

RF Soilmoisture 2.4 GHz Remote Sensing System from the University of Notre Dame at the Small Gap site

RF-SG

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1.0 Data Set Overview

1.1 Time period covered by the data

Approximately September 2012, October 2012, and May 2013.

1.2 Physical location (latitude, longitude, elevation)

transmitter 40.066825

receiver 40.06404808, 0, 0

1.3 Instrument type

RF Crosshair

1.4 Data provider

University of Notre Dame

1.5 Web address references

<http://www3.nd.edu/~dynamics/materhorn/>

https://www.eol.ucar.edu/field_projects/materhorn-x

2.0 Instrument Description

Soil Moisture 2.4 GHz remote sensing system



2.1 Instrument website

2.2 Table of specifications

Accuracy	Range	Frequency	Resolution
Contact P.I. regarding this information	Contact P.I. regarding this information	Contact P.I. regarding this information	Contact P.I. regarding this information

3.0 Data Collection and Processing

3.1 Description of data collection

Continuous data collection was conducted during the entire field campaign.

3.2 Description of derived parameters and processing techniques used

Original data files are provided.

3.3 Description of quality assurance and control procedures

This dataset was not subject to any quality control or processing it has been provided in its original form.

3.4 Data intercomparisons

4.0 Data Format

4.1 Data file structure

4.2 File naming convention

4.3 Data format

4.4 Data layout

4.5 List of parameters with units, sampling intervals, frequency, range

4.6 Data version number and date

raw, v1.0, October 2016

4.7 Description of flags, codes used in the data, and definitions

4.8 Data sample

Sample dataset is not suitable for display in this document.

5.0 Data Remarks

5.1 PI's assessment of the data

This is a proprietary dataset, which requires interaction with the P.I. responsible for this dataset. Please direct any questions to the dataset P.I.

The equipment consists of a Transmitter and Receiver pair the coordinates and elevation have been provided (lat, lon, elev)

Transmitter Location: (40.066825, -113.263747, 1331m)

Receiver Location: (40.064048, -113.260619, 1318m)

Please contact the P.I. for 2013 May dataset (in addition, a second station was operating during this measurement period)

5.2 Missing data periods

5.3 Software compatibility

6.0 References

- [1] Fernando, H. J. S., E. R. Pardyjak, S. Di Sabatino, F. K. Chow, S. F. J. DeWekker, S. W. Hoch, J. Hacker, J. C. Pace, T. Pratt, Z. Pu, J. W. Steenburgh, C. D. Whiteman, Y. Wang, D. Zajic, B. Balsley, R. Dimitrova, G. D. Emmitt, C. W. Higgins, J. C. R. Hunt, J. G. Knierel, D. Lawrence, Y. Liu, D. F. Nadeau, E. Kit, B. W. Blomquist, P. Conry, R. S. Coppersmith, E. Creegan, M. Felton, A. Grachev, N. Gunawardena, C. Hang, C. M. Hocut, G. Huynh, M. E. Jeglum, D. Jensen, V. Kulandaivelu, M. Lehner, L. S. Leo, D. Liberzon, J. D. Massey, K. McEnerney, S. Pal, T. Price, M. Sghiatti, Z. Silver, M. Thompson, H. Zhang, T. Zsedrovits, 2015: The MATERHORN – Unraveling the Intricacies of Mountain Weather, BAMS, doi: <http://dx.doi.org/10.1175/BAMS-D-13-00131.1>.