

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**July 2012**

**Global Solar Radiation on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	4	8	96	334	512	723	733	821	906	826	729	438	?	?	2?	3	0	0	0	0	6135 ?
2	0	0	0	0	1	29	168	305	455	500	770	738	856	894	780	642	454	251	65	7	0	0	0	0	6916
3	0	0	0	0	6	38	106	338	559	675	835	953	944	727	748	605	315	229	81	9	0	0	0	0	7167
4	0	0	0	0	1	30	150	194	421	634	763	821	863	837	653	578	412	209	62	3	0	0	0	0	6630
5	0	0	0	0	3	60	203	388	572	740	863	930	945	893	781	599	388	211	61	8	0	0	0	0	7645
6	0	0	0	0	4	58	175	324	339	597	791	872	765	798	750	390 ?	127 ?	249	68	8	0	0	0	0	6315
7	0	0	0	0	2	40	169	360	518	687	863	921	939	780	600	574	349	189	49	3	0	0	0	0	7042
8	0	0	0	0	0	47	174	379	568	712	858	897	927	870	759	611	425	232	55	2	0	0	0	0	7515
9	0	0	0	0	0	22	121	244	371	360	448	570	715	746	736	165	123 ?	119	8	0	0	0	0	0	4749
10	0	0	0	0	1	17	98	154	260	317	770	323	139	276	161	?	68 ?	55 ?	10 ?	2	0	0	0	0	2650 ?
11	0	0	0	0	0	9	51	97	204	303	644	587	761	438	155	271	224	123	43	14	0	0	0	0	3924
12	0	0	0	0	0	27	124	365	362	503	667	959	696	837	769	564	402	205	60	12	0	0	0	0	6553
13	0	0	0	0	1	29	68	204	359	351	560	625	422	776	504	479	425	239	64	12	0	0	0	0	5119
14	0	0	0	0	0	20	100	329	431	508	634	968	1053	362	130	371	235	181	46	4	0	0	0	0	5373
15	0	0	0	0	0	30	187	398	596	742	829	970	979	915	812	541	338	216	61	7	0	0	0	0	7621
16	0	0	0	0	0	38	196	373	541	714	871	937	806	838	582	108	365	273	68	2	0	0	0	0	6711
17	0	0	0	0	0	47	189	371	558	728	852	924	867	687	642	602	450	248	72	7	0	0	0	0	7245
18	0	0	0	0	0	37	178	372	555	734	853	918	827	681	489	513	381	178	49	9	0	0	0	0	6773
19	0	0	0	0	0	33	165	355	544	714	849	930	929	831	623	585	438	180	64	6	0	0	0	0	7245
20	0	0	0	0	0	33	137	303	455	682	685	599	797	737	631	259	117	75	16	3	0	0	0	0	5526
21	0	0	0	0	0	6	23 ?	64	92	254	687	871	804	582	425	146	71 ?	?	0 ?	0	0	0	0	0	4026 ?
22	0	0	0	0	0	18	79	250	499	473	475	570	533	623	527	625	302	153	39	6	0	0	0	0	5172
23	0	0	0	0	0	27	124	329	338	290	669	853	910	774	323	469	131	113 ?	55	3	0	0	0	0	5410
24	0	0	0	0	0	34	175	365	551	719	847	933	890	852	543	529	122 ?	42 ?	51	3	0	0	0	0	6658
25	0	0	0	0	0	37	183	379	561	716	857	975	954	794	683	597	375	248	58	3	0	0	0	0	7420
26	0	0	0	0	0	26	123	269	503	666	830	901	931	860	767	624	389	230	66	6	0	0	0	0	7192
27	0	0	0	0	0	32	168	365	555	719	842	921	941	838	731	532	399	142	32	0	0	0	0	0	7218
28	0	0	0	0	0	23	72	142	264	601	665	735	874	808	795	634	381	176	85	0	0	0	0	0	6255
29	0	0	0	0	0	31	173	365	558	725	857	940	898	919	521	315	206	201	43	27 ?	0	0	0	0	6776
30	0	0	0	0	0	34	167	321	477	604	798	876	783	469	257	181	102	74	23	2	0	0	0	0	5167
31	0	0	0	0	0	13	108	356	565	612	886	746	876	771	623	595	487	200	54	4	0	0	0	0	6895
Avg	0	0	0	0	1	30	137	303	456	590	760	825	823	743	588	471	300	181	49	6	0	0	0	0	6227
S D	0	0	0	0	1	13	47	91	127	159	118	160	180	162	201	167	135	64	23	5	0	0	0	0	1228
S/A	0	0	0	0	1.9	0.43	0.34	0.3	0.28	0.27	0.16	0.19	0.22	0.22	0.34	0.35	0.45	0.35	0.47	0.95	0	0	0	0	0.2
Min	0	0	0	0	0	6	23	64	92	254	448	323	139	276	130	108	68	42	0	0	0	0	0	0	2650
Max	0	0	0	0	6	60	203	398	596	742	886	975	1053	919	812	642	487	273	85	27	0	0	0	0	7645
n	0	0	0	0	18	357	368	371	372	372	372	371	372	372	372	354	329	334	354	100	0	0	0	0	5189

Daylight Data Recovery: 0.0% missing; 0.0% untested; 2.3% exceed the 15% QC threshold -- 5312 total daylight measurements.

Instrument: Eppley PSP Serial Number: 31392F3 Calibration Factor: 7.3961 μV/W/m² Calibration Date: 07/2007

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

July 2012

Direct Normal Solar Radiation  
 Hourly Integrated and Daily Totals  
 Instrument: Eppley NIP  
 Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily	
1	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	?	*	*	*	*	0	0	0	0	*	
2	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
3	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
4	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
5	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	?	?	?	*	*	*	0	0	0	0	*
6	0	0	0	0	*	*	*	*	*	*	*	*	?	?	?	?	*	*	*	*	*	0	0	0	0	*
7	0	0	0	0	*	*	*	*	*	*	*	*	?	?	?	?	?	?	*	*	*	0	0	0	0	*
8	0	0	0	0	*	*	*	*	*	*	*	*	?	?	?	?	?	?	*	*	*	0	0	0	0	*
9	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
10	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
11	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
12	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
13	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
24	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
25	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
28	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*
Avg	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	*
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A
Max	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A
n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 94.7% missing; 0.0% untested; 5.3% exceed the 15% QC threshold -- 5312 total daylight measurements.

Instrument: Eppley NIP Serial Number: 23398E6 Calibration Factor: 7.1447  $\mu\text{V}/\text{W}/\text{m}^2$  Calibration Date: 07/2007

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**July 2012**

**Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface**  
**Hourly Integrated and Daily Totals**  
**Instrument: Eppley PSP**  
**Watt-Hours per Square Meter**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	3 ?	8	77	165	198	285	320	287	293	358	278	177	?	?	2 ?	3	0	0	0	0	2452 ?
2	0	0	0	0	1	24	75	156	267	330	320	442	350	213	194	134	115	88	38	7	0	0	0	0	2754
3	0	0	0	0	7 ?	34	104	228	202	325	234	214	241	415	355	280	182	147	66	9	0	0	0	0	3044
4	0	0	0	0	1	30	128	185	293	335	405	415	380	419	402	227	175	114	44	3	0	0	0	0	3556
5	0	0	0	0	5 ?	46	91	125	152	180	206	217	207	203	189	206	213	145	60	8	0	0	0	0	2254
6	0	0	0	0	4	53	127	182	265	265	311	421	379	298	304	189 ?	93 ?	135	53	8	0	0	0	0	3085
7	0	0	0	0	2	34	110	162	210	286	279	236	238	355	363	261	193	115	48	3	0	0	0	0	2895
8	0	0	0	0	0	41	135	177	207	214	220	271	298	278	256	225	167	120	41	2	0	0	0	0	2652
9	0	0	0	0	0	22	102	226	302	353	431	480	522	469	390	140	73	119	8	0	0	0	0	0	3638
10	0	0	0	0	1	17	98	154	255	308	398	210	139	275	161	41 ?	53 ?	36	11	2	0	0	0	0	2156
11	0	0	0	0	0	9	51	97	204	303	493	499	551	427	155	271	223	123	43	14	0	0	0	0	3465
12	0	0	0	0	0	27	109	248	286	307	326	288	345	325	305	243	170	103	41	12	0	0	0	0	3135
13	0	0	0	0	?	23	68	185	319	323	491	481	386	429	340	308	184	114	44	12	0	0	0	0	3707
14	0	0	0	0	0	20	100	196	206	239	288	237	281	232	128	305	196	169	46	4	0	0	0	0	2649
15	0	0	0	0	0	25	89	73	85	107	147	96	99	91	96	154	132	84	46	7	0	0	0	0	1331
16	0	0	0	0	0	37	100	130	142	152	194	217	264	220	225	94	203	110	40	2	0	0	0	0	2131
17	0	0	0	0	0	38	89	110	129	144	168	193	223	248	239	178	112	82	41	7	0	0	0	0	2001
18	0	0	0	0	0	27	71	112	169	172	175	229	287	278	257	200	167	112	46	9	0	0	0	0	2309
19	0	0	0	0	0	27	84	127	172	184	168	175	198	249	250	202	171	85	46	6	0	0	0	0	2144
20	0	0	0	0	0	27	96	175	234	283	354	340	379	363	339	212	117	75	15	3	0	0	0	0	3013
21	0	0	0	0	0	6	19	60	92	251	387	441	417	343	311	144	58	20 ?	0 ?	0	0	0	0	0	2552
22	0	0	0	0	0	17	78	205	302	337	402	488	418	463	408	257	174	127	39	6	0	0	0	0	3722
23	0	0	0	0	0	27	95	225	295	230	456	324	279	311	323	321	131	93 ?	37	3	0	0	0	0	3148
24	0	0	0	0	0	26	66	106	148	173	173	166	252	273	391	298	85	39 ?	51	3	0	0	0	0	2251
25	0	0	0	0	0	27	81	118	141	168	172	136	133	258	185	148	113	73	30	3	0	0	0	0	1787
26	0	0	0	0	0	28	114	220	227	207	199	220	202	207	201	210	166	104	43	6	0	0	0	0	2355
27	0	0	0	0	0	26	79	117	133	139	144	146	130	170	187	203	185	87	32	0	0	0	0	0	1779
28	0	0	0	0	0	23	71	141	264	357	377	378	361	228	134	92	148	84	66	0	0	0	0	0	2722
29	0	0	0	0	0	17	52	77	97	116	117	131	213	204	242	231	157	103	25	?	0	0	0	0	1782
30	0	0	0	0	0	25	69	108	224	269	288	278	362	338	251	181	102	74	23	2	0	0	0	0	2592
31	0	0	0	0	0	13	52	70	88	200	223	212	154	248	265	174	153	107	35	4	0	0	0	0	1996
Avg	0	0	0	0	1	26	86	150	203	243	286	286	290	296	262	203	147	100	37	5	0	0	0	0	2615
S D	0	0	0	0	2	10	25	52	71	76	111	120	112	92	87	67	46	33	17	4	0	0	0	0	630
S/A	0	0	0	0	2.14	0.4	0.29	0.35	0.35	0.31	0.39	0.42	0.39	0.31	0.33	0.33	0.31	0.33	0.44	0.75	0	0	0	0	0.24
Min	0	0	0	0	0	6	19	60	85	107	117	96	99	91	96	41	53	20	0	0	0	0	0	0	1331
Max	0	0	0	0	7	53	135	248	319	357	493	499	551	469	408	321	223	169	66	14	0	0	0	0	3722
n	0	0	0	0	14	347	372	372	372	372	372	372	372	372	372	360	344	344	362	99	0	0	0	0	5218

Daylight Data Recovery: 0.0% missing; 0.0% untested; 1.8% exceed the 15% QC threshold -- 5312 total daylight measurements.

Instrument: Eppley PSP Serial Number: 31393F3 Calibration Factor: 7.6820 μV/W/m² Calibration Date: 07/2007

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.







**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**July 2012**

**Wind Speed**  
**Hourly and Daily Averages**  
**Instrument: NRG MAX-40**  
**Meters per Second**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	1.7	2.7	1.9	1.8	2.5	2.4	1.4	0.9	1.7	2.3	2.4	2.1	2.4	2.3	2.3	1.8	3.8	5.1	2.3	2.3	2.6	2.1	1.9	2	2.3
2	2	1.7	1.8	2.7	3	2	1.8	2.1	2.9	3.1	3.8	3.1	2.5	2.1	1.5	1.1	1.6	1.1	1.2	0.8	0.3	0.5	0.1	0.3	1.8
3	0.6	0.4	0.8	0.4	1.4	0.5	1	1.6	2	2.7	3	3.7	3.6	3.4	3.4	2.8	2.8	3.2	2.9	2.5	2.4	2.7	2.5	2.3	2.2
4	2.6	2.2	2.4	2	1.5	1.4	1.9	2.1	2.5	1.9	1.8	1.8	2.1	2.1	1.8	1.9	2.2	1.9	1.1	0.6	1.5	1.5	1.2	1.2	1.8
5	1.5	1.4	0.8	1.1	1.8	2	2.3	2.2	2.5	2.9	3	2.8	3	2.8	2.2	2.2	2.2	2.1	2	1.2	1.2	1.1	1.4	1	1.9
6	1.2	1.3	1.8	1.7	1.3	1.2	1.6	2.2	1.5	1.5	1.7	1.3	1.5	1.5	0.5	1.7	3.7	0	0.5	0.4	0	0	0	0	1.2
7	0	0	0	0	0.1	1	1.4	2.1	2.2	2.1	2	2.2	2.3	2.2	1.8	1.7	1.5	2.4	1.5	1.4	1.6	2.2	2.8	2.4	1.5
8	2.1	2	2.3	2.7	2.5	2.2	2.9	3.4	2.8	3.1	3.4	3.6	3.3	3.3	3.1	3.1	2.8	2.1	2.3	2.3	2.1	3	3.2	2.6	2.8
9	1.8	2.4	1.3	1.3	0.8	1.2	1	1.5	1.7	1	0.9	2.1	3.1	3.3	2.8	1.6	1.8	3.4	3.7	1.2	0.1	0.4	0.3	0.5	1.6
10	0.7	0.1	0.6	0.3	0	0.4	0.3	0.7	0.8	1.8	2.2	3.3	3.1	2.3	1.9	0.3	0.5	1.1	0.4	0.2	0.6	0.5	0.2	0.5	0.9
11	0.1	0	0	1.3	0.6	0.2	0.5	1.9	1.7	3	3.9	3.8	3.6	3.2	2.4	3	2.8	3	2.5	2.1	1.5	1.9	0.7	1.2	1.9
12	0.6	1.6	1.6	1.1	0.9	0.8	0.9	2.1	2.6	3.3	3.1	3.3	2.9	3	3.5	2.9	3.3	2.6	2.7	1.2	0.7	0.3	0.5	0.8	1.9
13	0.3	0.1	0.4	0.1	0.1	0.7	0.7	1.5	1.4	1.7	2	2.3	2.4	2.5	2.4	2.2	2.8	2	2.6	1.3	0.9	0.6	0.2	0.2	1.3
14	0.2	0	0.1	0	0	0	0	0.5	1.3	1.3	1.2	3	4.2	3.1	2.4	2.8	2.7	2.9	2.2	1.5	1.6	1.2	0.5	0.3	1.4
15	0.6	1	0.6	0.8	0.8	0.6	1.1	2.3	2.4	2.3	2.2	2.5	2.7	2.8	2.9	3.3	3.3	3.4	2.7	1.9	2.5	3	2.3	2.4	2.1
16	2.3	1.8	1.9	1.7	1.9	2	2.4	3.2	3.1	3	3.3	3.4	2.9	3.3	2.3	2.7	1.7	1.8	1.6	2	2.1	2.1	1.7	2.4	2.4
17	1.9	1.9	1.6	1.5	1.5	1.3	1.6	1.6	1.4	1.6	2.3	2.5	2.4	2.6	2.8	2.5	2.4	2.2	1.9	1.9	1.8	3.2	3.5	3.2	2.1
18	2.4	1.7	1.8	1.9	1.6	1.8	2.2	2.6	2.9	3	2.7	3.3	3.6	3.2	3.7	4.2	3.6	2.6	3.3	3.2	2.9	3.6	3.8	3.3	2.9
19	3.1	2.6	2.8	2.6	2.5	2.2	2.6	3	3.4	3	3.6	3.9	4.2	4.1	3.8	4	3.4	3.1	2.4	2.1	3.3	3.8	3.5	3.4	3.2
20	3.2	2.9	3.1	2.9	2.4	2.6	2.9	3	3.4	3.2	3.4	3.4	4	3.4	3	3.2	3.4	3.6	2.7	2.1	2.4	1.7	1.3	1	2.8
21	1.1	1.5	1.6	2	2.1	1.9	1.2	1.4	1.3	0.6	0.6	1	1.1	1.9	2.3	1.8	3.6	4.2	3.4	1.1	1.1	0.2	0.5	0.2	1.6
22	0.3	0.4	0.5	0	0.1	0.4	0.3	0.5	0.7	0.6	0.9	1	0.8	0.9	1.7	1.4	2.2	1.7	1.5	0.4	0.2	0.2	0.3	0.5	0.7
23	1.1	0.8	0.3	0.1	0	0.2	0.9	1.7	1.9	2.5	3.3	3.7	3.1	3	2.1	2.4	2.3	3.6	1.3	0.6	1.2	2.1	1	0.9	1.7
24	1	1.7	1.9	2.6	2.7	3.1	3.2	3.2	3.6	3.5	3.2	3.5	3.2	3.2	3.3	3.8	2.4	4.7	3.8	3.5	2.6	2.3	2.6	2.4	3
25	1.8	2.3	2.7	2.5	2.1	1.5	1.8	2.7	3.6	3.5	3.2	2.1	1.9	1.7	2.6	2.2	2.5	2.3	2.2	2	1.6	1.4	1	1.4	2.2
26	1.9	1.7	1.8	1.4	1.5	2.2	2.8	3.2	3.7	3.6	3.8	3.4	3.7	3.7	3.8	3.7	3.6	3.5	3	2.2	2.1	2.6	3.3	3.3	2.9
27	2.6	2.8	2.9	2.6	2.1	1.5	2.3	2.3	2.8	2.5	2.5	2.9	3.2	3.6	3.1	3.6	2.9	1.7	0.9	4.2	2.6	1.6	1	0.6	2.5
28	0.1	1.3	1.3	1.5	1.7	1.6	1.2	1.3	1.5	1.8	2.4	2.6	2.6	2.6	3.1	2.9	2	1.6	2	1.5	1.8	2.5	2.8	3.3	2
29	2.6	0.9	1	0.9	0.7	0.7	0.7	1.4	1.7	1.3	1.3	1.6	1.4	1.7	1.2	1.2	2.8	3.5	2.6	1.1	0.9	1.1	0.7	0.7	1.4
30	0.6	0.3	0.4	0.6	0.7	0.5	1.4	2	2.8	2.8	3.1	3.6	3.5	3.3	3.7	2.6	1.9	1	0.8	0.3	0.9	1.4	1.6	0.7	1.7
31	0	0	0	0	0	0	0	0.4	1.4	1.9	1.8	2.5	2.3	3.1	2.9	2.2	1.7	1.4	1.5	0.9	0.9	1.4	0.8	0.5	1.2
Avg	1.3	1.3	1.4	1.4	1.3	1.3	1.5	2	2.2	2.3	2.5	2.8	2.8	2.8	2.6	2.5	2.6	2.5	2.1	1.6	1.6	1.7	1.5	1.5	2
S D	1	0.9	0.9	1	0.9	0.8	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.7	0.8	0.9	0.8	1.1	0.9	0.9	0.9	1.1	1.2	1.1	0.6
S/A	0.72	0.69	0.68	0.7	0.71	0.65	0.6	0.43	0.38	0.37	0.37	0.3	0.31	0.27	0.31	0.37	0.31	0.44	0.43	0.59	0.56	0.63	0.78	0.77	0.32
Min	0	0	0	0	0	0	0	0.4	0.7	0.6	0.6	1	0.8	0.9	0.5	0.3	0.5	0	0.4	0.2	0	0	0	0	0.7
Max	3.2	2.9	3.1	2.9	3	3.1	3.2	3.4	3.7	3.6	3.9	3.9	4.2	4.1	3.8	4.2	3.8	5.1	3.8	4.2	3.3	3.8	3.8	3.4	3.2
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG MAX-40 Serial Number: 0 Calibration Factor: 0.76171 m/s/mV Calibration Date: 06/1995

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**July 2012**

**Wind Direction**  
**Hourly and Daily Averages**  
**Instrument: NRG Vane**  
**Degrees from North**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	20	223	164	268	268	242	279	354	242	266	275	293	299	313	344	14	161	237	252	269	271	264	269	267	266
2	278	279	297	317	320	322	347	17	42	107	132	130	75	106	147	137	127	115	118	129	201	220	220	252	75
3	270	296	277	262	285	238	255	250	256	269	258	244	246	238	236	239	241	226	220	220	226	241	244	248	244
4	253	249	256	276	270	270	278	313	344	312	301	307	304	303	303	290	287	292	284	263	267	304	299	269	288
5	277	281	281	273	282	283	282	292	289	292	296	302	304	308	312	304	293	255	292	309	289	273	291	304	292
6	267	281	296	292	301	275	292	292	326	312	288	317	279	312	93	101	143	93	82	124	184	9	1	134	292
7	0	324	0	0	297	312	288	287	303	303	295	291	302	313	311	297	270	251	252	251	249	249	250	256	280
8	259	266	275	280	281	274	283	293	311	299	289	295	287	289	282	264	261	253	243	245	248	246	254	284	275
9	279	276	272	232	326	290	276	267	326	3	72	113	115	137	141	151	94	120	150	206	0	45	70	164	152
10	135	10	76	79	101	335	8	40	337	313	333	64	98	122	73	358	85	54	98	353	10	12	5	240	54
11	257	321	309	27	18	28	16	43	69	108	120	122	122	117	103	104	92	87	93	96	103	110	95	95	99
12	64	53	51	49	50	50	71	103	103	99	94	96	96	96	105	98	93	102	92	95	94	61	81	60	90
13	52	76	96	86	85	89	80	90	88	126	124	122	123	139	150	143	156	161	186	182	163	152	196	221	138
14	207	235	260	265	0	0	283	252	266	275	286	214	208	206	197	197	210	214	220	224	244	246	230	231	220
15	246	251	248	250	254	259	253	268	263	271	265	276	282	291	253	242	232	241	247	251	250	248	254	258	257
16	262	264	272	268	272	273	281	288	298	294	306	307	298	309	308	288	232	253	235	241	253	275	264	259	280
17	276	268	282	278	291	285	273	279	282	265	271	258	270	247	248	254	281	244	238	242	234	248	249	247	260
18	250	257	253	251	254	250	248	238	241	246	248	239	249	245	243	245	247	266	245	249	246	247	249	252	248
19	267	257	255	254	251	256	261	271	279	263	267	274	267	261	270	261	264	276	257	249	243	246	251	249	261
20	254	256	254	255	255	254	259	267	285	276	281	301	295	291	294	281	251	249	35	144	222	245	262	270	268
21	262	252	269	271	292	313	306	312	329	5	287	262	253	213	230	153	111	109	341	254	209	309	266	239	266
22	38	43	28	232	213	217	292	296	19	299	286	312	352	288	288	263	241	264	250	258	310	300	289	273	282
23	267	297	338	248	258	271	258	272	252	243	249	245	243	257	257	269	290	293	303	318	289	295	270	257	267
24	251	285	290	288	287	292	289	296	307	319	318	307	297	298	298	293	295	269	275	284	304	335	336	327	298
25	337	337	356	359	6	11	28	57	78	85	93	105	92	53	115	125	142	153	156	160	180	198	205	221	86
26	220	225	222	227	231	243	248	246	250	247	252	267	271	275	266	251	247	243	248	239	239	245	245	250	249
27	256	253	261	272	275	270	281	287	273	269	266	269	272	260	291	285	288	287	290	50	21	349	303	264	282
28	70	247	285	296	259	259	291	285	305	313	308	315	294	284	276	296	289	277	248	255	254	260	267	291	282
29	284	340	348	3	257	268	289	272	291	335	305	278	288	274	195	156	124	134	130	129	147	165	148	144	224
30	119	94	113	128	112	107	111	112	117	120	120	120	123	135	173	167	143	135	118	102	146	170	219	246	135
31	203	253	0	0	0	50	59	160	156	136	140	196	162	162	203	208	234	232	211	179	203	219	209	218	188
Avg	267	267	275	281	282	277	281	288	295	282	273	266	264	257	250	247	220	231	232	232	245	252	257	260	260
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG Vane    Serial Number: 0    Calibration Factor: 0.1408 deg/mV    Calibration Date: 06/1995

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.



**Elizabeth City State University**  
**36.28 N Latitude 76.22 W Longitude 26 Meters AMSL Time Zone -5**

**July 2012**

**Peak Wind Speed (1-Minute Gust)**  
**Hourly and Daily Averages**  
**Instrument: NRG MAX-40**  
**Meters per Second**

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	4	4.5	3.5	2.9	4.4	4.2	2.6	2.1	3	3.8	4.3	3.8	4.1	4.3	4.3	3.9	6.5	8.6	3.7	4.2	4.8	3.6	3.3	3.6	4.1
2	3.5	2.8	3.4	4.8	5.6	3.7	3.6	4.3	5.6	5.5	6.2	5.4	4.8	4	3	2.5	3	2.3	2.3	1.6	1	1.1	0.3	0.6	3.4
3	1.1	0.9	1.5	1.3	2.8	1.2	1.9	2.8	3.6	4.5	5.2	6	5.8	6.1	5.6	4.6	4.6	5.3	5.3	4.4	4	4.6	4	3.8	3.8
4	4.6	3.7	4	3.7	2.8	2.8	3.4	3.8	5.2	3.8	3.7	3.9	4.3	3.9	3.4	3.6	3.7	3.2	1.9	1.4	2.8	2.7	2.2	2	3.3
5	2.5	2.3	1.4	1.9	3	3.4	4	3.8	4.2	4.5	4.9	5.4	5.3	4.7	4	4.1	3.8	3.4	3.5	2.4	2.1	1.8	2.3	2	3.4
6	2	2.4	3.3	2.8	2.3	2.3	3	3.6	3	2.8	2.9	2.9	3.1	3	1.8	4.2	6.2	0.2	1.3	1.2	0.3	0	0	0.1	2.3
7	0	0	0	0	0.3	1.9	2.6	3.6	3.7	3.7	3.7	4	4.4	4	3.3	3.1	2.5	3.7	2.4	2.2	2.5	3.7	4.5	4.2	2.7
8	4	3.5	4.2	4.5	4.4	4.2	5.2	5.7	5.2	5.4	5.8	5.9	6	5.9	5.7	5.3	5.1	3.7	3.9	3.9	3.5	4.6	5.5	4.6	4.8
9	3.4	4.4	2.3	2.3	1.7	2.1	2	2.7	3.4	2.5	2.1	3.9	5.3	5.5	4.6	2.9	3.3	6.1	6.3	2.7	0.9	1	0.9	1.2	3.1
10	1.7	0.4	1.6	1.1	0	1.4	1.3	1.4	1.9	3.3	4.1	6.5	5.8	4.6	4	1.1	1.7	2.4	1.2	0.9	1.8	1.3	0.8	1.5	2.2
11	0.6	0.2	0.3	2.7	1.8	1	1.9	3.6	3.7	5.9	7	6.3	6.3	5.6	4.2	5.5	5	5.4	4.9	4.2	3.3	4.1	2	2.7	3.7
12	1.6	2.7	3.2	2.7	2.4	2.2	2.6	4.2	4.8	5.7	5.4	6	5.3	5.4	6.3	5.3	5.8	5.1	5	2.7	2	1.5	1.6	2.1	3.8
13	1.3	0.9	1.5	0.8	0.9	1.9	2.1	3.2	3	3	3.8	4	3.9	4.4	4.2	4	4.5	3.8	3.9	2.4	1.9	1.6	1.1	1	2.6
14	1	0.5	0.5	0.1	0	0	0.1	1.5	2.5	2.6	2.5	5	6.5	5.2	3.8	4.7	4.5	4.7	4	2.8	2.8	2.2	1.4	1.2	2.5
15	1.7	2	1.7	1.7	1.6	1.4	2.1	4	4.2	4.2	3.9	4.5	5	4.7	5	5.8	5.6	5.6	4.5	3.3	3.9	4.9	4	4.4	3.7
16	4	3.3	3.5	3.4	3.6	3.9	4.4	5.3	5.2	5.5	6.1	5.8	5.4	5.8	4.3	4.7	2.9	3.1	2.8	3.4	3.6	3.7	2.9	4.2	4.2
17	3.1	3.1	3	2.8	2.8	2.7	3.1	3.1	2.9	3	4.2	4.3	4.3	4.5	4.7	4.3	4.2	3.7	3.2	3.3	3.4	5.4	5.6	5.3	3.8
18	3.9	3	3	3.1	2.8	3.2	3.6	4.3	4.7	5	4.7	6	5.9	5.5	6.2	7	5.7	4.6	5.4	5.2	5	5.8	6.4	5.7	4.8
19	5.7	4.6	4.8	4.6	4.2	3.9	4.5	5.5	5.5	5.4	6.5	6.4	7.3	6.8	6.4	6.9	6.5	5.9	4.4	3.5	5.5	6.1	5.9	5.3	5.5
20	5.4	5.2	5.7	4.9	4.4	4.4	5.2	5.4	5.9	5.5	5.8	5.9	7.2	6.1	5.3	6.1	6	6.1	4.8	3.9	4.1	3.2	2.9	2	5.1
21	1.9	2.4	3.1	4	3.9	3.7	2.6	3	3	2	1.7	2.3	2.7	3.6	4.2	3.5	6.3	7.4	6.4	2.3	2.1	0.8	1.5	0.5	3.1
22	0.6	1.2	1.1	0.2	0.5	0.9	0.9	1.4	2.1	1.8	2.1	2.4	2.3	2.1	3	2.6	3.7	3	2.6	1.1	0.6	0.6	0.9	1.4	1.6
23	2	1.5	1	0.2	0.3	0.9	1.9	3	3.3	4.1	5.5	5.8	5.3	5.3	3.8	4.1	4.2	7.1	2.4	1.3	2.2	3.9	2.5	1.8	3
24	1.8	3.2	3.6	4.4	4.4	5	5.7	5.5	6.2	6.5	6	5.7	5.4	5.6	6	6.2	4	8.4	7.1	6	4.6	4.5	5	4.4	5.2
25	3.9	4.6	5.4	5.2	4.4	3.4	4	5.2	6.3	6.3	5.6	4.2	3.6	3.7	4.6	3.7	4.1	3.9	3.6	3.4	2.7	2.6	2	2.6	4.1
26	3.4	3.1	3.3	2.5	2.8	3.8	4.7	5.4	6	6	6.5	6.6	6.8	6.5	6.6	6	6	5.9	4.9	4.1	3.6	4	5.5	5.4	5
27	4.5	4.6	5.2	5.1	4.2	3.2	4.2	4.4	4.8	4.2	4.3	5.3	5.6	6.1	5.8	5.8	4.6	2.9	1.8	7.8	5.3	4	2.3	1.6	4.5
28	0.5	2.3	2.4	2.9	3.3	2.8	2.4	2.8	3	3.6	4.4	4.9	4.6	4.6	5.5	5.2	3.4	2.8	3.1	2.4	3	4.5	4.8	5.9	3.6
29	4.7	2.2	2.2	1.9	1.2	1.4	1.7	2.6	3.1	2.9	2.8	3.2	3.1	3	2.4	2.5	5	5.7	4.7	2.4	1.9	2.1	1.7	1.6	2.8
30	1.5	0.8	1.4	1.8	1.8	1.7	3	3.8	4.7	4.8	5.5	6.1	6.2	5.7	6.1	4.5	3.5	2.4	1.9	1.1	1.7	2.7	2.9	1.9	3.2
31	0.1	0.2	0	0	0	0	0.1	1.2	2.8	3.4	3.4	4.1	4.1	5.1	4.9	4.2	3.3	2.8	2.4	2	1.6	2.6	1.7	1.4	2.1
Avg	2.6	2.5	2.6	2.6	2.5	2.5	2.9	3.6	4.1	4.2	4.5	4.9	5	4.9	4.6	4.5	4.5	4.5	3.7	3	2.9	3.1	2.9	2.8	3.6
SD	1.6	1.5	1.6	1.6	1.6	1.3	1.4	1.3	1.3	1.3	1.4	1.2	1.3	1.1	1.2	1.4	1.3	1.9	1.5	1.5	1.4	1.6	1.8	1.7	1
S/A	0.62	0.61	0.6	0.63	0.63	0.53	0.49	0.36	0.32	0.31	0.32	0.25	0.25	0.23	0.27	0.31	0.28	0.43	0.41	0.51	0.48	0.53	0.64	0.63	0.28
Min	0	0	0	0	0	0	0.1	1.2	1.9	1.8	1.7	2.3	2.3	2.1	1.8	1.1	1.7	0.2	1.2	0.9	0.3	0	0	0.1	1.6
Max	5.7	5.2	5.7	5.2	5.6	5	5.7	5.7	6.3	6.5	7	6.6	7.3	6.8	6.6	7	6.5	8.6	7.1	7.8	5.5	6.1	6.4	5.9	5.5
n	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	372	8928

Data Recovery: 0.0% missing; 0.0% untested; 0.0% failed QC -- 8928 total measurements.

Instrument: NRG MAX-40 Serial Number: 0 Calibration Factor: 0.76171 m/s/mV Calibration Date: 06/1995

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (\*) are not used in monthly statistics.

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