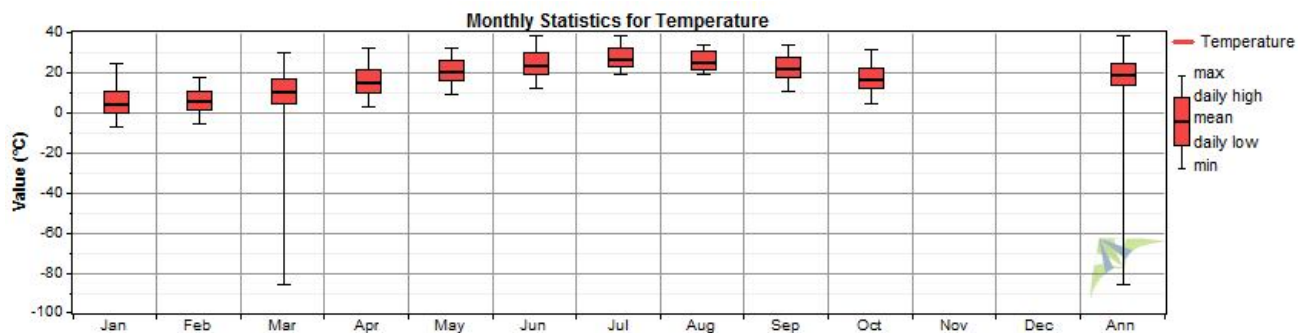


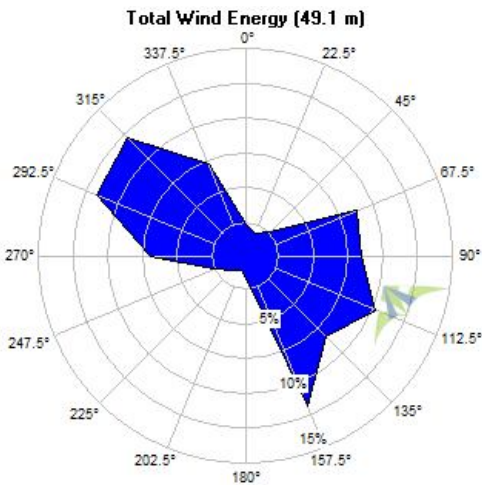
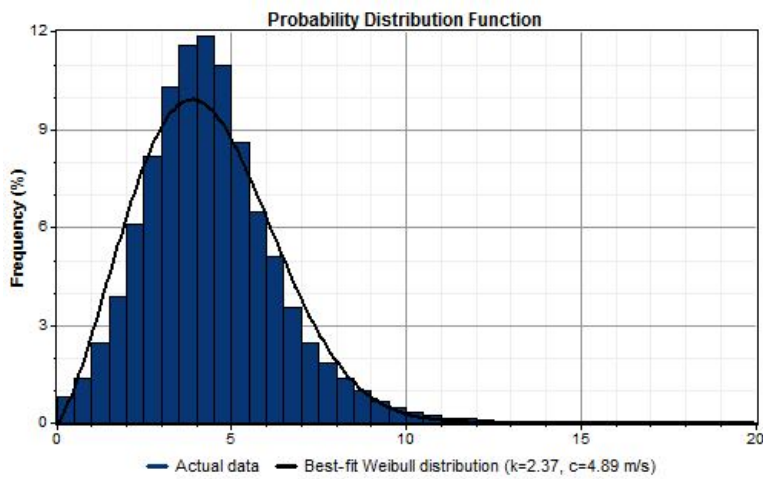
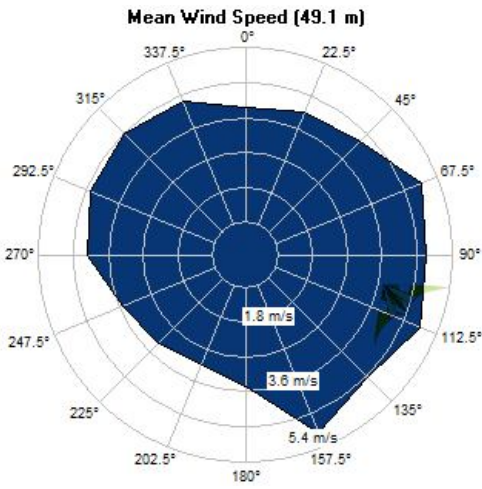
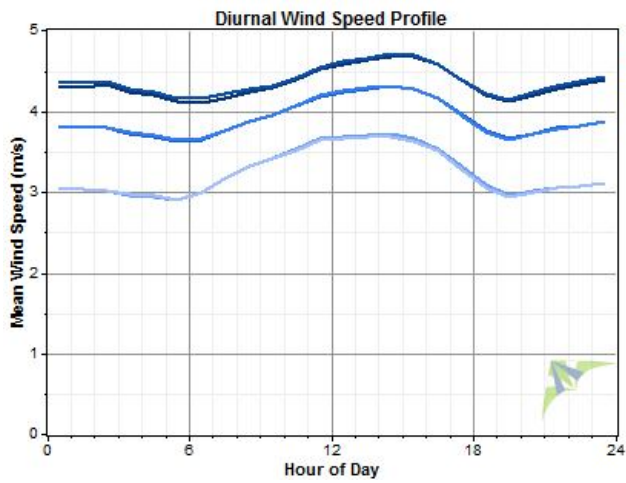
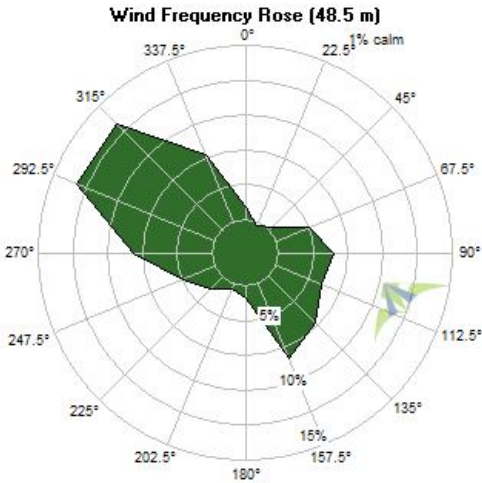
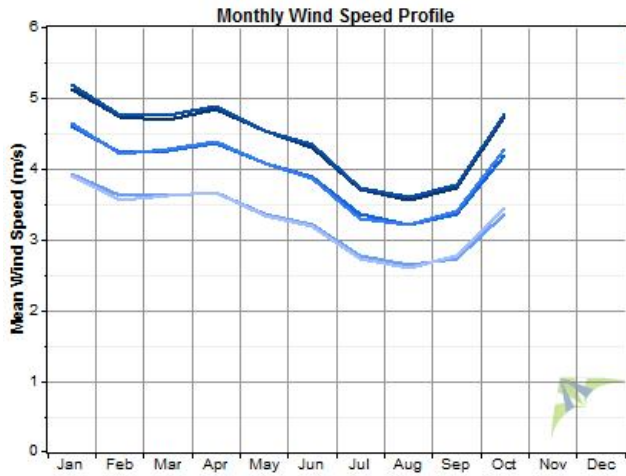
**Data Set Properties**

Report Created: 8/28/2013 16:18 using Windographer 2.4.11  
 Filter Settings: <Unflagged data>

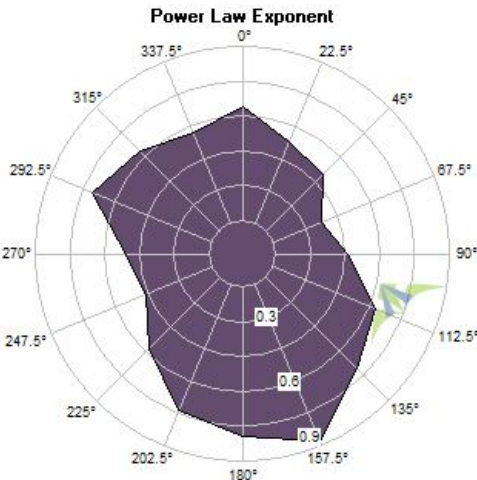
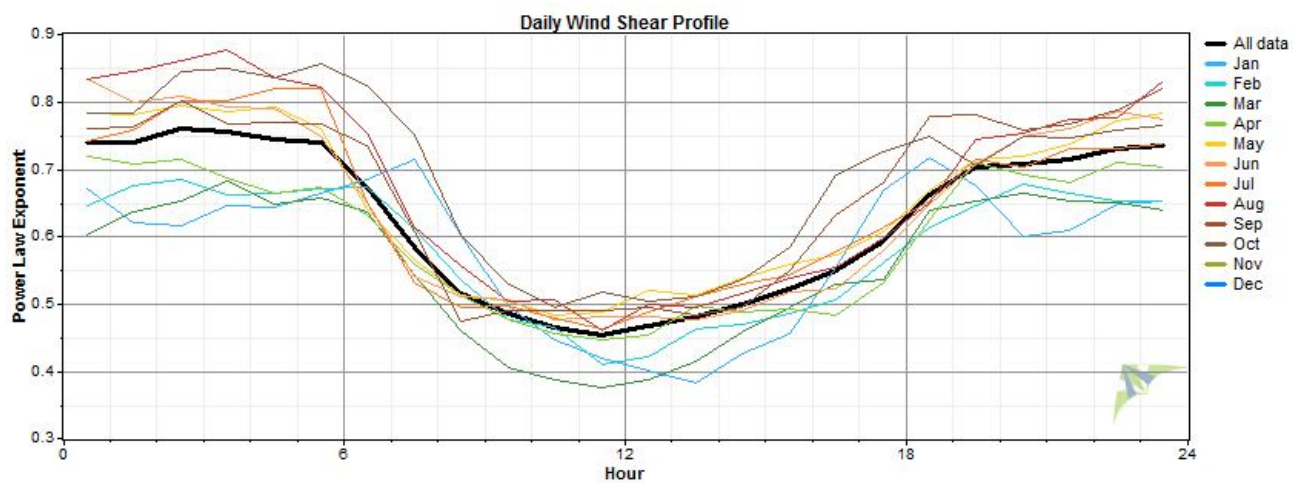
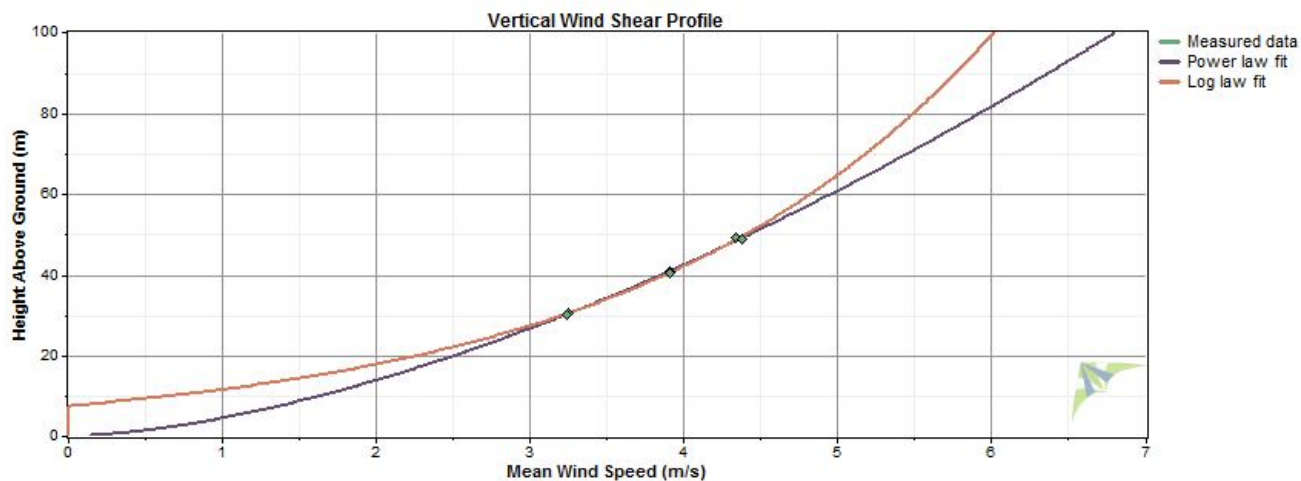
Variable	Value
Latitude	N 36.893734
Longitude	W 76.424590
Elevation	15 ft
Start date	3/8/2012 08:00
End date	8/15/2013 06:00
Duration	17 months
Length of time step	10 minutes
Calm threshold	0.4 m/s
Mean temperature	18.9 °C
Mean pressure	101.2 kPa
Mean air density	1.211 kg/m <sup>3</sup>
Power density at 50m	89 W/m <sup>2</sup>
Wind power class	1 (Poor)
Power law exponent	0.62
Surface roughness	7.56 m
Roughness class	5.59
Roughness description	Urban



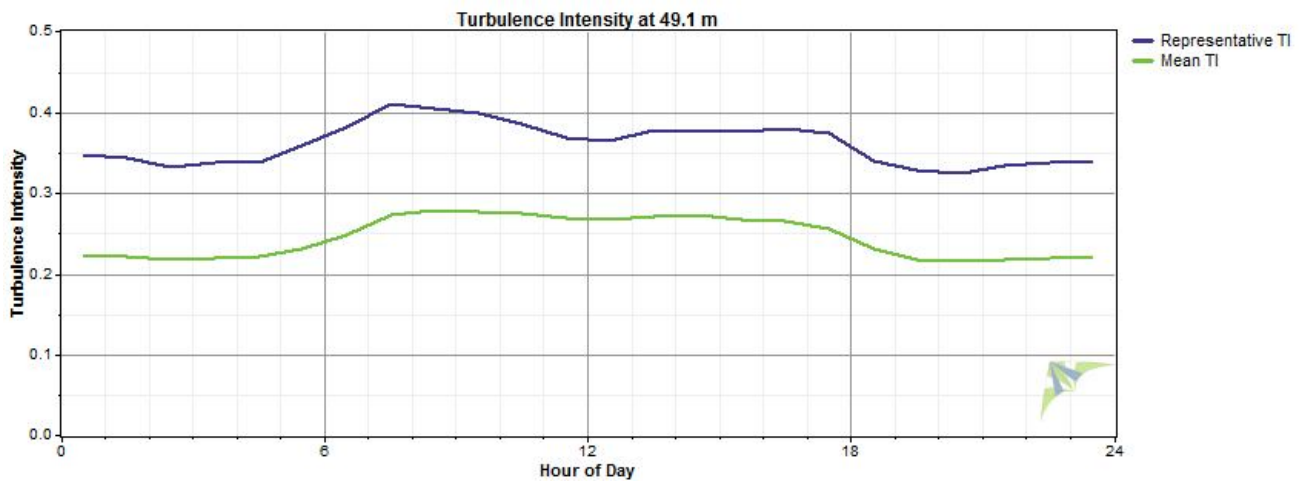
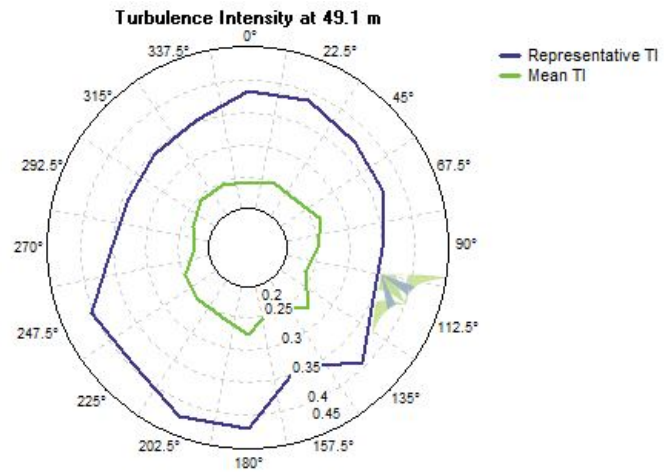
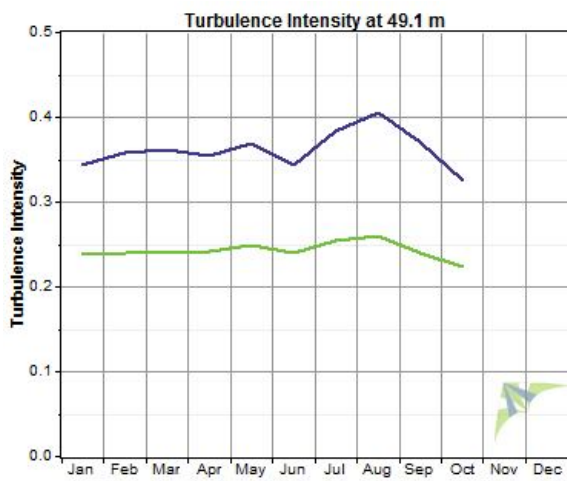
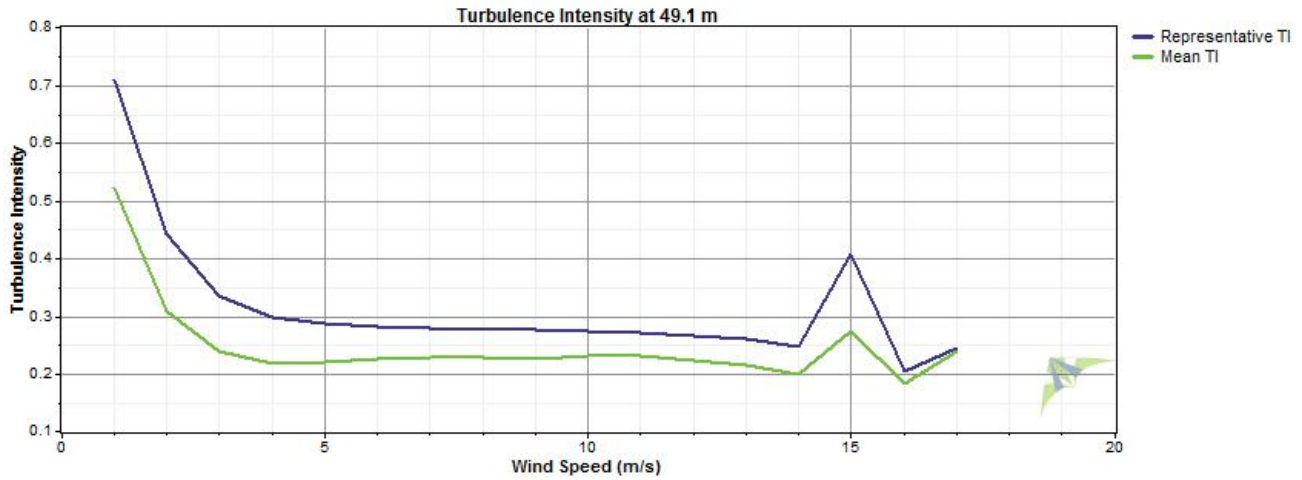
**Wind Speed and Direction**



Wind Shear



**Turbulence Intensity**



Data Column Properties

Number	Label	Units	Height	Possible Records	Valid Records	Recovery Rate (%)	Mean	Min	Max	Std. Dev
1	Speed 48.9 m	m/s	48.9 m	75,588	64,418	85.22	4.38	0.40	18.10	1.93
2	Speed 48.9 m SD	m/s	48.9 m	75,588	64,418	85.22	0.998	0.000	6.700	0.461
3	Speed 48.9 m Max	m/s	48.9 m	75,588	64,418	85.22	6.98	0.40	32.10	3.08
4	Speed 48.9 m Min	m/s	48.9 m	75,588	64,418	85.22	1.80	0.40	10.20	1.05
5	Speed 49.1 m	m/s	49.1 m	75,588	64,418	85.22	4.34	0.40	17.00	1.91
6	Speed 49.1 m SD	m/s	49.1 m	75,588	64,418	85.22	1.003	0.000	6.400	0.466
7	Speed 49.1 m Max	m/s	49.1 m	75,588	64,418	85.22	6.95	0.40	32.10	3.07
8	Speed 49.1 m Min	m/s	49.1 m	75,588	64,418	85.22	1.753	0.400	8.600	1.009
9	Speed 40.6 m	m/s	40.6 m	75,588	64,418	85.22	3.91	0.40	16.90	1.80
10	Speed 40.6 m SD	m/s	40.6 m	75,588	64,418	85.22	1.030	0.000	6.100	0.466
11	Speed 40.6 m Max	m/s	40.6 m	75,588	64,418	85.22	6.65	0.40	33.50	3.01
12	Speed 40.6 m Min	m/s	40.6 m	75,588	64,418	85.22	1.339	0.400	8.000	0.896
13	Temperature	°C		75,588	64,418	85.22	18.91	-86.40	38.80	8.74
14	Temperature SD	°C		75,588	64,418	85.22	0.11	0.00	43.20	0.20
15	Temperature Max	°C		75,588	64,418	85.22	19.17	-86.40	39.30	8.78
16	Temperature Min	°C		75,588	64,418	85.22	18.76	-86.40	38.60	8.74
17	Direction 48.5 m	°	48.5 m	75,588	64,418	85.22	308.5	1.0	360.0	99.3
18	Direction 48.5 m SD	°	48.5 m	75,588	64,418	85.22	78.4	60.0	240.0	24.1
19	Direction 48.5 m Max	°	48.5 m	75,588	64,418	85.22	60	60	60	0
20	Direction 48.5 m Min	°	48.5 m	75,588	64,418	85.22	60	60	60	0
21	Direction 40.2 m	°	40.2 m	75,588	64,418	85.22	319.9	1.0	360.0	102.7
22	Direction 40.2 m SD	°	40.2 m	75,588	64,418	85.22	75.3	60.0	182.0	7.6
23	Direction 40.2 m Max	°	40.2 m	75,588	64,418	85.22	60	60	60	0
24	Direction 40.2 m Min	°	40.2 m	75,588	64,418	85.22	60	60	60	0
25	Speed 40.9 m	m/s	40.9 m	75,588	64,418	85.22	3.91	0.40	15.80	1.75
26	Speed 40.9 m SD	m/s	40.9 m	75,588	64,418	85.22	1.026	0.000	5.900	0.470
27	Speed 40.9 m Max	m/s	40.9 m	75,588	64,418	85.22	6.65	0.40	33.50	3.00
28	Speed 40.9 m Min	m/s	40.9 m	75,588	64,418	85.22	1.361	0.400	8.000	0.852
29	Speed 30.2 m	m/s	30.2 m	75,588	64,418	85.22	3.24	0.40	14.90	1.58
30	Speed 30.2 m SD	m/s	30.2 m	75,588	64,418	85.22	1.048	0.000	5.900	0.467
31	Speed 30.2 m Max	m/s	30.2 m	75,588	64,418	85.22	6.15	0.40	32.10	2.89
32	Speed 30.2 m Min	m/s	30.2 m	75,588	64,418	85.22	0.848	0.400	6.500	0.655
33	Speed 30.5 m	m/s	30.5 m	75,588	64,418	85.22	3.25	0.40	14.20	1.55
34	Speed 30.5 m SD	m/s	30.5 m	75,588	64,418	85.22	1.037	0.000	5.400	0.468
35	Speed 30.5 m Max	m/s	30.5 m	75,588	64,418	85.22	6.15	0.40	33.50	2.89
36	Speed 30.5 m Min	m/s	30.5 m	75,588	64,418	85.22	0.881	0.400	5.700	0.648
37				75,588	0	0.00				
38				75,588	0	0.00				
39				75,588	0	0.00				
40				75,588	0	0.00				
41				75,588	0	0.00				
42				75,588	0	0.00				
43				75,588	0	0.00				
44				75,588	0	0.00				
45				75,588	0	0.00				
46				75,588	0	0.00				
47				75,588	0	0.00				
48				75,588	0	0.00				
49				75,588	0	0.00				
50				75,588	0	0.00				
51				75,588	0	0.00				
52				75,588	0	0.00				

Number	Label	Units	Height	Possible Records	Valid Records	Recovery Rate (%)	Mean	Min	Max	Std. Dev
53				75,588	0	0.00				
54				75,588	0	0.00				
55				75,588	0	0.00				
56				75,588	0	0.00				
57				75,588	0	0.00				
58				75,588	0	0.00				
59				75,588	0	0.00				
60				75,588	0	0.00				
61				75,588	0	0.00				
62				75,588	0	0.00				
63				75,588	0	0.00				
64				75,588	0	0.00				
65				75,588	0	0.00				
66				75,588	0	0.00				
67				75,588	0	0.00				
68				75,588	0	0.00				
69				75,588	0	0.00				
70				75,588	0	0.00				
71				75,588	0	0.00				
72				75,588	0	0.00				
73				75,588	0	0.00				
74				75,588	0	0.00				
75				75,588	0	0.00				
76				75,588	0	0.00				
77				75,588	0	0.00				
78				75,588	0	0.00				
79				75,588	0	0.00				
80				75,588	0	0.00				
81				75,588	0	0.00				
82				75,588	0	0.00				
83				75,588	0	0.00				
84				75,588	0	0.00				
85				75,588	0	0.00				
86				75,588	0	0.00				
87				75,588	0	0.00				
88				75,588	0	0.00				
89				75,588	0	0.00				
90				75,588	0	0.00				
91				75,588	0	0.00				
92				75,588	0	0.00				
93				75,588	0	0.00				
94				75,588	0	0.00				
95				75,588	0	0.00				
96				75,588	0	0.00				
97				75,588	0	0.00				
98				75,588	0	0.00				
99				75,588	0	0.00				
100				75,588	0	0.00				
101				75,588	0	0.00				
102				75,588	0	0.00				
103				75,588	0	0.00				
104				75,588	0	0.00				
105				75,588	0	0.00				
106				75,588	0	0.00				

Number	Label	Units	Height	Possible Records	Valid Records	Recovery Rate (%)	Mean	Min	Max	Std. Dev
107				75,588	0	0.00				
108				75,588	0	0.00				
109				75,588	0	0.00				
110				75,588	0	0.00				
111				75,588	0	0.00				
112				75,588	0	0.00				
113				75,588	0	0.00				
114				75,588	0	0.00				
115				75,588	0	0.00				
116				75,588	0	0.00				
117				75,588	0	0.00				
118				75,588	0	0.00				
119				75,588	0	0.00				
120				75,588	0	0.00				
121				75,588	0	0.00				
122				75,588	0	0.00				
123				75,588	0	0.00				
124				75,588	0	0.00				
125				75,588	0	0.00				
126				75,588	0	0.00				
127				75,588	0	0.00				
128				75,588	0	0.00				
129				75,588	0	0.00				
130				75,588	0	0.00				
131				75,588	0	0.00				
132				75,588	0	0.00				
133	Air Density	kg/m <sup>3</sup>		75,588	75,588	100.00	1.211	1.131	1.888	0.036
134	Speed 49.1 m TI			75,588	64,418	85.22	0.245	0.000	1.111	0.094
135	Speed 48.9 m TI			75,588	64,418	85.22	0.242	0.000	1.111	0.095
136	Speed 40.9 m TI			75,588	64,418	85.22	0.277	0.000	2.286	0.099
137	Speed 40.6 m TI			75,588	64,418	85.22	0.280	0.000	1.636	0.102
138	Speed 30.5 m TI			75,588	64,418	85.22	0.340	0.000	1.375	0.116
139	Speed 30.2 m TI			75,588	64,418	85.22	0.347	0.000	1.533	0.118
140	Speed 49.1 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	82	0	2,941	128
141	Speed 48.9 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	84	0	3,550	134
142	Speed 40.9 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	61	0	2,311	97
143	Speed 40.6 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	62	0	2,890	103
144	Speed 30.5 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	37	0	1,678	63
145	Speed 30.2 m WPD	W/m <sup>2</sup>		75,588	64,418	85.22	37	0	1,980	66