



PROJECT RESOLUTE

Canadian Coast Guard Icebreaker Support Program

Government of Canada solicitation number: F7017-160056/A

A unique opportunity at a perfect time in the market...



Understanding the Coast Guard's needs

Since 2013, Davie has played a key role as the Government of Canada's centre of excellence for the refit, maintenance and life extension of the Coast Guard's heaviest icebreakers. Having recognised that there were icebreaking capability gaps in the Canadian Coast Guard fleet, Davie and Federal Fleet Services searched the global market to ascertain whether any commercially operated icebreakers could be converted for use by the Canadian Coast Guard. Under normal market conditions, it is near impossible to source a modern, capable vessel.

A downturn in the oil & gas market provides opportunity

The global downturn in the oil & gas market and a subsequent US government moratorium has led to the cancellation of a major arctic drilling program (Shell's Alaska program).

A rare and unique opportunity

The four modern, powerful and versatile icebreaking vessels owned by one US and one Scandinavian company which were destined for the Shell Alaska program are now being made available for the Canadian Coast Guard under Project Resolute. These ships are modern, proven, powerful, versatile and highly affordable. These vessels only require minimal alteration or re-configuration to the topsides (not hull or propulsion) to fully meet the needs of the Canadian Coast Guard.

Limited window of opportunity

Following Davie's unsolicited proposal of April 2016, in November 2016 the Government of Canada launched an official solicitation to source these vessels in a fast-track process. Federal Fleet Services is providing a fixed-rate proposal as part of the current government solicitation; which is valid for acceptance until the 15th April 2017. Given that these modern and complex vessels are uniquely available and the potential demand is strong, this opportunity has a limited window.

Pan Canadian Suppliers

Federal Fleet Services and Davie will use the Pan-Canadian supply base it has developed for the Resolve-Class AOR program to convert the vessels at Davie Shipbuilding in Quebec. Davie currently contracts with over 900 suppliers across Canada.

A proven contracting model

Federal Fleet Services proposes to use exactly the same proven and developed contract form (provision of services agreement) used for the Resolve-Class AOR to provide these four icebreakers to the Coast Guard.

A partnership of industrial leaders



Federal Fleet Services Inc. | Ottawa, Ontario

Role: Prime Contractor / Vessel Owner and Operator

Federal Fleet Services Inc. supports military, government and humanitarian operations through the construction, ownership, servicing and management of complex, mission-critical ships.



Davie Shipbuilding | Levis, Quebec

Role: Vessel re-configuration and upgrade

Davie Shipbuilding is Canada's award-winning, largest and highest capacity shipyard. Davie is an expert in the construction of icebreaking vessels and has recently been responsible for the refit and upgrade of Canada's existing heavy icebreaker fleet.



Groupe Ocean | Quebec City, Quebec

Role: Marine Operations Management and Canadian Crewing

Groupe Ocean is a leading provider of marine services with extensive experience in operating vessels year-round throughout Eastern Canada; particularly along the ice-laden St Lawrence river.



Viking Group | Scandinavia (HQ) and Worldwide

Role: Ice-Management and Vessel Operations Support

Viking Group is a world leader in icebreaker operations, operating 18 vessels worldwide with 800 employees; as well as providing ice consultancy and icebreaker operational management services to corporations and governments throughout the globe.

Project Resolute - timeline



Q2 2014

Davie makes unsolicited proposal to build a Polar Icebreaker for \$720m to cover shortage in capability. Proposal is rejected by the previous federal government.

Q1 2016

Davie negotiates exclusivity agreements / options with owners of the world's top four icebreakers and begins concept design and cost estimating.

November 2016

Government of Canada launches official solicitation for the lease of 'interim' icebreakers. Companies invited to make proposals against published criteria.

February 27th 2017

Proposal deadline set by the government of Canada. Federal Fleet Services Inc. submits full proposal for the four icebreaker vessels.

2015

Davie switches focus from newbuilding to conversion. Davie searches the international market and sources the most modern and high-tech icebreakers available worldwide.

Q2 2016

Davie and Federal Fleet Services make unsolicited proposal to the Government of Canada for the lease of the upgraded and re-configured icebreakers.

December 2016

Industry day takes place on 8th December 2016 as part of the solicitation process. Industry is invited

Expected Q2 2017

Government to conclude analysis of proposals and commence procurement. Given that this is a unique opportunity and that there are no other viable options, a fast-track procurement is expected.

Project Resolute - Two classes of icebreaker



Class

01 Polar Icebreaker



Candidate Vessel:
Dynamically Positioned Polar-Class Icebreaker
Post-conversion utilisation:
Arctic expedition, icebreaking, border patrol, search and rescue (SAR),
oceanographic research / arctic survey, towage and salvage

1x



02 Medium Icebreakers



Candidate Vessels:
Dynamically Positioned Icebreaking AHTS
Post-conversion utilisation:
Arctic expedition, river / coastal icebreaking, towage and salvage, border patrol,
search and rescue (SAR), oceanographic research, navigational aids

3x



Candidate Vessels



Class

1

Polar
Icebreaker

m/v Aiviq

Aiviq was built in 2012 by North American Shipbuilders for use on the Shell Alaska drilling campaign. She is the world's most powerful, privately-owned icebreaker. With Polar Class 3, this vessel is capable of operating in the harshest of environments. Built to tow large drilling rigs, m/v Aiviq is perfectly suited as a multipurpose, icebreaking towage and oil spill response vessel.



Class

2

Medium
Icebreakers

m/v Tor Viking II m/v Vidar Viking m/v Balder Viking

These three Norwegian-built icebreakers have been used worldwide by both governments and corporations for a range of operations from arctic expeditions to government icebreaking and ice-management operations to search & rescue. The vessels are owned and operated by Viking Supply Ships, a world-leader in icebreaker operations.

Polar Class Comparison



POLAR CLASS	VESSEL
2	> CCGS Diefenbaker > Newbuild Russian Icebreakers (In service 2016)
3	> Project Resolute Class 1 Polar Icebreaker (m/v Aiviq) > CCGS Louis St Laurent (built 1967)
4	> Project Resolute Class 2 Medium Icebreakers (Viking Supply Ships) > Canadian Coast Guard 1200-Class Icebreaker fleet
5	Canadian Navy's Harry De Wolfe Class Arctic Offshore Patrol Ships

Class

1

**Polar
Icebreaker**



The world's most powerful, privately-owned icebreaker

- Built in 2012
- Arctic Expedition / Survey / Scientific Research
- Arctic Search & Rescue
- Arctic Towage / Salvage / Oil Spill Response

Class

1

Polar Icebreaker



Conversion



Name	Aiviq
Built	2012 (USA)
Classification	ABS
Ice-Class	Polar Class 3
Length	110 meters
Beam	24 meters
Helicopter	Yes + Hangar
Moonpool	Yes
Scientific spaces	Yes
Crane	2 x 15t SWL
Towage	200t BP
Power	23 MW
Propulsion	Conventional CPP + Retractable Thruster
Dynamic Positioning	DP 3

Class

2

Medium
Icebreakers



Powerful, proven icebreakers operated throughout the globe

- Arctic Expedition / Survey / Scientific Research
- Arctic Search & Rescue
- Arctic Towage / Salvage / Oil Spill Response

Class

2

Medium
Icebreakers



Conversion

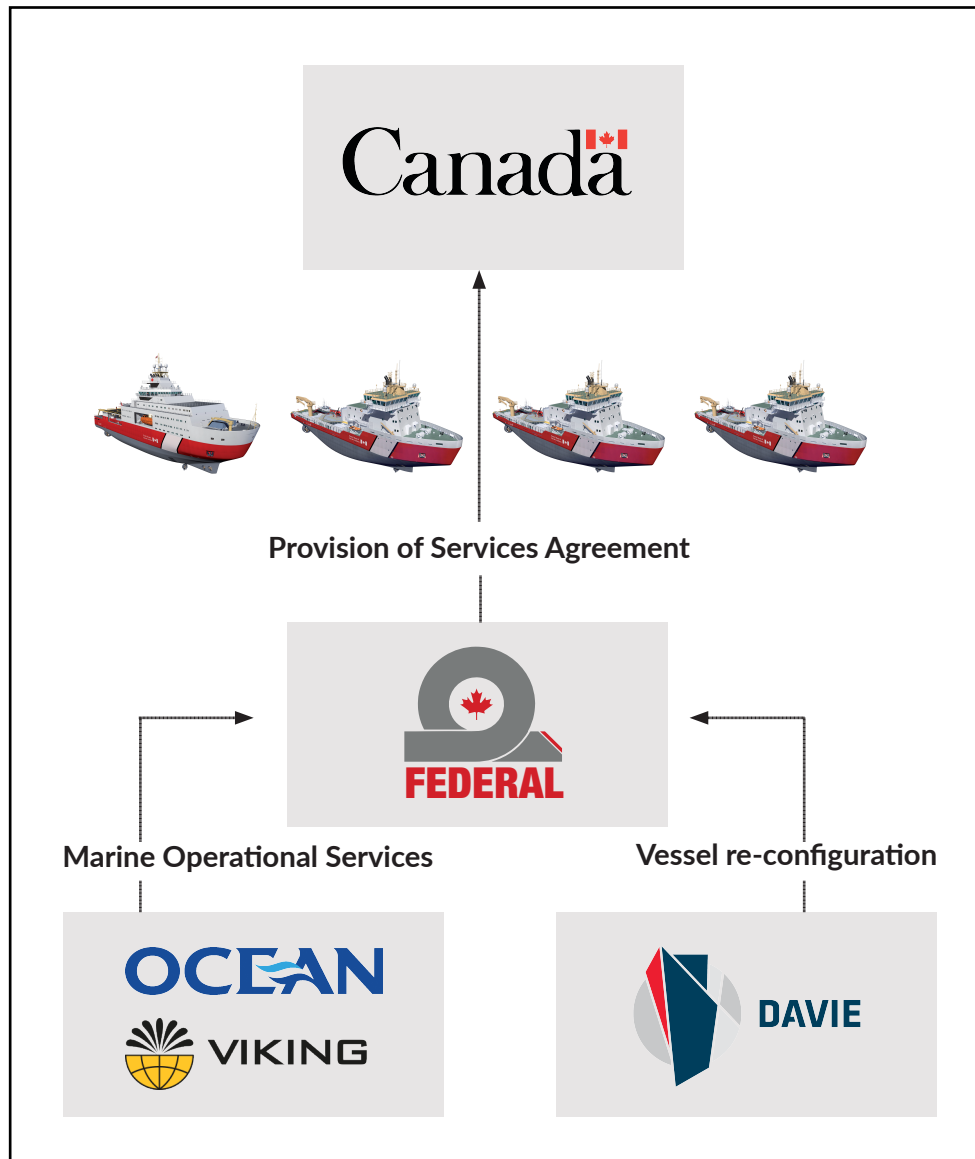


Vessel names	Tor Viking II Balder Viking Vidar Viking
Built	2000 (Norway)
Classification	DNV
Ice-Class	Polar Class 4
Length	84 meters
Beam	18 meters
Helicopter	Yes + Hangar
Crane	1 x 25t SWL
Towage	200t BP
Power	18,300 HP / 13.4 MW
Propulsion	Conventional + Retractable Thrusters
Dynamic Positioning	DP 2 (AUT-R)

A proven structure



Contracting structure



Contract form

The contract form for Resolute will be the same Provision of Services Agreement developed for the Resolve-Class AOR program. A single contract which incorporates both the use of the vessel as well as operational management and training for the Canadian Coast Guard.

Costing

Resolute involves three types of cost payment:

- A fixed annual cost for use of the vessel (lease payment).
- A fixed mobilisation cost for bringing the vessel to Canada and reconfiguring it for use by the Coast Guard.
- Open-book variable costing for the operational management and crewing of the ship (1031-2).

Note:

*All costs have been benchmarked against industry standards

** The firm fixed-price offer provided to Canada is valid until April 15th 2017 and is subject to the continued availability of the vessels.

Transitional Management and Training

As part of Project Resolute, we are providing a transitional management and training solution to the Canadian Coast Guard in order that - should they wish - the Canadian Coast Guard can take over full operation of the vessels throughout the service period, supported by our team.