

## Metadata Input Form (\* Mandatory fields)

### Data Identification Information (basic information about the data set)

**Please use this template and save in your files as a backup of your metadata. Simply copy/paste information onto website.**

**Click on grey rectangles to type text**

\* Title of data (e.g. climate data in northern Québec):  
CANDAC/PEARL DataSet - PEARL All Sky Imager

\* How should the data be cited (as unpublished data or a journal reference)?  
This data is currently unpublished. As papers are published this record will be updated.  
(Maximum characters: 500, including spaces)

\* Study site:  
PEARL Observatory, Eureka, Nunavut  
(Maximum characters: 50, including spaces)

\* Purpose (a summary of the intentions with which the data set was developed):  
These data were collected as part of the ongoing program of the Polar Environment Atmospheric Research Laboratory (PEARL) at Eureka, Nunavut (80N, 86.4W). PEARL is operated by the Canadian Network for the Detection of Atmospheric Change (CANDAC). The mission of PEARL is to characterise the atmosphere in the altitude range of 0-100km and provide data for studies of air quality, ozone and climate change.  
(Maximum characters: 1500, including spaces)

\* Abstract (description of methodology and data type, e.g., interviews, physical and chemical variables, imagery, recordings, maps and other spatial data, profile, etc.):  
The PEARL All Sky Imager (PASI), uses a fish eye lens to image the sky from horizon to horizon. Five narrow band filters are used to isolate the airglow and auroral emissions of interest and intensity variations in these emission provide information on the conditions in the atmosphere at the emission heights. The emissions monitored are hydroxy (~87 km), sodium (~90 km), oxygen green line (~95 km), oxygen red line (220 km), and molecular nitrogen (~140 km). The spatial resolution of this imager is ~ 1 square kilometer overhead. Waves passing through the atmosphere at the heights of these layers perturb the airglow chemistry and cause variations in the irradiance. These variations are used to diagnose the characteristics of these waves (gravity waves, tides and planetary waves).  
(Maximum characters: 1500, including spaces)

Plain language summary (if available, please provide the text in more than one language):

Not Applicable  
(Maximum characters: 1500, including spaces)

\* Data originators (e.g. name of data collector(s)):  
(Do not enter duplicate originators)  
Prof. William Ward (wward@unb.ca)

Links to data (if available, otherwise please enter principal researcher's email address):

<http://www.candac.ca>

Prof. William Ward ([wward@unb.ca](mailto:wward@unb.ca))

\* Status of data: Click on grey rectangle to view scroll down menu

\* Maintenance and update frequency: Click on grey rectangle to view scroll down menu

\* Research program: Select entry from scroll down menu on website; you may select more than one program.

CANDAC

IPY-PEARL

### Geographic Coordinates (in decimal format)

**Research Area:** Coordinates MUST be between -90 and 90 for latitudes and between -180 and 180 for longitudes. All Canadian longitudinal co-ordinates will be negative and all latitudinal co-ordinates for the Antarctic will be negative.

\* North (latitude N): 80

\* South (latitude N): 80

\* West (longitude E): -86.4

\* East (longitude E): -86.4

### Time Period (during which the data was collected)

Select entry from scroll down menu on website

\* Start Year: 2007

\* End Year:

\* Start Month: 11

\* End Month:

\* Start Day: 04

\* End Day:

### Keywords (see keywords library)

(e.g., Alaska, Nunavik, Resolute, Active layer, Caribou, Glaciers, Migration, Stratigraphy, Diet, Salmonella, Habitat vulnerability)

Select entry from the scroll down menu on the website or consult the Keywords Library

\* Keyword 1: Ellesmere Island

\* Keyword 2: Eureka Sound

\* Keyword 3: Photochemistry

- \* Keyword 4: Atmosphere
- \* Keyword 5: Gases
- Keyword 6: Monitoring
- Keyword 7: Observatory
- Keyword 8: Optics
- Keyword 9: Remote Sensing Data
- Keyword 10: Emission

## Security

- \* Access: [Click on grey rectangle to view scroll down menu](#)