

## **2021 Annual Report: from the Université de Sherbrooke research group (GRIMP) – Research license 04 010 21R-M**

**Prepared by: Prof. Dr. Alex Langlois, PI**

The group from the Université de Sherbrooke was did not conduct any work in the Cambridge Bay area since our last report updated in 2019 because of the COVID situation. We updated our license in 2021 for a quick trip to install a meteorological station on the CHARS campus. This said, we plan on pursuing our work in March – April 2022 with the following objectives:

1) to develop rain-on-snow and ice detection methods using satellite image, 2) use a snow model to simulate caribou grazing conditions and 3) characterize snow from satellites. The short-term use of the data allowed us to validate the snow model. In the long-term, the data collected on the field will be compared to satellites in order to see if they can detect changes in snow conditions (especially those during ROS events).

**2022 sites to be surveyed:** Unchanged from past reports, we will revisit existing sites

**2022 crew:** Alain Royer, Patrick Ménard, Célia Trunz, Vincent Sasseville, Élise Groulx-Maurer, Érika Boisvert-Vigneault, Charlotte Crevier, Daniel Kramer, Nicolas Marchand, Caroline Dolant, Alexandre Gélinas, Alexandre Mavrovic, Julien Meloche, Alexandre Langlois, Nick Rutter, Melody Sandells, Richard Essery, Frédéric Bouchard.

Fieldwork will occur from March to the end of April 2022, with accommodations organized through CHARS.