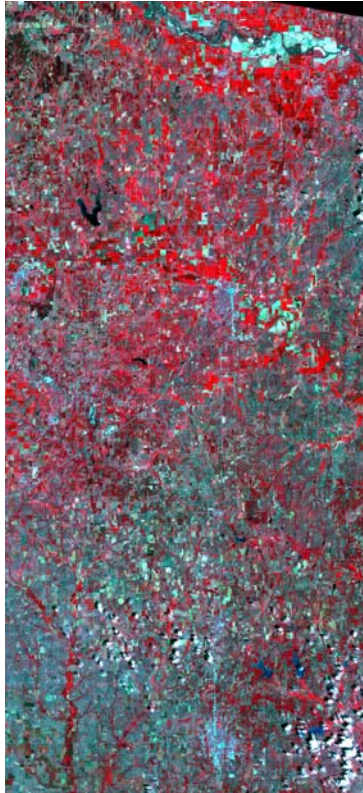


**Notice to Data Users:**

**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.**

**SMEX03 Geolocation Information: Oklahoma**



**Contents:**

- Overview
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  - FTP Site*
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## Overview

Fourteen sets of geographic coordinates for SMEX03 instrumentation, test sites, and study areas are compiled in this document. Please send additions or corrections to the dataset point-of-contact.

## The Data

Data presented originate from several sources: 1) locating sites on the TM image itself, 2) field global positioning system (GPS) measurements, 3) aircraft navigation/GPS records, and 4) efforts by other groups.

All coordinates are provided in both Latitude and Longitude (decimal degrees) and in UTM coordinates, Zone 14, in meters. Georeferencing is based on the WGS84/NAD83 ellipsoid. All files are tab delimited ASCII text.

Tables below outline the primary study regions for SMEX03-- Oklahoma North (ON) Region, Oklahoma South Region (OS), and Little Washita (LW) Watershed. For each study area, four coordinates describe the corners of area boundaries. These coordinates represent the pixel centers of each corner pixel. The coordinate system is designed for representation with 30 m pixels in UTM, NAD83. These coordinates are an exact match to the SMEX03 Classification Grid.

### SMEX03 Oklahoma North (ON) Study Region (UTM Zone 14N)

	Easting in m	Northing in m	Latitude	Longitude
Upper Left Corner	585800	4081000	36.871048244	-98.037331796
Upper Right Corner	641000	4081000	36.864419443	-97.418165280
Lower Left Corner	585800	3997000	36.113877589	-98.046657639
Lower Right Corner	641000	3997000	36.107428397	-97.433484464

### SMEX03 Oklahoma South (OS) Study Region (UTM Zone 14N)

	Easting in m	Northing in m	Latitude	Longitude
Upper Left Corner	560400	3920100	35.422485463	-98.334661234
Upper Right Corner	618000	3920100	35.417323871	-97.700276141
Lower Left Corner	560400	3812100	34.448656578	-98.342479279
Lower Right Corner	618000	3812100	34.443677450	-97.715544713

### SMEX03 Little Washita (LW) Watershed Study Region (UTM Zone 14N)

	Easting in m	Northing in m	Latitude	Longitude
Upper Left Corner	560400	3872100	34.989692126	-98.338182260
Upper Right Corner	618000	3872100	34.984612153	-97.707152657
Lower Left Corner	560400	3857700	34.859848030	-98.339224014
Lower Right Corner	618000	3857700	34.854792377	-97.709187193

#### SMEX03 Geolocation Data

Type	Subtype	Georegistration Source	Data Type	Data Points
Bounding Box	Boundaries	TM image	Corners	[2*6] + [3]
DOE ARM CART	Corners	GPS	Corners	13*2
Flightlines	DC-8	GPS	Lines	13*2
	P3	GPS	Lines	13*2*2
Ground Soil Moisture	Field Bounds	GPS	Corners	86*2
	LW Soil Sample Points	GPS	Point	211*2
	LW Watershed Sites	GPS	Point	16*2*2
	ON Regional Sites	GPS	Point	36*2
	OS Regional Sites	GPS	Point	48*2
Mesonet	Points	GPS	Point	115*2
Micronet	Points	GPS	Point	40*2
SCAN sites	Points	GPS	Point	2*2
Vegetation	Sampling	GPS	Point	96*2
	Transects	GPS	Point	277*2

## The Files

Files are in ASCII format and contain the Latitude and Longitudes as well as the UTM Eastings and Northings in meters for all points of concern. These files do not explain in detail the data retrieved at the sites, only their location. Please see individual data sets for details.

File Name	Format	Description
Smex03boxes.txt	TXT	Study area boundaries
DOE_ARM_CART_Sites_OK.txt	TXT	DOE ARM CART Locations
DC8_Flightlines_OK.txt	TXT	DC-8 Flightlines
P3_Flightlines_OK.txt	TXT	P-3 Flightlines
Field_Boundaries_LW_OK.txt	TXT	Watershed Field Bounds
Soil_Sample_LW_OK	TXT	LW Soil Sample Locations
Watershed_Sites_LW_OK.txt	TXT	LW Site Locations
Regional_Sites_ON_OK.txt	TXT	ON Regional Site Locations
Regional_Sites_OS_OK.txt	TXT	OS Regional Site Locations
Mesonet_Sites_OK.txt	TXT	Mesonet Site Locations
Micronet_Sites_LW.txt	TXT	Micronet Site Locations
SCAN_Sites_OK.txt	TXT	SCAN Site Locations
Vegetation_Sampling_Points_OK.txt	TXT	Vegetation Sample Points
Vegetation_Transect_Sampling_Points_OK.txt	TXT	Vegetation transect sample points

## Data Access and Contacts

### FTP Site

The SMEX03 Geographic Coordinates of Sites and Flightlines data reside on DAAC's anonymous FTP site. The following files are provided in this data set:

*Smex03boxes.txt*  
*DOE\_ARM\_CART\_Sites\_OK.txt*  
*DC8\_Flightlines\_OK.txt*  
*P3\_Flightlines\_OK.txt*  
*Field\_Boundaries\_LW\_OK.txt*  
*Soil\_Sample\_LW\_OK*  
*Watershed\_Sites\_LW\_OK.txt*  
*Regional\_Sites\_ON\_OK.txt*  
*Regional\_Sites\_OS\_OK.txt*  
*Mesonet\_Sites\_OK.txt*  
*Micronet\_Sites\_LW.txt*  
*SCAN\_Sites\_OK.txt*  
*Vegetation\_Sampling\_Points\_OK.txt*  
*Vegetation\_Transect\_Sampling\_Points\_OK.txt*

### Points of Contact

For technical information about sampling site and flightline geolocations, contact:

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