

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.

SMEX04 Precipitation Network Data: Arizona

Summary

This data set contains the precipitation data collected as part of the Walnut Gulch Micronet during the SMEX04 Experiment in Arizona.

Citing These Data:

The following example shows how to cite the use of this data set in a publication. List the principal investigators, year of data set release, data set title, publisher: NSIDC, and digital media.

Keefer, T., D. Goodrich, and S. Moran. 2009. *SMEX04 Precipitation Network Data: Arizona*. Boulder, Colorado USA: National Snow and Ice Data Center. Digital media.

Overview Table

Category	Description
Data format	ASCII tab-delimited text
Spatial coverage	31.422° N to 31.112° N, 109.718° W to 110.239° W
Temporal coverage	20 June 2004 to 24 September 2004
File naming convention	SMEX04_x_Precipitation.txt
File size	167 KB
Parameter(s)	Accumulated Hourly Precipitation
Procedures for obtaining data	Data are available via FTP.

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1. Contacts and Acknowledgments:

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Acknowledgements:

The USDA ARS Southwest Watershed Research Center, especially John Smith and the many graduate students and volunteers who collected the field data.

2. Detailed Data Description:

Format:

The data set consists of five ASCII tab-delimited text files, with a column heading for each data type.

File Naming Convention:

These files are named according to the following convention and are further described in Table 1:

SMEX04_x_Precipitation.txt

Table 1. Description of File Name Variables

Variable	Description
SMEX04	Soil Moisture Experiment 2004
x	Indicates month of measurement, or metadata file
Precipitation	Indicates precipitation data
.txt	Indicates that this is an ASCII text file

File Size:

File sizes range from 3 KB to 50 KB.

Spatial Coverage:

Southernmost Latitude: 31.112° N
Northernmost Latitude: 31.422° N
Westernmost Longitude: 110.239° W
Easternmost Longitude: 109.718° W

Temporal Coverage:

20 June 2004 to 24 September 2004

Temporal Resolution:

Precipitation is totaled for each hour during which accumulation is reported.

Parameter or Variable:

Accumulated Hourly Precipitation. These data have been quality controlled and suspect or missing data have been removed. Consequently, these data are not continuous.

3. Data Access and Tools:

Data Access:

No special tools are required to view these data. Any text reader or web browser is suitable.

Related Data Collections:

See related information on the Soil Moisture Experiment (SMEX) Web site:
http://nsidc.org/data/amsr_validation/soil_moisture/index.html

4. Data Acquisition and Processing:

Rain gage data are hourly-accumulated precipitation from breakpoint data recorded to nearest minute with 0.254 millimeter accuracy. Rain gages labeled RG1 through RG 400 are electronic weighing buckets with digital recording. Gauge RG600 is a tipping bucket rain gage.

Recorded precipitation data are summed within the hour and reported at the end of the hour in which they occurred. Examples: for 25 mm precipitation recorded at 04:00, the SMEX data record is hour 4, and depth is 25 mm. For 25 mm precipitation recorded at 04:15, the SMEX data record is hour 5, and depth is 25 mm.

No interpolation is made for precipitation crossing an hour. For example for 5 mm precipitation recorded at breakpoint of 01:55, the SMEX data record is hour 2, and the depth is 5 mm. The next breakpoint is recorded as 10 mm at 02:05, and is reported as hour 3, and the depth is 10 mm. The 10mm occurring between 1:55 and 2:05 is not split between the five minutes before and the five minutes after the hour.

5. References and Related Publications:

Please see the SMEX04 site to access data:
http://nsidc.org/data/amsr_validation/soil_moisture/smex04/index.html