

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)
Visibility Sensor 1 data in Iqaluit, NU - STAR project

How should the data be cited: *(As unpublished data or a journal reference)

(Maximum characters: 500, including spaces)

Study Site: *
Environment Canada Weather Office in Iqaluit, NU

Purpose: * (A summary of the intentions with which the data set was developed)
Visibility measurements (max range 16 km with this instrument), used in analysis with blowing snow and precipitation observations.
(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.)

Two Sentry SVS-1 visibility sensors were installed at the Iqaluit Weather Office site. One instrument was an RS-232 Output version (Visibility 1), while the second was Analog version (Visibility 2) of the instrument. The instruments have measurement ranges of 30 m to 16 km with an accuracy of $\pm 10\%$. Both sensors were set to sample once every minute, and mounted at a height of 1.5 m.

Visibility 1 (RS-232 output) was positioned on the east side of the Upper Air shed at the Weather Office during the fall field campaign. The data files were logged using an Acumen Data Logger, and stored on a compact flash card. Data files are in *.dat format where they contain date, time, sensor output voltage (VDC), visibility in (km). To derive the visibility from the VDC the following formula was used: $\sigma \text{ km}^{-1} = 20 * (0.150/\text{VDC})$.

Data from this instrument was downloaded daily. This was accomplished by exchanging the CF card in the data logger. The CF card was then brought into the Environment Canada weather office, where it was offloaded onto the STAR desktop computer. To exchange the CF cards, the data logger had to be turned off for periods between 1-5 minutes. As a result, 1-5 minutes of data is missing during these time periods.

This instrument moved over to the 10-m tower weather station (A3) for the winter blowing snow project (Feb 1- March 30). The same downloading procedure was adapted, however downloads occurred on a weekly basis. See Visibility 1 Winter metadata form for more info.

(Maximum characters: 1500, including spaces)

Data Originators: *(e.g. name of data collector(s))

(Do not enter duplicate originators)

John Hanesiak, University of Manitoba CEOS, Winnipeg, MB

Ron Stewart, University of Manitoba CEOS, Winnipeg, MB

Kent Moore, University of Toronto, Toronto, ON

Peter Taylor, York University, Toronto, ON

Walter Strapp, Cloud Physics and Severe Weather Division, Environment Canada, Ottawa, ON

Mengistu Wolde, Flight Research Laboratory, National Research Council of Canada, Ottawa, ON

Links to data (if available, **enter NI Email address if direct link is not yet available**):

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

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

Geographic Coordinates (in decimal format)

Research Area *

Coordinates should be in the range of -90.0000 to 90.0000 for the latitude and -180.0000 to 180.0000 for the longitude

North (latitude N): 63 deg 44.834 min

South (latitude N):

West (longitude W): - 68 deg 32.551 min

East (longitude W):

Time Period (covered by the data set)

* **Select entry from scroll down menu on website**

Start Year: * 2007

End Year: *2007

Start Month: *September

End Month: *Nov

Start Day: * 23

End Day: *30

Keywords (see Keywords Library)

(e.g., Air, temperature, Precipitation, Photosynthesis, Ocean, Soil, Bacterial production, Climate, Land, Policy, Charr)

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

Keyword 1: * Visibility

Keyword 2: *

Keyword 3: *

Keyword 4: *

Keyword 5: *

Keyword 6:

Keyword 7:

Keyword 8:

Keyword 9:

Keyword 10:

Security

Access: * Click on grey rectangle to view scroll down menu
Public