Grawmet Radiosonde System from University of Virginia Measured Data at the I80 launch site

RS-I80

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, http://www.evsc.virginia.edu/de-wekker-stephan-fj/	Mailing address: Tel./Fax.: / E-mail and web: ,

1.0 Data Set Overview

1.1 Time period covered by the data

Approximately September - October 2012. 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

```
Date: 29.09.2012 Start time: 14:15:17  Number of probe: 119518
Groundstation Position Data:
Longitude [°]:  W 113°28' 09.48''
Latitude [°]:  N 40°43' 37.19''
Altitude [m]:  1288.00
Sounding Data
Time[sec]      P[hPa]          T[C]            U[%]            Wsp[m/s]
Wdir[Grd]      Lon [°]         Lat [°]         Altitude[m]     GeoPot[m']
MRI            RI              Dew[C]          Vi Te[C]        Rs[m/min]
D[kg/m3]       Azimut[°]     Elevation[°]  Range[m]
0            873.8         13.1          59.0          0.5           290.0
-113.4693       40.7270          0.0               0.0              239.6
239.6         5.3           14.2           0.0           1.0636         216
58             0
1            873.2         13.7          57.8          0.6           291.0
-113.4693       40.7270          5.5               5.7              239.7
238.9         5.5           14.8           331.1         1.0608         341
69             6
2            872.6         14.2          56.7          0.7           291.7
-113.4693       40.7270          11.0              11.4             239.9
238.2         5.8           15.4           331.1         1.0580         342
69             12
3            872.0         14.8          55.5          0.8           292.1
-113.4693       40.7269          16.6              17.2             240.1
237.5         6.0           15.9           331.1         1.0553         342
69             18
```

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.