

SCIENTIFIC RESEARCH LICENSE

LICENSE NUMBER 02 006 25R-M

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TITLE: Lake Ice in the Canadian High Arctic

OBJECTIVES OF RESEARCH:

Lake ice is an important part of the cryosphere and recent projections suggest a pan-arctic reduction by the end of the century in ice duration and thickness. Since the majority of ground-based ice observations in Canada ceased by the 1990s, recent changes in ice regimes have been primarily noted through modelling and remote sensing. Observation data, essential for validating both remote sensing and modelling research, is currently inadequate though some volunteer monitoring efforts have emerged since the decline of Canada's monitoring network and have been utilized for ice research. As changes are noted in ice regimes, we need to fully understand the implications and response in terms of water and energy balance and their effects on other areas of research. To achieve this, in situ data of lake ice in Canada is being collected across a latitudinal gradient. The field data will be used to improve the effects of snow cover on modelled ice thickness, as well as to isolate how the duration of the modelled ice break-up season is affected by the shape/size of the lake. Resolute and Polar Bear Pass provide ideal locations for the High Arctic portion of this study and data collection is underway.

TERMS & CONDITIONS:

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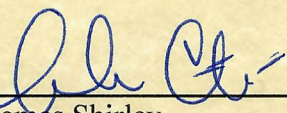
DATA COLLECTION IN NU:

DATES: May 1,2025 to August 31,2025

LOCATION: Cornwallis Island, Resolute Bay, Polar Bear Pass

Scientific Research License 02 006 25R-M expires on December 31,2025

Issued at Iqaluit, NU on January 9,2025

PER 
James Shirley
Science Advisor

