



SMEX03 Site Photographs, Alabama, Georgia, Oklahoma, Version 1

USER GUIDE

How to Cite These Data

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

Cosh, M., T. Jackson, and C. Laymon. 2008. SMEX03 Site Photographs, Alabama, Version 1. [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. doi: <https://doi.org/10.5067/T6VJRV9S5IL>. [Date Accessed].

Cosh, M., T. Jackson, and C. Laymon. 2013. SMEX03 Site Photographs, Georgia, Version 1. [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. doi: <https://doi.org/10.5067/79O9UHDQ43CI>. [Date Accessed].

Cosh, M., T. Jackson, and C. Laymon. 2013. SMEX03 Site Photographs, Oklahoma, Version 1. [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. doi: <https://doi.org/10.5067/9NR0M4ILQEZN>. [Date Accessed].

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

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/NSIDC-0344>, <https://nsidc.org/data/NSIDC-0574>,
<https://nsidc.org/data/NSIDC-0575>



National Snow and Ice Data Center

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1 DETAILED DATA DESCRIPTION

This user guide applies to the following SMEX03 data sets:

NSIDC-0344 (SMEX03 Site Photographs, Alabama)

NSIDC-0574 (SMEX03 Site Photographs, Georgia)

NSIDC-0575 (SMEX03 Site Photographs, Oklahoma)

1.1 Format

Photographs are provided as JPEG image files. Select Alabama photographs, which were taken with disposable cameras then converted to digital images, have a resolution of approximately 600 by 400 pixels. All other images were taken with digital cameras and have a resolution of approximately 1200 by 900 pixels.

1.2 File and Directory Structure

The top directory level contains subdirectories for each SMEX03 study region along with the readme.txt file, as shown in Figure 1. Within the Alabama directory, photographs are further organized into subdirectories for each Field Number (FN).



Figure 1. SMEX03 Site Photographs
Directory Structure

1.3 File Naming Convention

Alabama image files are named according to the following convention and as described in Table 1.

File Naming Convention:

RGFN.mdd.l(n).view#.jpg

File Name Example:

AL28.625.a.synoptic9.jpg

1.3.1 Alabama

Table 1 Description of Alabama JPEG File Name Variables

Variable	Description										
RG	Regional Study Area (AL: Alabama)										
FN	2-digit Field Number in which photograph was taken (01, 02, 03...59)										
m	When present, indicates 1-digit month										
dd	When present, indicates 2-digit day										
l	When present, indicates a location within a Field Number (a, b, c, d)										
(n)	When present, a number following l (location) indicates additional photographs taken in the same location. For example, b2 in the file name AL23.628.b2.jpg indicates that this is the second photograph for this location.										
view	<p>When present, indicates View or Camera Orientation, as described here:</p> <table border="1"> <thead> <tr> <th>View/Camera Orientation Values</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>canopy</td> <td>View of the canopy</td> </tr> <tr> <td>nadir</td> <td>Straight down</td> </tr> <tr> <td>oblique</td> <td>~30-45° below horizontal</td> </tr> <tr> <td>synoptic</td> <td>Overview of the setting</td> </tr> </tbody> </table>	View/Camera Orientation Values	Description	canopy	View of the canopy	nadir	Straight down	oblique	~30-45° below horizontal	synoptic	Overview of the setting
View/Camera Orientation Values	Description										
canopy	View of the canopy										
nadir	Straight down										
oblique	~30-45° below horizontal										
synoptic	Overview of the setting										
#	When present, a number following view indicates additional photographs taken with the same camera orientation. For example, synoptic9 in the file name AL28.625.a.synoptic9.jpg indicates that this is the ninth photograph for this area taken with synoptic orientation.										
.jpg	Indicates that this is a JPEG file.										

1.3.2 Georgia

Georgia JPEG files are named according to the following convention and as described in Table 2.

File Naming Convention:

RGFN_mmdyy.jpg

File Name Example:

GA01_070103.jpg

Table 2 Description of Georgia JPEG File Name Variables

Variable	Description
RG	Regional Study Area (GA: Georgia)
FN	2-digit Field Number in which photograph was taken (01, 02, 03...52)
mm	2-digit month
dd	2-digit day
yy	2-digit year
.jpg	Indicates that this is a JPEG file.

1.3.3 Oklahoma

Oklahoma JPEG files are named according to the following convention and as described in Table 3:

File Naming Convention:

rgFN_PI_mmdyy.jpg

File Name Example:

LW11_01_070403.jpg

Table 3 Description of Oklahoma JPEG File Name Variables

Variable	Description								
rg	Regional Study Areas (on:Oklahoma North; os:Oklahoma South; lw: Little Washita watershed)								
FN	Indicates Field Number in which the photograph was taken, as further described here: <table border="1" data-bbox="378 405 820 699"> <thead> <tr> <th>Region</th> <th>FN Values</th> </tr> </thead> <tbody> <tr> <td>Oklahoma North</td> <td>01, 02, 03...36</td> </tr> <tr> <td>Oklahoma South</td> <td>01, 02, 03...52</td> </tr> <tr> <td>Little Washita</td> <td>01, 02, 03...33</td> </tr> </tbody> </table>	Region	FN Values	Oklahoma North	01, 02, 03...36	Oklahoma South	01, 02, 03...52	Little Washita	01, 02, 03...33
Region	FN Values								
Oklahoma North	01, 02, 03...36								
Oklahoma South	01, 02, 03...52								
Little Washita	01, 02, 03...33								
PI	Indicates Picture Index number, and thus additional pictures, of the same field. Possible values are further described here: <table border="1" data-bbox="378 787 820 1150"> <thead> <tr> <th>Region</th> <th>PI Values</th> </tr> </thead> <tbody> <tr> <td>Oklahoma North</td> <td>01, 02, 03, 04</td> </tr> <tr> <td>Oklahoma South</td> <td>01, 02, 03, 04, 05</td> </tr> <tr> <td>Little Washita</td> <td>01, 02, 03, 04</td> </tr> </tbody> </table>	Region	PI Values	Oklahoma North	01, 02, 03, 04	Oklahoma South	01, 02, 03, 04, 05	Little Washita	01, 02, 03, 04
Region	PI Values								
Oklahoma North	01, 02, 03, 04								
Oklahoma South	01, 02, 03, 04, 05								
Little Washita	01, 02, 03, 04								
mm	2-digit month								
dd	2-digit day								
yy	2-digit year								
.jpg	Indicates that this is a JPEG file.								

1.4 Spatial Coverage

1.4.1 Alabama

Southernmost Latitude: 34.68° N

Northernmost Latitude: 35.16° N

Westernmost Longitude: 87.08 ° W

Eastermost Longitude: 85.78 ° W

1.4.2 Georgia

Southernmost Latitude: 31.5° N

Northernmost Latitude: 31.8° N

Westernmost Longitude: 83.8° W

Easternmost Longitude: 83.5° W

1.4.3 Oklahoma

Southernmost Latitude: 34.44° N

Northernmost Latitude: 36.87° N

Westernmost Longitude: 98.33° W

Easternmost Longitude: 97.42° W

1.5 Temporal Coverage

The temporal coverage for each regional study area is as follows:

1.5.1 Alabama

21 June 2003 to 02 July 2003

1.5.2 Georgia

23 June 2003 to 07 July 2003

1.5.3 Oklahoma

02 July 2003 to 17 July 2003

1.5.4 Temporal Resolution

The temporal resolution for each regional study area is as follows:

1.5.5 Alabama

All sites were photographed at least once during the experiment. Several sites, primarily cropland sites, were photographed on two occasions.

1.5.6 Georgia

Photographs were collected throughout the experiment.

1.5.7 Oklahoma

Photographs were collected throughout the experiment.

1.6 Sample Data Record



Figure 2. Sample Image of Georgia Study Area

2 SOFTWARE AND TOOLS

Any image viewing program that recognizes JPEG file format is recommended.

3 DATA ACQUISITION AND PROCESSING

Alabama, Georgia, and Oklahoma JPEG image files were acquired by teams of graduate students and volunteers using digital cameras. The Alabama image collection also includes photographs taken with disposable cameras which were then converted to digital images.

4 CONTACTS AND ACKNOWLEDGMENTS

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5 DOCUMENT INFORMATION

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