Supplementary Materials: Similarity and   
Error Intercomparison of the GPM and Its   
Predecessor-TRMM Multisatellite Precipitation Analysis Using the Best Available Hourly   
Gauge Network over the Tibetan Plateau

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**Table S1.** The geographical location of 258 automatic gauges over the Tibetan Plateau, and 19 stations are used for GPCC gridded gauge-analysis products.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **ID** | **Latitude (°)** | **Longitude (°)** | **Elevation (m)** | **Remarks** |
| 1 | 51804 | 37.77 | 75.23 | 3070 | GPCC |
| 2 | 51805 | 38.36 | 74.96 | 3742 |  |
| 3 | 51881 | 38.45 | 90.16 | 3215 |  |
| 4 | 51886 | 38.25 | 90.85 | 2913 |  |
| 5 | 51894 | 37.96 | 91.27 | 3067 |  |
| 6 | 51896 | 38.26 | 92.14 | 2685 |  |
| 7 | 51899 | 37.30 | 92.49 | 2888 |  |
| 8 | 52602 | 38.75 | 93.33 | 2753 | GPCC |
| 9 | 52633 | 38.82 | 98.42 | 3509 |  |
| 10 | 52645 | 38.43 | 99.60 | 3499 |  |
| 11 | 52654 | 38.23 | 100.02 | 2935 |  |
| 12 | 52657 | 38.18 | 100.25 | 2907 |  |
| 13 | 52707 | 36.80 | 93.68 | 2777 |  |
| 14 | 52713 | 37.85 | 95.35 | 3173 | GPCC |
| 15 | 52714 | 37.36 | 94.17 | 2708 |  |
| 16 | 52737 | 37.37 | 97.38 | 3019 |  |
| 17 | 52745 | 37.30 | 99.02 | 3413 |  |
| 18 | 52754 | 37.33 | 100.13 | 3270 | GPCC |
| 19 | 52765 | 37.38 | 101.62 | 2871 |  |
| 20 | 52787 | 37.20 | 102.87 | 2976 |  |
| 21 | 52814 | 36.43 | 94.44 | 2792 |  |
| 22 | 52816 | 36.81 | 95.19 | 2682 |  |
| 23 | 52818 | 36.42 | 94.92 | 2807 | GPCC |
| 24 | 52824 | 36.46 | 95.75 | 2762 |  |
| 25 | 52825 | 36.43 | 96.43 | 2791 |  |
| 26 | 52829 | 36.28 | 96.95 | 2789 |  |
| 27 | 52833 | 36.93 | 98.48 | 2974 |  |
| 28 | 52836 | 36.30 | 98.10 | 3185 | GPCC |
| 29 | 52838 | 36.08 | 97.80 | 2997 |  |
| 30 | 52842 | 36.78 | 99.08 | 3063 |  |
| 31 | 52851 | 36.63 | 100.27 | 3230 |  |
| 32 | 52852 | 36.95 | 100.85 | 3214 |  |
| 33 | 52853 | 36.90 | 100.98 | 3006 |  |
| 34 | 52854 | 36.58 | 100.48 | 3326 |  |
| 35 | 52855 | 36.68 | 101.25 | 2675 |  |
| 36 | 52856 | 36.27 | 100.62 | 2814 |  |
| 37 | 52859 | 36.29 | 100.90 | 3503 |  |
| 38 | 52862 | 36.95 | 101.68 | 2469 |  |
| 39 | 52863 | 36.82 | 101.95 | 2481 |  |
| 40 | 52866 | 36.73 | 101.75 | 2301 | GPCC |
| 41 | 52868 | 36.02 | 101.37 | 2255 |  |
| 42 | 52869 | 36.50 | 101.58 | 2665 |  |
| 43 | 52870 | 36.38 | 102.34 | 2358 |  |
| 44 | 52871 | 36.96 | 102.49 | 2362 |  |
| 45 | 52874 | 36.48 | 102.40 | 2048 |  |
| 46 | 52875 | 36.50 | 102.10 | 2162 |  |
| 47 | 52877 | 36.10 | 102.25 | 2859 |  |
| 48 | 52878 | 36.03 | 102.04 | 2110 |  |
| 49 | 52905 | 35.40 | 93.49 | 4491 |  |
| 50 | 52906 | 35.55 | 93.94 | 4639 |  |
| 51 | 52908 | 35.22 | 93.08 | 4624 |  |
| 52 | 52910 | 35.75 | 94.32 | 4157 |  |
| 53 | 52911 | 35.87 | 94.55 | 3620 |  |
| 54 | 52931 | 36.03 | 97.50 | 3052 |  |
| 55 | 52941 | 36.27 | 100.27 | 2862 |  |
| 56 | 52942 | 35.91 | 100.00 | 3232 |  |
| 57 | 52943 | 35.58 | 99.98 | 3300 |  |
| 58 | 52953 | 35.76 | 100.92 | 3306 |  |
| 59 | 52955 | 35.58 | 100.73 | 3181 |  |
| 60 | 52957 | 35.25 | 100.60 | 3209 |  |
| 61 | 52958 | 35.28 | 100.65 | 3253 |  |
| 62 | 52963 | 35.93 | 102.02 | 2195 |  |
| 63 | 52968 | 35.03 | 101.47 | 3635 |  |
| 64 | 52972 | 35.85 | 102.45 | 1903 |  |
| 65 | 52974 | 35.52 | 102.02 | 2534 |  |
| 66 | 52978 | 35.20 | 102.52 | 3255 |  |
| 67 | 55122 | 33.71 | 80.37 | 4570 |  |
| 68 | 55125 | 33.38 | 79.73 | 4259 |  |
| 69 | 55178 | 33.20 | 88.84 | 4889 |  |
| 70 | 55193 | 33.91 | 92.37 | 4595 |  |
| 71 | 55195 | 33.46 | 91.94 | 4819 |  |
| 72 | 55196 | 33.60 | 92.07 | 4779 |  |
| 73 | 55228 | 32.50 | 80.08 | 4277 |  |
| 74 | 55234 | 32.39 | 81.14 | 4506 |  |
| 75 | 55248 | 32.15 | 84.42 | 4816 |  |
| 76 | 55279 | 31.38 | 90.02 | 4746 |  |
| 77 | 55294 | 32.35 | 91.10 | 4682 |  |
| 78 | 55298 | 32.12 | 92.31 | 4650 |  |
| 79 | 55299 | 31.48 | 92.07 | 4518 |  |
| 80 | 55323 | 31.18 | 80.76 | 4434 |  |
| 81 | 55325 | 31.48 | 79.80 | 3941 |  |
| 82 | 55357 | 31.02 | 85.16 | 4661 |  |
| 83 | 55361 | 31.75 | 87.23 | 4680 |  |
| 84 | 55364 | 31.34 | 86.75 | 5135 |  |
| 85 | 55375 | 31.40 | 89.01 | 4692 |  |
| 86 | 55391 | 31.99 | 91.71 | 4625 |  |
| 87 | 55398 | 31.19 | 91.76 | 4635 |  |
| 88 | 55430 | 30.85 | 81.42 | 4659 |  |
| 89 | 55437 | 30.28 | 81.25 | 5123 |  |
| 90 | 55447 | 30.04 | 83.47 | 4583 |  |
| 91 | 55472 | 30.95 | 88.63 | 4934 |  |
| 92 | 55482 | 30.91 | 90.17 | 4736 |  |
| 93 | 55489 | 30.17 | 90.58 | 4729 |  |
| 94 | 55491 | 30.82 | 91.62 | 4700 |  |
| 95 | 55493 | 30.48 | 91.10 | 4292 |  |
| 96 | 55497 | 30.30 | 91.51 | 4323 |  |
| 97 | 55499 | 30.10 | 92.21 | 4550 |  |
| 98 | 55542 | 29.68 | 84.02 | 4557 |  |
| 99 | 55554 | 29.34 | 85.23 | 4519 |  |
| 100 | 55556 | 28.40 | 86.11 | 4662 |  |
| 101 | 55564 | 29.42 | 86.72 | 4657 |  |
| 102 | 55568 | 29.29 | 87.22 | 4359 |  |
| 103 | 55569 | 29.08 | 87.60 | 4720 |  |
| 104 | 55572 | 29.68 | 89.10 | 4022 |  |
| 105 | 55574 | 29.43 | 88.26 | 4020 |  |
| 106 | 55576 | 29.34 | 89.24 | 4002 |  |
| 107 | 55578 | 29.25 | 88.88 | 3934 |  |
| 108 | 55579 | 29.11 | 89.26 | 3935 |  |
| 109 | 55585 | 29.43 | 90.17 | 3951 |  |
| 110 | 55586 | 29.35 | 90.74 | 3586 |  |
| 111 | 55587 | 29.23 | 89.85 | 3943 |  |
| 112 | 55589 | 29.30 | 90.98 | 3591 |  |
| 113 | 55590 | 29.89 | 91.26 | 3754 |  |
| 114 | 55591 | 29.67 | 91.13 | 3659 |  |
| 115 | 55592 | 29.80 | 92.35 | 4861 |  |
| 116 | 55593 | 29.85 | 91.73 | 3811 |  |
| 117 | 55594 | 29.64 | 91.00 | 3638 |  |
| 118 | 55595 | 29.67 | 91.34 | 3796 |  |
| 119 | 55597 | 29.03 | 91.68 | 3813 |  |
| 120 | 55598 | 29.27 | 91.77 | 3548 |  |
| 121 | 55599 | 29.26 | 92.02 | 3616 |  |
| 122 | 55650 | 28.85 | 85.30 | 4109 |  |
| 123 | 55652 | 27.99 | 85.98 | 2694 |  |
| 124 | 55655 | 28.19 | 85.97 | 4002 |  |
| 125 | 55656 | 28.12 | 86.49 | 4780 |  |
| 126 | 55664 | 28.63 | 87.08 | 4394 |  |
| 127 | 55665 | 28.58 | 86.62 | 4323 |  |
| 128 | 55666 | 28.36 | 87.76 | 4341 |  |
| 129 | 55670 | 28.90 | 88.00 | 4335 |  |
| 130 | 55675 | 27.49 | 88.92 | 3811 |  |
| 131 | 55676 | 28.56 | 89.68 | 4600 |  |
| 132 | 55677 | 28.27 | 88.51 | 4548 |  |
| 133 | 55680 | 28.92 | 89.60 | 4009 |  |
| 134 | 55681 | 28.97 | 90.40 | 4488 |  |
| 135 | 55686 | 28.39 | 90.84 | 4679 |  |
| 136 | 55690 | 27.98 | 91.95 | 4552 |  |
| 137 | 55691 | 29.26 | 91.35 | 3674 |  |
| 138 | 55693 | 29.06 | 92.20 | 4079 |  |
| 139 | 55694 | 28.44 | 91.43 | 4264 |  |
| 140 | 55696 | 28.42 | 92.47 | 3872 |  |
| 141 | 55773 | 27.73 | 89.08 | 4257 |  |
| 142 | 55792 | 27.87 | 91.80 | 3031 |  |
| 143 | 56001 | 34.65 | 92.85 | 4771 |  |
| 144 | 56004 | 34.22 | 92.43 | 4571 | GPCC |
| 145 | 56012 | 34.86 | 94.94 | 4302 |  |
| 146 | 56013 | 34.60 | 95.35 | 4327 |  |
| 147 | 56016 | 33.85 | 95.62 | 4188 |  |
| 148 | 56018 | 32.88 | 95.28 | 4255 |  |
| 149 | 56021 | 34.12 | 95.80 | 4394 | GPCC |
| 150 | 56028 | 33.30 | 96.42 | 4236 |  |
| 151 | 56029 | 33.00 | 96.96 | 4054 | GPCC |
| 152 | 56033 | 34.92 | 98.22 | 4262 | GPCC |
| 153 | 56034 | 33.80 | 97.13 | 4429 |  |
| 154 | 56038 | 32.98 | 98.10 | 4270 |  |
| 155 | 56043 | 34.48 | 100.23 | 3779 |  |
| 156 | 56045 | 33.97 | 99.90 | 4051 |  |
| 157 | 56046 | 33.75 | 99.65 | 4098 | GPCC |
| 158 | 56065 | 34.73 | 101.60 | 3514 |  |
| 159 | 56067 | 33.43 | 101.48 | 3648 |  |
| 160 | 56071 | 34.58 | 102.50 | 3163 |  |
| 161 | 56074 | 34.00 | 102.08 | 3446 |  |
| 162 | 56076 | 33.85 | 102.63 | 3435 |  |
| 163 | 56077 | 33.05 | 102.22 | 3562 |  |
| 164 | 56079 | 33.58 | 102.97 | 3451 |  |
| 165 | 56080 | 35.00 | 102.90 | 2914 | GPCC |
| 166 | 56081 | 34.70 | 103.35 | 2764 |  |
| 167 | 56082 | 34.58 | 103.50 | 2619 |  |
| 168 | 56084 | 34.07 | 103.23 | 2855 |  |
| 169 | 56093 | 34.43 | 104.02 | 2319 |  |
| 170 | 56094 | 33.78 | 104.37 | 2103 |  |
| 171 | 56097 | 33.27 | 104.25 | 2021 |  |
| 172 | 56104 | 31.80 | 92.82 | 4335 |  |
| 173 | 56106 | 31.88 | 93.78 | 4029 |  |
| 174 | 56109 | 31.48 | 93.78 | 4261 |  |
| 175 | 56113 | 31.54 | 95.27 | 4023 |  |
| 176 | 56114 | 31.93 | 94.03 | 4228 |  |
| 177 | 56116 | 31.42 | 95.60 | 3885 |  |
| 178 | 56125 | 32.20 | 96.47 | 3930 |  |
| 179 | 56128 | 31.22 | 96.60 | 3842 |  |
| 180 | 56136 | 31.51 | 98.23 | 3728 |  |
| 181 | 56137 | 31.15 | 97.17 | 3421 |  |
| 182 | 56144 | 31.80 | 98.58 | 3646 |  |
| 183 | 56146 | 31.62 | 100.00 | 3336 | GPCC |
| 184 | 56147 | 31.22 | 98.83 | 3480 |  |
| 185 | 56151 | 32.93 | 100.75 | 3811 |  |
| 186 | 56152 | 32.28 | 100.33 | 4095 |  |
| 187 | 56158 | 31.40 | 100.67 | 3272 |  |
| 188 | 56164 | 32.27 | 100.98 | 3583 |  |
| 189 | 56167 | 30.98 | 101.12 | 3150 |  |
| 190 | 56168 | 31.48 | 102.07 | 2252 |  |
| 191 | 56171 | 32.90 | 101.70 | 3277 |  |
| 192 | 56172 | 31.90 | 102.23 | 2931 | GPCC |
| 193 | 56173 | 32.80 | 102.55 | 3495 |  |
| 194 | 56178 | 31.00 | 102.36 | 2654 |  |
| 195 | 56180 | 31.68 | 103.85 | 1691 |  |
| 196 | 56182 | 32.67 | 103.60 | 2959 | GPCC |
| 197 | 56183 | 31.50 | 103.62 | 1635 |  |
| 198 | 56184 | 31.43 | 103.17 | 2327 |  |
| 199 | 56185 | 32.08 | 102.98 | 2519 |  |
| 200 | 56202 | 30.67 | 93.28 | 4812 |  |
| 201 | 56207 | 30.03 | 92.90 | 3847 |  |
| 202 | 56209 | 30.00 | 93.90 | 3745 |  |
| 203 | 56211 | 30.93 | 94.71 | 4100 |  |
| 204 | 56219 | 30.10 | 95.08 | 2443 |  |
| 205 | 56223 | 30.75 | 95.83 | 3982 |  |
| 206 | 56227 | 29.87 | 95.77 | 2949 |  |
| 207 | 56228 | 30.05 | 96.92 | 3706 |  |
| 208 | 56233 | 30.85 | 98.28 | 3731 |  |
| 209 | 56235 | 30.66 | 97.57 | 3508 |  |
| 210 | 56237 | 30.21 | 97.29 | 4230 |  |
| 211 | 56247 | 30.00 | 99.11 | 2968 |  |
| 212 | 56251 | 30.93 | 100.32 | 3315 |  |
| 213 | 56257 | 30.00 | 100.27 | 3918 | GPCC |
| 214 | 56263 | 30.88 | 101.88 | 2139 |  |
| 215 | 56267 | 30.03 | 101.02 | 2882 |  |
| 216 | 56301 | 29.89 | 93.25 | 3485 |  |
| 217 | 56307 | 29.15 | 92.58 | 3442 |  |
| 218 | 56308 | 29.05 | 93.08 | 3217 |  |
| 219 | 56309 | 29.13 | 93.73 | 3038 |  |
| 220 | 56312 | 29.67 | 94.33 | 3085 |  |
| 221 | 56314 | 29.61 | 94.66 | 4522 |  |
| 222 | 56315 | 29.57 | 94.91 | 3044 |  |
| 223 | 56317 | 29.22 | 94.22 | 2963 |  |
| 224 | 56319 | 29.34 | 95.33 | 1946 |  |
| 225 | 56325 | 29.48 | 96.50 | 4413 |  |
| 226 | 56326 | 29.50 | 96.76 | 4045 |  |
| 227 | 56331 | 29.67 | 97.83 | 4360 |  |
| 228 | 56341 | 29.77 | 99.01 | 2966 |  |
| 229 | 56342 | 29.68 | 98.60 | 3936 |  |
| 230 | 56347 | 29.03 | 98.61 | 3200 |  |
| 231 | 56357 | 29.05 | 100.30 | 3753 |  |
| 232 | 56370 | 29.65 | 102.12 | 1727 |  |
| 233 | 56371 | 29.92 | 102.23 | 1919 |  |
| 234 | 56374 | 30.05 | 101.97 | 3651 |  |
| 235 | 56378 | 29.23 | 102.35 | 1199 |  |
| 236 | 56426 | 28.51 | 97.02 | 1747 |  |
| 237 | 56434 | 28.65 | 97.47 | 2485 |  |
| 238 | 56441 | 28.72 | 99.28 | 2604 |  |
| 239 | 56443 | 28.93 | 99.80 | 2885 |  |
| 240 | 56444 | 28.48 | 98.92 | 3927 | GPCC |
| 241 | 56449 | 28.02 | 99.73 | 3561 |  |
| 242 | 56455 | 28.45 | 100.33 | 4597 |  |
| 243 | 56459 | 27.93 | 101.27 | 2753 |  |
| 244 | 56462 | 29.00 | 101.50 | 3008 | GPCC |
| 245 | 56474 | 28.55 | 102.17 | 1791 |  |
| 246 | 56475 | 28.65 | 102.52 | 1653 |  |
| 247 | 56478 | 28.30 | 102.43 | 1898 |  |
| 248 | 56533 | 27.75 | 98.67 | 1649 |  |
| 249 | 56542 | 27.90 | 99.93 | 3734 |  |
| 250 | 56543 | 27.83 | 99.70 | 3289 |  |
| 251 | 56548 | 27.17 | 99.28 | 2453 |  |
| 252 | 56553 | 27.73 | 100.82 | 2707 |  |
| 253 | 56557 | 27.17 | 100.25 | 3169 |  |
| 254 | 56565 | 27.43 | 101.52 | 2540 |  |
| 255 | 56567 | 27.30 | 100.85 | 2274 |  |
| 256 | 56641 | 26.90 | 98.87 | 1449 |  |
| 257 | 56645 | 26.42 | 99.42 | 2652 |  |
| 258 | 56651 | 26.85 | 100.22 | 2374 | GPCC |