Grawmet Radiosonde System from University of Virginia Measured Data at the Southwest of Granite launch site

RS-SWG-UOV

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1.0 Data Set Overview

1.1 Time period covered by the data

Approximately September - October 2012 and 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

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. Knievel, 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.