

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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 | 7    | 51   | 197   | 398   | 579   | 747   | 896   | 880   | 719    | 629   | 727   | 441   | 424   | 140  | 68   | 11   | 0  | 0  | 0  | 0  | 6913   |
| 2   | 0 | 0 | 0 | 0 | 2    | 24   | 43    | 151   | 330   | 454   | 534   | 450   | 369    | 588   | 658   | 580   | 345   | 195  | 90   | 13   | 0  | 0  | 0  | 0  | 4826   |
| 3   | 0 | 0 | 0 | 0 | 5    | 60   | 206   | 409   | 592   | 740   | 751   | 930   | 821    | 628   | 481   | 515   | 371   | 221  | 77   | 14   | 0  | 0  | 0  | 0  | 6820   |
| 4   | 0 | 0 | 0 | 0 | 2    | 34   | ?     | 308   | 456   | 635   | 810   | 347   | 274    | 808   | 789   | 558   | 354   | 169  | 35   | 5    | 0  | 0  | 0  | 0  | 5585   |
| 5   | 0 | 0 | 0 | 0 | 1    | 42   | 259 ? | 373   | 192   | 406   | 801   | 855   | 916    | 759   | 726   | 649   | 356   | 272  | 72   | 7    | 0  | 0  | 0  | 0  | 6684   |
| 6   | 0 | 0 | 0 | 0 | 2    | 27   | 108   | 252   | 496 ? | 634 ? | 784   | 829   | 911    | 887   | 776   | 750   | 472   | 331  | 127  | 11   | 0  | 0  | 0  | 0  | 7395 ? |
| 7   | 0 | 0 | 0 | 0 | 1    | 61   | 187 ? | ?     | 641   | 806   | 913 ? | 975   | 998    | 968   | 783   | 679   | 491   | 293  | 96   | 7    | 0  | 0  | 0  | 0  | 7899 ? |
| 8   | 0 | 0 | 0 | 0 | 3    | 32   | 119   | 142   | 316   | 210   | 193   | 315   | 316    | 285   | 386   | 269   | 126   | 133  | 42   | 6    | 0  | 0  | 0  | 0  | 2894   |
| 9   | 0 | 0 | 0 | 0 | 1    | 32   | 217 ? | ?     | 600 ? | 690 ? | 824 ? | 907   | 845    | 614   | 810   | 642   | 376   | 215  | 64   | 7    | 0  | 0  | 0  | 0  | 6846 ? |
| 10  | 0 | 0 | 0 | 0 | 3    | 57   | 202   | 395   | 588   | 765   | 895   | 956 ? | 950    | 912   | 803   | 655   | 462   | 267  | 84   | 8    | 0  | 0  | 0  | 0  | 8001   |
| 11  | 0 | 0 | 0 | 0 | 3    | 37   | ?     | 405 ? | 577 ? | 721   | 850   | 900   | 744    | 804 ? | 790   | 527   | 347   | 87   | 34   | 7    | 0  | 0  | 0  | 0  | 6832 ? |
| 12  | 0 | 0 | 0 | 0 | 1    | 37   | 202   | 365   | 572   | 745   | 868   | 952 ? | 852    | 882   | 565   | 390   | 321   | 232  | 67   | 5    | 0  | 0  | 0  | 0  | 7055   |
| 13  | 0 | 0 | 0 | 0 | 1    | 19   | 97    | 173   | 160   | 72    | 155   | 164   | 128    | 165   | 196   | 422   | 463   | 218  | 39   | 5    | 0  | 0  | 0  | 0  | 2477   |
| 14  | 0 | 0 | 0 | 0 | 1    | 47   | 135 ? | ?     | 619   | 786   | 837   | 860   | 945    | 839   | 801 ? | 694   | 428   | 245  | 78   | 1    | 0  | 0  | 0  | 0  | 7318 ? |
| 15  | 0 | 0 | 0 | 0 | 0    | 38   | 250 ? | 411   | 551   | 718   | 880   | 982 ? | 910 ?  | 784   | 689   | 524   | 398   | 192  | 57   | 3    | 0  | 0  | 0  | 0  | 7387   |
| 16  | 0 | 0 | 0 | 0 | 0    | 60   | 228   | 383   | 447   | 669   | 842   | 673   | 1039 ? | 816   | 680   | 591   | 413   | 236  | 72   | 9    | 0  | 0  | 0  | 0  | 7158   |
| 17  | 0 | 0 | 0 | 0 | 0    | 39   | 190   | 387   | 574   | 749   | 851   | 895   | 645 ?  | 720   | 595   | 594   | 441   | 235  | 51   | 6    | 0  | 0  | 0  | 0  | 6973   |
| 18  | 0 | 0 | 0 | 0 | 0    | 35   | 170   | 278   | 394   | 523   | 203   | 226   | 224    | 175   | 84    | 84    | 74    | 48   | 26   | 2    | 0  | 0  | 0  | 0  | 2548   |
| 19  | 0 | 0 | 0 | 0 | 0    | 15   | 97    | 145   | 148   | 354   | 493   | 401   | 521    | 480   | 423   | 230   | 254   | 98   | 45   | 14   | 0  | 0  | 0  | 0  | 3719   |
| 20  | 0 | 0 | 0 | 0 | 0    | 9    | 58    | 246   | 468   | 637   | 833   | 678   | 668    | 839   | 673   | 674   | 414   | 233  | 83   | 4    | 0  | 0  | 0  | 0  | 6517   |
| 21  | 0 | 0 | 0 | 0 | 0    | 41   | 206   | 403   | 463   | 507   | 578   | 450   | 512    | 730   | 461   | 596   | 461   | 91   | 36   | 7    | 0  | 0  | 0  | 0  | 5543   |
| 22  | 0 | 0 | 0 | 0 | 0    | 20   | 138   | 278   | 513 ? | 474   | 835   | 870   | 899    | 883   | 672   | 393   | 258   | 248  | 63   | 5    | 0  | 0  | 0  | 0  | 6549   |
| 23  | 0 | 0 | 0 | 0 | 0    | 46   | 190   | 224   | 245   | 487   | 619   | 542   | 165    | 300   | 468   | 362   | 184   | 137  | 103  | 8    | 0  | 0  | 0  | 0  | 4079   |
| 24  | 0 | 0 | 0 | 0 | 0    | 15   | 127   | 350   | 445   | 413   | 669   | 510   | 730    | 894   | 783   | 622   | 402   | 112  | 34   | 4    | 0  | 0  | 0  | 0  | 6108   |
| 25  | 0 | 0 | 0 | 0 | 0    | 35   | ?     | 329 ? | 475   | 534   | 789   | 751   | 898    | 829   | 714   | 546   | 416   | 222  | 42   | 4    | 0  | 0  | 0  | 0  | 6586 ? |
| 26  | 0 | 0 | 0 | 0 | 0    | 31   | 129 ? | 378   | 556   | 759   | 583   | 702   | 615    | 505   | 376   | 175   | 120   | 55   | 37   | 3    | 0  | 0  | 0  | 0  | 5025   |
| 27  | 0 | 0 | 0 | 0 | 0    | 3    | 19    | 37    | 56    | 106   | 198   | 380   | 436    | 226   | 176   | 285   | 348   | 187  | 84   | 13   | 0  | 0  | 0  | 0  | 2554   |
| 28  | 0 | 0 | 0 | 0 | 0    | 33   | 149   | 268 ? | 602   | 602   | 598   | 501   | 738    | 639   | 565 ? | 497 ? | 244 ? | 79   | 10   | 0    | 0  | 0  | 0  | 0  | 5525 ? |
| 29  | 0 | 0 | 0 | 0 | 0    | 5    | ?     | 63 ?  | 65    | 130   | 135   | 64    | 115    | 135   | 48    | 75    | 65    | 73   | 18   | 0    | 0  | 0  | 0  | 0  | 994    |
| 30  | 0 | 0 | 0 | 0 | 0    | 7    | 79    | 129   | 189   | 202 ? | 250 ? | ?     | ?      | ?     | ?     | 477   | 446   | 211  | 25   | 3    | 0  | 0  | 0  | 0  | 2018 ? |
| 31  | 0 | 0 | 0 | 0 | 0    | 27   | 189 ? | 371   | 563   | 745   | 875   | 946   | 956    | 905 ? | 804   | 639   | 442   | 240  | 54   | 3    | 0  | 0  | 0  | 0  | 7759   |
| Avg | 0 | 0 | 0 | 0 | 1    | 33   | 155   | 288   | 435   | 549   | 656   | 663   | 662    | 654   | 583   | 488   | 346   | 184  | 59   | 6    | 0  | 0  | 0  | 0  | 5632   |
| S D | 0 | 0 | 0 | 0 | 2    | 16   | 63    | 114   | 177   | 220   | 260   | 276   | 287    | 256   | 227   | 181   | 122   | 76   | 27   | 4    | 0  | 0  | 0  | 0  | 1987   |
| S/A | 0 | 0 | 0 | 0 | 1.57 | 0.49 | 0.41  | 0.4   | 0.41  | 0.4   | 0.4   | 0.42  | 0.43   | 0.39  | 0.39  | 0.37  | 0.35  | 0.41 | 0.46 | 0.61 | 0  | 0  | 0  | 0  | 0.35   |
| Min | 0 | 0 | 0 | 0 | 0    | 3    | 19    | 37    | 56    | 72    | 135   | 64    | 115    | 135   | 48    | 75    | 65    | 48   | 10   | 0    | 0  | 0  | 0  | 0  | 994    |
| Max | 0 | 0 | 0 | 0 | 7    | 61   | 259   | 411   | 641   | 806   | 913   | 982   | 1039   | 968   | 810   | 750   | 491   | 331  | 127  | 14   | 0  | 0  | 0  | 0  | 8001   |
| n   | 0 | 0 | 0 | 0 | 19   | 351  | 274   | 303   | 337   | 359   | 350   | 350   | 345    | 351   | 345   | 363   | 369   | 370  | 372  | 101  | 0  | 0  | 0  | 0  | 4961   |

Daylight Data Recovery: 0.0% missing; 6.6% exceed the 15% QC threshold -- 5314 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25823F3    Calibration Factor: 9.830 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

| 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**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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 | 221  | 358   | ?     | 253 ? | 28 ?  | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 861 ?   |
| 5   | 0 | 0 | 0 | 0 | 530  | 481   | 436 ? | 351 ? | 109 ? | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 1908 ?  |
| 6   | 0 | 0 | 0 | 0 | 207  | 203   | 164   | 154   | 265 ? | ?     | ?     | ?     | ?     | ?    | 590 ? | ?     | *     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 1584 ?  |
| 7   | 0 | 0 | 0 | 0 | *    | 583 * | 427 ? | ?     | ?     | ?     | 815 ? | ?     | *     | *    | *     | *     | *     | *   | *      | *    | 0   | 0  | 0  | 0  | *       |
| 8   | 0 | 0 | 0 | 0 | ?    | ?     | ?     | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 9   | 0 | 0 | 0 | 0 | 692  | 652   | ?     | ?     | 426 ? | 390 ? | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 2160 ?  |
| 10  | 0 | 0 | 0 | 0 | *    | *     | ?     | ?     | ?     | ?     | ?     | 878 ? | *     | *    | *     | *     | *     | *   | *      | *    | 0   | 0  | 0  | 0  | *       |
| 11  | 0 | 0 | 0 | 0 | ?    | ?     | ?     | 390 ? | 260 ? | ?     | ?     | ?     | ?     | ?    | ?     | *     | *     | *   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 12  | 0 | 0 | 0 | 0 | ?    | ?     | ?     | ?     | ?     | ?     | ?     | ?     | 825 ? | ?    | *     | *     | ?     | ?   | ?      | ?    | 356 | 0  | 0  | 0  | ?       |
| 13  | 0 | 0 | 0 | 0 | ?    | ?     | ?     | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 14  | 0 | 0 | 0 | 0 | 270  | 203   | 281 ? | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | *   | *      | *    | 0   | 0  | 0  | 0  | 754 *?  |
| 15  | 0 | 0 | 0 | 0 | 0    | 39 ?  | ?     | ?     | ?     | ?     | ?     | ?     | 727 ? | ?    | *     | *     | *     | *   | ?      | ?    | 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    | *     | *     | *     | *     | *     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | 297 ?  | 214  | 0   | 0  | 0  | 0  | ?       |
| 20  | 0 | 0 | 0 | 0 | 0    | 458 ? | ?     | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 21  | 0 | 0 | 0 | 0 | 0    | 289 ? | 391 ? | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 22  | 0 | 0 | 0 | 0 | 0    | *     | *     | 474 ? | 133 ? | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | *      | *    | 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    | 370   | ?     | 269 ? | 241 ? | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 880 ?   |
| 26  | 0 | 0 | 0 | 0 | 0    | 329   | 314 ? | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 643 ?   |
| 27  | 0 | 0 | 0 | 0 | 0    | *     | *     | *     | *     | *     | *     | *     | ?     | ?    | ?     | ?     | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 28  | 0 | 0 | 0 | 0 | 0    | 139   | 188   | 359 ? | ?     | ?     | ?     | ?     | ?     | 96 ? | 193 ? | 256 ? | 169 ? | ?   | ?      | ?    | 0   | 0  | 0  | 0  | 1399 ?  |
| 29  | 0 | 0 | 0 | 0 | 0    | ?     | ?     | 77 ?  | ?     | ?     | ?     | *     | *     | *    | *     | *     | *     | *   | *      | *    | 0   | 0  | 0  | 0  | *       |
| 30  | 0 | 0 | 0 | 0 | 0    | *     | *     | *     | ?     | 128 ? | 121 ? | ?     | ?     | ?    | ?     | 117 ? | ?     | ?   | ?      | ?    | 0   | 0  | 0  | 0  | ?       |
| 31  | 0 | 0 | 0 | 0 | 0    | *     | *     | ?     | ?     | ?     | ?     | ?     | ?     | ?    | ?     | *     | *     | *   | 354 *? | ?    | 0   | 0  | 0  | 0  | ?       |
| Avg | 0 | 0 | 0 | 0 | 87   | 342   | 314   | 291   | 209   | 259   | 468   | 878   | 776   | 96   | 391   | 187   | 169   | N/A | 326    | 285  | 0   | 0  | 0  | 0  | 1348 *? |
| S D | 0 | 0 | 0 | 0 | 190  | 182   | 110   | 130   | 131   | 186   | 491   | 0     | 70    | 0    | 281   | 99    | 0     | 0   | 40     | 100  | 0   | 0  | 0  | 0  | 575     |
| S/A | 0 | 0 | 0 | 0 | 2.17 | 0.53  | 0.35  | 0.45  | 0.62  | 0.72  | 1.05  | 0     | 0.09  | 0    | 0.72  | 0.53  | 0     | 0   | 0.12   | 0.35 | 0   | 0  | 0  | 0  | 0.43    |
| Min | 0 | 0 | 0 | 0 | 0    | 39    | 164   | 77    | 28    | 128   | 121   | 878   | 727   | 96   | 193   | 117   | 169   | N/A | 297    | 214  | 0   | 0  | 0  | 0  | 643     |
| Max | 0 | 0 | 0 | 0 | 692  | 652   | 436   | 474   | 426   | 390   | 815   | 878   | 825   | 96   | 590   | 256   | 169   | N/A | 354    | 356  | 0   | 0  | 0  | 0  | 2160    |
| n   | 0 | 0 | 0 | 0 | 7    | 107   | 46    | 48    | 22    | 9     | 5     | 2     | 7     | 5    | 15    | 11    | 6     | 0   | 11     | 7    | 0   | 0  | 0  | 0  | 210     |

Daylight Data Recovery: 18.2% missing; 75.6% exceed the 15% QC threshold -- 5314 total daylight measurements.

Instrument: Eppley NIP    Serial Number: 25519E6    Calibration Factor: 7.533 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

| 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**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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 | 8 ?  | 40   | 86    | 120   | 143   | 156   | 259   | 348   | 475   | 388   | 241   | 268  | 181   | 126  | 59   | 10  | 0  | 0  | 0  | 0  | 2909   |
| 2   | 0 | 0 | 0 | 0 | 2    | 20   | 37    | 132   | 290   | 361   | 451   | 396   | 335   | 502   | 378   | 244  | 182   | 107  | 62   | 12  | 0  | 0  | 0  | 0  | 3510   |
| 3   | 0 | 0 | 0 | 0 | 6 ?  | 39   | 95    | 125   | 171   | 266   | 423   | 436   | 480   | 406   | 366   | 266  | 177   | 137  | 54   | 12  | 0  | 0  | 0  | 0  | 3461   |
| 4   | 0 | 0 | 0 | 0 | 2    | 31   | ?     | 191   | 309   | 302   | 320   | 297   | 241   | 337   | 229   | 252  | 177   | 121  | 33   | 5   | 0  | 0  | 0  | 0  | 2845   |
| 5   | 0 | 0 | 0 | 0 | 1    | 39   | 80 ?  | 233 ? | 170   | 311   | 397   | 386   | 302   | 311   | 243   | 183  | 164   | 79   | 35   | 6   | 0  | 0  | 0  | 0  | 2941   |
| 6   | 0 | 0 | 0 | 0 | 2    | 24   | 97    | 187   | 258 ? | 405 ? | 362   | 387   | 324   | 247   | 307   | 263  | 250   | 193  | 75   | 9   | 0  | 0  | 0  | 0  | 3389 ? |
| 7   | 0 | 0 | 0 | 0 | 1    | 22   | 55 ?  | ?     | 67    | 72    | 94 ?  | 105   | 96    | 100   | 103   | 64   | 58    | 48   | 28   | 5   | 0  | 0  | 0  | 0  | 918 ?  |
| 8   | 0 | 0 | 0 | 0 | 3    | 29   | 99    | 123   | 280   | 185   | 169   | 278   | 270   | 244   | 354   | 244  | 109   | 114  | 36   | 6   | 0  | 0  | 0  | 0  | 2542   |
| 9   | 0 | 0 | 0 | 0 | 1    | 40   | 137   | 225   | 306 ? | 295 ? | 303 ? | 343   | 349   | 339   | 343   | 328  | 201   | 138  | 50   | 7   | 0  | 0  | 0  | 0  | 3406 ? |
| 10  | 0 | 0 | 0 | 0 | 3    | 39   | 69    | 78    | 95    | 99    | 104   | 132 ? | 157   | 134   | 124   | 97   | 92    | 75   | 44   | 8   | 0  | 0  | 0  | 0  | 1349   |
| 11  | 0 | 0 | 0 | 0 | 2    | 34   | 106 ? | 206 ? | 233 ? | 247   | 263   | 284   | 304   | 291 ? | 287   | 225  | 162   | 77   | 30   | 8   | 0  | 0  | 0  | 0  | 2758 ? |
| 12  | 0 | 0 | 0 | 0 | 1    | 30   | 87    | 121   | 156   | 176   | 163   | 156 ? | 271   | 368   | 299   | 263  | 223   | 135  | 45   | 5   | 0  | 0  | 0  | 0  | 2500   |
| 13  | 0 | 0 | 0 | 0 | 1    | 17   | 85    | 152   | 139   | 63    | 138   | 143   | 113   | 144   | 171   | 295  | 187   | 128  | 31   | 5   | 0  | 0  | 0  | 0  | 1810   |
| 14  | 0 | 0 | 0 | 0 | 1    | 20   | 39 ?  | ?     | 67    | 73    | 166   | 172   | 188   | 244   | 163 ? | 145  | 106   | 59   | 28   | 1   | 0  | 0  | 0  | 0  | 1472 ? |
| 15  | 0 | 0 | 0 | 0 | 0    | 21   | 74 ?  | 107   | 140   | 157   | 129   | 168 ? | 259   | 242   | 274   | 259  | 127   | 100  | 40   | 3   | 0  | 0  | 0  | 0  | 2099   |
| 16  | 0 | 0 | 0 | 0 | 0    | 40   | 126   | 175   | 208   | 187   | 189   | 276   | 269 ? | 332   | 260   | 169  | 124   | 87   | 53   | 9   | 0  | 0  | 0  | 0  | 2503   |
| 17  | 0 | 0 | 0 | 0 | 0    | 24   | 73    | 104   | 131   | 156   | 174   | 215   | 263 ? | 242   | 235   | 192  | 149   | 104  | 39   | 5   | 0  | 0  | 0  | 0  | 2105   |
| 18  | 0 | 0 | 0 | 0 | 0    | 30   | 129   | 241   | 347   | 419   | 186   | 193   | 192   | 149   | 74    | 73   | 64    | 42   | 23   | 2   | 0  | 0  | 0  | 0  | 2163   |
| 19  | 0 | 0 | 0 | 0 | 0    | 13   | 84    | 128   | 129   | 310   | 414   | 343   | 470   | 414   | 370   | 202  | 197   | 85   | 39   | 14  | 0  | 0  | 0  | 0  | 3213   |
| 20  | 0 | 0 | 0 | 0 | 0    | 8    | 50    | 213   | 294   | 276   | 306   | 395   | 318   | 249   | 217   | 165  | 115   | 82   | 43   | 4   | 0  | 0  | 0  | 0  | 2733   |
| 21  | 0 | 0 | 0 | 0 | 0    | 22   | 57    | 75    | 170   | 365   | 408   | 393   | 420   | 334   | 365   | 206  | 160   | 78   | 32   | 7   | 0  | 0  | 0  | 0  | 3091   |
| 22  | 0 | 0 | 0 | 0 | 0    | 17   | 117   | 201   | 274 ? | 322   | 290   | 336   | 309   | 346   | 311   | 249  | 200   | 158  | 49   | 5   | 0  | 0  | 0  | 0  | 3185   |
| 23  | 0 | 0 | 0 | 0 | 0    | 26   | 81    | 153   | 177   | 287   | 338   | 373   | 139   | 266   | 384   | 272  | 146   | 96   | 83   | 9   | 0  | 0  | 0  | 0  | 2832   |
| 24  | 0 | 0 | 0 | 0 | 0    | 13   | 71    | 133   | 246   | 277   | 395   | 435   | 301   | 128   | 181   | 152  | 151   | 86   | 29   | 4   | 0  | 0  | 0  | 0  | 2600   |
| 25  | 0 | 0 | 0 | 0 | 0    | 31   | 92 ?  | 189 ? | 213   | 258   | 266   | 290   | 263   | 271   | 229   | 176  | 129   | 92   | 29   | 4   | 0  | 0  | 0  | 0  | 2533   |
| 26  | 0 | 0 | 0 | 0 | 0    | 22   | 53 ?  | 115   | 162   | 197   | 283   | 490   | 402   | 439   | 328   | 151  | 103   | 47   | 32   | 3   | 0  | 0  | 0  | 0  | 2825   |
| 27  | 0 | 0 | 0 | 0 | 0    | 3    | 16    | 32    | 49    | 91    | 170   | 324   | 374   | 201   | 154   | 250  | 163   | 111  | 68   | 12  | 0  | 0  | 0  | 0  | 2018   |
| 28  | 0 | 0 | 0 | 0 | 0    | 29   | 94    | 103 ? | 181   | 351   | 416   | 445   | 475   | 444   | 426 ? | 327  | 195 ? | 68   | 9    | 0   | 0  | 0  | 0  | 0  | 3563 ? |
| 29  | 0 | 0 | 0 | 0 | 0    | 5    | 29    | 56    | 57    | 113   | 117   | 56    | 99    | 116   | 42    | 65   | 56    | 63   | 16   | 0   | 0  | 0  | 0  | 0  | 890    |
| 30  | 0 | 0 | 0 | 0 | 0    | 6    | 69    | 110   | 162   | 165   | 216   | 208   | 229   | 230 ? | 282 ? | 196  | 64    | 64   | 21   | 2   | 0  | 0  | 0  | 0  | 2026   |
| 31  | 0 | 0 | 0 | 0 | 0    | 22   | 53    | 62    | 82    | 91    | 104   | 117   | 112   | 104 ? | 89    | 85   | 73    | 52   | 24   | 3   | 0  | 0  | 0  | 0  | 1075   |
| Avg | 0 | 0 | 0 | 0 | 1    | 24   | 78    | 141   | 184   | 227   | 259   | 288   | 284   | 276   | 253   | 204  | 145   | 95   | 40   | 6   | 0  | 0  | 0  | 0  | 2492   |
| S/D | 0 | 0 | 0 | 0 | 2    | 11   | 29    | 56    | 83    | 105   | 112   | 117   | 114   | 109   | 102   | 74   | 51    | 35   | 17   | 4   | 0  | 0  | 0  | 0  | 768    |
| S/A | 0 | 0 | 0 | 0 | 1.72 | 0.45 | 0.38  | 0.4   | 0.45  | 0.46  | 0.43  | 0.41  | 0.4   | 0.4   | 0.4   | 0.36 | 0.37  | 0.42 | 0.62 | 0.2 | 0  | 0  | 0  | 0  | 0.31   |
| Min | 0 | 0 | 0 | 0 | 0    | 3    | 16    | 32    | 49    | 63    | 94    | 56    | 96    | 100   | 42    | 64   | 56    | 42   | 9    | 0   | 0  | 0  | 0  | 0  | 890    |
| Max | 0 | 0 | 0 | 0 | 8    | 40   | 137   | 241   | 347   | 419   | 451   | 490   | 480   | 502   | 426   | 328  | 250   | 193  | 83   | 14  | 0  | 0  | 0  | 0  | 3563   |
| n   | 0 | 0 | 0 | 0 | 17   | 354  | 314   | 316   | 341   | 363   | 359   | 360   | 359   | 359   | 354   | 366  | 368   | 370  | 372  | 101 | 0  | 0  | 0  | 0  | 5073   |

Daylight Data Recovery: 0.0% missing; 4.5% exceed the 15% QC threshold -- 5314 total daylight measurements.

Instrument: Eppley PSP    Serial Number: 25819F3    Calibration Factor: 9.070 μV/W/m<sup>2</sup>    Calibration Date: 05/1998

| 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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**Dry Bulb Temperature (Tower)**  
**Hourly and Daily Averages**  
**Instrument: CSI HMP-35C**  
**Degrees Celsius**

| 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   | 25.5 | 25.1 | 24.7 | 24.4 | 24.2 | 24.2 | 24.9 | 26.3 | 27.5 | 28.4 | 29.2 | 30.2 | 30.4 | 30.2 | 31.1 | 30.8 | 30.9 | 29.9 | 29   | 28.1 | 27.6 | 27.3 | 26.9 | 26.7 | 27.6  |
| 2   | 26.4 | 25.6 | 24.7 | 24.8 | 24.1 | 23.7 | 24   | 23.1 | 22.4 | 22.6 | 22.4 | 22   | 21.6 | 22.3 | 23.1 | 23.1 | 22.3 | 21.8 | 20.7 | 19.7 | 18.9 | 17.8 | 16.9 | 16.3 | 22.1  |
| 3   | 15.7 | 15.1 | 15.1 | 15   | 15.5 | 16.8 | 19.6 | 21   | 22.3 | 23.2 | 24.1 | 24.7 | 25.8 | 26.6 | 26.7 | 27   | 27.6 | 27.6 | 27.2 | 26.3 | 25.7 | 25.2 | 24.5 | 24.1 | 22.6  |
| 4   | 24   | 23.9 | 23.4 | 23.2 | 23   | 23.4 | 24.2 | 24.9 | 26   | 27   | 27.9 | 27.8 | 27.4 | 28.4 | 29.5 | 29.7 | 29.9 | 29.5 | 28.9 | 27.8 | 27   | 26.5 | 26.2 | 24.6 | 26.4  |
| 5   | 23.1 | 22.3 | 22   | 21.8 | 21.6 | 21.4 | 21.5 | 22.6 | 22.7 | 23   | 23.2 | 25.1 | 26.5 | 27.5 | 27.9 | 28.6 | 29.1 | 29   | 29.1 | 28.2 | 26.7 | 25.7 | 24.9 | 24.9 | 25    |
| 6   | 24.7 | 24.1 | 23.8 | 23.4 | 23.1 | 22.7 | 22.6 | 22.7 | 24.3 | 25.3 | 25.4 | 26.3 | 26.7 | 26.8 | 27   | 26.9 | 25.6 | 24.7 | 23.9 | 22.7 | 22   | 21.6 | 21.1 | 20.2 | 24.1  |
| 7   | 19   | 18.2 | 17.3 | 17.5 | 16.9 | 15.6 | 18.4 | 22.2 | 23.8 | 24.7 | 25.4 | 25.9 | 26.1 | 26.6 | 26.7 | 26.7 | 25.9 | 25.4 | 24.6 | 23   | 21.8 | 21.3 | 20.8 | 20.1 | 22.2  |
| 8   | 19.8 | 19.9 | 20.2 | 20.6 | 21.1 | 21.2 | 22   | 22.7 | 23.6 | 24   | 22.2 | 22.6 | 23.6 | 24.1 | 24.5 | 24.9 | 24.8 | 25   | 25   | 24.6 | 24.3 | 24.2 | 24   | 23.4 | 23    |
| 9   | 22.9 | 22.4 | 22   | 22.2 | 22.3 | 22.5 | 23.7 | 25.6 | 26.8 | 27.9 | 29   | 30.4 | 31.2 | 31.3 | 30.4 | 29.6 | 29.2 | 28.4 | 27.5 | 26.5 | 25.2 | 23.9 | 22.9 | 22.4 | 26.1  |
| 10  | 22.1 | 21.2 | 20.9 | 21.3 | 21.3 | 21.3 | 23.5 | 26.6 | 29   | 30   | 30.4 | 31.1 | 31.3 | 32   | 32.1 | 32.2 | 32   | 30.3 | 29   | 28   | 26.9 | 26.2 | 25.7 | 25.5 | 27.1  |
| 11  | 25.2 | 24.9 | 24.5 | 24.2 | 24.1 | 24.4 | 25   | 26   | 27.9 | 29.7 | 30.9 | 32   | 32.8 | 33.5 | 34.1 | 33.6 | 33.3 | 28.1 | 24.8 | 24.8 | 25.1 | 25.3 | 25   | 24.2 | 27.7  |
| 12  | 23.8 | 22.8 | 21.6 | 21   | 20.8 | 20.8 | 22.5 | 24.1 | 25.4 | 26.5 | 27.5 | 28.3 | 28.9 | 29.4 | 29.2 | 27.1 | 26.3 | 25.8 | 25.1 | 23.9 | 23.2 | 23.1 | 23.1 | 23.3 | 24.7  |
| 13  | 22.9 | 22.1 | 21.5 | 21.1 | 21.1 | 21.4 | 21.9 | 23.1 | 23.7 | 23.5 | 23.4 | 23.6 | 23.9 | 23.6 | 23.4 | 23.7 | 24.7 | 24.4 | 23.4 | 22.4 | 21.7 | 20.9 | 20.7 | 20.1 | 22.6  |
| 14  | 19.4 | 18.7 | 18.1 | 17.5 | 17   | 17.4 | 19   | 21.5 | 23.7 | 25   | 25.9 | 26.3 | 27.1 | 27.7 | 27.8 | 28.2 | 27.9 | 27.7 | 26.9 | 24.4 | 22.9 | 21.9 | 21.1 | 20.4 | 23.1  |
| 15  | 20   | 19.6 | 19   | 18.5 | 18.9 | 19.1 | 20.6 | 22.4 | 25   | 26.7 | 27.6 | 28.5 | 29.1 | 29.3 | 29.3 | 28.8 | 27.4 | 26.8 | 26   | 24.5 | 24   | 23.5 | 23.4 | 23.1 | 24.2  |
| 16  | 22.7 | 22.4 | 21.6 | 20.7 | 19.5 | 19.8 | 22.2 | 25   | 26.5 | 27.8 | 28.9 | 29.4 | 30.4 | 29.2 | 29.1 | 29.2 | 29   | 28.5 | 27.1 | 26   | 25.3 | 24.6 | 24   | 23.7 | 25.5  |
| 17  | 23   | 22.5 | 21.9 | 21.3 | 20.8 | 20.8 | 22.2 | 24.2 | 25.9 | 27.3 | 28.3 | 29.4 | 29.9 | 30.4 | 30.7 | 31   | 30.8 | 29.5 | 27.9 | 26.8 | 25.9 | 25.1 | 24.6 | 24.1 | 26    |
| 18  | 23.8 | 23.3 | 22.8 | 22.4 | 22.2 | 21.9 | 22.7 | 24.3 | 25.7 | 26.7 | 26.2 | 25.4 | 26.5 | 26.8 | 25.9 | 25.1 | 23.4 | 23.3 | 23.4 | 23.4 | 23   | 22.9 | 22.8 | 22.6 | 24    |
| 19  | 22.5 | 22.5 | 22.5 | 22.4 | 22.2 | 22.1 | 22.6 | 22.8 | 23.5 | 24.7 | 26.3 | 26.2 | 26.4 | 26.4 | 26   | 25   | 24.9 | 23.9 | 23.4 | 22.6 | 22.1 | 21.6 | 21.3 | 20.7 | 23.5  |
| 20  | 20.2 | 20   | 19.9 | 19.7 | 20   | 20.2 | 20.5 | 21.1 | 22.4 | 23.3 | 24.5 | 24.1 | 24.2 | 24.8 | 24.6 | 24.5 | 24   | 23.1 | 22.3 | 21   | 20.1 | 19.5 | 19.1 | 18.7 | 21.7  |
| 21  | 18.2 | 17.9 | 18.1 | 18   | 17.7 | 17.7 | 18.8 | 21   | 22.9 | 23.7 | 24.2 | 24   | 24.5 | 25.1 | 24.7 | 24.8 | 24.8 | 23.7 | 23.1 | 22.7 | 22.2 | 21.7 | 21.3 | 20.6 | 21.7  |
| 22  | 20.3 | 20.1 | 19.9 | 20.2 | 20   | 20.2 | 21.3 | 23.3 | 25.4 | 26.1 | 27   | 27.8 | 28.3 | 28.3 | 28.2 | 27.9 | 27.4 | 26.9 | 25.3 | 24.6 | 24.4 | 24.2 | 23.8 | 23.5 | 24.4  |
| 23  | 23.7 | 23.6 | 23.4 | 23   | 23.2 | 23.5 | 25   | 26.1 | 26.5 | 28   | 28.8 | 28.7 | 24.8 | 24.9 | 27.2 | 27.8 | 27   | 26.5 | 24   | 23.7 | 23.9 | 24.4 | 24.9 | 25   | 25.3  |
| 24  | 24.7 | 24.7 | 24.8 | 24.8 | 24.6 | 24.6 | 25.1 | 26   | 27.1 | 27.4 | 28.6 | 28.8 | 27.9 | 29.3 | 30.4 | 30.5 | 30.4 | 28.4 | 27   | 26.1 | 25.6 | 25.3 | 25.1 | 25.6 | 26.8  |
| 25  | 25.5 | 25.3 | 25.3 | 25   | 24.9 | 25.2 | 25.5 | 26.2 | 27.2 | 28.1 | 29.2 | 30.3 | 31.3 | 31.8 | 32.2 | 32.1 | 31.8 | 31.2 | 29.8 | 28.3 | 27.5 | 26.9 | 26.3 | 26   | 28    |
| 26  | 25.5 | 25.1 | 24.9 | 24.8 | 24.9 | 25   | 25.6 | 26.4 | 27.2 | 28.1 | 28.4 | 28.3 | 27.9 | 27.2 | 26.3 | 25.8 | 25.9 | 25.6 | 25.4 | 24.9 | 24.8 | 25   | 24.4 | 24   | 25.9  |
| 27  | 23   | 23   | 22.8 | 22.7 | 21.4 | 20.8 | 20.8 | 20.9 | 20.4 | 20.2 | 20.7 | 21.9 | 22.9 | 22.8 | 22.6 | 22.8 | 23.2 | 22.7 | 22   | 21.2 | 20.2 | 19.3 | 18.9 | 18.4 | 21.5  |
| 28  | 17.9 | 17.8 | 17.6 | 17.5 | 17   | 17.2 | 18.8 | 21.4 | 22.6 | 23.1 | 23.3 | 23.2 | 23.8 | 24.1 | 24.1 | 23.7 | 23.5 | 22.8 | 22.4 | 22   | 21.8 | 21.8 | 21.8 | 21.6 | 21.3  |
| 29  | 20.1 | 19.6 | 19.8 | 20.1 | 20.4 | 20.8 | 21.1 | 21.8 | 22.3 | 23   | 23.6 | 23.4 | 23   | 23.7 | 23.5 | 23.5 | 23.9 | 24.1 | 24.3 | 24.2 | 23.4 | 22.8 | 22   | 21.1 | 22.3  |
| 30  | 20.5 | 20.3 | 20.2 | 20.1 | 20.1 | 20.5 | 20.7 | 21.2 | 21.5 | 21   | 21.8 | 22.3 | 23   | 23   | 23.8 | 24.2 | 24.2 | 23.4 | 22.2 | 21.7 | 21.2 | 20.3 | 19.8 | 19.2 | 21.5  |
| 31  | 19   | 18.5 | 18.3 | 18.2 | 18.4 | 18.5 | 19.5 | 21.2 | 22.8 | 24.2 | 24.5 | 24.8 | 25.1 | 25.5 | 25.8 | 25.5 | 25.2 | 24.1 | 22.5 | 21.1 | 20.4 | 19.9 | 19.5 | 18.9 | 21.7  |
| Avg | 22.1 | 21.7 | 21.4 | 21.2 | 21   | 21.1 | 22.1 | 23.5 | 24.7 | 25.5 | 26.2 | 26.6 | 26.9 | 27.2 | 27.4 | 27.3 | 27   | 26.2 | 25.2 | 24.3 | 23.7 | 23.2 | 22.8 | 22.4 | 24.2  |
| S D | 2.7  | 2.7  | 2.6  | 2.6  | 2.6  | 2.5  | 2.2  | 2    | 2.2  | 2.5  | 2.7  | 2.9  | 3    | 3    | 3    | 3    | 3    | 2.6  | 2.5  | 2.3  | 2.3  | 2.4  | 2.5  | 2.6  | 2.1   |
| S/A | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.1  | 0.08 | 0.09 | 0.1  | 0.1  | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.11 | 0.12 | 0.09  |
| Min | 15.7 | 15.1 | 15.1 | 15   | 15.5 | 15.6 | 18.4 | 20.9 | 20.4 | 20.2 | 20.7 | 21.9 | 21.6 | 22.3 | 22.6 | 22.8 | 22.3 | 21.8 | 20.7 | 19.7 | 18.9 | 17.8 | 16.9 | 16.3 | 21.3  |
| Max | 26.4 | 25.6 | 25.3 | 25   | 24.9 | 25.2 | 25.6 | 26.6 | 29   | 30   | 30.9 | 32   | 32.8 | 33.5 | 34.1 | 33.6 | 33.3 | 31.2 | 29.8 | 28.3 | 27.6 | 27.3 | 26.9 | 26.7 | 28    |
| 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% failed QC -- 8928 total measurements.

Instrument: CSI HMP-35C    Serial Number: P0520031    Calibration Factor: 1.00 deg C/mV    Calibration Date: 03/1988

| 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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**Relative Humidity (Tower)**  
**Hourly and Daily Averages**  
**Instrument: CSI HMP-35C**  
**Percent**

| 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   | 91.6   | 93.6   | 95.1   | 96     | 96.4   | 96.5   | 94.3   | 85.7   | 77.8   | 75     | 72.2   | 67.9 | 67.8 | 69.5 | 66.4 | 67   | 65.6 | 69   | 72.3   | 77.9   | 80.6 | 81.4   | 92.2   | 90.3   | 80.9   |        |
| 2   | 91.3   | 84.2   | 91.6   | 89.8   | 94.1   | 97.4   | 92.2   | 82.5   | 73.9   | 71.8   | 70.2   | 67.8 | 66.8 | 65.8 | 58.5 | 62.3 | 65.6 | 65.2 | 72.3   | 75.7   | 79   | 83.2   | 89.3   | 92     | 78.4   |        |
| 3   | 97.3   | 99.5 ? | 99.3 ? | 98.5   | 98.6   | 94.7   | 83.7   | 75.5   | 69.7   | 66.9   | 66     | 69.1 | 65.5 | 68.5 | 70.4 | 74.6 | 76.4 | 77.9 | 81.2   | 85.4   | 89.9 | 93.8   | 96.1   | 98.5   | 83.2   |        |
| 4   | 99.8 ? | ?      | ?      | 99.9 ? | 99.9 ? | ?      | 99.1 ? | 93.7   | 87.5   | 83.1   | 79.8   | 78.7 | 83.2 | 79.5 | 74.5 | 73.6 | 74.1 | 74.9 | 78.7   | 86     | 89.2 | 90.6   | 92.9   | 93.2   | 86.3 ? |        |
| 5   | 97.6   | 99.8 ? | ?      | ?      | ?      | ?      | 99.7 ? | 96.7   | 95.1   | 94.2   | 86.5   | 80.2 | 75.9 | 74.6 | 73.5 | 70.8 | 70.1 | 68.6 | 75.6   | 82.9   | 87.7 | 92.4   | 95.2   | 94.8   | 85.6 ? |        |
| 6   | 93     | 95     | 96.4   | 97.9   | 97.3   | 95.5   | 88.2   | 86.8   | 80.5   | 76.3   | 71.5   | 59.3 | 53.5 | 50.4 | 50.2 | 56   | 60.2 | 62.5 | 64     | 70     | 71.2 | 74.6   | 79.6   | 83.4   | 75.6   |        |
| 7   | 90.7   | 93.4   | 95.1   | 91.5   | 91.8   | 98.1   | 87.8   | 74.8   | 63.4   | 55.1   | 50.4   | 49.6 | 49.3 | 47.9 | 48   | 49.1 | 52.2 | 50   | 45.7   | 53.1   | 62.8 | 71.2   | 77.4   | 81.3   | 67.9   |        |
| 8   | 87.1   | 91     | 91.8   | 91.3   | 90.6   | 86.8   | 78     | 70.3   | 67.3   | 74.1   | 83.8   | 89.5 | 85.9 | 88.1 | 89.7 | 88.8 | 90.1 | 90.9 | 91.1   | 93.7   | 96.2 | 96.8   | 97.2   | 99.3   | 87.9   |        |
| 9   | ?      | ?      | ?      | ?      | ?      | ?      | 98.2 ? | 91.2   | 84.4   | 78.4   | 74.7   | 71.6 | 66.3 | 64.5 | 73.6 | 76.7 | 76.8 | 77.8 | 74.1   | 76     | 82.6 | 89.7   | 94.4   | 96     | 80.4 ? |        |
| 10  | 97.7   | 98.8 ? | ?      | ?      | ?      | ?      | 95.1 ? | 81     | 61.9   | 52.6   | 48.5   | 44   | 46.1 | 40.8 | 43.2 | 38.2 | 45.8 | 55.2 | 72.9   | 78.9   | 84.2 | 89.6   | 94.6   | 97.9   | 68.3 ? |        |
| 11  | 99.2   | 98.5   | 99.7 ? | ?      | ?      | ?      | ?      | 97.3 ? | 89.6   | 80.6   | 74.3   | 68.1 | 61.7 | 57.7 | 53.7 | 54.7 | 53   | 73.7 | 93.6   | 95.3   | 89.2 | 87.5   | 85     | 80     | 79.6 ? |        |
| 12  | 76.3   | 79.9   | 86.8   | 86.9   | 85     | 82.9   | 75.4   | 71.7   | 70.5   | 65     | 57.8   | 52.7 | 53   | 53.4 | 57.1 | 65.7 | 65.5 | 62.1 | 62.3   | 71.2   | 76.4 | 76.3   | 76.8   | 76.2   | 70.3   |        |
| 13  | 78.2   | 84.1   | 88.3   | 92.2   | 90.4   | 88.4   | 84     | 78.8   | 78.2   | 81.2   | 86.8   | 79.6 | 78.7 | 85.5 | 87.4 | 85.9 | 75.1 | 78.1 | 84.1   | 87.8   | 89.9 | 94     | 93.9   | 96.5   | 85.3   |        |
| 14  | 98     | 99.4 ? | 100    | 99.9   | 99.8 ? | 96.3   | 87     | 76.1   | 63.3   | 54.3   | 45.9   | 46   | 43.7 | 43   | 39.8 | 38.3 | 40.1 | 42.3 | 46.8   | 61.2   | 69.1 | 74.5   | 77.2   | 79.2   | 67.6   |        |
| 15  | 81.6   | 87.7   | 91.7   | 94.3   | 91.8   | 93.2   | 90.9   | 84.1   | 68.7   | 54.3   | 48.6   | 42.7 | 39.7 | 39   | 40.4 | 46.8 | 62.3 | 60.5 | 58.8   | 74.9   | 85.5 | 89.9   | 91.1   | 94.2   | 71.4   |        |
| 16  | 96.6   | 96.8   | 94.3   | 96.4   | 99.5 ? | ?      | 94.7   | 80.5   | 70.2   | 62     | 51     | 45.5 | 40.8 | 53.4 | 54.6 | 54.4 | 54.8 | 56.8 | 61.7   | 66.4   | 72.7 | 80.8   | 85.3   | 84.3   | 71.9   |        |
| 17  | 85.9   | 87.6   | 91.4   | 95.2   | 96.8   | 96     | 90.7   | 83.5   | 74.8   | 69.3   | 66.1   | 60.9 | 55   | 52.9 | 48   | 48   | 51.4 | 61.4 | 66.6   | 68.7   | 71.9 | 78.9   | 82.6   | 82.8   | 73.6   |        |
| 18  | 83.4   | 85.5   | 88.1   | 89.6   | 91     | 93.5   | 92.5   | 87.5   | 78.2   | 72     | 77.4   | 85.2 | 80.7 | 80.2 | 88.4 | 95.1 | ?    | ?    | ?      | ?      | ?    | ?      | ?      | ?      | 85.5 ? |        |
| 19  | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | 99.1 ? | 95.9   | 89.6   | 87.4 | 83.6 | 80.8 | 82.5 | 87.6 | 88.3 | 92   | 93.1   | 94.9   | 96.5 | 96.8   | 96.8   | 97.6   | 91.4 ? |        |
| 20  | 98.9   | 99.5   | 99.4   | 99.6   | 98.6   | 97.2   | 95     | 91.3   | 86.5   | 81.4   | 74.8   | 74.6 | 70.7 | 66.5 | 65.7 | 66.5 | 69.6 | 75.4 | 79.2   | 86.9   | 93.2 | 94.2   | 95     | 96.3   | 85.7   |        |
| 21  | 97.9   | 98.9   | 99.2   | 99.4   | ?      | ?      | 98.1   | 92.1   | 81.6   | 73.9   | 72.8   | 73.8 | 71.2 | 68.7 | 69.7 | 70.2 | 69.5 | 72.6 | 76.1   | 78.9   | 82.2 | 86.2   | 89.2   | 92.8   | 82.5   |        |
| 22  | 95.7   | 97.6   | 98.6   | 98.7   | 99.4   | 99.5   | 98.6   | 95.4   | 88.4   | 84.2   | 80.8   | 77.9 | 74.4 | 76.1 | 78.1 | 79   | 81.2 | 84.9 | 94.7   | 98.6   | 99.4 | 99.8 ? | 99.5   | 99     | 90.8   |        |
| 23  | 99     | 99.8 ? | ?      | ?      | ?      | ?      | 98.4 ? | 96.7   | 94.7   | 83.5   | 77.6   | 80.4 | 92.8 | 95.8 | 90.4 | 86.2 | 90.3 | 91   | 98.5 ? | 99.3 ? | ?    | ?      | ?      | 99.5 ? | 92.6 ? |        |
| 24  | ?      | ?      | ?      | 99.6   | ?      | ?      | 98.3   | 94.5   | 89.4   | 88.9   | 82.6   | 81.5 | 86.5 | 80.3 | 75.2 | 73.1 | 72.5 | 76.5 | 83.8   | 92.3   | 95.8 | 96.6   | 98.8   | 98.3   | 87.6 ? |        |
| 25  | 98.4   | 98.4   | 98.6   | 99.3 ? | 99.8 ? | 98.7   | 97.7   | 94.5   | 87.4   | 82.5   | 76.6   | 71.1 | 67.3 | 62.9 | 62   | 63.7 | 67.5 | 69.6 | 72.6   | 76.4   | 80.3 | 88.4   | 92.5   | 92.5   | 83.3   |        |
| 26  | 95.6   | 97.6   | 98.6   | 98.2   | 96.7   | 96     | 91.7   | 85.9   | 80.9   | 76.1   | 75.4   | 74.5 | 75.6 | 76.6 | 79.2 | 81   | 81.1 | 82.4 | 85     | 88.5   | 92.9 | 95.5   | 98.7 ? | ?      | 87.1   |        |
| 27  | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | 99 ?   | 93.5 | 82   | 78.8 | 82   | 78   | 74.4 | 79.3 | 84.1   | 87.6   | 92.4 | 97.1   | 98.7   | 99.6   | 87.6 ? |        |
| 28  | ?      | 99.8 ? | 99.7   | 99.3   | 99.7 ? | 99.3 ? | 95.4   | 84.3   | 74.8   | 69.9   | 70.8   | 70.6 | 69.2 | 67.6 | 67.6 | 69   | 70.7 | 76.5 | 79.6   | 83     | 84.5 | 85.7   | 86.3   | 87.6   | 82.2 ? |        |
| 29  | 98.2 ? | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | 99.5 ? | 99 ? | ?    | ?    | ?    | ?    | ?    | ?    | ?      | ?      | ?    | ?      | ?      | ?      | ?      |        |
| 30  | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | ?      | 99.5 ? | 99.5 ? | 97.1 | 95.3 | 91.4 | 92   | 86.3 | 80.1 | 75.7 | 75     | 86     | 91.4 | 95     | 97.7   | 99.4 ? | ?      | 90.8 ? |
| 31  | ?      | ?      | ?      | ?      | ?      | ?      | ?      | 91.5   | 80.2   | 65.2   | 63.5   | 64   | 63.3 | 52.5 | 44.6 | 44.5 | 49.8 | 64.3 | 78.7   | 88.5   | 93.5 | 96.8   | 98.6   | ?      | 71.2 ? |        |
| Avg | 92.9   | 94.2   | 95.2   | 95.9   | 95.6   | 94.7   | 92.2   | 86.1   | 79.9   | 74.7   | 73.3   | 71   | 68   | 67.1 | 66.7 | 67.5 | 67.9 | 71.3 | 76.3   | 81.8   | 85.1 | 88.6   | 91.2   | 91.7   | 81.1 ? |        |
| S D | 7.1    | 6.3    | 4.4    | 4.1    | 4.4    | 4.6    | 6.6    | 8.1    | 10.7   | 12.3   | 14.5   | 15.4 | 15.1 | 15.4 | 15.9 | 15.6 | 13   | 12   | 13.2   | 11.3   | 9.5  | 8.2    | 7.3    | 7.3    | 7.7    |        |
| S/A | 0.08   | 0.07   | 0.05   | 0.04   | 0.05   | 0.05   | 0.07   | 0.09   | 0.13   | 0.17   | 0.2    | 0.22 | 0.22 | 0.23 | 0.24 | 0.23 | 0.19 | 0.17 | 0.17   | 0.14   | 0.11 | 0.09   | 0.08   | 0.08   | 0.1    |        |
| Min | 76.3   | 79.9   | 86.8   | 86.9   | 85     | 82.9   | 75.4   | 70.3   | 61.9   | 52.6   | 45.9   | 42.7 | 39.7 | 39   | 39.8 | 38.2 | 40.1 | 42.3 | 45.7   | 53.1   | 62.8 | 71.2   | 76.8   | 76.2   | 67.6   |        |
| Max | 99.8   | 99.8   | 100    | 99.9   | 99.9   | 99.5   | 99.7   | 97.3   | 99.5   | 99.5   | 99.5   | 99   | 92.8 | 95.8 | 90.4 | 95.1 | 90.3 | 92   | 98.5   | 99.3   | 99.4 | 99.8   | 99.5   | 99.6   | 92.6   |        |
| n   | 275    | 250    | 223    | 236    | 190    | 196    | 264    | 320    | 335    | 339    | 358    | 367  | 360  | 360  | 360  | 360  | 348  | 347  | 345    | 341    | 336  | 331    | 323    | 302    | 7448   |        |

Data Recovery: 0.0% missing; 16.3% failed QC -- 8928 total measurements.

Instrument: CSI HMP-35C    Serial Number: P0520031    Calibration Factor: 0.10 %/mV    Calibration Date: 01/1999

| 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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**Dry Bulb Temperature (CR10)**  
**Hourly and Daily Averages**  
**Instrument: CSI**  
**Degrees Celsius**

| 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   | 25.2 | 24.8 | 24.4 | 24   | 23.8 | 23.8 | 24.9 | 27.3 | 29.3 | 30.6 | 31.6 | 32.3 | 32.9 | 32.5 | 33.1 | 33   | 32.8 | 31.6 | 30   | 28.7 | 27.7 | 27.3 | 26.7 | 26.6 | 28.5  |
| 2   | 26.4 | 26   | 25   | 24.6 | 24.1 | 23.4 | 23.6 | 24   | 24   | 24.8 | 24.7 | 25.1 | 24.1 | 24.6 | 25.7 | 26.1 | 25.2 | 23.7 | 22   | 19.9 | 17.8 | 16.1 | 14.3 | 13.4 | 22.9  |
| 3   | 13.2 | 13   | 12.9 | 12.9 | 13   | 13.9 | 16.9 | 20.6 | 23.6 | 25.9 | 27.7 | 28.5 | 29.2 | 30.2 | 30.1 | 30.1 | 30.2 | 29.6 | 29   | 27.3 | 25.8 | 25   | 24.1 | 23.5 | 23.2  |
| 4   | 23.3 | 23.4 | 23   | 22.7 | 22.3 | 22.6 | 24   | 25.5 | 27.2 | 29.1 | 30.4 | 30.4 | 29.3 | 30   | 31.7 | 32.1 | 32.2 | 31.1 | 30   | 28.3 | 27.3 | 26.6 | 26.4 | 25.3 | 27.2  |
| 5   | 23.1 | 22.3 | 21.8 | 21.5 | 21.3 | 21.4 | 21.6 | 23.4 | 24.4 | 24.3 | 26.9 | 28.8 | 29.4 | 29.8 | 30.5 | 31.4 | 31.3 | 30.7 | 29.8 | 27.4 | 25.8 | 24.7 | 24.3 | 24.2 | 25.8  |
| 6   | 24   | 23.6 | 23.1 | 22.8 | 22.5 | 22.1 | 22.2 | 22.8 | 25.4 | 27.8 | 28.5 | 29.4 | 29.4 | 29.4 | 30.2 | 30.9 | 29.5 | 28.2 | 26.4 | 23.6 | 21.3 | 20.2 | 19.3 | 18.3 | 25    |
| 7   | 17.1 | 16.1 | 15.1 | 14.7 | 14.4 | 14.1 | 17.1 | 21.8 | 24.8 | 27   | 28.3 | 29.1 | 28.9 | 29   | 29.8 | 30   | 29.4 | 28.1 | 26.6 | 23.7 | 21   | 20.2 | 19.6 | 18.8 | 22.7  |
| 8   | 18.3 | 18.1 | 18.6 | 19   | 19.7 | 20.4 | 21.5 | 22.5 | 23.8 | 24.9 | 23.3 | 23.4 | 24.3 | 25   | 25.7 | 26.5 | 26.1 | 25.8 | 25.6 | 24.8 | 24.2 | 24.1 | 23.9 | 23   | 23    |
| 9   | 22.5 | 22   | 21.8 | 21.8 | 21.8 | 21.8 | 22.9 | 26.1 | 28.4 | 31.2 | 32.9 | 34.3 | 34.9 | 34.8 | 34.7 | 34   | 32.8 | 31.5 | 29.3 | 27.1 | 25   | 22.9 | 21.5 | 20.7 | 27.3  |
| 10  | 20.4 | 19.7 | 19.4 | 19.8 | 20.3 | 20.5 | 22.3 | 26.2 | 30.7 | 33.2 | 34.3 | 34.7 | 34.5 | 34.6 | 35.1 | 35.2 | 34.9 | 33.4 | 31.2 | 28.9 | 27.2 | 26.2 | 25.4 | 24.9 | 28    |
| 11  | 24.6 | 24.1 | 23.8 | 23.6 | 23.5 | 23.8 | 24.6 | 26.5 | 29.5 | 31.8 | 33.4 | 34.6 | 35.3 | 35.3 | 36.4 | 36.2 | 35.7 | 32.2 | 26   | 24.7 | 24.1 | 24.5 | 24.3 | 23.6 | 28.4  |
| 12  | 23   | 22   | 20.6 | 19.7 | 19.3 | 19.2 | 21.2 | 24.3 | 27   | 29.2 | 31   | 32.3 | 32.6 | 33.3 | 33.8 | 31.1 | 29.5 | 28   | 26.7 | 24.5 | 23.1 | 22.6 | 22.4 | 22.3 | 25.8  |
| 13  | 21.8 | 21.1 | 20.1 | 19.9 | 19.9 | 20   | 20.5 | 22   | 23.4 | 23.3 | 22.3 | 22.1 | 23.4 | 23.9 | 24.2 | 24.7 | 26.5 | 26.9 | 25.1 | 22.9 | 21.3 | 20.4 | 19.8 | 19.4 | 22.3  |
| 14  | 18.6 | 17.9 | 17.2 | 16.5 | 15.8 | 15.7 | 17.8 | 21.4 | 24.8 | 27.2 | 28.7 | 29.4 | 29.8 | 30.4 | 31.2 | 31.3 | 31   | 30.3 | 28.7 | 25.6 | 22.6 | 20.7 | 19.6 | 18.7 | 23.8  |
| 15  | 17.8 | 17.4 | 17.4 | 17.2 | 17.1 | 17.4 | 19.9 | 23   | 26.2 | 29.1 | 31.1 | 32.1 | 32.7 | 32.4 | 32.6 | 31.9 | 30.8 | 29.1 | 27.5 | 25.2 | 23.8 | 22.9 | 22.5 | 22.1 | 25    |
| 16  | 21.5 | 21.1 | 20.3 | 19.4 | 18.4 | 18.4 | 20.8 | 24.8 | 28.1 | 30   | 32.5 | 33.6 | 33.9 | 33.4 | 32.9 | 32.3 | 32.1 | 31.2 | 29   | 26.7 | 25.1 | 24   | 23.1 | 22.6 | 26.5  |
| 17  | 22.1 | 21.6 | 21   | 20.4 | 19.9 | 19.8 | 21.6 | 24.6 | 27.1 | 29.3 | 30.9 | 32.4 | 32.7 | 32.4 | 33   | 33.4 | 33.5 | 32.3 | 29.9 | 27.6 | 26   | 24.8 | 24.1 | 23.5 | 26.8  |
| 18  | 23   | 22.6 | 22.1 | 21.7 | 21.5 | 21.3 | 22.3 | 24.4 | 26.3 | 28   | 28.4 | 26.4 | 27.1 | 27.7 | 26.8 | 25.1 | 23.9 | 23.3 | 23.1 | 22.9 | 22.7 | 22.4 | 22.3 | 22.2 | 24.1  |
| 19  | 22.1 | 22.2 | 22.3 | 22.2 | 21.9 | 21.9 | 22.3 | 22.8 | 23.5 | 25.2 | 27.9 | 28.5 | 29.2 | 29   | 29   | 27.6 | 27   | 25.7 | 24.5 | 23.3 | 22.1 | 21.8 | 21.4 | 21.1 | 24.4  |
| 20  | 20.4 | 19.7 | 19.4 | 19   | 19.3 | 19.7 | 20.2 | 21.2 | 23.3 | 25.7 | 27.2 | 27.7 | 27.3 | 27.5 | 27.7 | 27.5 | 27.4 | 26   | 24   | 21.8 | 19.9 | 18.8 | 18.2 | 17.7 | 22.8  |
| 21  | 17.3 | 16.9 | 16.8 | 16.8 | 16.6 | 16.7 | 18.3 | 21.4 | 24.2 | 25.5 | 26.8 | 26.7 | 27.1 | 27.5 | 27.7 | 27.7 | 28   | 26.6 | 24.5 | 23.2 | 22.4 | 21.3 | 20.8 | 20   | 22.5  |
| 22  | 19.5 | 19.4 | 19.2 | 19.6 | 19.6 | 19.6 | 20.6 | 23.1 | 26.8 | 28.6 | 29.9 | 31.7 | 31.9 | 32   | 32   | 31.6 | 30   | 29.6 | 27.3 | 24.7 | 23.8 | 23.4 | 23.1 | 22.9 | 25.4  |
| 23  | 23.1 | 23.1 | 22.6 | 22.2 | 22.3 | 22.7 | 24.5 | 26.8 | 27.6 | 30.3 | 30.7 | 32.1 | 28.7 | 25.7 | 28.2 | 29.8 | 28.6 | 28.4 | 25.3 | 24   | 23.5 | 23.6 | 24   | 24.2 | 25.9  |
| 24  | 24.2 | 24.1 | 24.1 | 24.2 | 24.3 | 24.2 | 24.8 | 27   | 28.8 | 29.1 | 30.7 | 31.4 | 30.7 | 31   | 32.2 | 33   | 32.8 | 31   | 28.4 | 26.9 | 26   | 25.2 | 24.7 | 24.9 | 27.6  |
| 25  | 25   | 25   | 24.8 | 24.7 | 24.4 | 24.7 | 25.5 | 26.8 | 28.5 | 29.9 | 31   | 32.2 | 33   | 33.6 | 34.1 | 34.4 | 34.2 | 33.5 | 31.7 | 29.1 | 27.6 | 26.9 | 26.1 | 25.7 | 28.9  |
| 26  | 25.4 | 24.7 | 24.5 | 24.3 | 24.2 | 24.6 | 25.7 | 27.6 | 29.2 | 30.3 | 30.8 | 30.5 | 30.1 | 29.4 | 28.5 | 27.4 | 26.8 | 26.3 | 25.9 | 25.2 | 24.8 | 24.9 | 24.3 | 23.8 | 26.6  |
| 27  | 23.1 | 22.7 | 22.8 | 22.6 | 22   | 21   | 20.7 | 20.8 | 20.5 | 20.3 | 20.4 | 21.4 | 23.5 | 23.9 | 23.6 | 23.7 | 24.6 | 24.4 | 23.2 | 21.6 | 20.2 | 19.1 | 18.4 | 17.7 | 21.8  |
| 28  | 17.1 | 16.6 | 16.3 | 16   | 15.7 | 15.6 | 16.8 | 20.5 | 23.7 | 25.3 | 26   | 25.7 | 26.2 | 27.1 | 27.2 | 26.4 | 26.1 | 24.5 | 23.1 | 22   | 21.7 | 21.5 | 21.5 | 21.3 | 21.8  |
| 29  | 20.1 | 19.5 | 19.4 | 19.5 | 19.7 | 20.1 | 20.5 | 21.1 | 21.9 | 22.8 | 23.6 | 23.3 | 22.9 | 23.4 | 23.4 | 23.4 | 23.7 | 24   | 24.1 | 24.2 | 23.7 | 23.1 | 22.4 | 21.5 | 22.1  |
| 30  | 20.8 | 20.3 | 20.2 | 20.1 | 20   | 20.2 | 20.4 | 20.8 | 21.6 | 21.7 | 22   | 22.9 | 23.8 | 24.2 | 25.1 | 26   | 26.5 | 25.8 | 23.9 | 22.4 | 21.2 | 19.9 | 18.4 | 22   |       |
| 31  | 18.1 | 17.9 | 17.6 | 17.4 | 17.4 | 17.7 | 18.9 | 21.5 | 24.3 | 26.5 | 27.7 | 28.2 | 28.4 | 28.1 | 28.6 | 28.7 | 28.4 | 27.4 | 25   | 21.8 | 19.9 | 18.8 | 18.4 | 17.8 | 22.7  |
| Avg | 21.4 | 20.9 | 20.6 | 20.3 | 20.2 | 20.3 | 21.4 | 23.6 | 25.7 | 27.4 | 28.4 | 29.1 | 29.3 | 29.4 | 29.8 | 29.8 | 29.4 | 28.4 | 26.7 | 24.8 | 23.5 | 22.7 | 22.1 | 21.6 | 24.9  |
| S D | 3.1  | 3.1  | 3.1  | 3    | 3    | 3    | 2.5  | 2.3  | 2.6  | 3.1  | 3.5  | 3.8  | 3.7  | 3.5  | 3.6  | 3.5  | 3.3  | 3    | 2.7  | 2.4  | 2.5  | 2.7  | 2.9  | 3    | 2.3   |
| S/A | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.12 | 0.1  | 0.1  | 0.11 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.1  | 0.1  | 0.11 | 0.12 | 0.13 | 0.14 | 0.09  |
| Min | 13.2 | 13   | 12.9 | 12.9 | 13   | 13.9 | 16.8 | 20.5 | 20.5 | 20.3 | 20.4 | 21.4 | 22.9 | 23.4 | 23.4 | 23.4 | 23.7 | 23.3 | 22   | 19.9 | 17.8 | 16.1 | 14.3 | 13.4 | 21.8  |
| Max | 26.4 | 26   | 25   | 24.7 | 24.4 | 24.7 | 25.7 | 27.6 | 30.7 | 33.2 | 34.3 | 34.7 | 35.3 | 35.3 | 36.4 | 36.2 | 35.7 | 33.5 | 31.7 | 29.1 | 27.7 | 27.3 | 26.7 | 26.6 | 28.9  |
| 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% failed QC -- 8928 total measurements.

Instrument: CSI Serial Number: TC-107 Calibration Factor: 1.00 deg C/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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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   | 3.6  | 3.5  | 3    | 2.5  | 2.4  | 2.6  | 3.1  | 3.4  | 4    | 4.4  | 5.1  | 4.8  | 4.9  | 5    | 4.4  | 4.8 | 4.9  | 4.2  | 3.5  | 2.7 | 3    | 2.8  | 3    | 4.2  | 3.7   |
| 2   | 4    | 3.5  | 3.3  | 3.6  | 1.7  | 1    | 2.8  | 4.7  | 4.6  | 4.7  | 4.3  | 4.4  | 3.4  | 3    | 3.2  | 2.7 | 2.6  | 2.2  | 2.7  | 1.9 | 1    | 0.1  | 0    | 0.3  | 2.7   |
| 3   | 0.1  | 0.1  | 0.7  | 0.3  | 0.5  | 0.7  | 2.1  | 3.5  | 2.7  | 2.7  | 2.7  | 3.6  | 2.8  | 2.4  | 2.4  | 2.5 | 2.6  | 2.6  | 2.5  | 1.4 | 1.6  | 1.5  | 1    | 0.9  | 1.8   |
| 4   | 1.5  | 2    | 1.5  | 1.2  | 1    | 1.8  | 2.7  | 3.4  | 3    | 4.2  | 3.9  | 3.6  | 3.1  | 3.9  | 4    | 4.3 | 3.9  | 3.6  | 2.7  | 3.3 | 3.1  | 4    | 4.9  | 4.3  | 3.1   |
| 5   | 4.1  | 2.8  | 2.7  | 2.6  | 1.9  | 2.4  | 2.7  | 3.5  | 3.8  | 3.8  | 3.8  | 3.5  | 3.8  | 3.9  | 3.8  | 3.8 | 3.6  | 3.3  | 2.2  | 1.6 | 1.7  | 1.9  | 2.7  | 2.7  | 3     |
| 6   | 2.2  | 2    | 2.2  | 1.5  | 1.3  | 1.6  | 2.9  | 2.9  | 3.3  | 3.4  | 3.8  | 3.6  | 3.6  | 3.5  | 3    | 3.5 | 4    | 4    | 3.2  | 2   | 1.9  | 1.8  | 1.5  | 0.8  | 2.6   |
| 7   | 0.7  | 0.6  | 0.9  | 0.9  | 0.4  | 0.2  | 0.1  | 1.6  | 2.6  | 3.3  | 3    | 3.2  | 3.3  | 2.5  | 2.6  | 2.7 | 3.2  | 3.2  | 2.6  | 1   | 1.4  | 1.7  | 1.4  | 1    | 1.8   |
| 8   | 0.8  | 1.3  | 1.7  | 1.7  | 1.9  | 2.4  | 2.6  | 2.7  | 3.3  | 3.1  | 2.8  | 2.9  | 3.7  | 4.6  | 4.3  | 3.1 | 2.4  | 2    | 2.3  | 1   | 0.6  | 0.3  | 0.8  | 0.9  | 2.2   |
| 9   | 1.7  | 1.8  | 1.7  | 1.3  | 0.1  | 0.6  | 1    | 0.4  | 0.9  | 1.4  | 2.1  | 2.1  | 2.4  | 2.7  | 2.9  | 3   | 3.4  | 3    | 2.2  | 1   | 0.2  | 0    | 0    | 0.6  | 1.5   |
| 10  | 0.3  | 0    | 0.2  | 0.4  | 0    | 0.4  | 0.1  | 0.3  | 0.6  | 1.4  | 2.2  | 2.6  | 2.8  | 2.5  | 2.5  | 2.8 | 2.7  | 3.9  | 2.7  | 2   | 2.4  | 1.8  | 1.9  | 1.5  | 1.6   |
| 11  | 1.3  | 0.8  | 1    | 1.5  | 1.6  | 2.2  | 2.5  | 2.7  | 3    | 3.5  | 3.9  | 3.5  | 3.8  | 4.1  | 4.1  | 4   | 3.5  | 4    | 1.8  | 0.2 | 1.4  | 1.2  | 1.7  | 1.9  | 2.5   |
| 12  | 1.5  | 1.3  | 0.8  | 0.7  | 1    | 1.3  | 1.5  | 2.1  | 2.6  | 2.2  | 2    | 1.6  | 1.6  | 2    | 2.4  | 3.3 | 3.7  | 3.3  | 2.7  | 2.1 | 2.1  | 1.8  | 1.4  | 1.3  | 1.9   |
| 13  | 1    | 0.9  | 1    | 0.7  | 0.8  | 0.6  | 1    | 1.3  | 1.1  | 0.6  | 0.2  | 1    | 0.5  | 0.7  | 2    | 2.6 | 1.9  | 1.9  | 1.4  | 1.3 | 1.2  | 1.4  | 1.2  | 1.2  | 1.1   |
| 14  | 1.6  | 1.2  | 1.2  | 1    | 0.9  | 1.1  | 1.4  | 1.7  | 2.5  | 3    | 3.1  | 2.9  | 2.3  | 1.6  | 2.2  | 2.1 | 1.5  | 1.1  | 0.6  | 0.9 | 0.5  | 0.1  | 0.6  | 0.2  | 1.5   |
| 15  | 0.2  | 0.8  | 1.4  | 1.3  | 1.4  | 1.2  | 1.2  | 2    | 1.6  | 1.9  | 1.9  | 2.1  | 2.6  | 2.5  | 2.9  | 3.1 | 3.8  | 3.2  | 2.7  | 2.1 | 2.1  | 1.7  | 1.6  | 1.3  | 1.9   |
| 16  | 1.1  | 0.7  | 0.7  | 0.1  | 0.1  | 0.3  | 0.2  | 0.4  | 0.8  | 1.1  | 1.7  | 0.9  | 1.1  | 3.4  | 3.3  | 3.2 | 3.1  | 2.7  | 2.7  | 1.9 | 2.1  | 1.2  | 1.3  | 1.9  | 1.5   |
| 17  | 1.6  | 1.8  | 1.6  | 1.5  | 1.4  | 1.7  | 2.3  | 3.2  | 4.3  | 3.4  | 2.8  | 2.6  | 3    | 2.9  | 2.7  | 3.1 | 3.2  | 3.8  | 3.2  | 2.6 | 2.3  | 2.4  | 2.5  | 2.3  | 2.6   |
| 18  | 2.1  | 2    | 1.4  | 1.8  | 1.7  | 1.7  | 2.1  | 2.9  | 2.9  | 3.3  | 2.2  | 1.7  | 1.5  | 0.8  | 0.2  | 1.2 | 1.2  | 0.5  | 0.4  | 1.3 | 0.6  | 0.1  | 0.1  | 0.1  | 1.4   |
| 19  | 0    | 0    | 0.1  | 0.1  | 0    | 0.1  | 0.6  | 1.1  | 1.1  | 1.7  | 2    | 2.8  | 3.4  | 3.4  | 4    | 3.7 | 3.8  | 3.9  | 3.6  | 3.3 | 3.2  | 3    | 2.7  | 2.6  | 2.1   |
| 20  | 2.8  | 2.6  | 2.6  | 2.4  | 3    | 2.7  | 3.4  | 3.6  | 3.4  | 3.9  | 3.7  | 4.1  | 3.5  | 3.8  | 3.6  | 3.9 | 4    | 3.9  | 3.4  | 2.3 | 2.4  | 2.1  | 2    | 2    | 3.1   |
| 21  | 2.6  | 2.3  | 2.6  | 2.2  | 2.3  | 2.3  | 2.5  | 2.3  | 3.1  | 3.5  | 3.5  | 3.8  | 3.4  | 3.7  | 3.6  | 3.9 | 3.2  | 3    | 2.5  | 1.9 | 1.9  | 1.4  | 1.4  | 1    | 2.7   |
| 22  | 1.3  | 1.3  | 1.4  | 1.5  | 1.8  | 1.6  | 1.5  | 2.1  | 2.8  | 2.7  | 3.2  | 3.4  | 3.7  | 4.1  | 3.6  | 3.2 | 3    | 3.3  | 2.7  | 1.5 | 0.4  | 0.3  | 1.2  | 1.5  | 2.2   |
| 23  | 0.2  | 0.2  | 0.2  | 0.1  | 0.4  | 0.2  | 1.3  | 1.6  | 0.9  | 2.1  | 2.8  | 3.5  | 3.2  | 0.7  | 2.4  | 2.8 | 2.3  | 2.6  | 2    | 1.6 | 0.4  | 0.6  | 1.6  | 1.7  | 1.5   |
| 24  | 1.5  | 1.2  | 1.6  | 1.5  | 1.6  | 1.4  | 2.7  | 3.7  | 4.2  | 3.7  | 4.1  | 4.3  | 4.2  | 4.7  | 5    | 5.4 | 5.4  | 4.2  | 3.2  | 2.8 | 2.4  | 1.8  | 2.2  | 3.1  | 3.2   |
| 25  | 3.2  | 3.6  | 3.2  | 3.3  | 3.3  | 3.9  | 3.6  | 4.7  | 5.1  | 4.6  | 5.2  | 4.7  | 5    | 5.3  | 4.6  | 4.4 | 4.1  | 4.1  | 4.3  | 3   | 3.2  | 3.2  | 3    | 3.8  | 4     |
| 26  | 3.7  | 3.2  | 3.3  | 3.7  | 4.1  | 4    | 3.9  | 4.5  | 5.3  | 6.6  | 5.8  | 6.1  | 8.1  | 7.4  | 6.2  | 5.6 | 4.6  | 4.1  | 3.5  | 3   | 3.2  | 3.1  | 2.1  | 4.4  | 4.6   |
| 27  | 3.6  | 3.4  | 1.4  | 0.8  | 3.7  | 2.7  | 2.3  | 3.2  | 3    | 1.6  | 2.1  | 3.6  | 4.9  | 4.5  | 4.1  | 4.6 | 4.6  | 4.1  | 3.3  | 2.3 | 1.4  | 2.3  | 2.6  | 1.4  | 3     |
| 28  | 0.5  | 1.2  | 0.7  | 0.3  | 0.4  | 0.9  | 0.8  | 1.7  | 3.6  | 3.6  | 3.8  | 3.5  | 3.1  | 2.9  | 3.1  | 3.6 | 2.3  | 2.4  | 1.5  | 1.2 | 1.4  | 1.3  | 1.2  | 1    | 1.9   |
| 29  | 0.2  | 1.5  | 2.1  | 1.4  | 2    | 2.2  | 1.8  | 2    | 1.8  | 1.8  | 2.1  | 1.2  | 1.2  | 1.3  | 0.6  | 1.1 | 0.9  | 1.1  | 0.7  | 1.3 | 1.6  | 0.9  | 1.4  | 1.4  | 1.4   |
| 30  | 1.6  | 1.7  | 2    | 2.2  | 1.9  | 2.9  | 3.8  | 3.1  | 3.7  | 4.2  | 3.4  | 3.7  | 3.6  | 3.6  | 3.4  | 3.9 | 4.2  | 3.9  | 2.7  | 1.7 | 1.2  | 0.9  | 0.6  | 0.2  | 2.7   |
| 31  | 0.4  | 0.7  | 0.6  | 0.1  | 0.2  | 0.9  | 1.2  | 2.1  | 2.9  | 2.7  | 3.2  | 3.4  | 3    | 3.2  | 3.1  | 3.4 | 2.7  | 2.7  | 2.5  | 2   | 1.4  | 1.4  | 1    | 0.8  | 1.9   |
| Avg | 1.6  | 1.6  | 1.6  | 1.4  | 1.4  | 1.6  | 2    | 2.5  | 2.9  | 3    | 3.1  | 3.2  | 3.2  | 3.2  | 3.2  | 3.4 | 3.2  | 3.1  | 2.5  | 1.9 | 1.7  | 1.6  | 1.6  | 1.7  | 2.4   |
| SD  | 1.2  | 1.1  | 0.9  | 1    | 1.1  | 1    | 1.1  | 1.2  | 1.3  | 1.3  | 1.2  | 1.2  | 1.4  | 1.5  | 1.2  | 1   | 1.1  | 1    | 0.9  | 0.8 | 0.9  | 1    | 1    | 1.2  | 0.8   |
| S/A | 0.76 | 0.67 | 0.59 | 0.71 | 0.75 | 0.65 | 0.54 | 0.47 | 0.44 | 0.42 | 0.38 | 0.37 | 0.43 | 0.45 | 0.37 | 0.3 | 0.33 | 0.32 | 0.35 | 0.4 | 0.52 | 0.65 | 0.63 | 0.72 | 0.36  |
| Min | 0    | 0    | 0.1  | 0.1  | 0    | 0.1  | 0.1  | 0.3  | 0.6  | 0.6  | 0.2  | 0.9  | 0.5  | 0.7  | 0.2  | 1.1 | 0.9  | 0.5  | 0.4  | 0.2 | 0.2  | 0    | 0    | 0.1  | 1.1   |
| Max | 4.1  | 3.6  | 3.3  | 3.7  | 4.1  | 4    | 3.9  | 4.7  | 5.3  | 6.6  | 5.8  | 6.1  | 8.1  | 7.4  | 6.2  | 5.6 | 5.4  | 4.2  | 4.3  | 3.3 | 3.2  | 4    | 4.9  | 4.4  | 4.6   |
| 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% 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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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   | 46  | 56  | 51  | 50  | 54  | 54  | 63  | 66  | 73  | 73  | 63  | 67  | 47  | 73  | 55  | 51  | 69  | 61  | 57  | 56  | 41  | 47  | 48  | 51  | 58    |
| 2   | 57  | 54  | 52  | 67  | 94  | 114 | 180 | 185 | 179 | 185 | 181 | 176 | 181 | 202 | 195 | 226 | 227 | 228 | 251 | 233 | 235 | 209 | 256 | 150 | 177   |
| 3   | 1   | 177 | 169 | 164 | 209 | 245 | 257 | 265 | 285 | 294 | 294 | 263 | 277 | 333 | 319 | 312 | 353 | 350 | 4   | 14  | 29  | 358 | 21  | 10  | 310   |
| 4   | 28  | 50  | 35  | 36  | 31  | 48  | 50  | 45  | 53  | 48  | 46  | 39  | 25  | 38  | 33  | 46  | 48  | 36  | 29  | 18  | 358 | 23  | 28  | 50  | 37    |
| 5   | 52  | 52  | 80  | 70  | 91  | 60  | 61  | 84  | 62  | 62  | 78  | 67  | 66  | 42  | 52  | 63  | 52  | 49  | 46  | 50  | 36  | 40  | 49  | 55  | 60    |
| 6   | 68  | 64  | 54  | 62  | 102 | 154 | 170 | 181 | 191 | 190 | 183 | 197 | 197 | 199 | 214 | 257 | 250 | 268 | 257 | 272 | 265 | 260 | 257 | 235 | 212   |
| 7   | 205 | 186 | 180 | 233 | 243 | 118 | 131 | 277 | 248 | 264 | 256 | 263 | 267 | 272 | 289 | 291 | 287 | 308 | 311 | 321 | 318 | 305 | 330 | 7   | 279   |
| 8   | 346 | 356 | 354 | 10  | 33  | 49  | 39  | 41  | 44  | 60  | 63  | 32  | 39  | 61  | 78  | 70  | 47  | 38  | 42  | 18  | 359 | 21  | 328 | 27  | 43    |
| 9   | 84  | 92  | 83  | 88  | 145 | 146 | 165 | 221 | 133 | 95  | 118 | 142 | 116 | 192 | 267 | 274 | 264 | 255 | 269 | 285 | 279 | 23  | 21  | 48  | 189   |
| 10  | 52  | 51  | 41  | 70  | 70  | 174 | 152 | 116 | 205 | 233 | 251 | 263 | 280 | 308 | 30  | 357 | 336 | 303 | 307 | 327 | 348 | 14  | 353 | 14  | 321   |
| 11  | 30  | 13  | 25  | 44  | 31  | 48  | 57  | 71  | 70  | 62  | 66  | 61  | 84  | 82  | 71  | 74  | 77  | 190 | 152 | 295 | 185 | 216 | 201 | 188 | 78    |
| 12  | 190 | 180 | 129 | 158 | 157 | 164 | 175 | 192 | 205 | 201 | 220 | 223 | 221 | 250 | 246 | 257 | 283 | 259 | 249 | 249 | 241 | 255 | 281 | 264 | 231   |
| 13  | 266 | 231 | 219 | 209 | 216 | 219 | 230 | 235 | 241 | 222 | 268 | 257 | 239 | 70  | 57  | 72  | 59  | 70  | 74  | 80  | 90  | 86  | 127 | 102 | 110   |
| 14  | 109 | 115 | 107 | 120 | 119 | 117 | 135 | 146 | 157 | 171 | 157 | 186 | 162 | 123 | 175 | 184 | 191 | 163 | 205 | 314 | 313 | 333 | 33  | 33  | 155   |
| 15  | 74  | 74  | 75  | 80  | 63  | 66  | 86  | 78  | 130 | 140 | 128 | 109 | 137 | 161 | 174 | 225 | 243 | 260 | 245 | 266 | 278 | 270 | 285 | 257 | 188   |
| 16  | 274 | 313 | 357 | 14  | 155 | 186 | 165 | 215 | 214 | 268 | 214 | 84  | 27  | 290 | 269 | 266 | 257 | 277 | 301 | 307 | 314 | 342 | 21  | 42  | 289   |
| 17  | 38  | 44  | 45  | 58  | 50  | 57  | 60  | 66  | 76  | 72  | 69  | 48  | 55  | 52  | 14  | 34  | 11  | 1   | 353 | 8   | 358 | 34  | 15  | 27  | 39    |
| 18  | 41  | 33  | 44  | 44  | 50  | 42  | 46  | 46  | 55  | 36  | 49  | 18  | 40  | 94  | 128 | 192 | 207 | 308 | 321 | 321 | 340 | 263 | 276 | 310 | 40    |
| 19  | 144 | 347 | 69  | 50  | 59  | 80  | 159 | 158 | 158 | 180 | 219 | 203 | 195 | 222 | 213 | 208 | 199 | 197 | 208 | 208 | 210 | 198 | 197 | 173 | 200   |
| 20  | 169 | 177 | 172 | 176 | 177 | 177 | 171 | 197 | 187 | 197 | 226 | 206 | 208 | 218 | 215 | 216 | 233 | 216 | 213 | 182 | 191 | 182 | 181 | 178 | 198   |
| 21  | 183 | 181 | 179 | 182 | 173 | 173 | 177 | 184 | 224 | 234 | 198 | 222 | 235 | 232 | 241 | 236 | 229 | 234 | 224 | 231 | 225 | 218 | 212 | 194 | 213   |
| 22  | 221 | 199 | 182 | 188 | 185 | 194 | 206 | 209 | 241 | 243 | 238 | 242 | 244 | 254 | 255 | 261 | 260 | 269 | 278 | 282 | 256 | 312 | 321 | 322 | 245   |
| 23  | 308 | 330 | 305 | 242 | 308 | 301 | 280 | 304 | 257 | 314 | 328 | 273 | 30  | 304 | 286 | 288 | 307 | 327 | 327 | 332 | 316 | 336 | 348 | 353 | 315   |
| 24  | 350 | 337 | 345 | 356 | 356 | 11  | 44  | 54  | 42  | 57  | 47  | 39  | 34  | 28  | 34  | 19  | 42  | 52  | 48  | 49  | 50  | 24  | 25  | 18  | 34    |
| 25  | 37  | 28  | 35  | 45  | 45  | 53  | 50  | 73  | 55  | 63  | 48  | 42  | 20  | 33  | 37  | 30  | 28  | 16  | 34  | 36  | 30  | 32  | 29  | 40  | 40    |
| 26  | 29  | 35  | 41  | 39  | 52  | 52  | 49  | 65  | 73  | 62  | 65  | 61  | 65  | 64  | 54  | 56  | 58  | 68  | 60  | 49  | 49  | 49  | 65  | 55  | 57    |
| 27  | 68  | 61  | 82  | 88  | 202 | 206 | 225 | 219 | 227 | 231 | 239 | 230 | 224 | 234 | 221 | 231 | 235 | 236 | 233 | 220 | 185 | 187 | 185 | 178 | 216   |
| 28  | 170 | 167 | 169 | 165 | 155 | 172 | 200 | 219 | 247 | 255 | 246 | 245 | 243 | 255 | 245 | 255 | 258 | 263 | 263 | 241 | 245 | 250 | 247 | 217 | 242   |
| 29  | 188 | 239 | 262 | 272 | 293 | 289 | 305 | 309 | 319 | 338 | 353 | 5   | 17  | 341 | 355 | 343 | 16  | 360 | 15  | 90  | 75  | 105 | 106 | 103 | 335   |
| 30  | 98  | 126 | 114 | 107 | 150 | 173 | 207 | 188 | 195 | 195 | 198 | 198 | 193 | 191 | 223 | 220 | 221 | 225 | 217 | 204 | 205 | 187 | 186 | 167 | 194   |
| 31  | 167 | 147 | 153 | 154 | 172 | 176 | 199 | 186 | 225 | 221 | 224 | 228 | 207 | 229 | 230 | 243 | 229 | 234 | 235 | 247 | 246 | 236 | 213 | 196 | 223   |
| Avg | 61  | 67  | 71  | 71  | 92  | 98  | 112 | 124 | 137 | 128 | 133 | 188 | 113 | 177 | 286 | 289 | 290 | 286 | 296 | 319 | 333 | 4   | 18  | 51  | 122   |
| 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% 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.

Prepared by: Afshin M. Andreas, NREL



**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**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   | 5.4  | 5.2  | 4.4  | 3.8  | 3.7 | 3.9 | 4.7  | 5.4  | 6.3  | 7    | 8    | 7.6  | 7.7  | 8.1  | 7.3  | 7.4  | 7.6  | 6.4  | 5.3  | 3.9  | 4.5  | 4.3 | 4.9  | 6.2  | 5.8   |
| 2   | 6.3  | 5.6  | 5.2  | 5.6  | 2.8 | 1.8 | 4.5  | 7.7  | 7.4  | 7.9  | 7    | 6.9  | 5.8  | 5.1  | 5.4  | 4.4  | 4.3  | 3.7  | 3.9  | 3    | 1.6  | 0.3 | 0    | 0.5  | 4.4   |
| 3   | 0.2  | 0.3  | 1.1  | 0.7  | 1   | 1.2 | 3.4  | 5.3  | 4.2  | 4.1  | 4.1  | 5.2  | 4.4  | 4.1  | 3.8  | 4.1  | 4.2  | 4.3  | 4.3  | 3    | 2.8  | 2.9 | 2    | 1.7  | 3     |
| 4   | 2.7  | 3.1  | 2.4  | 2    | 1.8 | 2.7 | 4.2  | 5.2  | 4.6  | 6.2  | 6.1  | 5.7  | 5    | 6.3  | 6.4  | 6.8  | 6.1  | 5.7  | 4.6  | 5.3  | 5.3  | 6.6 | 7.8  | 6.8  | 5     |
| 5   | 6.1  | 4.5  | 4.2  | 4    | 3.1 | 3.8 | 4.2  | 5.4  | 5.9  | 5.9  | 5.7  | 5.6  | 6.3  | 6.1  | 6.2  | 5.7  | 5.5  | 5.2  | 3.8  | 2.4  | 2.6  | 2.9 | 4.2  | 4    | 4.7   |
| 6   | 3.5  | 3.2  | 3.4  | 2.5  | 2.3 | 2.9 | 5    | 4.3  | 5.3  | 5.6  | 5.8  | 5.8  | 5.8  | 5.6  | 4.6  | 5.5  | 5.8  | 6.2  | 4.8  | 3.2  | 2.8  | 2.6 | 2.3  | 1.5  | 4.2   |
| 7   | 1.3  | 1.1  | 1.4  | 1.4  | 0.8 | 0.7 | 0.3  | 2.7  | 4.1  | 5.1  | 4.9  | 5    | 5    | 4.1  | 4.1  | 4.1  | 4.5  | 4.6  | 3.8  | 1.6  | 2    | 2.5 | 2.1  | 1.8  | 2.9   |
| 8   | 1.5  | 2    | 2.6  | 2.9  | 3.1 | 3.7 | 4.3  | 4.7  | 5.3  | 5.2  | 4.7  | 4.9  | 5.8  | 6.9  | 6.9  | 4.6  | 3.8  | 3.6  | 3.8  | 2    | 1.3  | 1   | 1.4  | 1.5  | 3.6   |
| 9   | 2.7  | 3    | 2.7  | 2.1  | 0.4 | 1.2 | 1.9  | 1.2  | 1.8  | 3.2  | 4.2  | 4.1  | 4.5  | 4.7  | 4.4  | 4.2  | 4.8  | 4.5  | 3.4  | 1.7  | 0.4  | 0   | 0.1  | 0.9  | 2.6   |
| 10  | 0.5  | 0.1  | 0.6  | 0.7  | 0.2 | 0.6 | 0.4  | 0.7  | 1.5  | 2.4  | 3.5  | 3.9  | 4.3  | 4.4  | 4.3  | 4.5  | 4.1  | 5.5  | 4    | 3.1  | 3.8  | 3.1 | 3.2  | 2.6  | 2.6   |
| 11  | 2.5  | 1.8  | 1.7  | 2.2  | 2.5 | 3.5 | 4    | 4.1  | 4.4  | 5.4  | 5.7  | 5.5  | 6.2  | 6.5  | 6.6  | 6    | 5.4  | 6.4  | 3.4  | 0.6  | 2.1  | 2.2 | 3    | 3.1  | 4     |
| 12  | 2.3  | 2.2  | 1.4  | 1.5  | 1.8 | 2.2 | 2.8  | 3.4  | 4.4  | 3.9  | 3.6  | 2.9  | 3    | 3.3  | 3.7  | 4.9  | 5.6  | 5    | 4    | 3.3  | 3.4  | 2.7 | 2.2  | 2.1  | 3.2   |
| 13  | 1.5  | 1.4  | 1.5  | 1.2  | 1.3 | 1.1 | 1.8  | 2.3  | 2.1  | 1.3  | 0.6  | 1.7  | 1.2  | 1.3  | 2.8  | 3.8  | 3.1  | 2.9  | 2.2  | 2    | 2    | 2.2 | 2.3  | 2.3  | 1.9   |
| 14  | 2.5  | 2    | 2.2  | 1.9  | 1.9 | 2.2 | 3    | 3.4  | 4.2  | 5    | 5.4  | 5.3  | 4.3  | 3.5  | 4.1  | 4    | 3    | 2.4  | 1.3  | 1.4  | 1    | 0.5 | 1    | 0.4  | 2.7   |
| 15  | 0.3  | 1.1  | 1.9  | 1.8  | 1.8 | 1.6 | 1.9  | 3.1  | 3.1  | 3.7  | 3.8  | 4.3  | 5    | 4.6  | 5    | 4.9  | 5.5  | 4.8  | 4    | 3.3  | 3.4  | 2.7 | 2.5  | 1.9  | 3.2   |
| 16  | 1.8  | 1.4  | 1.2  | 0.4  | 0.2 | 0.7 | 0.5  | 1.2  | 1.9  | 2.1  | 3.2  | 2.1  | 2.3  | 5.4  | 4.9  | 4.8  | 4.5  | 3.9  | 3.8  | 2.7  | 2.9  | 2.1 | 2.3  | 3    | 2.5   |
| 17  | 2.4  | 2.6  | 2.4  | 2    | 2   | 2.4 | 3.4  | 4.9  | 6.6  | 5.3  | 4.5  | 4.5  | 4.7  | 4.7  | 4.7  | 5.3  | 5.2  | 5.9  | 5.4  | 4.7  | 4    | 4.3 | 4.2  | 3.8  | 4.2   |
| 18  | 3.6  | 3    | 2.3  | 2.6  | 2.7 | 2.4 | 3.2  | 4.4  | 4.8  | 5.1  | 3.7  | 3.2  | 2.6  | 1.6  | 0.6  | 2    | 2.1  | 1.2  | 0.9  | 2.1  | 1.3  | 0.2 | 0.4  | 0.3  | 2.4   |
| 19  | 0    | 0    | 0.3  | 0.5  | 0.1 | 0.4 | 1.4  | 2.2  | 2.4  | 3    | 3.5  | 5    | 5.6  | 5.6  | 6.3  | 6.2  | 6.3  | 6.5  | 6.3  | 5.7  | 5.3  | 5.1 | 4.6  | 4.2  | 3.6   |
| 20  | 4.2  | 4.4  | 4.4  | 4.1  | 4.8 | 4.4 | 5.4  | 5.6  | 5.6  | 6.2  | 6.1  | 6.5  | 5.8  | 6.4  | 5.8  | 6.4  | 6.6  | 6.2  | 5.7  | 3.7  | 3.9  | 3.3 | 3.2  | 3.3  | 5.1   |
| 21  | 3.8  | 3.6  | 4.1  | 3.7  | 3.6 | 3.5 | 4.1  | 4    | 5.1  | 5.7  | 5.7  | 6    | 5.5  | 6    | 5.4  | 6.1  | 5.3  | 4.7  | 4.1  | 3    | 2.9  | 2.7 | 2.4  | 1.6  | 4.3   |
| 22  | 1.9  | 2.2  | 2.2  | 2.5  | 2.8 | 2.8 | 2.7  | 3.6  | 4.3  | 4.2  | 4.8  | 5.2  | 5.2  | 6.1  | 5.4  | 4.8  | 4.6  | 4.8  | 4.1  | 2.5  | 1.1  | 0.7 | 1.9  | 2.3  | 3.4   |
| 23  | 0.7  | 0.5  | 0.4  | 0.4  | 0.7 | 0.4 | 2.4  | 2.5  | 1.6  | 3.5  | 4.5  | 5.2  | 4.8  | 1.5  | 3.5  | 4.3  | 3.3  | 3.8  | 3.2  | 2.5  | 1.4  | 1.8 | 3.4  | 3.4  | 2.5   |
| 24  | 2.8  | 2.5  | 2.9  | 2.9  | 3   | 2.8 | 4.6  | 5.7  | 6.9  | 5.9  | 6.6  | 6.7  | 7    | 7.7  | 8.3  | 8.6  | 8.5  | 7    | 5    | 4.4  | 3.8  | 3.1 | 3.4  | 5    | 5.2   |
| 25  | 5.2  | 5.5  | 5.3  | 5.4  | 5.3 | 5.9 | 5.5  | 7.1  | 7.6  | 7.1  | 8.2  | 7.7  | 8    | 8.5  | 7.8  | 7.1  | 6.5  | 6.9  | 7    | 5.2  | 5.4  | 5.4 | 5.1  | 6    | 6.4   |
| 26  | 6    | 5.3  | 5.4  | 6    | 7   | 6.5 | 6    | 7.3  | 8.2  | 9.8  | 9.3  | 9.9  | 12.7 | 11.5 | 10   | 8.6  | 7    | 6.5  | 5.5  | 4.6  | 4.9  | 5.3 | 3.6  | 6.6  | 7.2   |
| 27  | 5.4  | 5.4  | 2.9  | 1.7  | 6   | 4.7 | 4.1  | 5.5  | 5    | 3.3  | 3.8  | 5.9  | 8    | 7.7  | 6.6  | 7.6  | 7.3  | 6.6  | 5.5  | 3.9  | 2.5  | 3.8 | 4    | 2.7  | 5     |
| 28  | 1.6  | 2.3  | 1.8  | 1.2  | 1.3 | 1.8 | 1.8  | 3.1  | 5.7  | 5.6  | 5.8  | 5.2  | 5    | 4.7  | 5.1  | 5.2  | 3.7  | 3.6  | 2.6  | 2.1  | 2.2  | 2.2 | 2.1  | 1.6  | 3.2   |
| 29  | 0.7  | 2.5  | 3.1  | 2.4  | 3.3 | 3.4 | 2.7  | 3.2  | 2.9  | 3    | 3.5  | 2.7  | 2.5  | 2.4  | 1.5  | 2.2  | 2.3  | 2.1  | 1.9  | 2.7  | 3    | 2   | 2.9  | 3.2  | 2.6   |
| 30  | 3.3  | 3.7  | 4.1  | 4.6  | 4   | 5   | 6.5  | 5.4  | 6.3  | 6.9  | 5.9  | 6.2  | 6.2  | 6.1  | 6    | 6.4  | 7.2  | 6.4  | 4.7  | 3.5  | 2.7  | 2.1 | 1.8  | 1    | 4.8   |
| 31  | 1.5  | 1.8  | 1.6  | 0.5  | 1   | 2.1 | 2.7  | 3.7  | 4.7  | 4.9  | 5.4  | 5.6  | 4.9  | 5.2  | 4.9  | 5.3  | 4.2  | 4.2  | 3.8  | 3    | 2.2  | 2.1 | 1.6  | 1.3  | 3.3   |
| Avg | 2.7  | 2.7  | 2.6  | 2.4  | 2.5 | 2.7 | 3.3  | 4.1  | 4.7  | 5    | 5.1  | 5.2  | 5.3  | 5.3  | 5.2  | 5.3  | 5.1  | 4.9  | 4.1  | 3.1  | 2.9  | 2.7 | 2.8  | 2.8  | 3.9   |
| SD  | 1.8  | 1.7  | 1.4  | 1.6  | 1.7 | 1.6 | 1.6  | 1.8  | 1.8  | 1.8  | 1.7  | 1.7  | 2.1  | 2.2  | 1.9  | 1.6  | 1.6  | 1.5  | 1.4  | 1.2  | 1.3  | 1.6 | 1.6  | 1.8  | 1.3   |
| S/A | 0.68 | 0.62 | 0.55 | 0.65 | 0.7 | 0.6 | 0.48 | 0.42 | 0.39 | 0.37 | 0.34 | 0.32 | 0.39 | 0.41 | 0.36 | 0.29 | 0.31 | 0.31 | 0.33 | 0.39 | 0.47 | 0.6 | 0.58 | 0.65 | 0.33  |
| Min | 0    | 0    | 0.3  | 0.4  | 0.1 | 0.4 | 0.3  | 0.7  | 1.5  | 1.3  | 0.6  | 1.7  | 1.2  | 1.3  | 0.6  | 2    | 2.1  | 1.2  | 0.9  | 0.6  | 0.4  | 0   | 0    | 0.3  | 1.9   |
| Max | 6.3  | 5.6  | 5.4  | 6    | 7   | 6.5 | 6.5  | 7.7  | 8.2  | 9.8  | 9.3  | 9.9  | 12.7 | 11.5 | 10   | 8.6  | 8.5  | 7    | 7    | 5.7  | 5.4  | 6.6 | 7.8  | 6.8  | 7.2   |
| 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% 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.

Prepared by: Afshin M. Andreas, NREL

**Elizabeth City State University**  
**36.3 N Latitude 76.25 W Longitude 4 Meters AMSL Time Zone -5**

**July 2001**

**Station Pressure**  
**Hourly and Daily Averages**  
**Instrument: Viasala PTA-427**  
**Millibars**

| 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   | 1016 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1014 | 1013 | 1012 | 1012 | 1011 | 1011 | 1012 | 1013 | 1013 | 1013 | 1013 | 1013 | 1014  |      |
| 2   | 1013 | 1013 | 1013 | 1012 | 1013 | 1014 | 1015 | 1016 | 1018 | 1019 | 1019 | 1020 | 1020 | 1020 | 1020 | 1020 | 1021 | 1021 | 1022 | 1022 | 1023 | 1023 | 1023 | 1023 | 1019  |      |
| 3   | 1023 | 1023 | 1022 | 1023 | 1023 | 1023 | 1023 | 1023 | 1023 | 1024 | 1024 | 1023 | 1023 | 1023 | 1022 | 1022 | 1021 | 1020 | 1019 | 1019 | 1019 | 1020 | 1020 | 1020 | 1020  | 1022 |
| 4   | 1019 | 1019 | 1018 | 1018 | 1018 | 1018 | 1018 | 1018 | 1018 | 1017 | 1017 | 1017 | 1016 | 1016 | 1015 | 1014 | 1013 | 1013 | 1013 | 1013 | 1013 | 1013 | 1012 | 1012 | 1016  |      |
| 5   | 1012 | 1012 | 1012 | 1012 | 1012 | 1013 | 1013 | 1013 | 1013 | 1013 | 1013 | 1012 | 1012 | 1011 | 1011 | 1010 | 1010 | 1010 | 1010 | 1010 | 1011 | 1011 | 1011 | 1011 | 1012  |      |
| 6   | 1011 | 1011 | 1011 | 1012 | 1012 | 1013 | 1013 | 1014 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1017 | 1017 | 1017 | 1018 | 1018 | 1018 | 1018 | 1015  |      |
| 7   | 1019 | 1018 | 1018 | 1018 | 1018 | 1019 | 1020 | 1020 | 1020 | 1020 | 1020 | 1021 | 1020 | 1020 | 1019 | 1018 | 1018 | 1017 | 1017 | 1017 | 1017 | 1016 | 1017 | 1017 | 1018  |      |
| 8   | 1016 | 1016 | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1013 | 1013 | 1013 | 1012 | 1011 | 1010 | 1010 | 1009 | 1009 | 1009 | 1009 | 1009 | 1009 | 1009 | 1009 | 1008 | 1012  |      |
| 9   | 1008 | 1008 | 1007 | 1007 | 1007 | 1007 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1007 | 1007 | 1007 | 1007 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008  |      |
| 10  | 1008 | 1007 | 1007 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1008 | 1007 | 1007 | 1007 | 1006 | 1006 | 1005 | 1005 | 1006 | 1006 | 1007 | 1007 | 1006 | 1006 | 1007  |      |
| 11  | 1006 | 1006 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1004 | 1004 | 1003 | 1003 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1009 | 1005  |      |
| 12  | 1009 | 1009 | 1009 | 1010 | 1010 | 1011 | 1011 | 1011 | 1011 | 1012 | 1012 | 1012 | 1012 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1012 | 1012 | 1012 | 1012 | 1011  |      |
| 13  | 1012 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1012 | 1012 | 1012 | 1012 | 1012 | 1011 | 1011 | 1010 | 1010 | 1010 | 1010 | 1011 | 1011 | 1011 | 1011 | 1011  |      |
| 14  | 1010 | 1010 | 1010 | 1010 | 1010 | 1010 | 1011 | 1011 | 1011 | 1011 | 1011 | 1011 | 1010 | 1010 | 1010 | 1010 | 1010 | 1010 | 1011 | 1011 | 1011 | 1012 | 1012 | 1012 | 1011  |      |
| 15  | 1012 | 1011 | 1011 | 1012 | 1012 | 1012 | 1013 | 1014 | 1014 | 1014 | 1014 | 1014 | 1013 | 1013 | 1013 | 1013 | 1013 | 1013 | 1014 | 1014 | 1015 | 1015 | 1016 | 1016 | 1013  |      |
| 16  | 1015 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1017 | 1017 | 1018 | 1018 | 1017 | 1017 | 1017 | 1017 | 1016 | 1016 | 1017 | 1017 | 1017 | 1017 | 1017 | 1017 | 1018 | 1017  |      |
| 17  | 1017 | 1017 | 1017 | 1017 | 1017 | 1018 | 1018 | 1019 | 1019 | 1019 | 1019 | 1018 | 1018 | 1018 | 1017 | 1017 | 1016 | 1016 | 1016 | 1016 | 1017 | 1017 | 1017 | 1017 | 1017  |      |
| 18  | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015  |      |
| 19  | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1015  |      |
| 20  | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1017 | 1017 | 1017 | 1017 | 1017 | 1018 | 1018 | 1017 | 1017 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016  |      |
| 21  | 1016 | 1015 | 1015 | 1014 | 1014 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1016 | 1015 | 1015 | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015  |      |
| 22  | 1014 | 1013 | 1013 | 1013 | 1013 | 1014 | 1014 | 1015 | 1015 | 1015 | 1015 | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015 | 1015 | 1014  |      |
| 23  | 1015 | 1015 | 1015 | 1014 | 1015 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015  |      |
| 24  | 1015 | 1015 | 1014 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1016 | 1015  |      |
| 25  | 1016 | 1016 | 1016 | 1016 | 1016 | 1017 | 1017 | 1017 | 1017 | 1017 | 1017 | 1017 | 1016 | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016  |      |
| 26  | 1016 | 1015 | 1015 | 1015 | 1014 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1015 | 1014 | 1014 | 1014 | 1015 | 1015 | 1016 | 1016 | 1015 | 1015 | 1015  |      |
| 27  | 1015 | 1015 | 1016 | 1016 | 1017 | 1017 | 1018 | 1019 | 1020 | 1020 | 1020 | 1020 | 1020 | 1020 | 1021 | 1021 | 1020 | 1020 | 1021 | 1021 | 1022 | 1022 | 1022 | 1021 | 1019  |      |
| 28  | 1021 | 1021 | 1021 | 1021 | 1022 | 1022 | 1022 | 1023 | 1023 | 1023 | 1023 | 1023 | 1023 | 1023 | 1022 | 1022 | 1021 | 1021 | 1021 | 1021 | 1021 | 1021 | 1021 | 1020 | 1022  |      |
| 29  | 1020 | 1019 | 1019 | 1018 | 1018 | 1018 | 1018 | 1017 | 1017 | 1017 | 1016 | 1016 | 1015 | 1014 | 1013 | 1013 | 1012 | 1011 | 1011 | 1011 | 1011 | 1012 | 1011 | 1011 | 1015  |      |
| 30  | 1011 | 1010 | 1010 | 1010 | 1010 | 1011 | 1012 | 1013 | 1013 | 1014 | 1014 | 1015 | 1015 | 1015 | 1015 | 1016 | 1016 | 1016 | 1017 | 1017 | 1018 | 1019 | 1019 | 1019 | 1014  |      |
| 31  | 1019 | 1018 | 1018 | 1018 | 1019 | 1020 | 1021 | 1022 | 1022 | 1023 | 1024 | 1023 | 1023 | 1023 | 1023 | 1022 | 1023 | 1022 | 1022 | 1022 | 1023 | 1023 | 1023 | 1023 | 1022  |      |
| Avg | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015 | 1015 | 1015 | 1016 | 1016 | 1015 | 1015 | 1015 | 1015 | 1014 | 1014 | 1014 | 1014 | 1014 | 1015 | 1015 | 1015 | 1015 | 1015  |      |
| SD  | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4     |      |
| StA | 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 | 1006 | 1006 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1005 | 1004 | 1004 | 1003 | 1003 | 1003 | 1004 | 1005 | 1006 | 1007 | 1007 | 1006 | 1006 | 1005  |      |
| Max | 1023 | 1023 | 1022 | 1023 | 1023 | 1023 | 1023 | 1023 | 1023 | 1024 | 1024 | 1024 | 1023 | 1023 | 1023 | 1023 | 1022 | 1023 | 1022 | 1022 | 1022 | 1023 | 1023 | 1023 | 1022  |      |
| 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% failed QC -- 8928 total measurements.

Instrument: Viasala PTA-427    Serial Number: 493926    Calibration Factor: 0.104 mBar/mV + 800 mBar    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.

Prepared by: Afshin M. Andreas, NREL