

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)
CloudSat data over southern Baffin Island

How should the data be cited: *(As unpublished data or a journal reference)
NASA and Colorado State University, 2006, CloudSat Cloud mask and radar reflectivities (2B-GEOPROF product version 011), Cooperative Institute for Research in the Atmosphere, CloudSat Data Processing Center, Fort Collins, CO, USA; <http://www.cloudsat.cira.colostate.edu/dataSpecs.php?prodid=9>
(Maximum characters: 500, including spaces)

Study Site: *
Iqaluit, NU and the surrounding region (southern Baffin Island and adjoining ocean region)

Purpose: * (A summary of the intentions with which the data set was developed)
CloudSat was selected as a NASA Earth System Science Pathfinder satellite mission in 1999 to provide observations necessary to advance our understanding of cloud abundance, distribution, structure, and radiative properties. Since 2006, CloudSat has flown the first satellite-based millimeter-wavelength cloud radar—a radar that is more than 1000 times more sensitive than existing weather radars. Unlike ground-based weather radars that use centimeter wavelengths to detect raindrop-sized particles, CloudSat's radar allows us to detect the much smaller particles of liquid water and ice that constitute the large cloud masses that make our weather.

(excerpt taken from the CloudSat home page:
<http://cloudsat.atmos.colostate.edu/overview>)
(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 Cloud Profiling Radar (CPR) is a 94-GHz nadir-looking radar which measures the power backscattered by clouds as a function of distance from the radar. The CPR was developed jointly by NASA/JPL and the Canadian Space Agency (CSA). The overall design of the CPR is simple, well understood, and has strong heritage from many cloud radars already in operation in ground-based and airborne applications.

The design of the CPR is driven by the science objectives. The original requirements on CPR were: sensitivity defined by a minimum detectable reflectivity factor of -30 dBZ, along-track sampling of 2 km, a dynamic range of

70 dB, 500 m vertical resolution and calibration accuracy of 1.5 dB. The minimum detectable reflectivity factor requirement was reduced to -26 dBZ when the mission was changed to put CloudSat into a higher orbit for formation flying.

(excerpt taken from the CloudSat home page:
<http://cloudsat.atmos.colostate.edu/instrument>)
(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 Morre, 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):

<http://www.cloudsat.cira.colostate.edu/dataHome.php>

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
As needed

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): 68.5

South (latitude N): 59

West (longitude W): -79

East (longitude W): -59.5

Time Period (covered by the data set)

* Select entry from scroll down menu on website

Start Year:* 2007

End Year:*2007

Start Month:*10

End Month:*11

Start Day:* 01

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:*CloudSat

Keyword 2:*radar

Keyword 3:*water

Keyword 4:*layer

Keyword 5:*height

Keyword 6: precipitation

Keyword 7:

Keyword 8:

Keyword 9:

Keyword 10:

Security

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

Public