ships and their affiliated cities or regions share charities, participate in community engagements and share the activities of the ship with schools, clubs and local government. HMCS *Harry DeWolf* is affiliated with the Qikiqtaaluk, one of six Arctic regions recognized by the Inuit.
2. Peter Mansbridge's podcast, "The Bridge" was produced onboard the ship while here and I encourage you to take the time to listen as he describes his personal observations and conducts an interview with Coxn, Chief Petty Officer 1st Class Ginette Seguin.
3. The CBC-contracted film crew recorded some footage during the TRAPS deployment.
4. Larry Audlaluk, *What I Remember, What I Know: The Life of a High Arctic Exile* (Iqaluit, Nunavut: Inhabit Media, 2020).
5. Temperature effects fractal ice strength. When two large ice floes interact they will break up and create ridges that push ice down into the water and up creating a mountain with a deep keel like an iceberg, or at the very least create pressure that could prevent a ship from moving freely.
6. Thales, for example, is establishing on the West Coast under in-service support contracts for the AOPVs and the Joint Support Ships (AJISS).

Commander Corey Gleason was the first Commanding Officer of HMCS Harry DeWolf. Appointed in 2015, Commander Gleason worked alongside industry and government to bring this class into service. He turned over Command 22 January 2022 and is now with Sea Training Patrol Vessel (Atlantic Group) supporting future patrol vessel Captains at sea.