

Notice to Data Users:
The documentation for this data set was provided solely by the Principal Investigator(s) and was not further developed, thoroughly reviewed, or edited by NSIDC. Thus, support for this data set may be limited.

SMEX05 Site Photographs: Iowa

Summary

This data set contains a collection of photographs intended to be visual aid for investigators of the SMEX05 data sets in the Ames, Iowa USA area. Photographs of each sampling site are provided with several views to give an idea of the land cover and characteristics of the vegetation. The photographs were taken from 06 May 2005 to 30 June 2005. The total volume of this data set is approximately 29.5 megabytes. Data are provided in Joint Photographic Experts Group (JPEG) files, and are available via FTP.

The Advanced Microwave Scanning Radiometer - Earth Observing System (AMSR-E) is a mission instrument launched aboard NASA's Aqua satellite on 04 May 2002. AMSR-E validation studies linked to SMEX are designed to evaluate the accuracy of AMSR-E soil moisture data. Specific validation objectives include: assessing and refining soil moisture algorithm performance; verifying soil moisture estimation accuracy; investigating the effects of vegetation, surface temperature, topography, and soil texture on soil moisture accuracy; and determining the regions that are useful for AMSR-E soil moisture measurements.

Citing These Data:

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Overview Table

Category	Description
<u>Data format</u>	JPEG image files
<u>Spatial coverage</u>	41.932° to 41.99° N, 93.48° to 94.03° W
<u>Temporal coverage</u>	06 May 2005 to 30 June 2005
<u>File naming convention</u>	WCSS_NN_MMDDYY.JPG
<u>File size</u>	117 KB - 1530 KB
<u>Parameter(s)</u>	Land Cover

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1. Contacts and Acknowledgments:

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2. Detailed Data Description:

Format:

JPEG image files

File Naming Convention:

Files are named according to the following convention and are further described in Table 1.

WCSS_NN_MMDDYY.JPG

Table 1. Description of File Name Variables

Variable	Description
WC	Designates the Walnut Creek (WC) watershed site
SS	Field number in which the photograph was taken
NN	The picture index for the field
MM	2-digit Month of photo
DD	2-digit Day of photo
YY	2-digit Year of photo
.JPG .jpg	JPEG image file

Example: WC01_02_061605.JPG

Some file names include more than one watershed site field number. For example, this file name includes field numbers 48 and 49: WC48_WC49_01_062705.JPG

File Size:

File sizes range from 117 KB to 1530 KB.

Spatial Coverage:

Southernmost Latitude: 41.932° N

Northernmost Latitude: 41.99° N

Westernmost Longitude: 94.03° W

Easternmost Longitude: 93.48° W

Temporal Coverage:

Images files were taken 06 May 2005 through 30 June 2005.

Temporal Resolution:

Photographs were collected throughout the experiment.

3. Data Access and Tools:

Data Access:

Data are available via FTP at: ftp://sidads.colorado.edu/pub/DATASETS/AVDM/data/soil_moisture/SMEX05/ancillary_data/photographs/

Software and Tools:

No special tools are required to view these images. A simple image viewing program which recognizes the JPEG file format is recommended.

4. Data Acquisition and Processing:

Teams were assigned cameras throughout the experiment.

5. References and Related Publications:

Refer to the USDA SMEX05 Web site for in-depth information on the science mission and goal of the SMEX05 project:

<http://www.ars.usda.gov/Research/docs.htm?docid=8996>

For related data collections, please see AMSR-E Validation:

http://nsidc.org/data/amr_validation/

6. Document Information:

List of Acronyms

The following acronyms are used in this document:

AMSR-E – Advanced Microwave Scanning Radiometer - Earth Observing System

CIRES – Cooperative Institute for Research in Environmental Sciences

FTP – File Transfer Protocol

JPEG – Joint Photographic Experts Group

NASA – National Aeronautics and Space Administration

NSIDC – National Snow and Ice Data Center

SMEX05 – Soil Moisture Experiment 2005

USDA ARS – United States Department of Agriculture Agricultural Research Service
WC – Walnut Creek

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