

# Grawmet Radiosonde System data provided by the University of Virginia from the Sage Brush launch site during May

RS-SB

Author(s):	Regarding data questions contact:
Stephan De Wekker Mailing address: P.O. Box 400123 Charlottesville, VA, USA, 22904-4123 Tel./Fax.: 434-924-3324/ 434-982-2137, E-mail and web: dewekker@virginia.edu, <a href="http://www.evsc.virginia.edu/de-wekker-stephan-fj/">http://www.evsc.virginia.edu/de-wekker-stephan-fj/</a>	Mailing address: Tel./Fax.: / E-mail and web: ,

## 1.0 Data Set Overview

### 1.1 Time period covered by the data

May 2013. For specific times please refer to individual file names.

### 1.2 Physical location (latitude, longitude, elevation)

See 7th column of the data files., See 8th column of the data files., See 9th column of the data files.

### 1.3 Instrument type

Radiosonde

### 1.4 Data provider

University of Virginia

### 1.5 Web address references

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

[https://www.eol.ucar.edu/field\\_projects/materhorn-x](https://www.eol.ucar.edu/field_projects/materhorn-x)

## 2.0 Instrument Description

Graw free flight radiosonde release location (approximately every 3 hours during IOP periods)



## 2.1 Instrument website

<http://www.graw.de/home/products2/Grawsoftware0/>

## 2.2 Table of specifications

Accuracy	Range	Frequency	Resolution
Wind speed accuracy < 0.2 m/s, Accuracy horizontal position < 5 m	Consult the manufacturer specifications.	Transmission- rate 1s	Temperature resolution 0.1 °C

## 3.0 Data Collection and Processing

### 3.1 Description of data collection

### 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

ASCII tab separated, the exact structure provided by the file description.

## 4.2 File naming convention

dataProvider\_instrument\_instrumentType\_startDateAndTime\_endDateAndTime.extension

## 4.3 Data format

tab delimited ASCII

## 4.4 Data layout

A separate file for each release.

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

Consult individual file headers.

## 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

Time [sec]	P [h Pa]	T [°C]	U [%]	Wsp [m/s]	Wdir [°]	Lon [°]	Lat [°]				
Altitude [m]	Geo Pot [m']	MRI	RI	Dew [°C]	Vi	Te [°C]	Rs [m/s]	D			
[kg/m3]	Azimuth [°]	Elevation [°]	Range [m]								
0	898.0	19.60	17	3.0	315	-112.324800	40.515700	0.0	0.0	238.8	
238.8	-6.0	20.1	0.0	1.068803	180	41	0				
1	897.4	19.45	17	3.0	316	-112.376487	40.490161	5.9	5.9	239.7	
238.8	-5.9	19.9	5.9	1.068619	57	0	5220				
2	896.7	19.29	18	3.1	317	-112.428175	40.464621	11.8	11.8	240.6	
238.7	-5.7	19.8	5.9	1.068436	57	0	10442				

## 5.0 Data Remarks

### 5.1 PI's assessment of the data

### 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. Kniewel, 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>.