

SCIENTIFIC RESEARCH LICENSE

LICENSE NUMBER 02 028 25R-M

ISSUED TO: James Drummond
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TEAM MEMBERS: P. Fogal, K. Strong, K. Walker

TITLE: CANDAC-The Canadian Network for the Detection of Atmospheric Change

OBJECTIVES OF RESEARCH:

We will carry out a suite of atmospheric measurements at the Polar Environment Atmospheric Research Laboratory (PEARL) located near the Eureka Weather Station on Ellesmere Island. Measurements will include remote sensing of the atmosphere to measure molecular constituents such as ozone, methane, carbon dioxide, and other molecules important in both ozone depletion and global warming processes. We will also measure particulates in the lower atmosphere, the motion of atmospheric waves, and the temperature and motion of the upper part of the atmosphere bordering on Space. Many of the measurements at PEARL are of the energy from the Sun that passes through or is absorbed by the atmosphere, or that is released by the atmosphere. Other measurements make use of radar techniques to measure the energy reflected, refracted, or absorbed by the atmosphere. PEARL measurements will be used to validate satellite instrumentation and models, to gain further understanding of various atmospheric processes, in particular global warming, ozone depletion and the transportation of pollutants into the Arctic, and to contribute to various international networks.

TERMS & CONDITIONS:

The holder of the license will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report (NIRB File # 09YN017) and the Department of Culture & Heritage archaeological sites terms and conditions. These terms and conditions will form part of this license.


DATA COLLECTION IN NU:

DATES: April 3,2025 to December 31,2025

LOCATION: Eureka

Scientific Research License 02 028 25R-M expires on December 31,2025

Issued at Iqaluit, NU on April 3, 2025


James Shirley
Science Advisor

