



ARCTIC OFFSHORE AND PATROL SHIPS

The Arctic and Offshore Patrol Ships (AOPS) – called the *Harry DeWolf*-class – are ice-strengthened patrol ships (not icebreakers) designed to extend the Royal Canadian Navy’s reach deeper into Arctic waters, expand its operating season there, and provide the RCN with new capabilities in a wide range of global safety and security missions.

The plan for their construction was first announced in July 2007 and the AOPS were subsequently included in the National Shipbuilding Procurement Strategy (now the National Shipbuilding Strategy), announced in 2010. A contract was signed with Irving Shipbuilding in Halifax in 2015 for six to eight vessels (subsequently reduced to five vessels, with an option for a sixth) with construction of the first AOPS beginning in September 2015. In November 2018 the government announced that the sixth ship, the future HMCS *Robert Hampton Gray*, would be built. And in May 2019 it was announced that two ships will be built for the Canadian Coast Guard (CCG).

The first ship of the class, the future HMCS *Harry DeWolf*, departed Irving/Halifax Shipyard in November 2019 and, using its diesel-electric engines, moved to the Bedford Basin to start initial builder’s sea trials associated with anchor handling, the integrated bridge and navigation system (IBNS), fin stabilizers, Multi-Role Rescue Boat (MRRB) launch and recovery, and communication systems. On 23 November 2019, *Harry DeWolf* left the harbour for the first time to continue with builder’s sea trials. It was handed over to the navy on 31 July 2020 and underwent sea trials with the navy. In winter 2021 *Harry DeWolf* made its first voyage to the North for cold weather and ice trials – apparently performing very well.

The second of the ships, the future HMCS *Margaret Brooke*, was launched on 10 November 2019, and its first sea trials began in early May 2021. It was scheduled to be handed over to the navy late in 2020 but that was delayed, and the handover will likely occur in 2021 at some point. Progress is also being made on the third AOPS, the future HMCS *Max Bernays*. In January 2021 the centre and stern mega-blocks of *Max Bernays* were transported outside of the assembly hall. The two pieces will now be aligned and welded together. The final block, the bow, is currently under construction and will be moved outside later in 2021 for the ship’s final assembly. The plan is to hand this ship over to the RCN in 2022. The first blocks of the fourth AOPS vessel, the future HMCS *William Hall*, are now being assembled and painted, the official keel laying will be in 2021. Construction will begin on the fifth ship in 2021 as well.

The full class of AOPS will include the following ships:

- HMCS *Harry DeWolf* (AOPS 430)
- HMCS *Margaret Brooke* (AOPS 431)
- HMCS *Max Bernays* (AOPS 432)
- HMCS *William Hall* (AOPS 433)
- HMCS *Frédéric Rolette* (AOPS 434)
- HMCS *Robert Hampton Gray* (AOPS 435)

These vessels are designed as versatile patrol ships, capable of engaging across a wide spectrum of safety and security missions. Canada’s defence policy, *Strong, Secure, Engaged*,

released in 2017 states that these ships will “provide armed, sea-borne surveillance of Canadian waters, including in the Arctic. They will enforce sovereignty, cooperating with partners, at home and abroad, and will provide the Government of Canada with awareness of activities in Canada’s waters.” To put specific missions to this broad objective, the navy’s 2015 Concept of Use lists the following tasks for the ships:

- search and rescue;
- support for other government departments (for example, fisheries or border services);
- maritime domain awareness (to ascertain who is in Canadian waters and what they are doing);
- assistance to law enforcement (for example, smuggling);
- aid to civil power (for example, assistance dealing with an oil spill in the Arctic);
- logistical support to the Canadian Armed Forces and other government departments (for example, transport of equipment or personnel for disaster relief operations); and
- sovereignty protection.

At 103 metres and 6,615 tonnes, the AOPS will be the largest ship in the RCN until the delivery of the Joint Support Ships in the mid-2020s. Despite their large size, they will carry a small crew of 45, with the capacity to support up to 40 additional personnel. As noted, the ships are not icebreakers, but they are designed for Arctic operations. The AOPS will meet the International Association of Classification Societies’ (IACS) PC 5+ ice requirements with a Polar Class 4 bow, allowing them to travel through a metre of ice. They can also carry multi-purpose rescue and assault boats, as well as pick-up trucks, all-terrain vehicles and snowmobiles in the vehicle bay. The helicopter deck is large enough to support the Canadian Armed Forces’ CH-148 Cyclone maritime helicopter (though for Arctic operations it may typically employ smaller Griffon helicopters) and can operate a variety of unmanned aerial vehicles if required. The AOPS can also be integrated with payloads such as underwater survey equipment and will have space designed for shipping containers. A 20-ton crane is fitted on the ship to make loading and unloading all this equipment faster.

While armed, the AOPS are not intended to engage in combat. The ships will have a BAE Mk 38 deck gun designed for constabulary rather than war-fighting duties. The decision to arm these ships so lightly is based on years of assessing threats in the Arctic. The conclusion of these assessments is that the security threat in the region is, and will likely remain, unconventional. Thus, rather than war-fighting, these ships will focus on monitoring, policing and assisting civilian and commercial activity. These are the low-risk, high-probability security threats projected to emerge because of the increased use and development of the Arctic.

In the Arctic, the AOPS will likely spend most of their time in a support role, assisting other government departments and agencies in fulfilling their northern mandates. This support work may include hydrographic surveying with the Canadian Hydrographic Service, fisheries patrols with the Department of Fisheries and Oceans, and constabulary operations with the RCMP. Because they are not icebreakers, the AOPS will redeploy South during the winter.

In addition to these other tasks, the AOPS are also intended to buttress Canada’s sovereignty in the North. A major element of sovereignty in the North is to maintain presence, illustrate functional control and stewardship.¹ This is accomplished by enhancing Canadian ability to

¹ On this see the 2009 “Statement on Canada’s Arctic Foreign Policy,” which explains that “Canada exercises its sovereignty daily through good governance and responsible stewardship. It does so through

operate in the region, manifested in increased awareness, response and support capability. It is also accomplished by the navy's increased ability to monitor activity as it increases in the region and to support other government departments as their responsibilities expand as Arctic ice melts. The AOPS will be an important tool in enforcing the laws and regulations in the Arctic – for example, on shipping, environment, fishing and military presence.

The ships are referred to as Arctic *and Offshore* Patrol Ships indicating that they have more than one role. Outside the Arctic, the AOPS will be deployed on a wide range of patrol and surveillance duties, as well as humanitarian/disaster relief missions overseas. Operating off foreign coasts in a support capacity will be made easier by the ships' ample space for cargo and embarked civilian support personnel, and the AOPS will work in conjunction with the forthcoming *Protecteur*-class supply ships (AORs) to deliver supplies and assist responders ashore.

It is thought that the missions such as fisheries patrols, surveillance and interdiction of smuggling/narcotics operations, which are often undertaken by Canadian frigates, can be more effectively performed by the AOPS, owing to the fact that they will have roughly one-third the crew of a patrol frigate. The ships' size and space for additional personnel also makes them ideal platforms for maritime naval scientific research. As such, the *DeWolf*-class will support Defence Research Development Canada, the Canadian Armed Forces and government efforts in scientific research and development, while also being able to respond to academic and industry requests.

Designed as versatile support and patrol craft, the AOPS will undertake a variety of global missions for Canada and extend the range of the RCN into the Arctic for the first time since the 1950s.

the broad range of actions it undertakes as a government... We exercise our sovereignty in the Arctic through our laws and regulations, as we do throughout Canada.”