

## CLASIC07 In Situ Vegetation Data, Version 1

## USER GUIDE

#### How to Cite These Data

As a condition of using these data, you must include a citation:

Jackson, T. and L. McKee. 2015. *CLASIC07 In Situ Vegetation Data, Version 1.* [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. https://doi.org/10.5067/7V38PNLVUNES. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT NSIDC@NSIDC.ORG

FOR CURRENT INFORMATION, VISIT https://nsidc.org/data/CL07V



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# 1 DETAILED DATA DESCRIPTION

This data set includes in situ vegetation data collected during the Cloud and Land Surface Interaction Campaign 2007 (CLASIC07) campaign. Sampling was designed to coincide with satellite overpasses, such as Landsat's Thematic Mapper (TM) 5 and the Moderate Resolution Imaging Spectroradiometer (MODIS) sensor on NASA's Terra satellite (MODIS/Terra), which can be then used to estimate vegetation water content on the regional scale.

### 1.1 Format

The following table provides descriptions for each column in the ASCII text data file,

SUM\_VEG\_CLASIC.txt. An associated Extensible Markup Language (XML) metadata file is also provided.

Column Heading	Description
Field	Site location ID (LW: Little Washita, FC: Fort Cobb)
Сгор	Corn, Cotton, Cut WW: Harvested Winter Wheat, Pasture, WW:Winter Wheat
Date	1-Digit Month/2-Digit Day/4-Digit Year
DOY	Day of Year
Time	Time of sampling in Central Daylight Time (CDT)
Average Field VWC	Vegetation Water Content [kg/m <sup>2</sup> ]
Average Field Latitude	Decimal Degree, WGS84
Average Field Longitude	Decimal Degree, WGS84
Average Field UTM Easting	WGS84, Zone 14, [m]
Average Field UTM Northing	WGS84, Zone 14, [m]

### 1.2 File and Directory Structure

The file is available at:

ftp://n5eil01u.ecs.nsidc.org/SAN/SMAP\_VAL/CL07V.001/

## 1.3 File Naming Convention

The data file is named CL07V\_SUM\_VEG\_CLASIC.txt.

#### 1.4 File Size

The data file is approximately 1.2 KB.

### 1.5 Spatial Coverage

Southernmost Latitude: 34.79°N Northernmost Latitude: 35.21°N Westernmost Longitude: 98.60°W Easternmost Longitude: 97.95°W

### 1.6 Spatial Resolution

In situ measurements were sampled within a .46 m by .46 m square.

### 1.7 Projection

Latitude and longitude are in Universal Transverse Mercator (UTM) Zone 14N easting and northing and World Geodetic System 1984 (WGS84) coordinates.

#### 1.8 Temporal Coverage

Depending on the site, vegetation samples were collected once or twice during the campaign between 10 June 2007 and 3 July 2007. The sampling was conducted between 08:00 and 17:00 local time.

#### 1.9 Parameter or Variable

The measured parameter for this data set is Vegetation Water Content (VWC) [kg/m<sup>2</sup>].

#### 1.9.1 Parameter Range

Valid parameter values for VWC are 0-10 kg/m<sup>2</sup>. Missing data are represented with -999.

# 2 SOFTWARE AND TOOLS

No special tools are required to view these data. A spreadsheet program which recognizes tabdelimited text files, such as Microsoft Excel is recommended. A word-processing program or Web browser will display the data.

# 3 DATA ACQUISITION AND PROCESSING

### 3.1 Data Acquisition Methods

The goal of vegetation sampling is the generation of vegetation data products that enable estimation of surface soil moisture from passive microwave radiometers. The sampling was designed to coincide with satellite overpasses, such as Thematic Mapper 5 (TM5) and MODIS/Terra, which can be used to estimate vegetation water content on the regional scale.

Vegetation information was collected at most CLASIC field sites at least once during the field campaign. The poor weather conditions made it impossible to get to all of the field sites. The sampling was conducted between 08:00 and 17:00 local time.

Three locations (Plots) in each of the fields were sampled. An effort was made to have these locations coincide with the soil moisture sampling points. Sampling consisted of recording vegetation height, row spacing and plant spacing, as well as collecting vegetation biomass samples from a .46 m by .46 m square. In the laboratory they were weighed, dried at 60°C for 48 to 96 hours, and then weighed again. This data set consists solely of vegetation water content. See the CLASIC experiment plan for more details.

#### 3.1.1 Errors Sources

Because these data were manually collected, human error is possible.

## 4 CONTACTS AND ACKNOWLEDGMENTS

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## 5 DOCUMENT INFORMATION

#### 5.1 Publication Date

June 2015

### 5.2 Date Last Updated

October 2020