

Follow up questions to the OGGO Meeting (March 25) with Canadian Coast Guard Officials

Question from M.P. Kelly McCauley: Provide a breakdown of what the cost savings are going to be for the seventh and eighth version of the AOPS from removing all the military hardware.

In order to better tailor the vessels for Canadian Coast Guard (CCG) operations, the following modifications were made to the Royal Canadian Navy's (RCN) Arctic and Offshore Patrol Ship (AOPS) design:

- updated the ship bridge to include two bridge wings and a navigation suite for safe operation with minimal crew to support regulatory requirements and Canadian Coast Guard crewing practices;
- modified the personnel accommodations to support commercial/civilian regulatory requirements; and,
- re-purposed military spaces, including the aft working deck to support Canadian Coast Guard program requirements. This includes, but is not limited to: conservation and protection; aids to navigation; environmental response; and, marine science missions.

Some of these changes will also require modifications to some of the equipment onboard the ship, such as the replacement and addition of several cranes and winches; an update to the communications and sensor suite to reflect a commercial command and control system; and, the addition of some hull mounted sensors.

As with any complex manufacturing process, calculating the specific cost of a change would require understanding all the re-engineering, installation, and system changes required to make these changes. The Canadian Coast Guard does expect some of the modifications to be partially offset by the cost savings that will come from the removal of the military hardware and systems included in the RCN design. However, there are other factors beyond the ships' physical characteristics that will influence cost, including:

- additional engineering, design, and reconfiguration work required to make the modifications;
- some loss of production line efficiency gained through AOPS 1-6, due to the modifications, which expected to lead to an increase in the level of production hours required to build each ship; and,
- increased inflation for ships that will come later in the production line, as compared to AOPS 1-6, which would increase material and equipment costs for AOPS 7 and 8 compared to the purchases made for the RCN ships in 2015 and 2016. The development of a true variance analysis of this nature would have to consider all these factors and would require detailed production information. This level of information would be included in the substantive cost proposal that will be provided in support of a final build contract for the ships. At present, this proposal is in the early stages of discussion with fulsome analysis expected in the fall of 2022.

Question from M.P. Gord Johns: How are you going to make sure we don't have the rocking issue due to a lack of a stabilizer come up again?

There are thirteen countries that operate the Damen 4207 designed patrol vessel, and of these countries, two have elected to operate the vessel without stabilization fins: Canada and Vietnam. In discussion with the RCMP as one of the primary clients for the Mid-Shore Patrol Vessel, it was assessed that the loss of speed associated with the addition of stabilizer fins would negatively impact the Marine Security and Enforcement Team program requirements, leading to the decision to have the fins removed, notwithstanding the impact to sea kindliness¹.

Part of the contributing factor for why these vessels have an issue with sea kindliness is that they are long and narrow with a high center of gravity, resulting in an unkind motion in a heavy sea. Additionally, the vessels also do not have any roll dampening devices, such as bilge keels or active stabilizers to help mitigate the rolling motion. The Canadian Coast Guard is examining options to improve the sea kindliness in the project plans for the pilot project rebuild of the CCGS *Corporal McLaren*. This includes studies to determine the best way to reduce the roll of the vessel while minimizing the affects to speed, range, and weight onboard. Once the selected solution is trialed onboard the *Corporal McLaren*, the intent would be to adopt the modification throughout the vessel class.

¹ Sea kindliness is the property of a vessel which is well adapted to being handled safely at sea in heavy weather.

Question from M.P. Gord Johns regarding the Pacheedaht First Nation

The Canadian Coast Guard and Pacheedaht First Nation (PFN) are continuing to work together to co-develop the Marine Safety Centre slated for Port Renfrew, as set out in the memorandum of understanding signed by both parties in June 2020. On March 29, 2022, Western Region's new Assistant Commissioner participated in a very productive virtual meeting with PFN representatives, including Chief Jones. At that meeting, Assistant Commissioner Derek Moss reaffirmed Canada's \$22.4M commitment to build a lifeboat station and an emergency response facility. As the PFN's attempt to purchase Pacific Gateway Marina was unsuccessful, they are now considering a second available site. This site will be the subject of a joint inspection at PFN and the Canadian Coast Guard's next in-person meeting in early May of 2022. As the memorandum of understanding is set to expire in June 2022, PFN and the Canadian Coast Guard are now considering extending it, or examining the creation of a new governance structure that would enable the attainment of the objectives of both parties.