

Project Title: Defence Research and Development Canada (DRDC) – Northern Watch Technology Demonstration Project

Project Location: Gascoyne Inlet, NU

CIRNAC Permit: N2021N0007

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The DRDC Northern Watch Technology Demonstration Project (Project) is underway to demonstrate an arctic maritime surveillance capability to the Department of National Defence and other concerned federal departments. This is a multi-year undertaking and is based at Gascoyne Inlet.

The main research program presently supported by the Gascoyne Inlet Camp (camp) is the Defence of North America program. This program is a multi-year program, part of which is focused on surveillance in maritime Arctic locations.

As part of technology demonstration activities, annual trips to the camp are required. Once the team has arrived the camp, their main tasks will include routine camp maintenance and camp-based research activities. The on-site team for the 2025 field season is expected to be up to 20 persons at one time, with the normal load being approximately 10 people. The duration of their time on site is expected to be for five weeks within the July to September timeframe each year.

The camp will also support marine research activities conducted via support platforms such as small boats, the Canadian Coast Guard (CCG), and/or commercial vessels.

A small-scale reverse-osmosis desalination system, like that used in sailboats, was successfully tested in 2024 to create freshwater from seawater for the camp. Plans to test two units to fully supply the camp are planned in 2025. This would provide fresh water to the camp in the future without reliance on meltwater and will reduce maintenance requirements.

The Department of National Defence and the Canadian Armed Forces strive for excellence in environmental stewardship. A Simplified Environmental Study (SES) will be conducted, and the research trials will be conducted with due diligence towards the environment.