Davie: Canada’s icebreaker partner of choice

The National Icebreaker Centre (NIC) is a thought-leadership and innovation hub for Polar and Arctic technologies. The NIC reflects Davie’s history as Canada’s icebreaking partner and our future role in rejuvenating the entire ice-capable fleet. The NIC will create well-paid jobs and drive economic growth in Canada, while showcasing and exporting Canadian innovation worldwide.

Moreover, consolidating skills, capabilities and entire programs at Davie will ensure the icebreaker fleet is built in Canada by Canadians to the highest standards. Made in Canada has never meant more, as we seek economic recovery from the COVID-19 pandemic. Building at Davie would also enable Canada to create a high value export sector for world-class ships for the Arctic. To deliver the new fleet, Davie has partnered with leaders in icebreaker design, construction, fabrication and critical systems.

All vessels Davie has delivered over the past eight years have a high ice-class rating, including complex subsea construction vessels and LNG-powered ferries, which are built to operate year-round on the Saguenay river.

With a multi-year order book, the NIC will continue to be at forefront of the design, engineering and construction of an emerging generation of leading edge technology, environmentally responsible and more efficient multifunctional icebreakers.

Davie Icebreaker Orderbook

3 medium icebreakers (MIBs)

6 new building Program Icebreakers (PIBs)

1 Polar Icebreaker
Program Icebreakers

Under the NSS, Davie will construct six heavy Program Icebreakers (PIBs). The PIBs will be the CCG’s backbone icebreakers with capability and capacity to meet current and far future needs. They will be able to operate in severe conditions and support missions during the winter ice season as well as summer expeditions to the Arctic.

- Accommodate more than 30 crew and program teams of 34
- Able to operate and maintain one medium CCG helicopter
- 100-110 meters long; beam under 23.8m for Great Lakes; draft 6-8m
- Capable of maintaining 3 knots in 1.4m of ice
- 20,000 nautical mile range without refuelling at 12 knots

Polar Icebreakers

Davie has the capacity, infrastructure and experience to begin work today on the world’s most powerful hybrid diesel-electric polar icebreakers. Davie has pledged to deliver the replacement for the CCGS Louis St Laurent ahead of Canada’s schedule.

- Able to accommodate two helicopters and will have large cargo carrying capacity
- Able to break through 2.5m of ice - greater than any other Canadian vessel
- Significant general and containerized cargo capacity
- 20,000 nautical mile range without refuelling at 12 knots
- Sustained operations in the Arctic Archipelago over three seasons per year

CCG’s flagship and world’s most powerful hybrid (diesel-electric) icebreaker
Economic Engine
With the support of the Québec government, Davie is a champion of the Québec Maritime Strategy and the creation of a vibrant maritime cluster, making the province a global destination for a wide range of polar and Arctic activities. Davie has and will continue to contribute billions of dollars to the Québec and Canadian economies. Since 2012, it has also sustained an average of over 1,300 well-paid full-time jobs. Davie also partners and shares its success with over 1,500 suppliers throughout Canada. Looking forward, the National Icebreaker Centre will have an assured pipeline of work worth billions of dollars until the 2040s and will offer important export opportunities for the Canadian economy.

Future focus
The need for a modern, versatile and efficient polar icebreaker fleet has never been greater. These unique ships benefit all Canadians by helping to protect and enable the economy, security, sovereignty and the marine environment.

Climate change means the Arctic region is increasingly a hive of federal, academic and commercial activity. As sea ice declines, transpolar trade routes are becoming ever more navigable. With it, will come significant risks. State-of-the-art polar icebreakers are critical for ensuring the safety and sustainability of navigation in the Arctic.

Export opportunities
More than half of the world’s icebreaker fleet is over 40 years old. Demand for these specialized vessels from both governments and private corporations is outstripping supply – a pattern which is sure to continue. This will see new commercial entrants requiring specialized multi-purpose ships as well as the continued renewal of many state assets.

There will also be potential for international strategic partnerships to work programmatically on key technologies and platforms as other industrial sectors such as aerospace have done successfully.

Increased activity in other harsh ice environments such as the Antarctic also offers a sizeable potential market for the leading-edge icebreaking technologies Davie offers.