ISLSCP II Cloud and Meteorology Parameters

Summary:

This data set contains cloud and meteorology data on a 1.0 degree x 1.0 degree spatial resolution. There are eight data files (*.zip) with this data set for several cloud parameters (monthly only) and meteorological parameters including monthly surface skin temperature, monthly total column ozone, and water vapor burdens for the period 1986-1995. All monthly parameters include files with a monthly mean value, a monthly standard deviation, and monthly minimum and maximum values.

Additional Documentation:

This data set is one of the products of the **International Satellite Land-Surface Climatology Project, Initiative II (ISLSCP II)** data collection which contains 50 global time series data sets for the ten-year period 1986 to 1995. A complete description of the data, its derivation, acknowledgements, and references provided by the ISLSCP II Data Management Staff is included with this data set as a companion file named 1_srb_radiation_clouds_doc.pdf.

ISLSCP II is a consistent collection of data sets that were compiled from existing data sources and algorithms, and were designed to satisfy the needs of modelers and investigators of the global carbon, water and energy cycle. The data were acquired from a number of U.S. and international agencies, universities, and institutions. The data and documentation have undergone two peer reviews.

ISLSCP is one of several projects of Global Energy and Water Cycle Experiment (GEWEX) [http://www.gewex.org/] and has the lead role in addressing land-atmosphere interactions -- process modeling, data retrieval algorithms, field experiment design and execution, and the development of global data sets.

Related Data Sets:

- Additional ISLSCP II data sets are available from the Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC).

Data Citation:

Cite this data set as follows:

Stackhouse, P. W., and S. K. Gupta. 2012. ISLSCP II Cloud and Meteorology Parameters. In Hall, Forrest G., G. Collatz, B. Meeson, S. Los, E. Brown de Colstoun, and D. Landis (eds.). ISLSCP Initiative II Collection. Data set. Available on-line [http://daac.ornl.gov/] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi: 10.3334/ORNLDAAC/1073

File Information:

The archived data sets for ISLSCP II have been organized by categories. This data set is in the Radiation and Clouds category.

Data Set Spatial Extent: Global gridded

      Westernmost Longitude: -180 W

      Easternmost Longitude: 180 E

      Northernmost Latitude: 90 N

      Southernmost Latitude: -90 S

      Projection: Geographic

Data Set Spatial Resolution: 1.0 degree in both latitude and longitude

Data Set Temporal Extent: 1986 through 1995

Data File Format

All of the data files in each data set within the ISLSCP Initiative II data collection are in standard ArcGIS ASCII grid format. The file format consists of numerical fields of varying length, which are delimited by a single space and arranged in columns and rows. There are 8 *.zip files with this data set in 1.0 degree resolution.

The files are named in the following manner:

srb_variable_1d_monthly.zip: When extrapolated, these .zip files contain 472 ASCII files with the file extension .asc in one (1d) degree spatial resolution each month, for the years 1986-1994, and for January-October for 1995. The variable name can include "_av" for mean, "_sd" for standard deviation, "_mn" for minimum, or "_mx" for maximum data. The files contain monthly cloud and meteorological parameter data listed in the table below: the data is monthly data, average data for a whole month. It also contains the Standard Deviation, the Maximum, and the Minimum.

The files contain a variety of different data types, listed in the table below.

File Abbrev.	Type of Data	Temporal Coverage
cldamt	total cloud amount (%)	monthly
cldtopp	cloud-top pressure (mb)	monthly
cldtopt	cloud-top temperature (K)	monthly
cwv	column water vapor (gm/cm^2)	monthly
ozone	column ozone (dobson units)	monthly
skint	surface skin temperature (K)	monthly
tau	cloud optical depth	monthly
water	cloud liquid water path (gm/m^2)	monthly

Data File Names:

- **srb_cldamt_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for total cloud amount, monthly average, standard deviation, maximum and minimum each month, for the

years 1986-1994, and January-October for 1995. Example file name: srb_cldamt_av_1d_19860100.asc.

- **srb_cldtopp_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for cloud-top pressure, monthly average, standard deviation, maximum and minimum each month, for the years 11986-1994, and January-October for 1995. Example file name: srb_cldtopp_mn_1d_19860600.asc.
- **srb_cldtopt_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for cloud-top temperature, monthly average, standard deviation, maximum and minimum each month, for the years 1986-1994, and January-October for 1995. Example file name: srb_cldtopt_mx_1d_19870100.asc.
- **srb_cwv_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for column water vapor, monthly average, standard deviation, maximum and minimum each month, for the years 1986-1994, and January-October for 1995. Example file name: srb_cwv_av_1d_19870100.asc.
- **srb_ozone_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for column ozone burden, monthly average, standard deviation, maximum and minimum each month, for the years 1986-1994, and January-October for 1995. Example file name: srb_ozone_sd_1d_19950700.asc.
- **srb_skint_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for surface skin temperature, monthly average, standard deviation, maximum and minimum each month, for the years 11986-1994, and January-October for 1995. Example file name: srb_skint_mx_1d_19910300.asc.
- **srb_tau_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for cloud optical depth, monthly average, standard deviation, maximum and minimum each month, for the years 1986-1994, and January-October for 1995.Example file name: srb_tau_av_1d_19860900.asc.
- **srb_water_1d_monthly.zip:** When extrapolated, this file contains ASCII (.asc) files for cloud liquid water path, monthly average, standard deviation, maximum and minimum each month, for the years 1986-1994, and January-October for 1995. Example file name: srb_water_mn_1d_19900500.asc.

Please refer to 0_srb_clouds_readme.txt for a more complete description of the data files and naming conventions.

Reference:

Stackhouse, P. W., S. K. Gupta, S. J. Cox, M. Chiacchio, and J. C. Mikovitz, 2000: The WCRP/GEWEX Surface Radiation Budget Project Release 2: An assessment of surface fluxes at 1 degree resolution. In IRS 2000: Current Problems in Atmospheric Radiation, W.L. Smith and Y. M. Timofeyev, Eds., International Radiation Symposium, St. Petersburg,Russia, July 24-29, 2000.

Data Access:

This data is available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC).

Data Archive Center:

Contact for Data Center Access Information:
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