

| APRS (RADIO) DATA | | | | | | | | | | APRS (RADIO) DATA | | | | | | | | | | | |
|---|--------------|-----------|-----------|------------------------------|---------------------------|-------------------------|-------|-----------|----------------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|------------------------------|------------------------------|-----------------------|----------------------|----------------------|--------------------------|--|
| DATA REPORTED FROM BigRedBee APRS, 23FEB2013 Flight | | | | | | | | | | CALCULATIONS, 23FEB2013 Flight | | | | | | | | | | | |
| time, EST <i>(derived)</i> | time, UTC | longitude | latitude | altitude <i>(derived)</i> | altitude <i>FALSE*</i> | altitude <i>TRUE</i> | speed | direction | time into <i>flight</i> | time <i>change</i> | W-E <i>change</i> | W-E <i>change</i> | N-S <i>change</i> | N-S <i>change</i> | change in <i>altitude</i> | change in <i>altitude</i> | ascent <i>rate</i> | wind <i>speed</i> | wind <i>speed</i> | wind <i>direction</i> | |
| (hr:min:sec) | (hr:min:sec) | (degrees) | (degrees) | (feet) | (m) | (m) | (???) | (???) | (min, sec) | (seconds) | (m) | (m/sec) | (m) | (m/sec) | (m) | (ft) | (m/sec) | (m/sec) | (mph) | (angle) | |
| (ASCENT) | | | | | | | | | | | | | | | | | | | | | |
| 13:38:19 | 18:38:19 | -73.71000 | 42.52033 | 774 | 72 | 236 | 24 | 314 | 0m 0s | 0s | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | |
| 13:39:27 | 18:39:27 | -73.71300 | 42.52483 | 2008 | 187 | 612 | 24 | 321 | 1m 8s | 68s | -38 | -1 | 500 | 7 | 376 | 1234 | 5.5 | 7 | 16 | 176 | |
| 13:39:59 | 18:39:59 | -73.71400 | 42.52767 | 2680 | 249 | 817 | 54 | 347 | 1m 40s | 32s | -13 | -0 | 316 | 10 | 205 | 673 | 6.4 | 10 | 22 | 178 | |
| 13:40:31 | 18:40:31 | -73.71483 | 42.53267 | 3225 | 300 | 983 | 57 | 351 | 2m 12s | 32s | -11 | -0 | 556 | 17 | 166 | 545 | 5.2 | 17 | 39 | 179 | |
| 13:41:02 | 18:41:02 | -73.71400 | 42.53850 | 3701 | 344 | 1128 | 63 | 2 | 2m 43s | 31s | 12 | 0 | 648 | 21 | 145 | 476 | 4.7 | 21 | 47 | 1 | |
| 13:41:43 | 18:41:43 | -73.71167 | 42.54433 | 4242 | 394 | 1293 | 50 | 28 | 3m 24s | 41s | 34 | 1 | 648 | 16 | 165 | 541 | 4.0 | 16 | 35 | 3 | |
| 13:42:10 | 18:42:10 | -73.70867 | 42.54883 | 4866 | 452 | 1483 | 48 | 33 | 3m 51s | 27s | 46 | 2 | 500 | 19 | 190 | 623 | 7.0 | 19 | 42 | 5 | |
| 13:42:44 | 18:42:44 | -73.70483 | 42.55300 | 5312 | 493 | 1619 | 56 | 49 | 4m 25s | 34s | 60 | 2 | 463 | 14 | 136 | 446 | 4.0 | 14 | 31 | 7 | |
| 13:43:16 | 18:43:16 | -73.70000 | 42.55650 | 5840 | 543 | 1780 | 72 | 40 | 4m 57s | 32s | 78 | 2 | 389 | 12 | 161 | 528 | 5.0 | 12 | 28 | 11 | |
| 13:43:49 | 18:43:49 | -73.69517 | 42.56000 | 6424 | 597 | 1958 | 54 | 64 | 5m 30s | 33s | 79 | 2 | 389 | 12 | 178 | 584 | 5.4 | 12 | 27 | 12 | |
| 13:44:23 | 18:44:23 | -73.69100 | 42.56300 | 7060 | 656 | 2152 | 63 | 51 | 6m 0s | 34s | 70 | 2 | 333 | 10 | 194 | 636 | 5.7 | 10 | 22 | 12 | |
| 13:45:01 | 18:45:01 | -73.68700 | 42.56583 | 7661 | 712 | 2335 | 37 | 55 | 6m 42s | 38s | 68 | 2 | 314 | 8 | 183 | 600 | 4.8 | 8 | 19 | 12 | |
| 13:45:31 | 18:45:31 | -73.68217 | 42.56817 | 8333 | 774 | 2540 | 37 | 58 | 7m 12s | 30s | 84 | 3 | 260 | 9 | 205 | 673 | 5.8 | 9 | 20 | 18 | |
| 13:46:04 | 18:46:04 | -73.67717 | 42.57017 | 8960 | 832 | 2731 | 52 | 52 | 7m 45s | 33s | 88 | 3 | 222 | 7 | 191 | 627 | 5.8 | 7 | 16 | 22 | |
| 13:46:38 | 18:46:38 | -73.67167 | 42.57150 | 9531 | 885 | 2905 | 59 | 76 | 8m 19s | 34s | 97 | 3 | 148 | 4 | 174 | 571 | 5.1 | 5 | 12 | 33 | |
| 13:47:11 | 18:47:11 | -73.66683 | 42.57317 | 10072 | 936 | 3070 | 61 | 75 | 8m 52s | 33s | 87 | 3 | 186 | 6 | 165 | 541 | 5.0 | 6 | 14 | 25 | |
| 13:47:45 | 18:47:45 | -73.66000 | 42.57550 | 10476 | 973 | 3193 | 57 | 53 | 9m 26s | 34s | 124 | 4 | 259 | 8 | 123 | 404 | 3.6 | 8 | 19 | 26 | |
| 13:48:18 | 18:48:18 | -73.65450 | 42.57750 | 11083 | 1030 | 3378 | 52 | 62 | 9m 59s | 33s | 101 | 3 | 222 | 7 | 185 | 607 | 5.6 | 7 | 17 | 24 | |
| 13:48:51 | 18:48:51 | -73.64833 | 42.57933 | 11700 | 1087 | 3566 | 61 | 54 | 10m 32s | 33s | 115 | 3 | 203 | 6 | 188 | 617 | 5.7 | 7 | 16 | 29 | |
| 13:49:25 | 18:49:25 | -73.64133 | 42.58200 | 12320 | 1145 | 3755 | 83 | 75 | 11m 6s | 34s | 132 | 4 | 297 | 9 | 189 | 620 | 5.6 | 10 | 21 | 24 | |
| 13:49:58 | 18:49:58 | -73.63233 | 42.58483 | 12995 | 1207 | 3961 | 102 | 70 | 11m 39s | 33s | 172 | 5 | 314 | 10 | 206 | 676 | 6.2 | 11 | 24 | 29 | |
| 13:50:32 | 18:50:32 | -73.62250 | 42.58833 | 13530 | 1257 | 4124 | 107 | 66 | 12m 13s | 34s | 192 | 6 | 389 | 11 | 163 | 535 | 4.8 | 13 | 29 | 26 | |
| 13:51:05 | 18:51:05 | -73.61200 | 42.59183 | 14124 | 1312 | 4305 | 107 | 62 | 12m 46s | 33s | 209 | 6 | 389 | 12 | 181 | 594 | 5.5 | 13 | 30 | 28 | |
| 13:51:44 | 18:51:44 | -73.60183 | 42.59483 | 14724 | 1368 | 4488 | 109 | 68 | 13m 25s | 39s | 206 | 5 | 333 | 9 | 183 | 600 | 4.7 | 10 | 22 | 32 | |
| 13:52:11 | 18:52:11 | -73.59200 | 42.59733 | 15266 | 1418 | 4653 | 111 | 74 | 13m 52s | 37s | 202 | 7 | 278 | 10 | 165 | 541 | 6.1 | 13 | 28 | 36 | |
| 13:52:44 | 18:52:44 | -73.58050 | 42.59967 | 15843 | 1472 | 4829 | 111 | 67 | 14m 25s | 33s | 239 | 7 | 260 | 8 | 176 | 577 | 5.3 | 11 | 24 | 43 | |
| 13:53:22 | 18:53:22 | -73.56800 | 42.60267 | 16463 | 1529 | 5018 | 115 | 60 | 15m 3s | 38s | 264 | 7 | 333 | 9 | 189 | 620 | 5.0 | 11 | 25 | 38 | |
| 13:53:52 | 18:53:52 | -73.55567 | 42.60683 | 17054 | 1584 | 5198 | 113 | 58 | 15m 33s | 30s | 266 | 9 | 462 | 15 | 180 | 591 | 6.0 | 18 | 40 | 30 | |
| 13:54:28 | 18:54:28 | -73.54200 | 42.61150 | 17713 | 1646 | 5399 | 122 | 74 | 16m 9s | 36s | 302 | 8 | 519 | 14 | 201 | 660 | 5.6 | 17 | 37 | 30 | |
| 13:55:34 | 18:55:34 | -73.52967 | 42.61550 | 18317 | 1702 | 5583 | 130 | 65 | 17m 15s | 36s | 278 | 4 | 444 | 7 | 184 | 604 | 2.8 | 8 | 18 | 32 | |
| 13:56:38 | 18:56:38 | -73.50600 | 42.62383 | 19554 | 1817 | 5960 | 107 | 59 | 18m 19s | 64s | 554 | 9 | 926 | 14 | 377 | 1237 | 5.9 | 17 | 38 | 31 | |
| 13:57:13 | 18:57:13 | -73.49317 | 42.62850 | 20135 | 1871 | 6137 | 139 | 67 | 18m 54s | 35s | 307 | 9 | 519 | 15 | 177 | 581 | 5.1 | 17 | 39 | 31 | |
| 13:57:54 | 18:57:54 | -73.46450 | 42.63550 | 21335 | 1982 | 6503 | 133 | 81 | 19m 35s | 41s | 708 | 17 | 778 | 19 | 366 | 1201 | 8.9 | 26 | 57 | 42 | |
| 13:58:24 | 18:58:24 | -73.44683 | 42.63833 | 22077 | 2051 | 6729 | 148 | 87 | 20m 5s | 30s | 442 | 15 | 314 | 10 | 226 | 742 | 7.5 | 18 | 40 | 55 | |
| 13:58:57 | 18:58:57 | -73.42883 | 42.64100 | 22700 | 2109 | 6919 | 187 | 77 | 20m 38s | 33s | 455 | 14 | 297 | 9 | 190 | 623 | 5.8 | 16 | 37 | 57 | |
| 13:59:34 | 18:59:34 | -73.40933 | 42.64450 | 23356 | 2170 | 7119 | 194 | 73 | 21m 15s | 37s | 500 | 14 | 389 | 11 | 200 | 656 | 5.4 | 17 | 38 | 52 | |
| 14:00:03 | 19:00:03 | -73.38950 | 42.64900 | 23983 | 2228 | 7310 | 181 | 75 | 21m 44s | 29s | 518 | 18 | 500 | 17 | 191 | 627 | 6.6 | 25 | 56 | 46 | |
| 14:00:39 | 19:00:39 | -73.36833 | 42.65383 | 24587 | 2284 | 7494 | 180 | 75 | 22m 20s | 36s | 564 | 16 | 537 | 15 | 184 | 604 | 5.1 | 22 | 48 | 46 | |
| 14:01:09 | 19:01:09 | -73.34583 | 42.65817 | 25194 | 2341 | 7679 | 215 | 70 | 22m 50s | 30s | 610 | 20 | 482 | 16 | 185 | 607 | 6.2 | 26 | 58 | 52 | |
| 14:01:43 | 19:01:43 | -73.32067 | 42.66283 | 25804 | 2397 | 7865 | 222 | 72 | 23m 24s | 34s | 695 | 20 | 518 | 15 | 186 | 610 | 5.5 | 25 | 57 | 53 | |
| 14:02:20 | 19:02:20 | -73.29483 | 42.66767 | 26503 | 2462 | 8078 | 243 | 78 | 24m 1s | 37s | 728 | 20 | 538 | 15 | 213 | 699 | 5.8 | 24 | 55 | 54 | |
| 14:03:00 | 19:03:00 | -73.26833 | 42.67350 | 27234 | 2530 | 8301 | 246 | 71 | 24m 41s | 40s | 763 | 19 | 648 | 16 | 223 | 732 | 5.6 | 25 | 56 | 50 | |
| 14:03:27 | 19:03:27 | -73.24200 | 42.67900 | 27776 | 2580 | 8466 | 248 | 72 | 25m 8s | 27s | 773 | 29 | 611 | 23 | 165 | 541 | 6.1 | 37 | 82 | 52 | |
| 14:04:11 | 19:04:11 | -73.21433 | 42.68483 | 28422 | 2640 | 8663 | 261 | 76 | 25m 52s | 44s | 830 | 19 | 648 | 15 | 197 | 646 | 4.5 | 24 | 54 | 52 | |
| 14:04:35 | 19:04:35 | -73.18533 | 42.69150 | 29085 | 2702 | 8865 | 283 | 72 | 26m 16s | 24s | 891 | 37 | 741 | 31 | 202 | 663 | 8.4 | 48 | 108 | 50 | |
| 14:05:43 | 19:05:43 | -73.15550 | 42.69833 | 29806 | 2769 | 9085 | 276 | 69 | 27m 24s | 68s | 938 | 14 | 759 | 11 | 220 | 722 | 3.2 | 18 | 40 | 51 | |
| 14:06:17 | 19:06:17 | -73.09617 | 42.71333 | 31138 | 2893 | 9491 | 283 | 67 | 27m 58s | 34s | 1960 | 58 | 1667 | 49 | 406 | 1332 | 11.9 | 76 | 169 | 50 | |
| 14:06:52 | 19:06:52 | -73.06517 | 42.72133 | 31788 | 2953 | 9689 | 267 | 75 | 28m 33s | 35s | 1050 | 30 | 889 | 25 | 198 | 650 | 5.7 | 39 | 88 | 50 | |
| 14:07:28 | 19:07:28 | -73.03617 | 42.72883 | 32546 | 3024 | 9920 | 272 | 69 | 29m 9s | 36s | 1006 | 28 | 833 | 23 | 231 | 738 | 6.4 | 36 | 81 | 50 | |
| 14:07:58 | 19:07:58 | -73.00733 | 42.73533 | 33235 | 3088 | 10130 | 259 | 72 | 29m 39s | 30s | 1020 | 34 | 722 | 24 | 210 | 689 | 7.0 | 42 | 93 | 55 | |
| 14:08:38 | 19:08:38 | -72.97883 | 42.74267 | 33845 | 3144 | 10316 | 257 | 72 | 30m 19s | 40s | 1030 | 26 | 816 | 20 | 186 | 610 | 4.7 | 33 | 73 | 52 | |
| 14:09:04 | 19:09:04 | -72.94867 | 42.74967 | 34511 | 3206 | 10519 | 289 | 76 | 30m 45s | 26s | 1112 | 43 | 778 | 30 | 203 | 666 | 7.8 | 52 | 117 | 55 | |
| 14:09:37 | 19:09:37 | -72.91833 | 42.75717 | 35144 | 3265 | 10712 | 285 | 75 | 31m 18s | 33s | 1142 | 35 | 833 | 25 | 193 | 633 | 5.8 | 43 | 96 | 54 | |
| 14:10:11 | 19:10:11 | -72.88733 | 42.76450 | 35774 | 3324 | 10924 | 280 | 72 | 31m 52s | 34s | 1191 | 35 | 815 | 24 | 192 | 620 | 5.6 | 42 | 95 | 56 | |
| 14:10:45 | 19:10:45 | -72.85717 | 42.77067 | 36483 | 3389 | 11120 | 257 | 76 | 32m 26s | 34s | 1178 | 35 | 686 | 20 | 216 | 709 | 6.4 | 40 | 90 | 60 | |
| 14:11:18 | 19:11:18 | -72.83000 | 42.77650 | 37083 | 3445 | 11303 | 226 | 79 | 32m 59s | 33s | 1078 | 33 | 648 | 20 | 183 | 600 | 5.5 | 38 | 85 | 59 | |
| 14:11:52 | 19:11:52 | -72.80317 | 42.78183 | 37743 | 3506 | 11504 | 220 | 75 | 33m 33s | 34s | 1079 | 32 | 592 | 17 | 201 | 660 | 5.9 | 36 | 81 | 61 | |
| 14:12:25 | 19:12:25 | -72.77633 | 42.78683 | 38451 | 3572 | 11720 | 274 | 74 | 34m 6s | 33s | 1093 | 33 | 556 | 17 | 216 | 709 | 6.5 | 37 | 83 | 63 | |
| 14:13:01 | 19:13:01 | -72.74767 | 42.79217 | 39167 | 3639 | 11938 | 256 | 79 | 34m 42s | 36s | 1183 | 33 | 593 | 16 | 218 | 715 | 6.1 | 37 | 82 | 63 | |
| 14:13:33 | 19:13:33 | -72.72083 | 42.79650 | 39902 | 3707 | 12162 | 239 | 74 | 35m 14s | 32s | 1120 | 35 | 481 | 15 | 224 | 735 | 7.0 | 38 | 85 | 67 | |
| 14:14:06 | 19:14 | | | | | | | | | | | | | | | | | | | | |