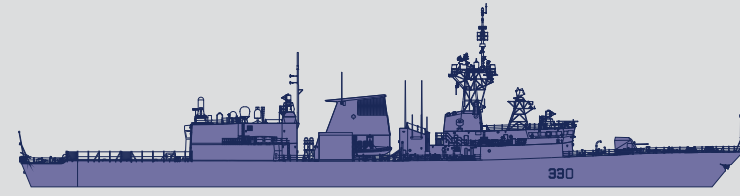


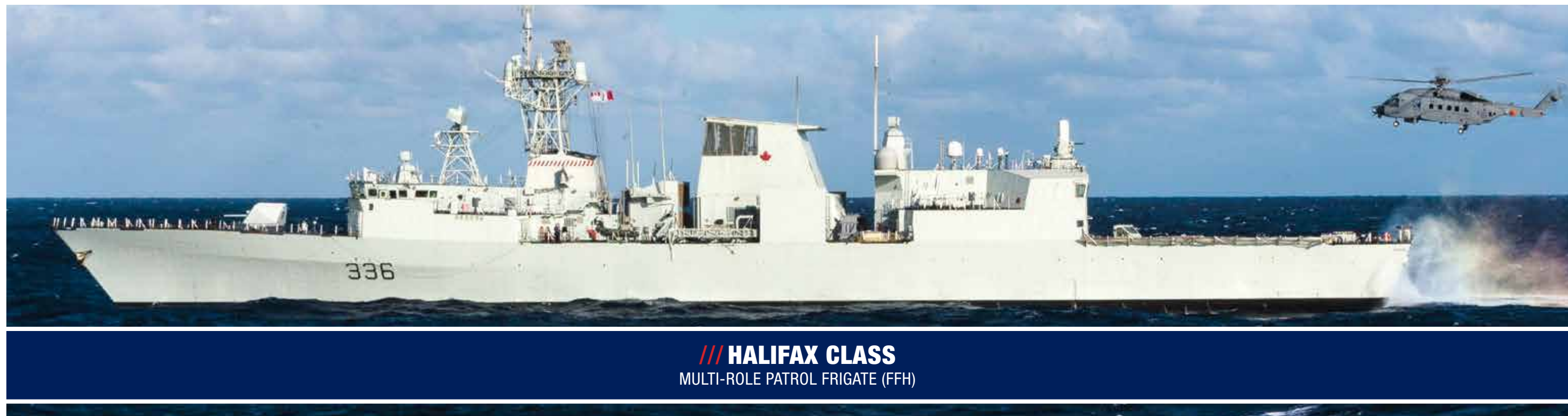
## /// VESSELS IN SERVICE

- HMCS HALIFAX 330
- HMCS VANCOUVER 331
- HMCS VILLE DE QUÉBEC 332
- HMCS TORONTO 333
- HMCS REGINA 334
- HMCS CALGARY 335
- HMCS MONTRÉAL 336
- HMCS FREDERICTON 337
- HMCS WINNIPEG 338
- HMCS CHARLOTTETOWN 339
- HMCS ST. JOHN'S 340
- HMCS OTTAWA 341



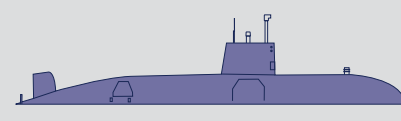
HALIFAX CLASS		MULTI-ROLE PATROL FRIGATE (FFH)	
<b>Standard Displacement</b>	4,770 tonnes	<b>Length</b>	134.1 metres
<b>Beam</b>	16.4 metres	<b>Complement</b>	225 personnel
<b>Armament:</b> Phalanx 20mm CIWS, ESSM SAMs, Bofors 57mm gun, Harpoon SSMS, twin MK 46 torpedo tubes, heavy (.50 cal) machine guns			

In 2016, the last of the 12 Halifax-class helicopter-carrying frigates, the core of the Royal Canadian Navy (RCN) fleet, completed the Halifax-Class Modernization project. This involved the installation of state-of-the-art radars, defences and armaments. The armaments combine anti-submarine, anti-surface and anti-air systems to deal with threats below, on and above the sea surface.



/// HALIFAX CLASS  
MULTI-ROLE PATROL FRIGATE (FFH)

- HMCS VICTORIA 876
- HMCS WINDSOR 877
- HMCS CORNER BROOK 878
- HMCS CHICOUTIMI 879



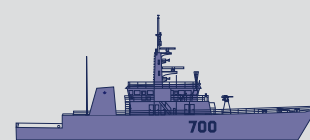
VICTORIA CLASS		LONG-RANGE PATROL SUBMARINE (SSK)	
<b>Standard Displacement</b>	2,400 tonnes	<b>Length</b>	70.26 metres
<b>Beam</b>	7.6 metres	<b>Complement</b>	48 personnel
<b>Armament:</b> Mk 48 Heavyweight torpedoes			

The Victoria-class submarines are the RCN's "special forces" and some of the Canadian Armed Forces' most strategic assets. These quiet, stealthy diesel-electric submarines are well armed and capable of patrolling vast distances, while their flexibility allows them to perform a wide range of naval missions. Recent upgrades provided the Victoria class with a state-of-the-art bow sonar system and sensors. The Victoria class can operate in the Arctic, Pacific and Atlantic approaches to Canada and significantly extend the navy's tactical and strategic capabilities.



/// VICTORIA CLASS  
LONG-RANGE PATROL SUBMARINE (SSK)

- HMCS KINGSTON 700
- HMCS GLACE BAY 701
- HMCS NANAIMO 702
- HMCS EDMONTON 703
- HMCS SHAWINIGAN 704
- HMCS WHITEHORSE 705
- HMCS YELLOWKNIFE 706
- HMCS GOOSE BAY 707
- HMCS MONCTON 708
- HMCS SASKATOON 709
- HMCS BRANDON 710
- HMCS SUMMERSIDE 711



KINGSTON CLASS		MARITIME COASTAL DEFENCE VESSEL (MM)	
<b>Standard Displacement</b>	970 tonnes	<b>Length</b>	55.3 metres
<b>Beam</b>	11.3 metres	<b>Complement</b>	37 personnel
<b>Armament:</b> NRWS (sea trials), heavy (.50 cal) machine guns			

The Kingston-class Maritime Coastal Defence Vessels are multi-role minor war vessels with a primary mission of coastal surveillance and patrol, including naval mine countermeasures, general naval operations and exercises, search and rescue, law enforcement, resource protection and fisheries patrols. This class of vessel was designed for a standard crew complement of 37, but has integrated bunking arrangements for up to 41. If a mission requires a larger crew, it can house an additional 6 personnel in an add-on accommodations module.



/// KINGSTON CLASS  
MARITIME COASTAL DEFENCE VESSEL (MM)

- ORCA 55
- RAVEN 56
- CARIBOU 57
- RENARD 58
- WOLF 59
- GRIZZLY 60
- COUGAR 61
- MOOSE 62



ORCA CLASS		PATROL CRAFT TRAINING VESSEL (PCT)	
<b>Standard Displacement</b>	210 tonnes	<b>Length</b>	33 metres
<b>Beam</b>	8.6 metres	<b>Complement</b>	25 personnel
<b>Armament:</b> Heavy (.50 cal) machine guns			

The Orca-class vessels operate year-round in British Columbia's coastal waters. In addition to their primary training mission, they support regional community relations by appearing in local festivals and maritime events. While not specifically assigned an operational role, these vessels patrol coastal waters responding to distress calls, reporting suspicious activity, pollution infractions and fishing violations.



/// ORCA CLASS  
PATROL CRAFT TRAINING VESSEL (PCT)

## /// SPECIAL CAPABILITIES



**Explosive Ordnance Disposal (EOD)**  
Clearance Divers conduct EOD tasks in the RCN. The divers perform a variety of tasks including battle damage repair, Improvised Explosive Device (IED) disposal, naval mine recognition and counter-measures, and underwater demolitions. They are drawn from a variety of naval occupations and are trained in dive physics, physiology, hydraulics, underwater photography, electrical, and welding (surface and underwater). Clearance Divers are familiar with a variety of explosives, and how to deal with them.

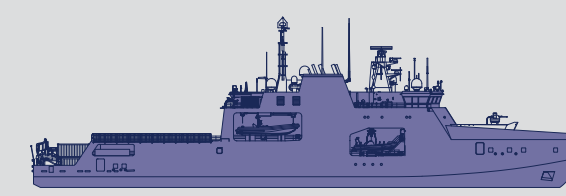


**Maritime Tactical Operations Group (MTOG)**  
The MTOG generates Enhanced Naval Boarding Party (ENBP) teams comprised of personnel who receive significant advanced training, and for whom boarding and force protection operations are a full-time duty. Members are trained in hand-to-hand combat, advanced medical training, IED identification, close-quarters battle and tactical shooting.



**Naval Security Team (NST)**  
The NST is composed primarily of naval reservists, and includes a full-time command team to ensure personnel, training and equipment are available for deployment. The team's tasks include port force protection and host nation liaison, along with support and intelligence requirements in foreign ports. They are trained in the use of force, rules of engagement, advanced weapons training, small boat tactics, communications, deployed logistics and liaison.

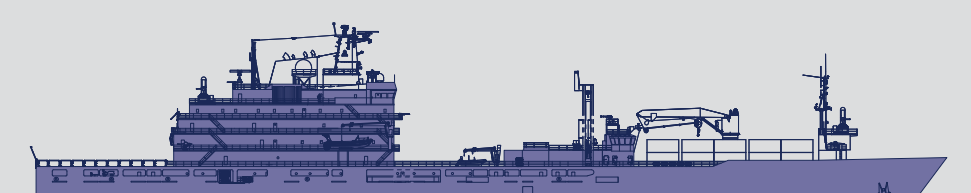
## /// VESSELS IN DEVELOPMENT



HARRY DEWOLF CLASS		ARCTIC AND OFFSHORE PATROL VESSEL (AOPV)	
<b>Standard Displacement</b>	6,440 tonnes	<b>Length</b>	103 metres
<b>Beam</b>	19 metres	<b>Complement</b>	65 personnel
<b>Armament:</b> BAE Mk 38 Mod 2 gun, heavy (.50 cal) machine guns			

Scheduled for delivery in 2018, the Harry DeWolf-class Arctic and Offshore Patrol Vessels will be ice-capable ships enabling armed sea-borne surveillance of Canada's waters, including the Arctic, providing government situational awareness of activities and events in these remote regions. The Harry DeWolf class, in cooperation with other partners in the Canadian Armed Forces and other government departments, will be able to assert and enforce Canadian sovereignty, when and where necessary.

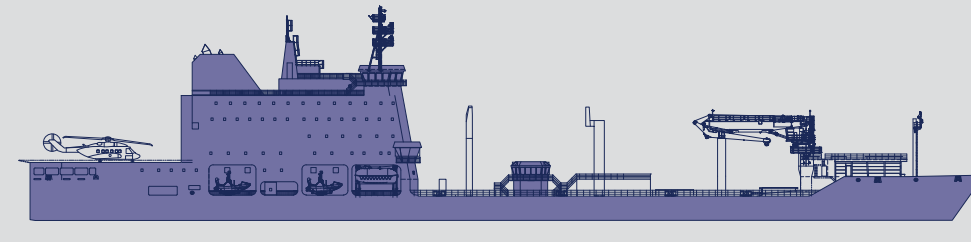
- HMCS HARRY DEWOLF 430
- HMCS MARGARET BROOKE 431
- HMCS MAX BERNAYS 432
- HMCS WILLIAM HALL 433
- HMCS FREDERICK ROLETTE 434



PROTECTEUR CLASS		JOINT SUPPORT SHIP (JSS)	
<b>Standard Displacement</b>	20,240 tonnes	<b>Length</b>	173.7 metres
<b>Beam</b>	24 metres	<b>Complement</b>	239 personnel
<b>Armament:</b> 2x Phalanx 20mm CIWS, 4x NRWS, heavy (.50 cal) machine guns			

Scheduled for delivery in 2022 and 2023, the Protecteur-class Joint Support Ships will offer a wide range of capabilities, including the provision of fuel, ammunition, spare parts, food, water and other supplies; modern medical and dental care facilities, including an operating room; repair facilities and expertise to keep helicopters and other equipment functioning; and basic self-defence functions.

- HMCS PROTECTEUR
- HMCS PRESERVER







IAOR		INTERIM AUXILIARY OILER REPLENISHMENT SHIP (MV)	
<b>Standard Displacement</b>	26,000 tonnes	<b>Length</b>	183 metres
<b>Beam</b>	25 metres	<b>Complement</b>	150 personnel
<b>Armament:</b> Heavy (.50 cal) machine guns and small arms for use exclusively by embarked RCN mission specialists.			

The interim Auxiliary Oiler Replenishment vessel will provide capabilities such as at-sea fuel replenishment, aviation support, medical and humanitarian assistance, and disaster relief. Federal Fleet Services Inc. has been contracted to provide this ship and at-sea service.

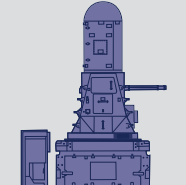
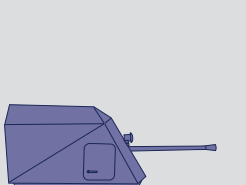
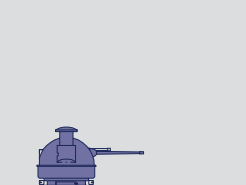

- MV ASTERIX

## /// ARMAMENT

**MISSILES & TORPEDOS:** The RCN's warships and submarines are equipped with torpedoes, surface-to-air and surface-to-surface missiles.

			
<b>HARPOON</b> Medium-range anti-ship missile. Capable of sea-skimming or pop-up trajectories. Max. speed: Mach 0.85.	<b>ESSM</b> The Evolved Seasparrow Missile (ESSM) is a medium-range surface-to-air missile. Uses terminal semi-active guidance system. Max. speed: Mach 3.6.	<b>MK 48</b> Submarine-launched long-range, wire-guided heavyweight torpedo for use against both surface targets and submarines.	<b>MK 46</b> High-speed, deep diving, active/passive acoustic homing torpedo carried by ships and aircraft for use against submarines.

**GUNS:** The fleet is equipped with a range of multi-purpose guns and cannon. They can engage anti-ship missiles, hostile aircraft and surface targets.

			
<b>PHALANX 20mm</b> Close-In Weapons System (CIWS). Point defence against anti-ship missiles. Automatically detects, tracks and engages targets. Fires 4,500 rounds per minute.	<b>BOFORS 57mm</b> Dual-purpose medium calibre gyro-stabilized automatic gun. Fires 220 rounds-per-minute. Enclosed in a low radar cross-section plastic turret.	<b>BAE Mk 38 Mod 2 25mm</b> This Machine Gun System (MGS) uses a M242 auto cannon, capable of firing at up to 180 rounds per minute. Remote controlled, gyro stabilized, with an EO/IR fire control system.	<b>NRWS 50 Cal.</b> M2 Naval Remote Weapon Station. Used for short range engagement of surface targets. Equipped with a highly sensitive sensor suite for surveillance and tracking of targets in both day and night conditions.

