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)
MODIS data over southern Baffin Island (Cloud Product)

How should the data be cited: *(As unpublished data or a journal reference)
"These data are distributed by the Land Processes Distributed Active Archive Center (LP DAAC), located at the U.S. Geological Survey (USGS) Earth Resources Observation and Science (EROS) Center (lpdaac.usgs.gov)."
(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)
The changing climate represents one of the most important ecological issues concerning our planet. Changes in atmospheric trace gases, cloud over, cloud type, solar radiation, and tropospheric aerosols (liquid or solid particles suspended in the air) can have a profound impact on the climatic system as each property can modify the climate through changes in the radiative forcings. As such, it is important to correctly represent the climate and the associated forcings in conceptual and predictive global models. In an effort to monitor these properties, two MODIS (Moderate Resolution Imaging Spectroradiometer) instruments, the first launched on 18 December 1999 onboard the Terra Platform and the second on 4 May 2002 onboard the Aqua platform, were uniquely designed to observe and monitor these and other Earth changes on a global scale.

A thorough description of global cloudiness and its associated properties is essential to the MODIS mission for two reasons. First, clouds play a critical role in the radiative balance of the Earth and must be accurately described in order to assess climate and potential climate change accurately. In addition, the presence or absence of cloudiness must be accurately determined in order to retrieve properly many atmospheric and surface parameters, including phase, optical thickness, and temperature. These and other cloud perameters are retrieved at a high resoluation, allowing many details and fine features to be resolved accurately.

(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 MODIS Cloud Product combines infrared and visible techniques to determine both physical and radiative cloud properties. Daily global Level 2 data are provided. Cloud-particle phase (ice vs. water, clouds vs. snow), effective cloud-particle radius, and cloud optical thickness are derived using the MODIS visible and near-infrared channel radiances. Cloud-top temperature, height, effective emissivity, phase (ice vs. water, opaque vs. non-opaque), and cloud fraction are produced by the infrared retrieval methods both day and night at 5 × 5 1-km-pixel resolution. Finally, the MODIS Cloud Product includes the cirrus reflectance in the visible at the 1-km-pixel resolution, which is useful for removing cirrus scattering effects from the land-surface reflectance product. There are two MODIS Cloud data product files: MOD06_L2, containing data collected from the Terra platform; and MYD06_L2, containing data collected from the Aqua platform.

(excerpt taken from the MODIS home page:
http://modis-atmos.gsfc.nasa.gov/MOD06_L2/index.html)
(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://ladsweb.nascom.nasa.gov/data/

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:*Aqua
Keyword 2:*MODIS
Keyword 3:*temperature
Keyword 4:*phase
Keyword 5:*height
Keyword 6: pressure
Keyword 7:
Keyword 8:
Keyword 9:
Keyword 10:

Security

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

Public